PETRONAS

PASSIONATE ABOUT PROGRESS

ANNUAL REPORT 2019

GAS AND NEW ENERGY

Total LNG production in 2019:
28.1 MMT

Malaysian average sales gas volume in 2019:
2,887 MMscfd

600 MWp
of solar capacity
under operation and development

Redefined LNG industry with floating LNG facilities

- **PFLNG SATU successfully relocated; loaded 10 LNG cargoes**
- **PFLNG DUA successfully named; ready for commercialisation by end-2020**

Deployed innovative customer-centric solutions:

- **Successfully performed 8 gassing up, cooling down services**
- **Successfully carried out 4 LNG ship-to-ship transfers**
- **Commenced groundwork on Virtual Pipeline System (VPS)**

UPSTREAM

Average daily production:
2.4 million boe/d
(Total production volume: 0.87 bboe)

Overall (2P+2C) Resources Life Index (ORLI) at
38 years

Net 2P reserves addition of
0.9 bboe
in 2019

11 new exploration discoveries **in 2019 that added approximately** 0.48 bboe **of Contingent Resources (2C)**

PROJECT DELIVERY AND TECHNOLOGY

Recruited and trained 500 **technical talents in research and development**

Developed over 600 **proprietary technology**

Completed > 90% **of projects On Time, On Budget and On Scope in 2019**

YAYASAN PETRONAS

Delivered social value through wide-ranging CSR efforts in
Education, Community Well-Being and Development, and Environment

PETRONAS' CSR contribution:
More than RM285 million **in 2019**

DOWNSTREAM

Pengerang Integrated Complex achieved Ready For Start Up **and is gearing up to make its entry into the market, with utilities already in stable operations**

Overall marketing sales volume
25.4
billion litres

PETRONAS Chemicals Group Berhad acquired Da Vinci Group B.V., **marking entry into specialty chemicals**

PETRONAS Lubricants International ventured into Electric Vehicle market **and introduced** PETRONAS iona

SUSTAINABILITY EFFORTS

Crafted our Sustainability Agenda **to ensure sharper focus and execution of sustainability efforts across the business**

Built strong social performance **through social risk assessments carried out on 12 Malaysian operations and projects**

Pledged to cap our GHG emissions at **49.5 million tonnes of CO_2 equivalent by 2024**

STATEMENT OF PURPOSE

A progressive energy and solutions partner enriching lives for a sustainable future

SHARED VALUES

Our values are embedded in our culture, which governs our business conduct, reflecting our sense of duty and responsibility as well as our commitment in contributing towards the well-being of peoples and nations wherever we operate

Loyalty
Loyal to corporation

Integrity
Honest and upright

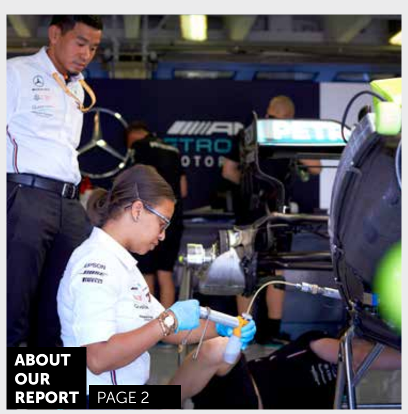
Professionalism
Strive for excellence

Cohesiveness
United, trust and respect for each other

INSIDE THIS REPO

ABOUT THIS REPORT

The principles guiding our integrated reporting journey.



ABOUT OUR REPORT PAGE 2

WHO WE ARE

What we stand for and why we do what we do.

OUR BUSINESS PAGE 6

STRATEGIC PROGRESS

How we execute our strategy to deliver results.

SAFEGUARD THE ENVIRONMENT PAGE 82

VALUE CREATION

How we create value for our stakeholders in our operating environment.

MARKET LANDSCAPE PAGE 117

GOVERNANCE

How we uphold the highes standards of governance, guiding our businesses and operations.

CORPORATE GOVERNANCE AT PETRONAS PAGE 140

Cover Rationale

PASSIONATE ABOUT PROGRESS

Gaze out to the horizon. You can almost see the curve of the earth. Looking beyond, you are seeing into the future. From this inspiring point of view, the possibilities are endless.

That's the open perspective and optimistic spirit we embrace at PETRONAS. And it's the same feeling that keeps us striving towards a better future.

We see great potential within individuals, communities, the earth and beyond. We set it in motion, steer it in the right direction and return with new solutions. Deep down, we all know this progress would only be possible with amazing partnerships along the way. We are passionate about making connections and nurturing relationships. We listen, anticipate needs and work with you to achieve distinctive outcomes.

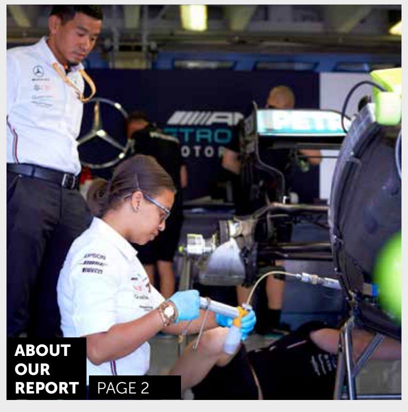
When all of us are passionate about progress, what "could be" becomes "what is".

We welcome our stakeholders to view our report. Please email your feedback to digital.comm@petronas.com. You can also use this address to request printed copies of our report.

INSIDE THIS REPORT

ABOUT THIS REPORT

The principles guiding our integrated reporting journey.



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FINANCIAL STATEMENTS AND OTHER INFORMATION

Our financial disclosures.

About This Report

The Group aims to share balanced and transparent information about our business operations, giving shareholders and other stakeholders insights into our operations to make informed assessments of our value creation activities.

REPORTING FRAMEWORK, SCOPE AND BOUNDARIES

PETRONAS is embarking on its journey into Integrated Reporting with our Annual Report 2019. This report will therefore be guided by integrated reporting principles and best practices and aims to share balanced and transparent information about our value creation activities. While we are not a public listed company, we are committed to this process as a means of adding value for our stakeholders as it creates better visibility and allows an informed assessment of our operations. Covering our activities for the financial year ended 31 December 2019, this report will explain the Group's purpose, its strategic intents and business performance, taking into account our external environment, stakeholder interests and risks.

The report captures the financial and non-financial performance of PETRONAS for the period from 1 January 2019 to 31 December 2019. In terms of reporting boundaries, we have factored in all business operations of the Group, locally and internationally, which include operations under our full control as well as subsidiaries. The report's scope examines both internal and external impacts on the business as well as trends, opportunities and risks that could influence the Group's value creation abilities over time.

In our endeavour to provide a holistic view of our operations, we are guided by the International Integrated Reporting Council (IIRC) Framework.

LEGEND FOR NAVIGATING THROUGH THE REPORT

Three-Pronged Growth Strategy

PETRONAS' Three-Pronged Growth Strategy drives the Group's business. Throughout this report and for ease of reference, we have used these coloured icons below to indicate when we are discussing how the strategy impacted the business.

Maximising Cash Generators **Expanding Core Business** **Stepping Out**

Cross References

The report will contain references to other sections or to other resources online where the reader can find more details or information. The green leaf icon in particular references PETRONAS' sustainability efforts and will guide readers to our sustainability-related sections.

Tells you where you can find more information related to sustainability

Tells you where you can find more information within the report

Tells you where you can find more information online

FORWARD-LOOKING STATEMENTS

This Annual Report contains certain forward-looking statements with the use of words or phrases such as "might", "forecast", "anticipate", "project", "may", "believe", "predict", "expect", "continue", "will", "estimate", "target", and other similar expressions with respect to the financial condition, results, operations and business of PETRONAS. These statements and forecasts involve risk and uncertainty because they relate to forecast information such as improvements in business performance or mention certain decisions that we may undertake and occur in the future. These statements do not guarantee future operating, financial or other results due to future risks and uncertainties and thus it is important to note that this Annual Report shall not be construed as a profit forecast nor shall the statements herein be interpreted as to be providing any guarantee that potential results mentioned in these forward-looking statements will be achieved.

We Are PETRONAS

Our purpose as a corporation is embodied in our Statement of Purpose which marks a new chapter in our journey as the custodian of Malaysia's oil and gas resources and a Fortune Global 500 energy company with presence in over 50 countries.

"A Progressive Energy and Solutions Partner Enriching Lives for a Sustainable Future"

The PETRONAS Statement of Purpose underscores why we do what we do, now and in the future - a clarion call of our passion to harness the transformative power of energy for the benefit of all. Delivering energy needs in a responsible manner is now more important than ever. With our access to energy as Malaysia's custodian of oil and gas resources and a leading energy player at the global front, we are constantly seeking meaningful collaborations to provide solutions that enrich lives. We believe that it is only when lives are enriched that real progress is achieved, and this also resonates with our new brand tagline "Passionate about Progress."

In building a resilient portfolio for a sustainable future, the Three-Pronged Growth Strategy was introduced in 2017 with notable progress made in all the areas of Maximising Cash Generators, Expanding Core Business and Stepping Out. (Refer to the Strategic Progress Section of the report). The Strategy drives our long-term goal of meeting the world's growing energy needs in a responsible and holistic manner.

We further strengthened our commitment to create sustainable value for all by establishing a clear sustainability agenda, seen through the four lenses of Continued Value Creation, Safeguard the Environment, Positive Social Impact and Responsible Governance, aligned with the United Nations Sustainable Development Goals 2030. We will be focusing on seven Sustainable Development Goals that we believe we can make the greatest impact on.

We Are PETRONAS

AT A GLANCE

WHY
we do what we do

Statement of Purpose

A Progressive Energy and Solutions Partner Enriching Lives for a Sustainable Future

WHAT
Long-term aspiration of meeting the world's growing energy needs in a responsible and holistic manner

Three-Pronged Growth Strategy

1 Maximising Cash Generators

Cash generators are existing assets that provide strong and stable cash flows. Protecting and maximising these assets are paramount to provide a solid base for profitability and a foundation for growth.

- Malaysia's Integrated Value Chain
- International Assets

2 Expanding Core Business

Oil and gas remains our core business. We have identified opportunities for further growth and value enhancement.

- Deliver Material Oil in Atlantic Basins
- Expand Unconventional Positioning
- Balance Portfolio through Major Resource Holder Proven Oil
- Deliver Pengerang Integrated Complex and Expand Adjacencies
- Grow the Integrated Business Model

3 Stepping Out

Global trends are reshaping the energy landscape, consumption patterns and consumer demand. We must continue to build our capabilities and allocate resources to new businesses in order to capitalise on external disruptions and better position ourselves for the future.

- Specialty Chemicals
- New Energy

HOW
Translation of strategies into more detailed implementation plans by both business units and enablers via relevant channels

Business and Functional Strategies

SHARED VALUES

LOYALTY
Loyal to corporation

INTEGRITY
Honest and upright

PROFESSIONALISM
Strive for excellence

COHESIVENESS
United, trust and respect for each other

PETRONAS CULTURAL BELIEFS

RESULTS MATTER
I stretch my limits to deliver superior results

OWN IT
I own the results and don't blame others

FOCUSED EXECUTION
I plan, commit and deliver with discipline

NURTURE TRUST
I always keep my promise and build mutual trust

TELL ME
I seek, give and act positively on feedback

SHARED SUCCESS
I collaborate for the greater good of PETRONAS

Brand Positioning: Passionate about Progress

Our Business

Our Business

UPSTREAM

MAXIMISING RESOURCES FOR GROWTH

PETRONAS' Upstream business, which encompasses Exploration, Development, Production, and Malaysia Petroleum Management (MPM), is a fully integrated business covering a broad portfolio of resources and play types in more than 20 countries.

Our proven capability and track record of successful onshore and offshore developments in oil and gas have earned us reputable operatorship in many ventures across the world.

Our Upstream presence extends across more than 20 countries globally, with 245 producing fields, 429 offshore platforms, and 30 floating facilities. We also promote sustainable and orderly development of Malaysia's petroleum resources through 103 active Petroleum Arrangement Contractors (PACs), including within the Malaysia-Thailand Joint Development Area. Internationally, we are involved in 60 PACs.

We hold custodianship of Malaysia's petroleum resources. Through our established ventures in Malaysia and internationally, we deliver resource addition from proven basins and maximise value.

We strengthen value-driven partnerships in focused geographies through exploration discoveries and discovered resource opportunities. We explore basins with high material oil potential, and are developing a portfolio of high-value shale plays, which will continue to grow.

Our fiscally disciplined, balanced, integrated and growth-focused strategy will enable us to continue delivering energy sustainably, and deliver value to our clients and stakeholders in the years to come.

EXPLORATION

Exploration is the growth engine for PETRONAS, comprising a consolidation of exploration functions in Malaysia, International, and MPM, which explores, acquires, extracts and delivers new resources to sustain long-term production as well as to attract exploration investment in Malaysia. Core activities include block promotion, block acquisitions, basin evaluations, play generation, prospect maturation and exploration drilling. Exploration delivers new resource addition through continuous exploration in basins domestically and abroad to provide a pipeline of hydrocarbon resources for a sustained and long-term hydrocarbon production.

OUR UPSTREAM PRESENCE EXTENDS ACROSS MORE THAN 20 COUNTRIES GLOBALLY, WITH 245 PRODUCING FIELDS, 429 OFFSHORE PLATFORMS, AND 30 FLOATING FACILITIES

DEVELOPMENT AND PRODUCTION

Development and Production (D&P) comprises a consolidation of development and production functions for Malaysia Assets, International Assets, and Centre of Excellence (CoE), which provide value-driven, world-class operational delivery, with utmost priority on Health, Safety, Security and Environment (HSSE) and Asset Integrity.

D&P CoE, which comprises Petroleum Engineering, Wells, Operational Excellence, Petroleum Economics, Global Resource Planning and Capability Development, Upstream Digital and Upstream Technology Management collectively provides value-driven operations in both technical and commercial solutions. This is done in collaboration with Assets, Exploration CoE, Project Delivery and Technology (PD&T) and Group Digital to support business growth.

MALAYSIA PETROLEUM MANAGEMENT

PETRONAS' successes in maximising the long-term value from hydrocarbon resources in Malaysia are realised through our effective partnerships with our PACs, consisting of the oil and gas majors, large independents and specialised oil and gas companies.

As the custodian of the country's hydrocarbon resources, MPM continues to develop a competitive and conducive investment environment for our investors by offering robust fiscal terms, and implementing clear and simplified corporate governance requirements. This, in turn, supports our role in supplying the energy needs of our customers not just in Malaysia but around the world.

We work with industry players to optimise efficiency throughout the field life by adopting innovative technical and commercial solutions. We also champion collaboration across our PACs including our service providers, vendors and the academia to create a strong ecosystem towards the development of a safe and sustainable industry.

Our Business

Our Business

GAS AND NEW ENERGY

A PROGRESSIVE ENERGY AND SOLUTIONS PARTNER

The world is undergoing an energy transition driven by climate change, accelerating the shift from fossil-based to zero-carbon energy sources. The rate of global environmental change and its resulting impact have accelerated the need to transition to a low-carbon economy and decarbonised world, while minimising the output of greenhouse gases. Gas and New Energy (GNE), encompassing the Liquefied Natural Gas (LNG), Gas and Power, and New Energy businesses, is a one-stop centre for cleaner energy solutions, with a structure that reflects PETRONAS' commitment to advance into the future as a cleaner energy solutions partner.

Operating in 12 countries and with more than 4,000 employees globally, GNE strives to ensure long-term value creation and profitable growth for our partners by providing innovative and end-to-end customer-centric solutions to secure new markets covering gas and renewable energy.

Our aim is to provide reliable and accessible cleaner energy fuel through an integrated value chain to meet the growing global energy demand.

LNG

PETRONAS is one of the world's leading global LNG players and reliable LNG suppliers with over 35 years of experience. With a diversified portfolio of facilities across the globe, we have delivered more than 11,000 LNG cargoes to date.

Our portfolio of facilities includes world-class assets in Malaysia, Egypt, Australia and in the future, Canada. We have successfully commissioned the world's first coal bed methane-to-LNG project in Gladstone, Australia. The integrated LNG Complex in Bintulu, Sarawak is one of the world's largest LNG production facilities in a single location, with a total capacity of 29.3 million tonnes per annum. The facility which comprises nine production trains also maintains a world-class standard for plant reliability, enabling us to provide uninterrupted supply of LNG to our customers.

As a cleaner energy solutions partner, we strive to continuously push the boundaries in delivering innovative and customer-centric solutions to our customers. Custom-built to liquefy, produce, store and offload LNG, the PETRONAS Floating LNG (PFLNG) is a facility that allows for the processing of LNG to be done offshore hundreds of kilometres away from land. Its versatility enables us to unlock remote and stranded fields that were previously uneconomical to explore, making it possible for us to monetise the potential of stranded fields far out at sea.

PETRONAS is the first global energy player to realise the floating LNG concept with the introduction of the PFLNG SATU in 2016 and continued to define the LNG industry with the introduction of our first deepwater floating LNG, the PFLNG DUA. Today, we are the first global energy company to own and operate two floating LNG facilities.

The world's first floating LNG, the PFLNG SATU, successfully loaded 10 LNG cargoes in 2019, after its relocation from the Kanowit gas field in Sarawak to the Kebabangan gas field in Sabah. This facility, which has the capacity to produce 1.2 million tonnes of LNG per year, is capable of extracting natural gas from gas field in water depths up to 200 metres via a flexible subsea pipeline for the liquefaction, production, storage and offloading processes of LNG at the offshore gas field.

The PFLNG DUA, on the other hand, officially sailed away from Geoje Island, South Korea towards Rotan gas field offshore Kota Kinabalu, Sabah on 18 February. It is currently undergoing its commissioning phase. This facility which is scheduled for commercialisation by end of 2020 is capable of reaching gas field in water depths up to 1,500 metres and able to produce 1.5 million tonnes of LNG per year. Both our floating LNG facilities support PETRONAS' portfolio of LNG facilities around the world, enabling us to achieve close to 30 million tonnes of LNG in sales annually to power the world.

Operating in a manner that is commercially, environmentally and socially sustainable, PETRONAS is committed to investing and building capabilities in the communities where we operate. This commitment drives us to innovate and consistently deliver value to our partners, stakeholders and the investors in our business.

Our LNG capabilities capture the best value across the LNG value chain by offering the most competitive value propositions to our customers. Additionally, our portfolio of innovative technology and engineering solutions provides us with agility and flexibility to meet our buyers' energy needs. We offer highly customised LNG ship-to-ship transfer solution to meet the needs of buyers with smaller LNG parcels. Gassing Up Cooling Down (GUCD) service is also being offered at Pengerang Regasification Terminal (RGT) to serve post dry-dock and warm LNG vessels. Whereas at Bintulu, we provide Cooling Down service to serve warm LNG vessels. Bunkering service will also be offered to LNG-fuelled vessels from mid-2020 onwards.

Our integrated LNG value chain solutions allow us to deliver abundant gas resources in a manner that is reliable, flexible, affordable and sustainable. This enables us to deliver cleaner energy to meet the needs of emerging markets, while supporting the world's transition towards a low-carbon future.

GAS AND POWER

Gas will continue to play a crucial role in powering Malaysia, as it is the cleanest burning fossil fuel and a reliable source of energy, making it a complementary partner to renewable energy towards a low-carbon energy future. Without intervention and strong advocacy, domestic gas industry growth and sustenance will be tapered. Therefore, heightened efforts are necessary in collaboration with the government and agencies to shape and influence the long-term energy policy as part of the national development agenda.

PETRONAS is well-positioned as a one-stop solutions partner in delivering natural gas, leveraging our world-class asset performance and diversified portfolio of customer segments.

Within Peninsular Malaysia, PETRONAS, through its majority-owned subsidiary, PETRONAS Gas Berhad (PGB), operates the Peninsular Gas Utilisation (PGU) system, comprising six processing plants and approximately 2,623 km of pipelines to process and transmit gas to end-users in the power, industrial and commercial sectors.

PETRONAS processes natural gas piped from offshore fields and transports the processed gas via the PGU pipeline network to customers in Malaysia and Singapore. In addition, it supplies steam and industrial gas to customers at the Kertih Integrated Petrochemical Complex in Terengganu and Gebeng Industrial Area in Pahang.

Malaysia's very first LNG Regasification Terminal in Melaka and the Regasification Terminal in Pengerang, facilitate the importation of LNG by PETRONAS and third parties, while establishing security of gas supply for the nation.

Through PETRONAS Energy & Gas Trading (PEGT), the trading and marketing arm of PETRONAS for processed gas in Malaysia and Singapore, PETRONAS sustains its competitive advantage of having a vast portfolio of reliable and quality gas supplies, access to infrastructure and facilities, and a diversified portfolio of customers' segments including Power, Non-Power, Reticulation and Exports. We have started the groundwork to offer a Virtual Pipeline System (VPS) to safely transport LNG sourced from the Pengerang Regasification Terminal to off-grid customers located away from the main pipeline, via ISO tank trucks.

NEW ENERGY

The establishment of New Energy places PETRONAS in a prime position to pursue domestic and international renewables market share to power the world with cleaner energy. PETRONAS first ventured outside the traditional energy space in 2013, with its first solar photovoltaic (PV) project in Pahang, Malaysia, with a solar capacity of 10 MWp. By 2018, PETRONAS increased its renewable energy capacity to a total of 14 MWp through four new solar energy projects located at PETRONAS facilities in Malaysia and Italy.

Since then, PETRONAS has cemented its aspiration in becoming a key player in the global renewable energy space with the acquisition of Amplus Energy Solutions Pte Ltd (M+) in April 2019, our very first international solar venture. With a total capacity of 600 MWp under operation and development, M+ is serving more than 150 commercial and industrial customers at over 200 locations across India, the Middle East and Southeast Asia.

In October 2019, PETRONAS continued its expansion as a renewable energy solutions partner with the launch of its first rooftop solar solution in Malaysia, known as M+ by PETRONAS. M+ by PETRONAS offers a wide variety of affordable and customer-centric solar energy solutions. These solutions include on-site rooftop solar, off-site solar and advanced analytics energy monitoring solutions.

Moving forward, PETRONAS' focus in the renewable energy space will be in solar and wind, which possess the highest growth potential given the continuous technology improvements leading to decreasing costs. In line with the global industry outlook, PETRONAS' renewable energy venture will be concentrated in Asia-Pacific, where its anticipated demand capacity increase is the highest among other regions.

Our Business

Our Business

DOWNSTREAM

UNLOCKING OPPORTUNITIES FOR GROWTH

Downstream business comprises multiple businesses and plays a strategic role in enhancing value to molecules through an integrated operation, underpinned by operational and commercial excellence.
The diverse activities include refining, trading, and marketing crude oil and petroleum products as well as manufacturing and marketing petrochemical products for local and international consumption.

PETRONAS is a high-performing business backed by world-class operations, infrastructure, and manufacturing facilities. We are recognised as a significant industry player that delivers competitive products, offerings and solutions with consistent quality and reliability. As such, our operating model is designed to enhance market competitiveness, mitigate external and internal challenges as well as maximise future growth potential.

PRODUCTION CAPACITY AND GROWTH PROJECTS

PETRONAS has more than 800 kbpd of refining capacity (out of which more than 700 kbpd comes from our domestic operations, and the remaining from Durban, South Africa), and a total of 12.8 mtpa petrochemical production capacity from 30 subsidiaries, joint ventures, and associate companies.

Our newly integrated refinery and petrochemical complex in Johor, Pengerang Integrated Complex (PIC) is now ready to supply the market with various products ranging from petroleum products to differentiated and specialty chemicals. In September 2019, cargoes of petroleum products achieved their first lifting, while the petrochemical complex saw on-spec Polypropylene (PP), Linear low-density polyethylene (LLDPE) and Ethylene Glycols (EG) being shipped out from its terminal in Pengerang.

PIC has a refining capacity of 300 kbpd of crude to produce various refined petroleum products, strengthening our petrochemical product portfolio in key growth areas of differentiated and specialty chemicals. As one of the largest integrated refinery and petrochemical developments in this region, PIC will diversify our feedstock reliability from gas-based to naphtha, and expand our petrochemical portfolio with a nameplate capacity of 3.3 mtpa, producing various products including specialty chemicals. With a robust digital infrastructure as well as innovative green technologies, PIC is set to raise the bar for the Asian oil and gas sector.

PETROCHEMICALS

PETRONAS Chemicals Group Berhad (PCG) is the leading petrochemical producer in Malaysia and the largest gas-based chemicals producer in Southeast Asia. PCG is involved primarily in the manufacturing, marketing and sales of a diverse range of petrochemical products including olefins, polymers, fertilisers, methanols and other chemicals and derivative products.

Today, our integrated petrochemical complexes in Kertih, Terengganu and Gebeng, Pahang as well as manufacturing complexes in Gurun in Kedah, Bintulu in Sarawak, and Labuan, have a total production capacity of 12.8 mtpa. PCG has marketing subsidiaries in Malaysia, Thailand, Indonesia and China, as well as international representative offices in Vietnam and the Philippines. PCG has more than 1,000 active customers around the world, with more than 80 per cent of our business coming from customers who have been with us for more than 10 years.

For more information, please visit www.petronaschemicals.com

MARKETING AND TRADING

PETRONAS Trading Corporation Sdn Bhd (PETCO), a wholly owned subsidiary of PETRONAS, undertakes marketing and trading activities for crude oil and petroleum products including PETRONAS' Equity Crude where we are internationally present in development and production activities.

PETRONAS Dagangan Berhad (PDB) manages all domestic marketing and retailing activities for a wide range of petroleum products in Malaysia, while Engen Petroleum Limited is responsible for overseeing our retail operations in South Africa and sub-Saharan Africa.

For more information, please visit www.mymesra.com.my and www.engen.co.za.

LUBRICANTS

PETRONAS Lubricants International Sdn Bhd (PLI) is the global lubricant manufacturing and marketing arm of PETRONAS. Established in 2008, PLI manufactures and markets a full range of high-quality automotive and industrial lubricant products in over 90 markets globally. With our main office in Kuala Lumpur, Malaysia, PLI has over 30 marketing offices in 27 countries, managed through regional offices in Kuala Lumpur, Turin in Italy, Belo Horizonte in Brazil, Chicago in the USA, and Durban in South Africa. Ranked among the world's top 10 lubricant players, PLI is driving an aggressive business growth agenda sustaining its current position as a leading global lubricant company.

Since 2009, in addition to being the Title Sponsor, PETRONAS for the past 10 years has also been the Technical Partner to the Mercedes-AMG PETRONAS Formula One Team. Our Fluid Technology Solutions™ – fuels, lubricants and functional fluids - were developed alongside the team's engines, and powered the Silver Arrows to win its sixth consecutive World Constructors' Championships from 2014 to 2019.

For more information, please visit www.pli-petronas.com

SUSTAINABILITY FOR THE FUTURE

At Downstream, we take a holistic approach in managing our business, focusing on operational strategy, HSSE excellence and sustainability. Our focus is to add value to the resources and generate social, economic and environmental impacts on the surrounding communities where we operate.

We will continue to sustain our world-class operational excellence and competitive marketing capabilities to capture opportunities domestically, as well as in key growth markets globally.

PETRONAS Group of Companies

PETRONAS Group of Companies

WHOLLY OWNED SUBSIDIARIES (201)

PETRONAS CARIGALI SDN BHD — Associates: Kebabangan Petroleum Operating Co. Sdn Bhd (40%); PCPP Operating Company Sdn Bhd (40%)

- PETRONAS Carigali Overseas Sdn Bhd
  - PC Algeria Ltd
  - PETRONAS Carigali Nigeria Limited
  - PC Randugunting Ltd
  - PETRONAS Carigali (Ketapang) Ltd
  - PC Mozambique (Rovuma Basin) Ltd
  - PETRONAS Carigali Mozambique E & P Ltd
  - PETRONAS Carigali (West Galagah Kambuna) Ltd.
  - PETRONAS Carigali (Surumana) Ltd
  - PETRONAS Carigali White Nile (5B) Ltd
  - PC Lampung II Ltd
  - PETRONAS Carigali (Australia) Pty Ltd
- PC JDA Limited — Associates: Carigali Hess Operating Co. Sdn Bhd (50%); Carigali-PTTEPI Operating Co. Sdn Bhd (50%)
- E&P Venture Solutions Co. Sdn Bhd — Associate: BC Petroleum Sdn Bhd (20%)
  - E&P O&M Services Sdn Bhd
- E&P Malaysia Venture Sdn Bhd
- Vestigo Petroleum Sdn Bhd — Associate: Ophir Production Sdn Bhd (20%)

PETRONAS ASSETS SDN BHD
- Petrofibre Network (M) Sdn Bhd
- PETRONAS ICT Sdn Bhd
- Virtus IP Sdn Bhd

PETRONAS HARTABINA SDN BHD
- PRBF Holdings Corporation Sdn Bhd
  - PRBF Properties Sdn Bhd

PETRONAS TRADING CORPORATION SENDIRIAN BERHAD
- PETCO Trading (UK) Limited
- PETCO Trading Labuan Company Ltd
- PETCO Trading DMCC
- P.T. PETRONAS Niaga Indonesia

PETRONAS TECHNICAL SERVICES SDN BHD
- PTSSB DMCC
- PETRONAS Technology Ventures Sdn Bhd
  - PTV International Ventures Ltd
- PETRONAS Global Technical Solutions Sdn Bhd

PARTLY OWNED SUBSIDIARIES (59)

MALAYSIA LNG SDN BHD (90%)
MALAYSIA LNG DUA SDN BHD (80%)
MALAYSIA LNG TIGA SDN BHD (60%)
PETRONAS LNG 9 SDN BHD (65%)

ASSOCIATE COMPANIES (65)

- Kebabangan Petroleum Operating Co. Sdn Bhd (40%)
- PCPP Operating Company Sdn Bhd (40%)
- Carigali Hess Operating Co. Sdn Bhd (50%)
- Carigali-PTTEPI Operating Co. Sdn Bhd (50%)
- BC Petroleum Sdn Bhd (20%)
- Ophir Production Sdn Bhd (20%)

PETRONAS Group of Companies

PETRONAS Group of Companies

WHOLLY OWNED SUBSIDIARIES (201) | **PARTLY OWNED SUBSIDIARIES (59)** | **ASSOCIATE COMPANIES (65)**

- **PETRONAS INTERNATIONAL CORPORATION LTD**
  - Transasia Pipeline Company Pty Ltd (35%)
    - PT Transportasi Gas Indonesia (40%)
  - Sirri International Ltd
  - PETRONAS Carigali Myanmar Inc.
  - PETRONAS Carigali (Turkmenistan) Sdn Bhd
  - MITCO Labuan Company Limited (MLCL)
    - PCM Chemical India Private Limited
  - PETRONAS Carigali Nile Ltd
    - SUDD Petroleum Operating Co. Ltd (67.875%)
    - Petrodar Operating Company Ltd (40%)
    - Greater Nile Petroleum Operating Company (30%)
    - DAR Petroleum Operating Co. Ltd (40%)
    - Greater Pioneer Operating Co. Ltd (30%)
  - PICL (Egypt) Corporation Ltd
    - WDDM Energy Ltd
    - Egyptian LNG Co. S.A.E (35.5%)
    - Burullus Gas Company S.A.E (25%)
    - Idku Natural Gas Liquefaction Company S.A.E (38%)
    - El Beherah Natural Gas Liquefaction Company S.A.E (35.5%)
    - Egyptian Operating Company for Natural Liquefaction Project S.A.E (35.5%)
  - Nada Properties Co. Ltd
  - PC Madura Ltd
  - PC Muriah Ltd
  - PC (Myanmar) Holdings Limited
    - PC Myanmar (Hong Kong) Limited
  - PETRONAS Carigali Myanmar III Inc.
    - Taninthayi Pipeline Co LLC (30%)
  - PETRONAS Carigali (Jabung) Ltd
    - PP Oil & Gas Indonesia Holding Ltd (50%)
      - PP Oil & Gas (Indonesia – Jabung) Ltd (50%)
      - PP (Indonesia Gas Aggregation) Ltd (50%)
  - PICL Marketing Thailand Ltd
    - PICL Siri Co. Ltd (49%)
  - Myanmar PETRONAS Trading Company Limited
  - PETRONAS (Thailand) Co. Ltd
  - PC Vietnam Limited
    - Lam Son Joint Operating Company (50%) (in the process of winding-up)
  - PC Mauritania I Pty Ltd
  - PC Mauritania II B.V
  - PETRONAS Philippines Inc
  - Parsi International Ltd
  - Argentinean Pipeline Holding Company S.A
  - PETRONAS Australia Pty Ltd (PAPL)
    - PAPL Services Pty Ltd
    - PAPL (Upstream) Pty Ltd
    - PAPL (Upstream II) Pty Ltd
    - PAPL (Downstream) Pty Ltd
      - GLNG Property Pty Ltd (27.5%)
      - GLNG Operations Pty Ltd (27.5%)
  - Labuan Energy Corporation Limited
    - PSE Ireland Limited
    - LEC Ireland Employment Limited
  - PETRONAS Carigali Brunei Ltd
  - PETRONAS LNG Sdn Bhd
    - Japan Malaysia LNG Co. Ltd (93%)
    - Dragon LNG Group (50%)
    - PETRONAS Energy (India) Private Limited
    - PETRONAS LNG (UK) Ltd
    - PETRONAS LNG Ltd
    - PETRONAS Energy Trading Limited
      - Humbly Grove Energy Limited
      - MPF Holding Limited (14.06%)
        - Calon Energy (Investments) Limited (100%)
          - Calon Energy Limited (100%)
    - PNW LNG Marketing Sdn Bhd
    - LNG Investments Europe Ltd

PETRONAS Group of Companies

PETRONAS Group of Companies

WHOLLY OWNED SUBSIDIARIES (201)	PARTLY OWNED SUBSIDIARIES (59)	ASSOCIATE COMPANIES (65)
PETRONAS INTERNATIONAL CORPORATION LTD (CONTINUED)		
PETRONAS (E&P) Overseas Ventures Sdn Bhd		
— PETRONAS Iraq Garraf Ltd		
— Natuna 1 B.V.		
— PETRONAS Carigali Canada B.V.		
—— PETRONAS E&P Argentina S.A.		
—— Progress Resources USA Ltd.		
—— PETRONAS Energy Canada Ltd		
	Pacific Northwest LNG Ltd (62%)	
—— PETRONAS Canada LNG Ltd		
——— North Montney LNG Limited Partnership		
		LNG Canada Development Inc (NMLLP holds 25%)
— PETRONAS Carigali International E&P B.V.		
—— PETRONAS Suriname E&P B.V.		
—— PC Gabon Upstream S.A.		
—— PC Carigali Mexico Oil and Gas Holding S.A. de C.V.		
——— PC Carigali Mexico Operation S.A. de C.V.		
— PETRONAS Carigali Iraq Holding B.V.		
— PETRONAS Brasil E&P Limitada		
— PETRONAS Angola E & P Ltd		
— Garraf Technical Services Ltd		
— PETRONAS Azerbaijan Upstream Sdn Bhd		South Caucasus Pipeline Holding Co. Ltd. (15.5%)
—— PETRONAS South Caucasus S.a.r.l.		South Caucasus Pipeline Co. Ltd. (15.19%)
—— PETRONAS Azerbaijan (Shah Deniz) S.a.r.l.		Azerbaijan Gas Supply Co. Ltd. (12.4%)
— PC Kualakurun Ltd		
— PC North Madura II Ltd		
— PETRONAS Carigali Chad Exploration & Production Inc		
—— PETRONAS Carigali (Chad EP) Inc		
—— Doba Pipeline Investment Inc		Cameroon Oil Transportation S.A. (29.77%)
—— PETRONAS Chad Marketing Inc		Tchad Oil Transportation S.A. (30.16%)
— PC Senegal Ltd		
— Petroliam Manpower Services Mexico S.A. de C.V.		
— PC Sakakemang B.V.		
— PC Gambia Ltd		
— PETRONAS Petroleo Brasil Limitada		
— PC Oman Ventures Ltd		
— Petroliam Manpower Support Services Mexico S.A. de C.V.		
— PETRONAS Carigali International Sdn Bhd		
— PETRONAS Gebang Indonesia B.V.		
— PETRONAS Andaman III Indonesia B.V.		
— PETRONAS West Papua IV Indonesia B.V.		
— PETRONAS Aru Indonesia B.V.		

PETRONAS Group of Companies

PETRONAS Group of Companies

WHOLLY OWNED SUBSIDIARIES (201) | **PARTLY OWNED SUBSIDIARIES (59)** | **ASSOCIATE COMPANIES (65)**

PETRONAS LUBRICANTS INTERNATIONAL SDN BHD

- PLI (Netherlands) B.V.
  - PLI Italy SPA
    - Arexons S.P.A.
    - PETRONAS Lubricants Great Britain Ltd
    - FL Nominees
    - PL Russia LLC
    - PETRONAS Lubricants Brazil S.A
    - PETRONAS Lubricants Argentina S.A
    - PLNA Mexico S.R.L
    - PETRONAS Lubricants Poland Sp z.o.o
    - PETRONAS Lubricants Belgium N.V.
      - PETRONAS Lubricants France S.A.S
      - PETRONAS Madeni Yaglar Ticaret Sirketi
      - PETRONAS Lubricants Deutschland GmbH
    - Viscosity Oil Company (100%)
      - PETRONAS Lubricants Spain S.L.U
- PETRONAS Base Oil (M) Sdn Bhd
- PETRONAS Lubricants Africa Ltd
  - PETRONAS Lubricants (India) Private Limited
  - PLAL DMCC
- PETRONAS Lubricants China Company Limited
  - PETRONAS Lubricants (Shandong) Co., Ltd
  - PETRONAS Marketing (China) Co. Ltd
  - Associate companies:
    - Guangxi Beihai Yuchai Petronas High Quality Lub Co. Ltd. (50%)
    - Chongqing Chang'an Yuchai Lube Co., Ltd. (100%)
    - Dalian Yuchai PETRONAS High Quality Lube Co., Ltd. (100%)
      - Dalian Woerfu international Trade Co., Ltd (100%)
    - Guangxi Nanning Yuchai Petronas High Quality Lub Co. Ltd. (50%)
      - Guangxi Dongliyuan Technology & Development Co., Ltd (100%)
- PT PLI Indonesia
- PLI Australia Pty. Limited

PETRONAS INTERNATIONAL POWER CORPORATION B.V.

- Amplus Energy Solution Pte. Ltd.
  - Amplus Energy Solution FZE
  - Amplus Energy Solutions Thailand
  - Amplus Energy Solutions Private. Limited.
    - Ananth Solar Power Maharashtra
    - Sunterrace Energy One Pvt. Ltd.
    - Amplus Jyotimangal Energy
    - Amplus Superior Solar
    - Amplus Sunshine
    - Wednesday Solar Power Pvt. Ltd.
    - Amplus Green One Power
    - Wattvolt Energy Pvt Ltd.
    - Amplus Sunlight
    - Fourvolt Solar Private Limited
    - Sungaze Power Private Limited
  - Amplus Solar Power Pvt. Ltd.
  - Amplus Solar Solutions Pvt. Ltd.
  - Amplus Andhra Power Pvt. Ltd.
  - Amplus Power Solutions Pvt. Ltd.
  - Amplus KN Solar Power Pvt. Ltd.
  - Amplus Sun Solutions
  - Amplus Solar Power MH
  - Amplus Costal Power Private Ltd.
  - Amplus RJ Solar Pvt. Ltd.
  - Amplus Green Power
  - Amplus Solbridge Energy Private Limited
  - Amplus Power Supply Private Ltd.
  - Amplus KN One Pvt. Ltd.
  - Amplus Management Services Pvt. Ltd.

PETRONAS POWER SDN BHD

- Partly owned subsidiaries:
  - Voltage Renewables Sdn Bhd (70%)
  - NE Suria Satu Sdn Bhd (80%)
- Associate companies:
  - Eastern Sabah Power Consortium Sdn Bhd (30%)
- PETRONAS International Power Corporation (Mauritius) Ltd
  - Associate companies:
    - Pacificlight Power Pte. Ltd (30%)
    - Pacificlight Energy Pte. Ltd (30%)

PETRONAS Group of Companies

PETRONAS Group of Companies

WHOLLY OWNED SUBSIDIARIES (201)	PARTLY OWNED SUBSIDIARIES (59)	ASSOCIATE COMPANIES (65)
PETRONAS RESEARCH SDN BHD		INDIANOIL PETRONAS PRIVATE LIMITED (50%)
PETROSAINS SDN BHD		
PETRONAS eLEARNING SOLUTIONS SDN BHD		
PETRONAS MANAGEMENT TRAINING SDN BHD		
PETRONAS TECHNICAL TRAINING SDN BHD		
PETRONAS PENAPISAN (TERENGGANU) SDN BHD		
PETRONAS PENAPISAN (MELAKA) SDN BHD		
MALAYSIAN REFINING COMPANY SDN BHD		
PETRONAS NGV SDN BHD		
PETRONAS ENERGY & GAS TRADING SDN BHD		
PETRONAS FLOATING LNG 1 (L) LTD		
PETRONAS FLOATING LNG 2 (L) LTD		
PRIMESOURCING INTERNATIONAL SDN BHD		
PETRONAS CAPITAL LIMITED		
PETRONAS GLOBAL SUKUK LIMITED		
ENERGAS INSURANCE (L) LIMITED		
SANZBURY STEAD SDN BHD		
OGP TECHNICAL SERVICES SDN BHD		
INSTITUTE OF TECHNOLOGY PETRONAS SDN BHD		
└ UTP FutureTech Sdn Bhd		
PETRONAS MARKETING INTERNATIONAL SDN BHD	Engen Limited (74%)	
PETRONAS REFINERY AND PETROCHEMICAL CORPORATION SDN BHD		Pengerang Refining Company Sdn Bhd (50%)
└ PRPC Utilities and Facilities Sdn Bhd		Pengerang Terminal (Two) Sdn Bhd (40%)
├ PRPC Water Sdn Bhd		
├ Pengerang Power Sdn Bhd		
└ PRPC SPJ Sdn Bhd		SPT Services Sdn Bhd (30%)

Note: This chart excludes subsidiary companies of Engen Limited

PETRONAS Group of Companies

PETRONAS Group of Companies

WHOLLY OWNED SUBSIDIARIES (201) | **PARTLY OWNED SUBSIDIARIES (59)** | **ASSOCIATE COMPANIES (65)**

WHOLLY OWNED SUBSIDIARIES

- KLCC (HOLDINGS) SDN BHD
  - # KLCC PROPERTY HOLDINGS BERHAD (75.46%)

PARTLY OWNED SUBSIDIARIES

- # MISC BERHAD (57.56%)
- # KLCC PROPERTY HOLDINGS BERHAD (75.46%)
- # PETRONAS CHEMICALS GROUP BERHAD (64.35%)
  - Associate companies: BASF PETRONAS Chemicals Sdn Bhd (40%); Kertih Terminals Sdn Bhd (40%); Idemitsu SM (Malaysia) Sdn Bhd (30%); BP PETRONAS Acetyls Sdn Bhd (30%); Pengerang Petrochemical Company Sdn Bhd (50%)
  - PETRONAS Chemicals Marketing Sdn Bhd (PCM) (100%)
    - PETRONAS Chemicals Marketing (Labuan) Ltd (PCML) (100%)
    - PCM (Thailand) Company Limited (99.98%)*
    - PCM (China) Co. Limited (100%)
    - PT PCM Kimia Indonesia (99.67%)**
  - PETRONAS Chemicals Derivatives Sdn Bhd (100%)
  - PETRONAS Chemicals Polyethylene Sdn Bhd (100%)
  - Vinyl Chloride (Malaysia) Sdn Bhd (100%)
  - PETRONAS Chemicals Methanol Sdn Bhd (100%)
  - PETRONAS Chemicals Glycols Sdn Bhd (100%)
  - PETRONAS Chemicals Ammonia Sdn Bhd (100%)
  - Polypropylene Malaysia Sdn Bhd (PMSB) (100%)
  - Kertih Port Sdn Bhd (100%)
  - PETRONAS Chemicals Fertiliser Kedah Sdn Bhd (100%)
    - Associate company: Malaysia NPK Fertilizer Sdn Bhd (20%)
  - PETRONAS Chemicals MTBE Sdn Bhd (100%)
  - PETRONAS Chemicals Isononanol Sdn Bhd (100%)
  - PRPC Elastomers Sdn Bhd (100%)
  - PETRONAS Chemicals Olefins Sdn Bhd (100%)
  - PETRONAS Chemicals LDPE Sdn Bhd (100%)
  - PETRONAS Chemicals Fertiliser Sabah Sdn Bhd (100%)
  - PETRONAS Chemicals Ethylene Sdn Bhd (87.5%)
  - Asean Bintulu Fertilizer Sdn Bhd (63.47%)
  - PETRONAS Chemicals Aromatics Sdn Bhd (70%)
  - PETRONAS Chemicals International B.V. (100%)
    - Da Vinci Group B.V. (100%)
      - BRB Invest B.V. (100%)
        - Karan B.V. (100%)
      - BRB LAC Invest B.V. (100%)
        - BRB Lube Oil Additives & Chemicals B.V. (100%)
          - Associate company: Viscotech GmbH (50%)
- # PETRONAS GAS BERHAD (51%)
  - Associate companies: Industrial Gases Solutions Sdn Bhd (50%); Trans Thai-Malaysia (Thailand) Ltd (50%) — TTM Sukuk Berhad (100%); Trans Thai-Malaysia (Malaysia) Sdn Bhd (50%)
  - Regas Terminal (Sg. Udang) Sdn Bhd (100%)
  - Regas Terminal (Lahad Datu) Sdn Bhd (100%)
  - Regas Terminal (Pengerang) Sdn Bhd (100%)
  - Kimanis Power Sdn Bhd (60%)
  - Kimanis O&M Sdn Bhd (60%)
  - Pengerang LNG (Two) Sdn Bhd (65%)
- # PETRONAS DAGANGAN BERHAD (63.94%)
  - Associate companies: IOT Management Sdn Bhd (20%); Tanjung Manis Oil Terminal Management Sdn Bhd (20%); PS Pipeline Sendirian Berhad (50%); PS Terminal Sendirian Berhad (50%)
  - PETRONAS Lubricants Marketing (Malaysia) Sdn Bhd (100%)
  - Setel Ventures Sdn Bhd (100%)
  - PETRONAS Aviation Sdn Bhd (100%)
    - Associate company: United Fuel Company LLC (40%)
  - PDB (Netherlands) B.V. (100%)
    - PETRONAS International Marketing (Thailand) Co. Ltd (100%)
  - Kuala Lumpur Aviation Fuelling System Sdn Bhd (65%)

ASSOCIATE COMPANIES

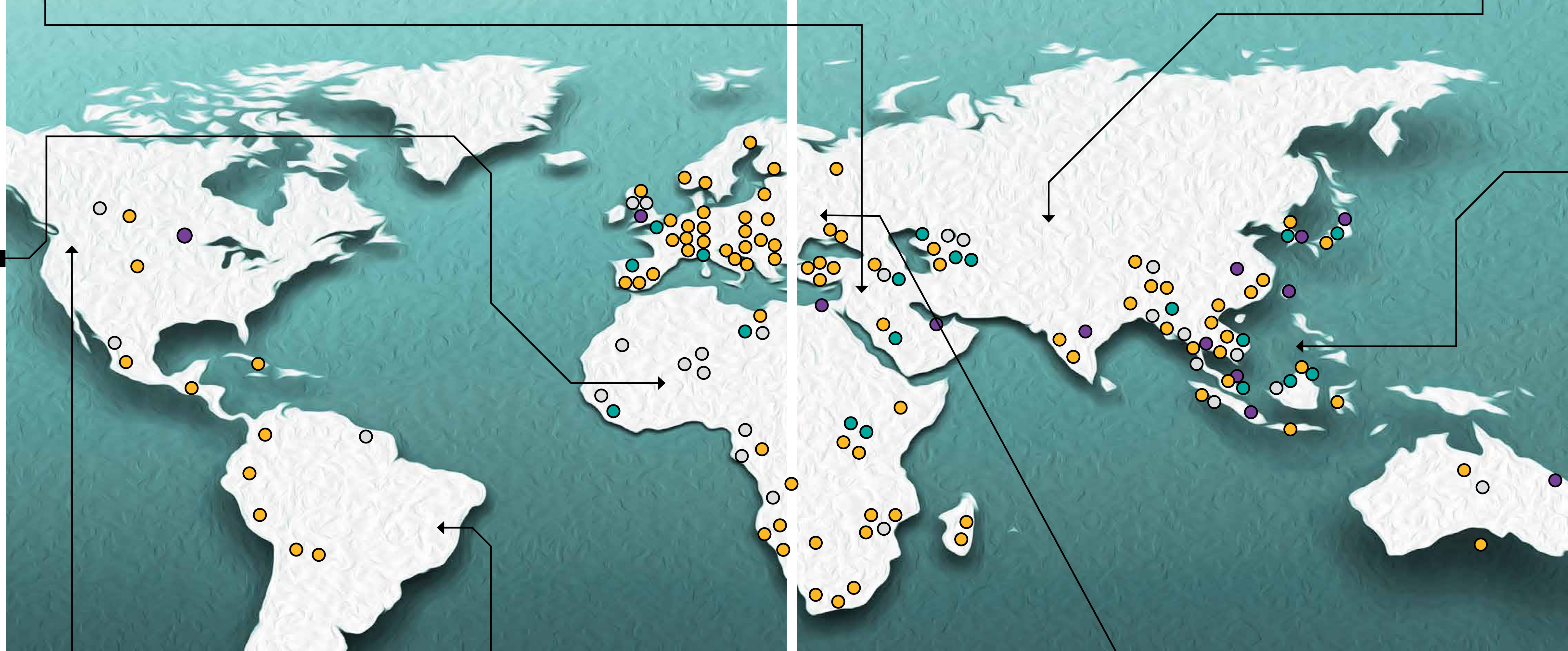
- # BINTULU PORT HOLDINGS BERHAD (28.52%)

Note: This chart excludes subsidiary companies of MISC Berhad and KLCC (Holdings) Sdn Bhd

 # Listed on Bursa Malaysia

PETRONAS AROUND THE WORLD

as at March 2020



- UPSTREAM
- GAS AND NEW ENERGY
- DOWNSTREAM
- PROJECT DELIVERY AND TECHNOLOGY

MIDDLE EAST

Upstream
- **Iraq** – Development, Production
- **Oman** – Development, Production

Gas and New Energy
- **United Arab Emirates** – LNG Marketing, Solar

Downstream
- **Bahrain** – Lubricants
- **Dubai** – Lubricants
- **Iraq** – Lubricants
- **Israel** – Lubricants
- **Jordan** – Lubricants
- **Kuwait** – Lubricants
- **Lebanon** – Lubricants
- **Oman** – Lubricants
- **Palestine** – Lubricants
- **Qatar** – Lubricants
- **Saudi Arabia** – Lubricants
- **United Arab Emirates** – Lubricants

Project Delivery and Technology
- **Iraq • United Arab Emirates**

AFRICA

Upstream
- **Chad** – Development, Production
- **Egypt** – Exploration, Development, Production
- **Gabon** – Exploration
- **Gambia** – Exploration
- **Mauritania** – Abandonment and Decommissioning
- **Republic of South Sudan** – Development, Production
- **Republic of Sudan** – Production
- **Senegal** – Exploration

Gas and New Energy
- **Egypt** - LNG

Downstream
- *****Ghana** – Retail, Lubricants
- ****Democratic Republic of the Congo** – Retail, Lubricants
- ****Gabon** – Retail, Lubricants
- ****Kenya** – Retail, Lubricants
- ****Malawi** – Retail, Lubricants
- ****Mozambique** – Retail, Lubricants
- ****Reunion** – Retail, Lubricants
- ****Rwanda** – Retail, Lubricants
- ****Tanzania** – Retail, Lubricants
- ****Zambia** – Retail, Lubricants
- ****Zimbabwe** – Retail, Lubricants
- **Angola** – Lubricants
- **Botswana** – Retail, Lubricants
- **Burkina Faso** – Lubricants
- **Burundi** – Lubricants
- **Cameroon** – Lubricants
- **Congo Brazzaville** – Lubricants
- **Cote d'Ivoire** – Lubricants
- **Egypt** – Lubricants
- **Ethiopia** – Lubricants
- **Guinea** – Lubricants
- **Lesotho** – Retail, Lubricants
- **Libya** – Lubricants
- **Madagascar** – Lubricants
- **Mauritius** – Retail, Lubricants
- **Namibia** – Retail, Lubricants
- **Senegal** – Lubricants
- **South Africa** – Refinery, Retail, Lubricants, Petrochemicals
- **Sudan** – Lubricants
- **Swaziland** – Retail, Lubricants
- **Togo** – Lubricants
- **Tunisia** – Lubricants

Project Delivery and Technology
- **Egypt • Mauritania • Republic of Sudan • Republic of South Sudan**

Notes:

** In March 2019, Engen Holdings (Pty) Limited completed an agreement with Vivo Energy Holdings B.V. (Vivo Energy), which saw Engen's operations in Gabon, Kenya, Malawi, Mozambique, Rwanda, Tanzania, Zambia and Zimbabwe transferred to Vivo Energy in exchange for 5% equity in Vivo Energy

*** In March 2019, Engen completed a transaction that transferred 100% of the shares of Engen Ghana Limited to Mocoh Ghana Limited for an agreed consideration

NORTH AMERICA

Upstream
- **Canada** – (Unconventional) Development, Production
- **Mexico** – Exploration
- **United States of America** – Exploration

Gas and New Energy
- **Canada** – LNG (Under construction)

Downstream
- **Belize** – Lubricants
- **Canada** – Lubricants
- **Costa Rica** – Lubricants
- **Dominican Republic** – Lubricants
- **El Salvador** – Lubricants
- **Guatemala** – Lubricants
- **Honduras** – Lubricants
- **Mexico** – Petrochemicals, Lubricants
- **Nicaragua** – Lubricants
- **Panama** – Lubricants
- **United States of America** – Petrochemicals, Lubricants

LATIN AMERICA

Upstream
- **Argentina** – (Unconventional) Development, Production
- **Brazil** – Exploration, Development, Production
- **Suriname** – Exploration

Downstream
- **Argentina** – Lubricants
- **Bolivia** – Lubricants
- **Brazil** – Lubricants
- **Chile** – Petrochemicals, Lubricants
- **Colombia** – Lubricants
- **Ecuador** – Lubricants
- **Guyana** – Lubricants
- **Paraguay** – Lubricants
- **Peru** – Lubricants
- **Suriname** – Lubricants
- **Uruguay** – Lubricants
- **Venezuela** – Lubricants

	Year 2019		Year 2018
Total Employees	47,669		48,001
Permanent	88%	Employment type	87%
Contract	12%		13%
Male	73%	Gender distribution	73%
Female	27%		27%

BREAKDOWN OF EMPLOYEES BY REGION (%)

	2019	2018
Africa	6.8%	8.1%
Asia	84.8%	84.3%
Australia and New Zealand	0.1%	0.1%
Commonwealth of Independent States	1.5%	1.4%
Europe	2.6%	2.5%
Middle East	2.1%	2.2%
North and South America	2.1%	1.4%

2019 2018

EUROPE

Upstream
- **Ireland** – Production

Gas and New Energy
- **United Kingdom** – LNG & Gas Marketing and Trading

Downstream
- **Albania** – Lubricants
- **Andorra** – Lubricants
- **Austria** – Lubricants
- **Belarus** – Lubricants
- **Belgium** – Lubricants
- **Bosnia-Herz.** – Lubricants
- **Bulgaria** – Lubricants
- **Croatia** – Lubricants
- **Cyprus** – Lubricants
- **Czech Republic** – Lubricants
- **Denmark** – Lubricants
- **Estonia** – Lubricants
- **Finland** – Lubricants
- **France** – Lubricants
- **Georgia** – Lubricants
- **Germany** – Lubricants
- **Greece** – Lubricants
- **Hungary** – Lubricants
- **Iceland** – Lubricants
- **Ireland** – Lubricants
- **Italy** – Lubricants
- **Kosovo** – Lubricants
- **Latvia** – Lubricants
- **Lithuania** – Lubricants
- **Luxembourg** – Lubricants
- **Macedonia** – Lubricants
- **Malta** – Lubricants
- **Martinique** – Lubricants
- **Moldova** – Lubricants
- **Netherlands** – Lubricants
- **Norway** – Lubricants
- **Poland** – Lubricants
- **Portugal** – Lubricants
- **Romania** – Lubricants
- **Russia** – Lubricants
- **Serbia** – Lubricants
- **Slovakia** – Lubricants
- **Slovenia** – Lubricants
- **Spain** – Lubricants
- **Sweden** – Lubricants
- **Switzerland** – Lubricants
- **Ukraine** – Lubricants
- **United Kingdom** – Lubricants
- **Vatican City** – Lubricants

Project Delivery and Technology
- **Italy • Spain • United Kingdom**

CENTRAL ASIA

Upstream
- **Azerbaijan** – Development, Production
- **Turkmenistan** – Development, Production

Downstream
- **Armenia** – Lubricants
- **Azerbaijan** – Lubricants
- **Kazakhstan** – Lubricants
- **Kyrgyzstan** – Lubricants
- **Turkmenistan** – Lubricants
- **Uzbekistan** – Lubricants

Project Delivery and Technology
- **Azerbaijan • Turkmenistan**

ASIA PACIFIC

Upstream
- **Australia** – Development, Production
- **Brunei** – Exploration, Development
- **Indonesia** – Exploration, Development, Production
- **Malaysia** – Exploration, Development, Production
- **Malaysia-Thailand Joint Development Area** – Exploration, Development, Production
- **Myanmar** – Exploration, Development, Production
- **Vietnam** – Production

Gas and New Energy
- **Australia** – LNG
- **China** – LNG Marketing
- **India** – LNG Marketing, Solar
- **Indonesia** – Gas Infrastructure
- **Japan** – LNG Marketing
- **Malaysia** – LNG, Solar, Gas Processing, Gas Transportation, Utilities, Regasification, Gas Marketing and Trading
- **Taiwan** – LNG Marketing
- **Thailand** – LNG Marketing, Gas Infrastructure
- **South Korea** – LNG Marketing

Downstream
- **Australia** – Petrochemicals, Lubricants
- **Bangladesh** – Petrochemicals, Lubricants
- **Brunei** – Petrochemicals
- **Cambodia** – Petrochemicals, Lubricants
- **China** – Petrochemicals, Lubricants
- **India** – Petrochemicals, Lubricants
- **Indonesia** – Petrochemicals, Lubricants
- **Japan** – Petrochemicals, Lubricants
- **Macau** – Lubricants
- **Malaysia** – Petrochemicals, Retail, Refinery, Lubricants
- **Myanmar** – Petrochemicals, Lubricants
- **New Zealand** – Petrochemicals, Lubricants
- **Philippines** – Petrochemicals
- **Singapore** – Petrochemicals, Lubricants
- **South Korea** – Petrochemicals
- **Taiwan** – Lubricants
- **Thailand** – Petrochemicals, Lubricants
- **Vietnam** – Petrochemicals, Lubricants

Project Delivery and Technology
- **Brunei • China • India**
- **Indonesia • Japan • Malaysia**
- **Myanmar • Philippines**
- **South Korea • Vietnam**

Sustainability at PETRONAS

Sustainability is embedded in everything PETRONAS does. We have long realised the importance of sustainability in the context of running a strong, responsible and ethical business. As times and stakeholder concerns change, we must also keep step. The PETRONAS Sustainability Agenda is thus an evolving one, inspired by our new Statement of Purpose that calls on us to be a progressive energy and solutions partner enriching lives for a sustainable future. This Agenda is governed by the highest levels of management, underscoring its significance to the Group. We are focusing our efforts through four sustainability lenses that are aligned with seven United Nations Sustainable Development Goals (SDGs), as we play our role to actively put the world on a more sustainable path when pursuing business performance.

OUR SUSTAINABILITY LENSES

The four sustainability lenses of Continued Value Creation, Safeguard the Environment, Positive Social Impact and Responsible Governance enable PETRONAS to have a broad and comprehensive view of every part of our business. We are acutely aware of the impact our business and its operations have on our stakeholders and wider communities. Therefore, we must continue to uphold the highest standards of governance with each and every step we take, to ensure our value creation activities are conducted responsibly, safeguard the environment and make positive social impact.

Continued Value Creation
PETRONAS aims to drive long-term business value creation through responsible investments.

Safeguard the Environment
PETRONAS strives to collaboratively reduce environmental impact by transitioning to lower carbon energy solutions and deploying innovative operations and technologies.

Positive Social Impact
PETRONAS aims to create positive alliances with the communities where the company operates by protecting and adding value to the well-being of employees, partners and the society.

Responsible Governance
PETRONAS aims to safeguard the organisation's commitment through upholding strong governance mechanisms and ethical business practices.

OUR SUSTAINABILITY GOVERNANCE

In guiding our sustainability efforts, PETRONAS established the Corporate Sustainability Council in 2010. Since then, the Council has evolved into the PETRONAS Sustainable Development (SD) and Health, Safety, Security and Environment (HSSE) Council in 2019 to steer the development and implementation of SD and HSSE-related strategies across the Group.

The Council consists of senior management members, and in addition to its advisory role, also serves as a governance body to drive progress and solidify SD and HSSE excellence in PETRONAS. The Council meets on a quarterly basis, or more often if required, while established Working Groups will hold meetings and report progress to the Council.

Purpose	Roles and Responsibilities	Composition
To steer the development and implementation of SD and HSSE within PETRONAS to meet the expectations of key stakeholders where the company operates.	Steer the development/review and the endorsement of HSSE Policy, Sustainability-related Statements and associated Guidelines, including strategies for implementation, measures and reporting.	The Chairman of the Council is appointed by the President and Group CEO. The Council members are appointed by the Chairman of the Council.
To facilitate the integration of the SD and HSSE focus areas to drive implementation that is aligned with the PETRONAS Statement of Purpose, and to ensure value and impact of deliverables.	Provide guidance to drive effective SD and HSSE implementation.	The composition of the Council comprises an appropriate balance of representation from relevant key functions that support the implementation of sustainability efforts in the Businesses and Holding Company Units. The Council may be subject to review by Group Health, Safety, Security and Environment as and when required.
	Deliberate and endorse PETRONAS' SD and HSSE performance scorecards, including progress of supporting key initiatives.	
To update and/or make recommendations to the PETRONAS HSSE Executive Leadership Team (ELT) on the progress of impactful sustainability initiatives across PETRONAS that deliver any one or more of the SDGs.	Keep abreast of current and emerging sustainability issues resulting in reputational risks to PETRONAS, and guide resolutions. The issues may not be limited to stakeholders' concerns.	
	Oversee the disclosure of our performance under the sustainability materiality elements and long-term targets in PETRONAS corporate reports.	
	Report to HSSE ELT on key endorsements made, and recommend for continuous improvements.	
	Shape SD and HSSE culture in PETRONAS.	

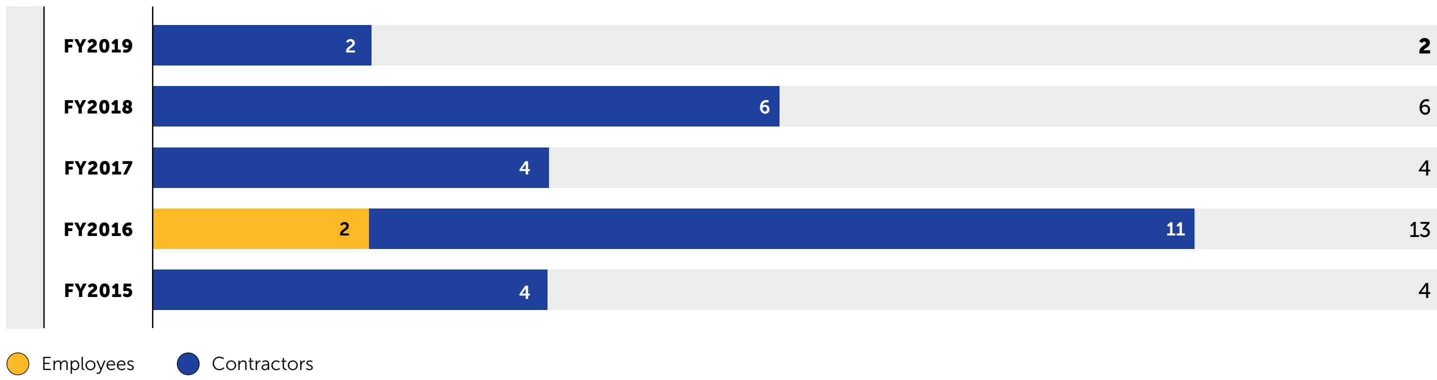
To know more about our sustainability performance, please turn to the next page to refer to our Five-Year Sustainability Performance Data.

Five-Year Sustainability Performance Data

Five-Year Sustainability Performance Data

SAFETY

Number of Fatalities



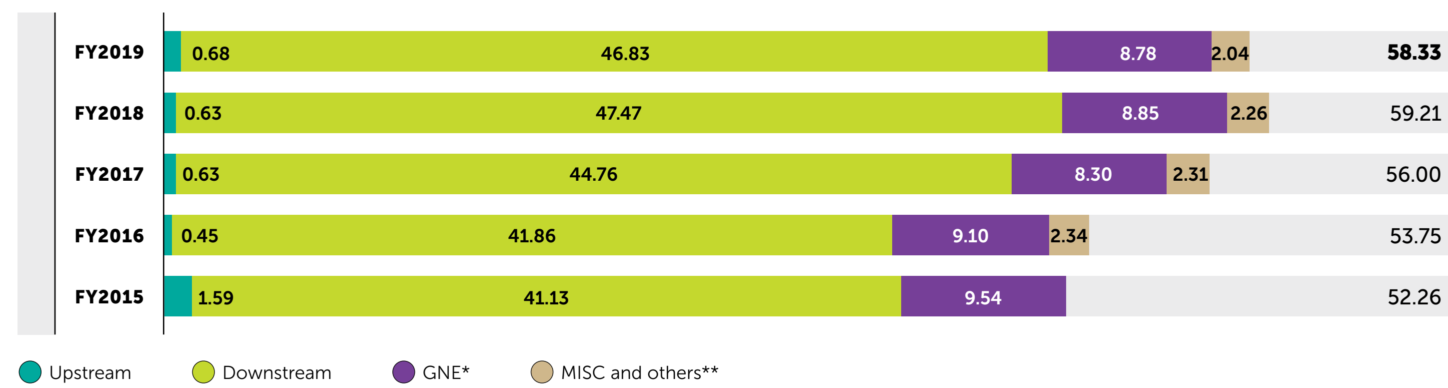
	2015	2016	2017	2018	2019
Fatal Accident Rate (FAR) Reportable fatalities per 100 million man-hours	1.02	3.53	0.93	1.29	**0.56**
Lost Time Injury Frequency (LTIF) Number of cases per one million man-hours	0.20	0.26	0.17	0.09	**0.11**
Total Reportable Case Frequency (TRCF) Number of cases per one million man-hours	0.63	0.57	0.53	0.38	**0.35**
Number of Tier 1 Process Safety Events Number of cases	15	12	12	8	**7**
Total Recordable Occupational Illness Frequency (TROIF) Illness per million working hours - employees	0.33	0.32	0.08	0.22	**0.08**

ENVIRONMENT

Total Greenhouse Gas Emissions
(GHG Emissions (million tCO_2e))

Note:
RAPID, MISC and KLCCH emissions are not included

Total Freshwater Withdrawal
(million cubic metres per year)



Note:
The updated total freshwater withdrawal numbers for 2016 and 2018 are due to internal data validation.
* Newly established unit that was fully operationalised in 2019
** Selected non-oil and gas-related operations

	2015	2016	2017	2018	2019
Total amount of energy generated from PETRONAS solar PV installations MWh	15,201	14,449	13,627	14,039	**13,973**
Discharges to water metric tonnes of hydrocarbon	680	534	591	715	**634**
Number of hydrocarbon spills to the environment over one barrel Number of cases	25	27	18	7	**7**

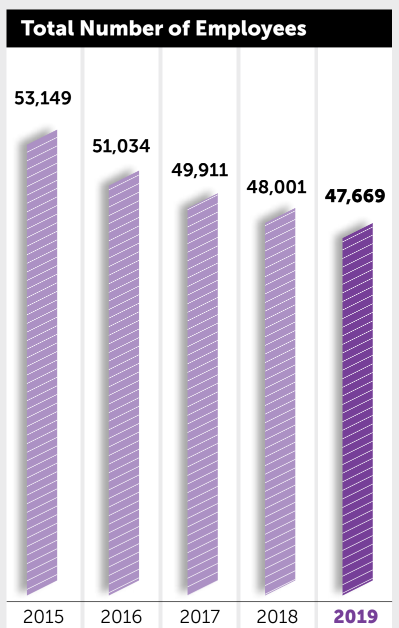
Note:
One barrel is equivalent to 159 litres.

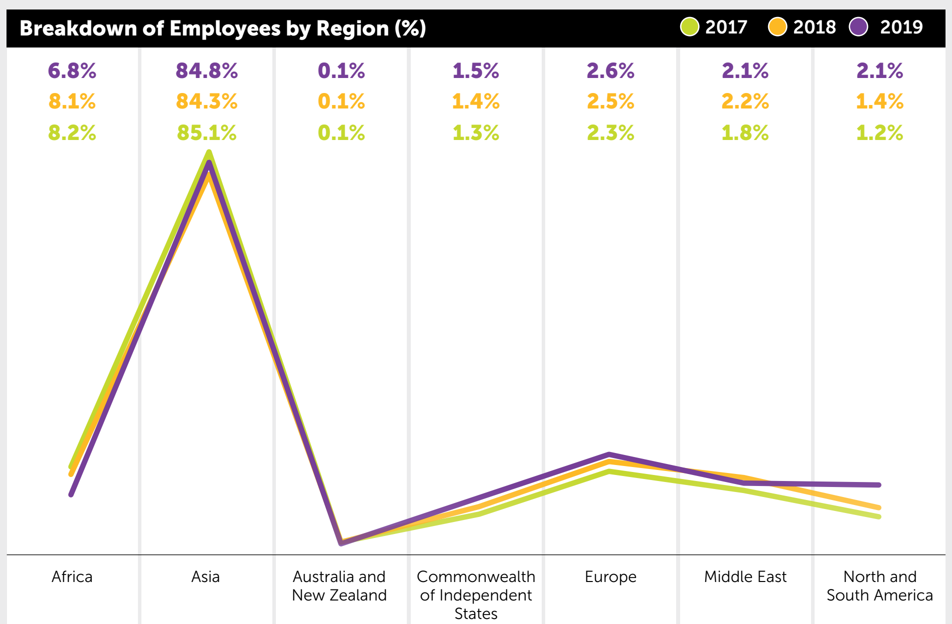
Five-Year Sustainability Performance Data

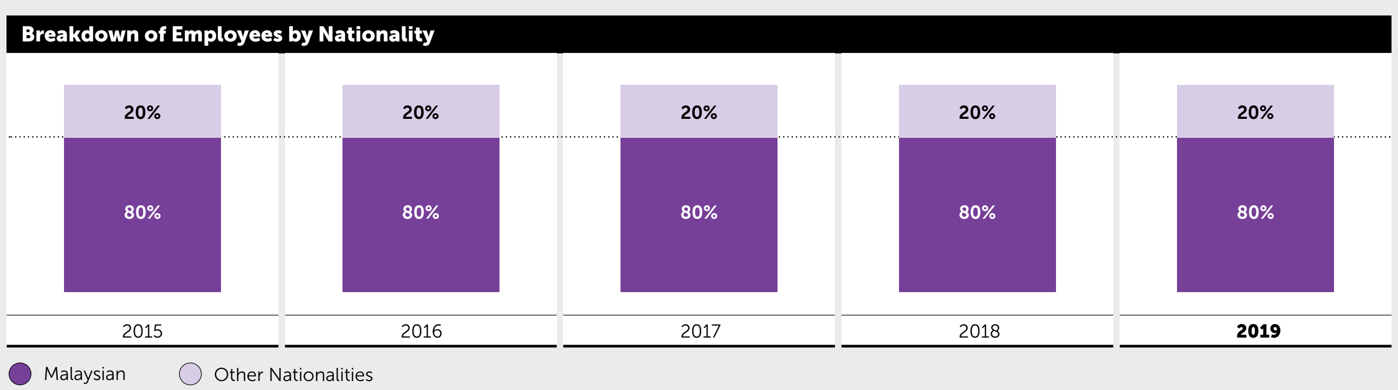
	2015	2016	2017	2018	2019
Total sulphur oxides emissions metric tonnes	86,814	72,134	87,917	113,256	**93,948**
Total nitrogen oxides emissions metric tonnes	154,128	168,954	159,498	151,519	**151,445**
Total hazardous waste disposed metric tonnes	29,280	32,355	19,755	34,688	**42,742**

Note:
The updated total sulphur oxides emissions for 2018 was due to internal data validation.

OUR WORKFORCE







Five-Year Sustainability Performance Data

	2015	2016	2017	2018	2019
Employment Type (%)					
Permanent	83	85	85	87	**88**
Contract	17	15	15	13	**12**
Gender Distribution (%)					
Male	72	72	72	73	**73**
Female	28	28	28	27	**27**
Number of Groupwide Technical Expertise					
Technical Authorities (TA)	499	325	499	577	**240**
Technical Professionals (TP)	825	815	860	941	**1,028**
Technical Trade Specialists (TTS)	297	198	206	225	**240**
Employees Above and Below Age of 35 (%)					
Above 35	47	46	46	49	**52**
Below 35	53	54	54	51	**48**
Total Number of New Hires (Core Businesses in Malaysia)	4,078	2,932	2,409	2,512	**3,498**
Malaysian	3,781	2,667	1,982	2,098	**2,989**
Other Nationals	297	265	427	414	**509**
Women in Technical Positions (%)	14	12	14	13	**14**
Attrition Rate (%)	5.9	7.3	5.8	6.5	**5.5**
Male	5.5	7.1	5.4	6.2	**3.7**
Female	7.0	8.0	6.8	7.3	**1.8**
Number of PETRONAS Scholars Recruited	351	365	337	262	**206**
Recruited by PETRONAS (%)	51	50	48	63	**67**
Recruited by Others (%)	49	50	52	37	**33**
Number of Scholarships Awarded to Malaysians	326	375	387	329	**399**
International Universities (%)	42	38	45	49	**46**
Malaysian Universities (%)	58	62	55	51	**54**
Number of Sponsored Non-Malaysians					
UTP, Malaysia	191	147	118	88	**78**
Number of Unionised Employees	9,651	8,616	8,796	9,949	**8,420**

This Report is Framed on Our Material Topics

This Report is Framed on Our Material Topics

PETRONAS' material topics are derived from periodic materiality assessments to drive relevance and provide meaningful impact in responding to the changing global environment. These topics are obtained through exhaustive inputs and verification by PETRONAS subject matter experts and stakeholders. As we began our Integrated Reporting journey in 2019, the Group undertook a revalidation exercise against our peers and found that our current material topics remain relevant and valid to address the overall industry risk, energy transition and stakeholders' expectations.

Moving forward, we have prioritised seven United Nations Sustainable Development Goals (SDGs) to drive the expectations of our Statement of Purpose. The commitment to implement these expectations is guided by the four lenses of our Sustainability Agenda, and will be measured and monitored against the relevant metrics and targets.

Material Topic	Material Matter	Impact	SDGs	Our Action	Stakeholders
Governance and Ethics Upholding the organisation's integrity and trustworthiness, while delivering value through strong governance mechanisms and ethical business practices. We are committed to a zero-tolerance policy towards all forms of bribery and corruption and will conduct our business in an ethical and compliant manner.	Good Governance	Reputation	8, 16	We are governed by strong frameworks and policies that uphold good governance. These are aimed at maintaining a robust integrity and compliance culture, with zero tolerance towards all forms of bribery and corruption, further supported by a whistleblowing policy. PETRONAS has also signed the Corruption-Free Pledge (CFP) to strengthen our resolve towards becoming a graft-free organisation and was one of the first companies in Malaysia to obtain the ISO 37001: Anti-Bribery Management System certification.	• Business Partners, Suppliers and Service Providers • Industry Associations and Non-Governmental Organisations • Customers and Consumers • Local Communities • Employees and Trade Unions • Media • Host Governments and Regulatory Authorities • Shareholders, Financial Institutions, Bondholders and Investors
	Compliance	Reputation			
Safety The safety of our employees is of paramount concern and we remain dedicated in ensuring there is no loss of life, while mitigating the possibility of injuries. Ensuring our facilities, products and services are in accordance with all legal requirements and the industry's best practices is important to us, as this will safeguard the health, safety and well-being of our employees, contractors and communities, as well as the environment.	Personal Safety	People, Reputation	3, 8	Our pervasive Group Health, Safety, Security and Environment (GHSSE) culture is supported by proactive and comprehensive policies, frameworks and initiatives. We are intensively leveraging digital technology to drive our initiatives, with a recent system implementation that has helped us manage the fatigue levels of our transport drivers.	
	Process Safety	People, Environment, Asset, Reputation		We are focused on safety through sustained vigilance, early prevention and mitigation. The deployments of the Process Safety Loss of Primary Containment Reduction (PSLR) and Fire Prevention and Mitigation Framework (FPMF) ensure a structured approach in managing process safety events.	
	Crisis and Incident Management	People, Environment, Asset, Reputation		We are optimally prepared to address any emergency or crisis that may affect the people on our assets. We conduct drills to gauge overall preparedness, carry out analyses of our evacuation procedures and have implemented a new Headcount Management System that uses radio-frequency identification (RFID).	
	Security	People, Asset, Reputation		We proactively address physical and digital security preparedness against emerging technical, regulatory and societal challenges and ensure that it is carried out in a safe, secure and environmentally sound manner. Some of our initiatives included security risk assessments of our operations, an asset classification exercise to enforce stricter compliance level with the PETRONAS Mandatory Minimum Security Standards and stakeholder engagement to improve our overall knowledge and responses to security risks.	

This Report is Framed on Our Material Topics

This Report is Framed on Our Material Topics

Material Topic	Material Matter	Impact	SDGs	Our Action	Stakeholders
Climate Change and Environmental Management We recognise the importance of our role as a player in the global energy sector to balance the issue of climate change with the challenge to sustainably produce affordable and reliable energy. It is also important for us to drive optimum use of hydrocarbons and water in our operations, embrace energy transition and support host countries in meeting their pledges to the Paris Agreement.	Climate Change	Environment, Reputation	7, 9, 12, 13	The PETRONAS Climate Change Position and PETRONAS Carbon Commitments articulate our approach in addressing climate change, guiding us towards low-carbon energy solutions such as LNG and renewable energy, and include finding ways to mitigate emissions or to create value from them. The Group also supports host countries' Nationally Determined Contributions and other global agreements to maintain and enhance our reputation as a responsible energy company.	• Business Partners, Suppliers and Service Providers • Industry Associations and Non-Governmental Organisations • Customers and Consumers • Local Communities • Employees and Trade Unions • Media • Host Governments and Regulatory Authorities • Shareholders, Financial Institutions, Bondholders and Investors
	Environmental Management	People, Environment, Reputation	9, 12, 13, 14, 15	The Group is constantly working to improve operational excellence and processes to reduce our impact on the environment. While much effort is expended in complying with standards and regulations, the Group also fully supports self-regulation to strengthen our compliance with environmental laws. We achieve this by having and adhering to internal standards to manage our emissions, wastewater, hazardous waste and use of other natural resources.	
	Biodiversity and Ecosystem Services	Environment, Reputation	12, 14, 15	We minimise and prevent disruptions to biodiversity and ecosystem services as this will have detrimental outcomes on the economy and the wider community. It is a natural response from PETRONAS to restore and nurture the ecosystems around us while we operate our assets, especially in the context of decommissioning and abandonment.	
Health, Wellness and Workplace Creating a healthy and productive working environment, while equipping our workforce with the relevant skills and a determined mindset is important to PETRONAS. Best practices in these areas enable us to deliver sustainable value and create a dedicated, productive and high-performing workforce.	Health and Wellness	People, Reputation	3	The health and wellness of our employees and contractors are important for us, and we have gone beyond merely complying with health regulations to ensure we maintain the best levels of health and well-being. To this end, we continue to work hard to address health risk factors such as physical inactivity, unhealthy diet, inadequate sleep, mental health and unhealthy habits that can cause health issues.	
	Human Capital	People, Reputation	4, 8	It is our aim to accelerate the development of our employees and to strengthen leadership capabilities to progress into leading roles. Through a variety of comprehensive and robust talent development and management programmes, we are building a strong talent pool to address succession planning, a key component for business sustainability. Talent development will always be a key agenda for PETRONAS, with an emphasis on leadership and functional competencies across disciplines.	
Product Stewardship and Supply Chain Effective supply chain management creates long-term returns in investment while increasing our competitiveness. To support this from beginning to end, we have also realised the importance of implementing a robust structure to ensure a sustainable vendor chain and product safety across the entire life cycle of our products.	Product Stewardship	People, Environment, Reputation	8, 9, 12	We are focused on the long-term value creation opportunities generated through responsible product stewardship. As consumer demand for more green products grows, it becomes critical that Life Cycle Assessments are carried out by the Group on all its products, as they are able to determine the product's social, economic and ecological impact at different life cycle stages, hence meeting an important stakeholder need.	
	Supply Chain	People, Reputation	8, 9	PETRONAS is committed to managing its supply chain to extract optimal value, while also playing a leading role in supporting vendors in the energy sector. Annually, we prepare the PETRONAS Activity Outlook to provide local OGSE players with a two-year guide on where the industry is heading. In practical terms, we enable access to financing for small companies in our sector and we implement a special vendor development programme to strengthen local contractors in the energy sector, to name a few. This illustrates our role in ensuring Malaysia's energy sector remains resilient and robust.	
Social Responsibility The fair and ethical treatment of the communities around us and those who perform work for our business are important concerns for PETRONAS. We respect internationally recognised human rights in the context of our operations and how we interact with all other stakeholders. Investing in sustainable initiatives is in line with our purpose to contribute to the well-being of society, the environment and to uphold our position as a socially responsible organisation.	Human Rights	People, Reputation	5, 8, 10, 16	We support human rights resolutely and we have implemented measures to positively manage our social performance in our business activities. PETRONAS is guided by its Human Rights Commitment, which was introduced in 2015, and have assessed our supply chain in 2019 to ensure that it is aligned with our labour and human rights practices.	
	Corporate Social Responsibility	People, Environment, Reputation	1, 2, 3, 4, 6, 8, 11, 13, 14, 15, 17	Yayasan PETRONAS is the corporate social responsibility (CSR) arm of PETRONAS with the mission to contribute to the well-being of society. This foundation executes all of the Group's CSR programmes, focused on three main areas - Education, Community Well-Being and Development, and Environment. PETRONAS takes pride in contributing to the growth of the society in a sustainable environment for the long-term.	

Letter from the Chairman

A Solid Foundation for the Future

DATUK AHMAD NIZAM SALLEH
Chairman

Letter from the Chairman

The global oil and gas industry faces an immediate headwind with the sharp decline in global oil prices driven by persistent supply overhang and pandemic-driven demand disruption. We will have to brace ourselves for unprecedented times, as the severe ripple effects of the COVID-19 pandemic will likely lead to a severe global economic slowdown in the coming months.

Dear Stakeholders,

As I pen this message, the world is grappling with the COVID-19 pandemic, an event which is both unpredictable and unforeseen, but with implications far beyond what is normally expected and potentially, with severe consequences. The global oil and gas industry faces an immediate headwind with the sharp decline in global oil prices driven by persistent supply overhang and pandemic-driven demand disruption. We will have to brace ourselves for unprecedented times, as the severe ripple effects of the COVID-19 pandemic will likely lead to a severe global economic slowdown in the coming months.

The long-term impact of the COVID-19 pandemic may eventually redefine markets and result in structural shifts. As such, organisations including PETRONAS must remain agile to survive and thrive in a new age and a new decade, that will be signified by greater market turbulence.

On behalf of the Board of Directors of PETRONAS Group, I am pleased to present the Annual Report of PETRONAS Group for the financial year ending 31 December 2019.

PETRONAS is embarking on its journey into Integrated Reporting with this report. Prepared in accordance with the International Integrated Reporting Council Framework, it provides an overview of PETRONAS Group's performance in 2019, from both financial and non-financial perspectives.

Letter from the Chairman

NAVIGATING A VOLATILE EXTERNAL ENVIRONMENT

The year under review was yet another highly challenging year for us as we continue to strive to create value amid increasingly difficult macroeconomic and geopolitical environments.

The global economy moderated to below 3 per cent in 2019, the weakest pace of growth since 2009. The sluggish global growth has dampened oil demand - amid a buildup in global supply, leading to the worsening glut in the oil markets and resulting in the plunge of Brent from an average of USD71 per barrel in 2018 to USD64 per barrel in 2019.

As a Group, we were impacted by the lower average realised oil prices with revenue decreasing by 4 per cent year-on-year to RM240.3 billion. Similarly, net profit fell by 27 per cent to RM40.5 billion for the same period.

Despite the bearish environment, I am pleased to inform that PETRONAS has returned over RM84.6 billion in the form of dividends, taxes, cash payments and export duty to the Federal and State Governments of Malaysia, a testimony of PETRONAS' role as a responsible Corporate Citizen.

STRENGTHENING CULTURE OF INTEGRITY AND TRUST

At PETRONAS, our strong emphasis on individual and organisational integrity not only reflects our commitment to discharging our obligations as a trustee of the nation's oil and gas resources, but also helps to ensure our long-term growth and sustainability. In this regard, PETRONAS is among the first in Malaysia to be certified with ISO 37001: Anti Bribery Management System back in November 2017.

PETRONAS continues to strengthen the culture of integrity by embarking on the Corporate Integrity Advocacy Programme (CIAP) with the theme of "Corporate Liability", to address changes in the corporate integrity landscape following the introduction of the corporate liability clause in the Malaysian Anti-Corruption Commission (Amendment) Act 2018. A major achievement in our integrity journey in 2019 was when 164 PETRONAS Top Leaders took the PETRONAS Integrity Pledge, signifying PETRONAS' continuous commitment in upholding high standards of governance and in combating any form of corruption within the organisation.

Communications on the culture of integrity is also an important pillar in PETRONAS' integrity journey. In 2019, PETRONAS conducted 64 integrity-related education and communication activities, for its internal and external stakeholders, locally and abroad, to cement a sustainable culture of integrity in the Group's day-to-day operations.

I would like to take this opportunity to remind myself and members of the PETRONAS family that we hold the nation's hydrocarbon resources in trust and we share the accountability to ensure its well-being, while we harness its potential for the benefit of the people and the nation.

SUSTAINABILITY, A WAY OF LIFE

PETRONAS subscribes to the philosophy of conducting business in a socially responsible and holistic manner for long-term growth and sustainability. While responding to society's growing demand for energy, we work in the best possible way to balance and integrate economic, environmental and social considerations into our business decisions.

In 2019, PETRONAS crafted its Sustainability Agenda aimed at providing focus and to better orchestrate the implementation of sustainable development elements in our business practices. Our Sustainability Agenda describes clearly four Lenses of Sustainability that embrace the importance of Environment, Social and Governance (ESG). The four lenses are Continued Value Creation; Safeguard the Environment; Positive Social Impact and Responsible Governance.

These four lenses are a reflection of PETRONAS' commitment to a solid long-term value creation that incorporates prudent ESG risk mitigations. Moving forward, our aim is to minimise the impact of our own footprint, while developing and delivering climate-friendly strategies and solutions. We do so because we are driven by our commitment to enrich lives for a sustainable future.

CONTRIBUTING TO THE WELL-BEING OF SOCIETY

PETRONAS defines achievement not just within the narrow confines of business growth and financial returns, but also in how we enrich the lives of the people, wherever we operate. PETRONAS' corporate social responsibility efforts are steered and managed by its foundation, Yayasan PETRONAS. With the narrative "Where Good Flourishes" as a beacon, Yayasan PETRONAS is committed to ensuring that PETRONAS' community efforts deliver value in order to achieve sustainable and scalable impacts.

Yayasan PETRONAS recognise that Science, Technology, Engineering and Mathematics (STEM) are crucial in propelling the country towards becoming an advanced nation. In view of this, "Program Duta Guru" was launched with the objective to upskill 4,500 teachers to enhance Higher Order Thinking Skills in STEM, as a foundation to improve our nation's competitiveness.

Letter from the Chairman

We believe that social progress should be inclusive and that we must provide access to a better quality of life for more Malaysians. Yayasan PETRONAS has embarked on MEKAR (*Memampankan Ekonomi Rakyat*) targeting the B40 households with the objective of increasing their income by more than 50 per cent. We hope that over 3,000 households will benefit from the various entrepreneurial upskilling programmes under MEKAR and this in a small way will help to reduce incidence of poverty in the country.

LOOKING AHEAD TO 2020

As we look ahead to 2020, the year is expected to be fraught with numerous challenges arising from the COVID-19 outbreak. The pandemic has plunged many nations into a new dimension of social, economic and commercial aftershocks. Although the oil and gas industry is accustomed to volatility and shocks, there is no precedent in recent history in dealing with the demand contraction resulting from the new global crisis. The year ahead is seriously uncharted. We must have faith to ride out the storm together as one team, one PETRONAS family, while supporting the nation's economic recovery.

> The year ahead is seriously uncharted. We must have faith to ride out the storm together as one team, one PETRONAS family, while supporting the nation's economic recovery.

The challenge we face in this unfamiliar territory will require us to be more agile and to build the capabilities needed to succeed. The introduction of our Statement of Purpose –

"A Progressive Energy and Solutions Partner Enriching Lives for a Sustainable Future"

not only serves as a response to the major changes as an integrated energy company, but to ensure PETRONAS' long-term sustainability as we transition to a lower carbon future as well as to remain resilient amid the volatile environment.

CHANGES TO THE BOARD

2019 is also a year that we bid farewell to our directors namely Tan Sri Amirsham Abdul Aziz, Tan Sri Muhammad Ibrahim, Dato' Mohamad Idris Mansor, Datuk Siti Zauyah Md Desa and Mr Harry Menon. On behalf of the Board, I would like to express my sincere thanks and appreciation for their contribution, and I would like to wish them all the very best in their future endeavours.

I would like to extend a warm welcome to our new Board members namely, Tan Sri Mohd Bakke Salleh and Encik Ahmad Faris Rabidin. These new additions to the Board collectively bring diversity of perspectives and wealth of commercial experience that will be crucial to PETRONAS in this trying period.

APPRECIATION

On behalf of the Board of Directors, I would like to express my heartfelt appreciation to Tan Sri Wan Zulkiflee Wan Ariffin, President and Group Chief Executive Officer of PETRONAS, his Leadership Team, and certainly the entire PETRONAS family for their hard work, loyalty and dedication in delivering credible performance amid the challenging economic environment.

I wish to record my warmest appreciation to our stakeholders, particularly our customers and partners for their continued support and trust in PETRONAS.

I would also like to take this opportunity to extend my gratitude to the Government of Malaysia, the State Governments and the Governments of PETRONAS' host countries for their support, as well as to the members of the Board of Directors for their wise counsel and guidance.

Letter from the President and Group Chief Executive Officer

Letter from the President and Group Chief Executive Officer

We are Delivering on Our Strategy

TAN SRI WAN ZULKIFLEE WAN ARIFFIN

President and Group Chief Executive Officer

Amid all these challenges, PETRONAS has shown strong resilience as reflected in our operational and financial performance for the year 2019. Our progress and achievements in pursuing our Three-Pronged Growth Strategy demonstrate our perseverance and robustness as an integrated energy company against a challenging business landscape.

We were steadfast in executing our strategies and sustaining our operational efficiencies while maintaining fiscal discipline. Above all, we are committed in delivering long-term value to our stakeholders by fulfilling the *Amanah* and responsibility as a progressive energy and solutions partner enriching lives for a sustainable future.

RESILIENCE AMID CHALLENGING MARKET CONDITIONS

The year 2019 was a challenging year for the industry. The global oil market was volatile as geopolitical instability, rising populism and protectionism dominated headlines throughout the year. The end of the year also saw the beginning of the COVID-19 health crisis, which has since then grown into a global pandemic, causing instabilities to economies and countries around the world.

Despite these market challenges, PETRONAS delivered a commendable performance in 2019, with a revenue of RM240.3 billion and Profit After Tax (PAT) of RM40.5 billion recorded. The lower oil price environment during the year under review contributed to the downward movement in revenue and PAT by 4 per cent and 27 per cent respectively, compared with 2018. Excluding the impact of impairment, PAT stands at RM47.8 billion, which was a 6 per cent decrease from 2018.

PETRONAS also stayed the course with our Three-Pronged Growth Strategy with prudent measures in operational efficiencies and commercial excellence. Cash Flow From Operations (CFFO) improved for the third consecutive year to RM90.8 billion, up 5 per cent from 2018 and Free Cash Flow (FCF) recorded a 9 per cent increase to RM43.0 billion in 2019. Capital Investment for 2019 amounted to RM47.8 billion, close to our capital expenditure (CAPEX) guidance of RM50 billion per year.

Overall, PETRONAS' financial foundation remains robust with a healthy cash balance and a strong credit rating.

Letter from the President and Group Chief Executive Officer

I am also pleased to share that PETRONAS paid RM54 billion in dividends to the Malaysian Government in 2019, which includes the RM30 billion special dividend declared in 2018. In fulfilling our responsibility to the nation, our contributions also extend to the National Trust Fund, which as at 31 December 2019, stands at RM19.2 billion. PETRONAS remains as its sole contributor since the inception of the Fund in 1988.

COMMITMENT TO HEALTH, SAFETY, SECURITY AND ENVIRONMENT

I am encouraged to report that PETRONAS continued to demonstrate a positive trend in our Health, Safety, Security and Environment (HSSE) performance. With 360 million man-hours recorded in 2019, we succeeded to reduce our fatal accident rate (FAR) to its lowest at 0.56 and achieved our lowest major loss of primary containment (LOPC) of eight in the past ten years.

We will strive to deliver our best in ensuring a safe working environment through a strong generative HSSE culture, as there is still so much more that we need to do to ensure everyone goes home safely. This includes our commitment towards continuous enhancements and improvements in safety compliance by utilising Artificial Intelligence (AI) and big data analytics to improve safety and HSSE competencies.

FOCUSED EXECUTION OF PETRONAS' THREE-PRONGED GROWTH STRATEGY

In 2019, we marked the 45th anniversary of PETRONAS with the introduction of a new Statement of Purpose – "A progressive energy and solutions partner enriching lives for a sustainable future", to reflect the dynamic growth and aspiration that will take us into the next chapter of PETRONAS' journey.

As we evolve beyond our traditional portfolio of oil and gas into the broader energy space, we established the Gas and New Energy business in April 2019 to enable the company to play a greater role in cleaner energy and innovation by championing advocacy and energy solutions encompassing LNG, gas and power as well as renewable energy.

By leveraging on our capabilities across the entire value chain, with renewable energy as an addition to our integrated portfolio, we strive towards finding the equilibrium of providing energy in a secure, affordable and sustainable manner that would help us navigate the energy transition towards a lower-carbon future.

Overall, the Group was steadfast in delivering significant results for the year under review.

We strengthened our resource base under **Maximising Cash Generators** with the awarding of six new Production Sharing Contracts (PSCs) in Malaysia and the acquisition of three international offshore blocks of which two are in Egypt and one in Indonesia.

On the LNG front, we stepped up our efforts in providing a new supply source of cleaner energy. I am pleased to share that we completed the construction of our second floating LNG facility, PFLNG DUA in the fourth quarter of 2019. The facility is now undergoing installation activities in the Rotan Gas Field, offshore Sabah. Once operational, PFLNG DUA will join the ranks of PFLNG SATU as innovative technology solutions capable of unlocking the greater availability of natural gas from remote, marginal and stranded gas fields. PFLNG DUA will expand PETRONAS' global LNG portfolio to meet the energy requirements for a low carbon future.

- Recorded a higher production volume of **2.4 million boe/d**
- Awarded **6 new Petroleum Sharing Contract (PSC)** in Malaysia
- Acquired **3** offshore blocks:
  - **2 Egypt**
  - **1 Indonesia**
- **Completed** the construction of our **second floating LNG facility - PFLNG DUA**

We pursued growth opportunities under **Expanding Core Business** and grew our presence with the acquisition of seven offshore blocks, two blocks in Gabon and three new exploration, as well as two producing blocks in Brazil. Domestically, the Pengerang Integrated Complex (PIC) is ready to deliver its products to the market. In September 2019, cargoes of Euro 5 Diesel and Jet Fuel achieved its first lifting, while the petrochemical complex saw on-spec Polypropylene (PP), Linear Low-density Polyethylene (LLDPE) and Ethylene Glycols (EG) shipped from its terminal in Pengerang.

- Successfully acquired **7** offshore blocks:
  - **2 Gabon**
  - **5 Brazil**
- **Pengerang Integrated Complex** is now ready to deliver its products to the market

We made significant progress in renewable energy and specialty chemicals as part of our **Stepping Out** strategy. PETRONAS is primed to pursue domestic and international market share in renewable energy particularly in the solar energy space through our acquisition of Amplus Energy Solutions Pte Ltd (M+). We also completed the acquisition of Da Vinci Group to grow in the silicones business, as part of our foray into specialty chemicals.

- Acquisition of **Amplus Energy Solutions Pte Ltd (M+)**
- Acquisition of **Da Vinci Group B.V.**

Driven by our commitment for excellence in business delivery, 93 per cent of our capital projects have successfully completed On Time, On Budget and On Scope, competitively and safely. Today, PETRONAS ranks as best-in-class for delivery of offshore facilities projects and consistently performs in the Top Quartile of the industry benchmark.

As we gear towards the next phase of growth, we see technology as an important enabler for us to increase greater value across our integrated value chain. We have accelerated our digital efforts towards shaping new ways to capture more opportunities for our molecules, with improvements in customer experience and influencing how services, products and solutions are designed, developed and delivered. Among these efforts, include our Digital Procurement platform, increased focus on Cyber Security and the launch of Setel – PETRONAS' first e-payment app that integrates directly to the pumps, allowing drivers to purchase fuel from the comfort of their vehicles. As at December 2019, Setel has garnered more than 500,000 subscribers.

PETRONAS SUSTAINABILITY AGENDA

On the sustainability front, we recognise our role in providing access to reliable and secure energy for economic development and growth, underpinned by environmental sustainability. In this stride, we introduced the PETRONAS Sustainability Agenda in 2019, which outlines our commitment to conduct our business in a manner that delivers long-term benefits defined under the four lenses of the sustainability agenda: Continued Value Creation, Safeguard the Environment, Positive Social Impact and Responsible Governance.

In July 2019, we hosted the Malaysia Energy Roundtable in collaboration with the World Economic Forum (WEF), which ranked the country's energy security and accessibility as among the top 20 of the 115 countries surveyed in its 2019 Energy Transition Index. This is attributable to our high electrification rate, low usage of solid fuels, diverse fuel mix and high quality of electricity supply. However, improvements are still required to reduce Malaysia's carbon emissions. The forum aimed to facilitate a public-private dialogue on the future of Malaysia's energy landscape, and to foster an effective energy transition while balancing the priorities of energy security, economic growth, and environmental sustainability.

As we continue to ensure the energy security of Malaysia, PETRONAS has pledged to reduce its greenhouse gas (GHG) emission to 49.5 million tonnes of CO_2 equivalent by 2024 as part of our efforts to support Malaysia's National Determined Contribution (NDC) to the Paris Agreement. In addition, PETRONAS will continue to drive operational excellence across our integrated businesses that balances the demand for more energy at lower emissions, as well as collaborate with governments and energy-related stakeholders towards shaping forward-looking energy policies that will contribute towards the energy transition.

Letter from the President and Group Chief Executive Officer

Letter from the President and Group Chief Executive Officer

CONTRIBUTION TO NATION-BUILDING EFFORTS

As we grow our presence across more than 50 countries, we have never lost sight of our responsibility to the nation. We continue to carry out our *Amanah* that entrusts PETRONAS with developing and maximising the value of the nation's hydrocarbon resources towards supporting the growth and prosperity of Malaysia.

In 2019, PETRONAS contributed more than RM285 million through various corporate social responsibility (CSR) initiatives and programmes in Education, Community Well-Being and Development, and Environment.

These efforts will continue under Yayasan PETRONAS, the philanthropic foundation of our company since its launch in March 2019. I am confident that the foundation will deliver on this long-term commitment and create positive social impact for all Malaysians.

Our commitment to the nation also includes shaping the Malaysian oil and gas sector into a robust and competitive industry. Here, our collaboration with local oil and gas services and equipment (OGSE) players focuses on nurturing and developing their resiliency by providing the necessary enablers with the support of industry partners and agencies. I am encouraged by the developments achieved for the industry's ecosystem in 2019:

- 108 Bumiputera vendors were nurtured under the *Vendor Development Programme (VDP)*, with approximately RM9 billion worth of contracts awarded in 2019. *VDPˣ*, the enhancement of VDP launched in May 2018 has grown its ecosystem to 47 anchor companies to date.
- The *Access to Financing* programme held in partnership with nine local and foreign banks has approved 130 applications with an estimated funding of RM814 million as of December 2019.
- We launched *Program Lestari* and *BeyondHome Programme* in collaboration with government agencies as platforms to support Malaysian OGSE in addressing industry challenges and develop capabilities to grow their operations abroad.
- We published the fourth edition of the *PETRONAS Activity Outlook* for 2020-2022 in December 2019 to guide local OGSE players in strategising their resources and investment decisions based on the emerging projects and operational requirements for the reported period.

I am also pleased to share that in 2019, we launched PETRONAS FutureTech, a first-of-its-kind initiative by the company to nurture the tech-driven startup ecosystem in Malaysia. Led by our venture capital arm, local startups enrolled in the programme are provided with the opportunity and support to scale their ventures and be global-ready. Most importantly, as the energy landscape continues to evolve, I believe this initiative will be a stepping-stone for non-traditional partnerships to spur cross-industry sharing of experiences for innovative solutions that can strengthen Malaysia's oil and gas industry to remain competitive and resilient, more so in the increasing challenging and unpredictable business landscape.

Letter from the President and Group Chief Executive Officer

OUR PEOPLE

In rallying our people towards the next chapter of PETRONAS' journey, we launched our new Brand Positioning –

"Passionate about Progress"

which encapsulates the evolution of our internal culture towards inculcating a progressive mindset and openness to new possibilities of new solutions for a better energy future.

As a global company, we operate with a strong foundation of merit and equality, irrespective of gender, age, nationality, ethnicity, educational background or religion. Diversity brings together different strengths and experiences that encourages and motivates talents to deliver with high performance culture. In 2019, PETRONAS received the Randstad Award for Most Attractive Employer in Malaysia and HR Excellence Award for Excellence in Leadership Development for Top Talent Management Strategy.

In developing a future-ready workforce, we invest heavily in building skillsets and capabilities to develop talents who possess the attributes of an "enterprise leader", capable of rising to the challenges that will reshape and redefine the common operating procedures that we know today. While core fundamental skills of oil and gas are still required, we must leverage and expand capabilities in the areas of artificial intelligence, machine learning and data analytics to remain relevant and valuable for an organisation. We have established a Data Science Academy for this purpose.

To date, over 48,000 employees across different nationalities stand united under the same purpose and intent of delivering superior business results for the organisation.

OUTLOOK AND PROSPECTS

Greater uncertainty is shaping the energy industry in 2020 as the dual impact of a COVID-19-driven demand slowdown and oversupply in the oil market continues to unfold. As we release this report, the coronavirus pandemic continues to impact global economic activities with countries around the world imposing national quarantines and lockdowns, causing a sharp fall in global demand.

Further strains in the global economy emerged in early March 2020 following an oil price crash triggered by the collapse of the OPEC+. Dwindling storage capacities have also put further pressure on oil prices, with the historical plunge of WTI prices into negative territory in late April 2020, another indication of market dislocation. While we have recently seen some positive developments following the concerted efforts taken by the OPEC+ towards stabilising oil prices, the energy industry continues to be hard-hit by a combination of demand and supply shocks.

In this period of uncertainty, PETRONAS has taken early measures to safeguard the well-being of our people through the implementation of several proactive steps to manage the risk of exposure and reduce the risk of transmission of the virus. In terms of our businesses, we are ensuring that our operations continue to run safely and efficiently across the value chain.

We will continue to monitor the developments of these external events and strengthen our resiliency as well as future-proof the organisation to preserve our long-term sustainability. Our focus will be on the elements that are within our control which include strengthening our financial position, driving further efficiencies and cost optimisation efforts across the Group. On the back of strong fundamentals and a healthy cash position, PETRONAS aims to sustain the momentum in the execution of our strategies with the objective to future-proof the company.

Above all, PETRONAS remains committed in delivering long-term value to our stakeholders by fulfilling the *Amanah* and our Statement of Purpose as a progressive energy and solutions partner enriching lives for a sustainable future.

ACKNOWLEDGEMENT

The commendable results of PETRONAS' performance in 2019 is a recognition of our people whose tenacity and focus have steered the organisation forward even during this challenging time. Our brand performance has also improved to #120 in Brand Finance's Top 500 Most Valuable Brands List in 2020 and ranks as ASEAN's most valuable brand and Top 10 Most Valuable Oil and Gas Brands in 2020.

My gratitude is also extended to our Chairman, YBhg Datuk Ahmad Nizam Salleh and all members of the PETRONAS Board of Directors for their guidance and stewardship. I would also like to express my utmost appreciation to our shareholders for their support and trust, and to our business partners, vendors and stakeholders for their continued belief in PETRONAS as their preferred energy and solutions partner.

While business is expected to no longer be as usual for PETRONAS, I am confident that we will be able to successfully navigate through this period of uncertainty and emerge as a stronger and more resilient organisation.

Letter from the Executive Vice President and Group Chief Financial Officer

Strong Fundamentals to Withstand Challenges

PETRONAS Group continued to deliver healthy cash flow growth in 2019, despite contending with volatile crude prices, compressed margins and demand disruptions. The results achieved demonstrated the Group's resilience, fiscal discipline and continuing efforts in improving operational excellence.

TENGKU MUHAMMAD TAUFIK
Executive Vice President and Group Chief Financial Officer

Letter from the Executive Vice President and Group Chief Financial Officer

REVIEW OF 2019 FINANCIAL RESULTS

PETRONAS recorded lower revenue of RM240.3 billion in FY2019, a decrease of 4 per cent from FY2018, on the back of lower average realised prices for our major products. This was partially offset by higher sales volumes for petroleum products and LNG as well as the favourable effects of the weakening of Ringgit Malaysia against the US dollar exchange rate.

Our average realised prices were heavily influenced by declining key benchmark prices throughout FY2019. Dated Brent averaged USD64/bbl in FY2019 compared with USD71/bbl in FY2018. This reduction of 10 per cent was largely influenced by robust US crude oil production and weaker global oil demand. The average price for LNG benchmark, namely Japan spot prices, also fell by a staggering 50 per cent to USD6 per million British thermal unit (MMBtu) from USD12/MMBtu a year ago due to oversupply of LNG in the market.

In tandem with our lower revenue, Earnings Before Interest, Tax, Depreciation and Amortisation (EBITDA) fell by 17 per cent to RM96.3 billion in FY2019 from RM116.5 billion in FY2018. The Group's Profit After Tax (PAT) consequently decreased by 27 per cent to RM40.5 billion in FY2019, primarily attributed to lower commodity prices and net impairment on assets.

Despite the softer results, the Group was able to sustain healthy levels of Cash Flow From Operations (CFFO). This key metric increased by 5 per cent to RM90.8 billion, while Free Cash Flow (FCF) saw an increase of 9 per cent to RM43.0 billion from the same period in 2018. This demonstrated the Group's resilience and continuing fiscal discipline and underlined our ability to strike a balance between sustaining the momentum for growth and supporting operational demand. The Group's liquidity position also remained robust, attested by our discipline in fulfilling existing financing commitments arising from external debt obligations while preserving our ability to return value to our shareholders.

Commendable results demonstrated by our integrated value chain also helped to cushion the impact of lower prices and tightening margins.

Operationally, Upstream production volume in 2019 grew to 2.4 million barrels of oil equivalent (boe) per day, an increase of 2 per cent from 2018. This was contributed by higher liquid production from international operations and higher natural gas production in Malaysia.

Total LNG sales volume for the year was 6 per cent higher at 30.6 million metric tonnes as compared with 28.9 million metric tonnes in 2018, mainly attributed to higher production volume from PETRONAS LNG Complex (PLC) in Bintulu.

Downstream recorded an overall petrochemical production volume of 10.4 million metric tonnes during the year. This was delivered on the back of strong plant performance and reliability, with assets recording an Overall Equipment Effectiveness (OEE) of 90.6 per cent across all business segments.

FINANCIAL INDICATORS:

Revenue

2019
RM240.3 billion

2018
RM251.0 billion

(4%)

Decreased on the back of lower prices for major products

PAT

2019
RM40.5 billion

2018
RM55.3 billion

(27%)

Decreased mainly due to lower commodity prices and net impairment on assets, partially offset by lower tax expenses

CFFO

2019
RM90.8 billion

2018
RM86.3 billion

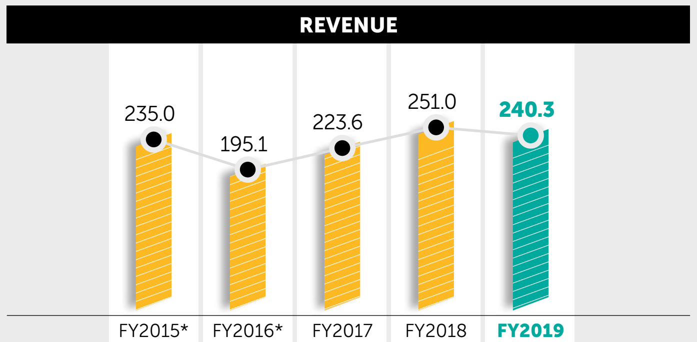
5%

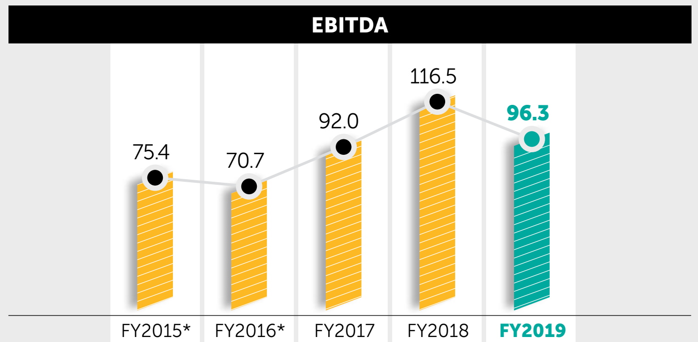
Increased mainly due to effective working capital management

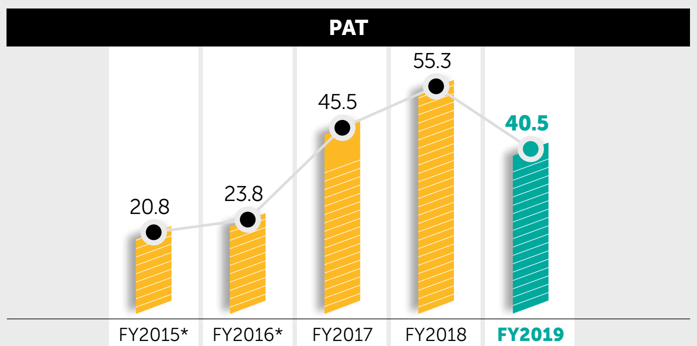
Letter from the Executive Vice President and Group Chief Financial Officer

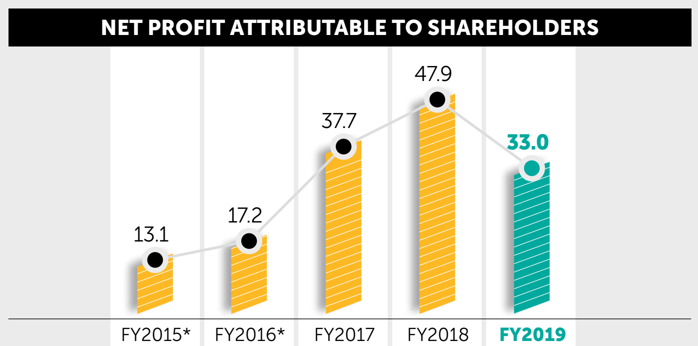
Five-Year Key Financial Indicators

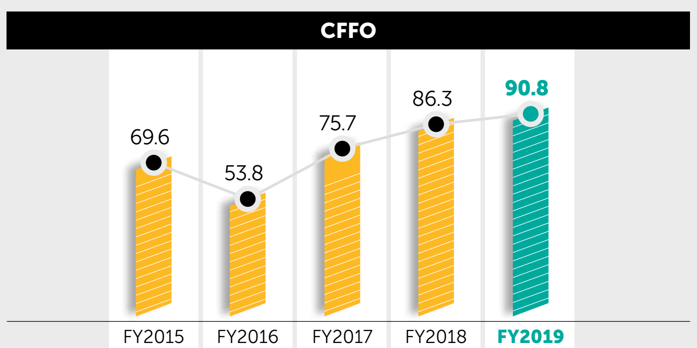
(RM billion)

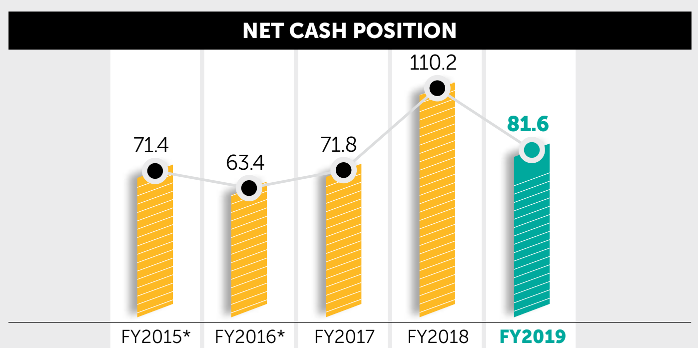


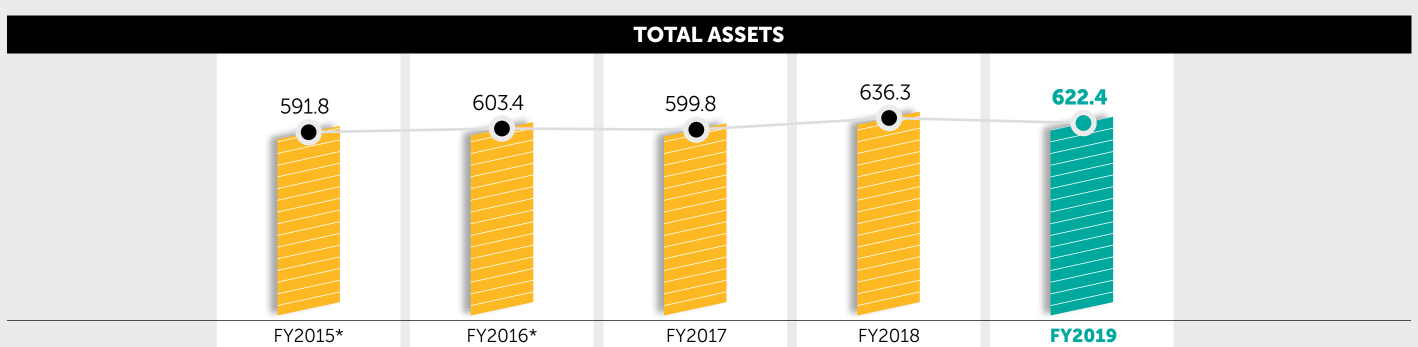












* *Certain financial information and its corresponding financial ratios have been restated due to the change in accounting policies with respect to revenue reporting and inventory valuation for gas trading activities.*

Letter from the Executive Vice President and Group Chief Financial Officer

FINANCIAL POSITION AND LIQUIDITY

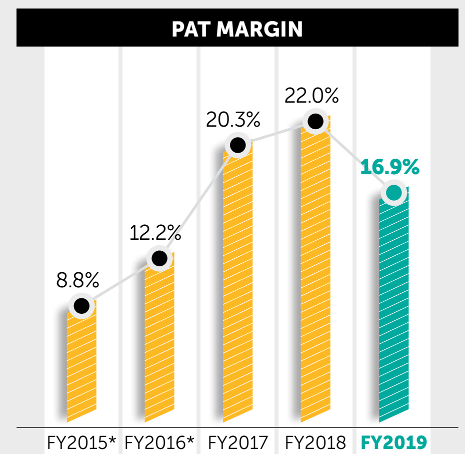
PETRONAS' financial position remained solid, with assets totalling RM622.4 billion as at 31 December 2019. Total assets decreased by RM13.9 billion or 2 per cent from 31 December 2018 due to a decrease in cash, funds and other investments resulting from dividend payments and cash paid on capital expenditures.

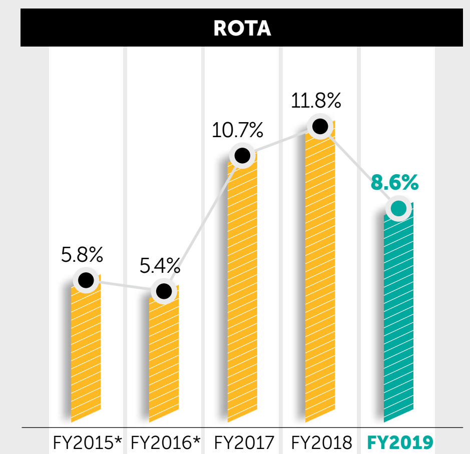
PETRONAS continued to invest in strengthening our business and increasing revenue generation opportunities. In FY2019, our spending on capital investments increased slightly to RM47.8 billion from RM46.9 billion. Of this amount, 52 per cent went to domestic projects, primarily for the Pengerang Integrated Complex (PIC) project in Pengerang, Johor. International capital investments included the Group's acquisition of three new exploration blocks as well as the Tartaruga Verde and Espadarte fields in Brazil. Other international ventures made during the year were the acquisition of Amplus Energy Solutions Pte Ltd (M+) and Da Vinci Group B.V., denoting the Group's entry into the renewable energy

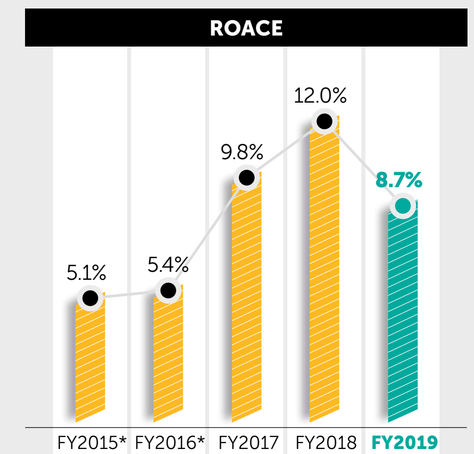
The Group's return on total assets (ROTA) and return on average capital employed (ROACE) for FY2019 decreased to 8.6 per cent and 8.7 per cent, respectively from 11.8 per cent and 12.0 per cent in FY2018 in line with our lower profits. Our gearing ratio decreased to 19.4 per cent from 19.7 per cent in FY2018 mainly due to lower borrowings following the repayment of loans.

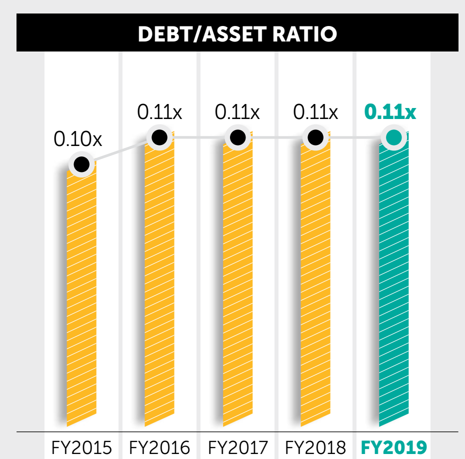
Credit rating

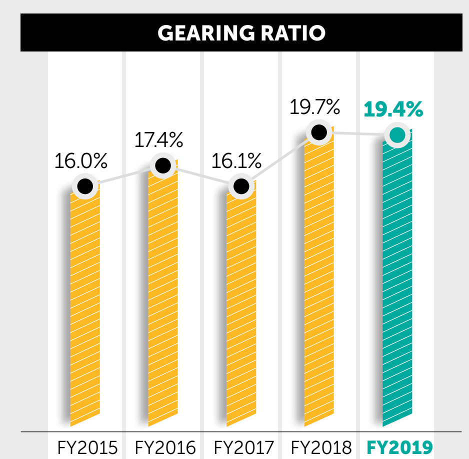
During the year under review, PETRONAS' credit ratings remained strong, with an A- with Stable outlook from Standard & Poor's and Fitch and an A2 with Stable outlook from Moody's. These ratings bear testimony to PETRONAS' financial strength, strong fundamentals and resilience in weathering the recurring volatility and uncertainty that have now become hallmark features of the industry.

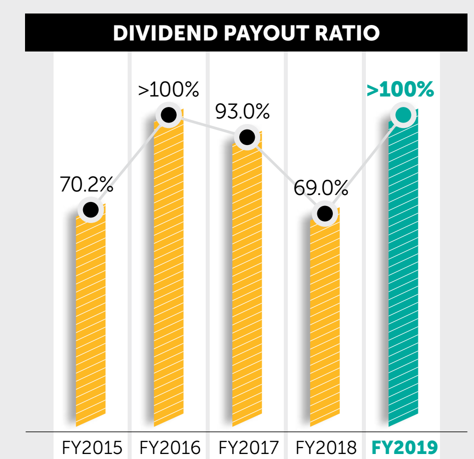












* *The figures have been restated due to the change in accounting policies with respect to revenue reporting and inventory valuation for gas trading activities.*

Letter from the Executive Vice President and Group Chief Financial Officer

Capital Management

The Group remains steadfastly committed to financial prudence as outlined in the PETRONAS Group Corporate Financial Policy. The Group's capital structure consists of consolidated equity plus debt, defined as the current and long-term portions of the Group's debt.

The objective of the Group's capital management is to always maintain an optimal capital structure and ensure the availability of funds to meet financial obligations, support business growth and maximise shareholders' value. To this end, the Group continuously monitors and maintains a prudent level of total debt to total assets to ensure compliance with all covenants.

There were no changes in the Group's approach to capital management during the year.

Managing Risks

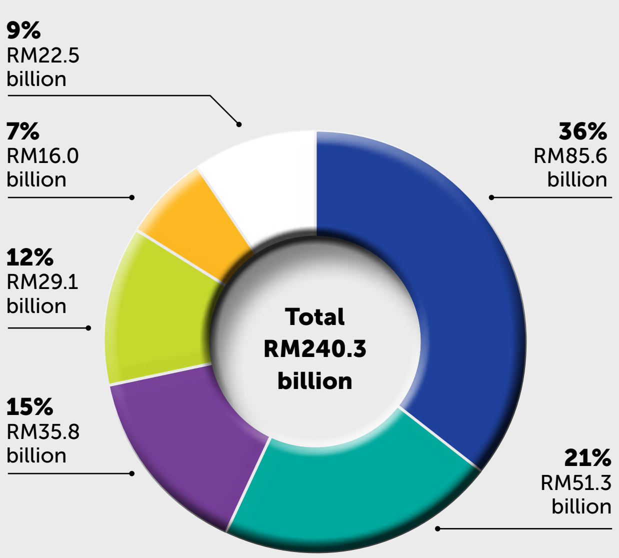
Key financial risks that arise in the normal course of business mainly comprise credit, liquidity and market risks. These are explained further in our Notes to the Financial Statements as part of Note 40: Financial Instruments.

Our approach to managing risks is described in our Statement on Risk Management and Internal Control (SORMIC) on pages 150 - 157.

REVENUE BY PRODUCT

The Group's total revenue for FY2019 was RM240.3 billion, primarily contributed by petroleum products and LNG, which accounted for 36 per cent and 21 per cent of revenue, respectively.

- Petroleum Products
- LNG
- Crude Oil and Condensates
- Natural and Processed Gas
- Petrochemicals
- Others*



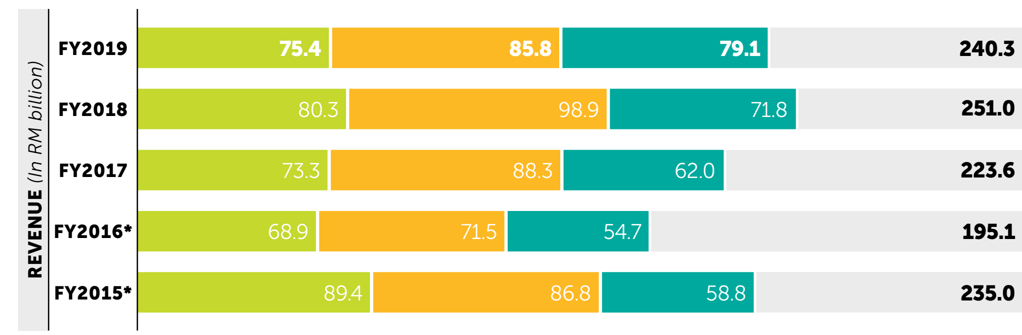
In RM billion

		2019	2018
Petroleum Products	(4%)	85.6	89.2
Natural and Processed Gas	4%	29.1	27.9
LNG	(5%)	51.3	53.9
Petrochemicals	(16%)	16.0	19.1
Crude Oil and Condensates	(11%)	35.8	40.4
Others*	10%	22.5	20.5

* Others comprise "Logistics and Maritime" and "Property and Others"

Letter from the Executive Vice President and Group Chief Financial Officer

REVENUE BY GEOGRAPHICAL TRADE



* Figures have been restated due to changes in accounting policies with respect to revenue reporting and inventory valuation of gas trading activities.

International Operations · Exports · Domestic

FY2019

67% of income came from exports and international operations revenue

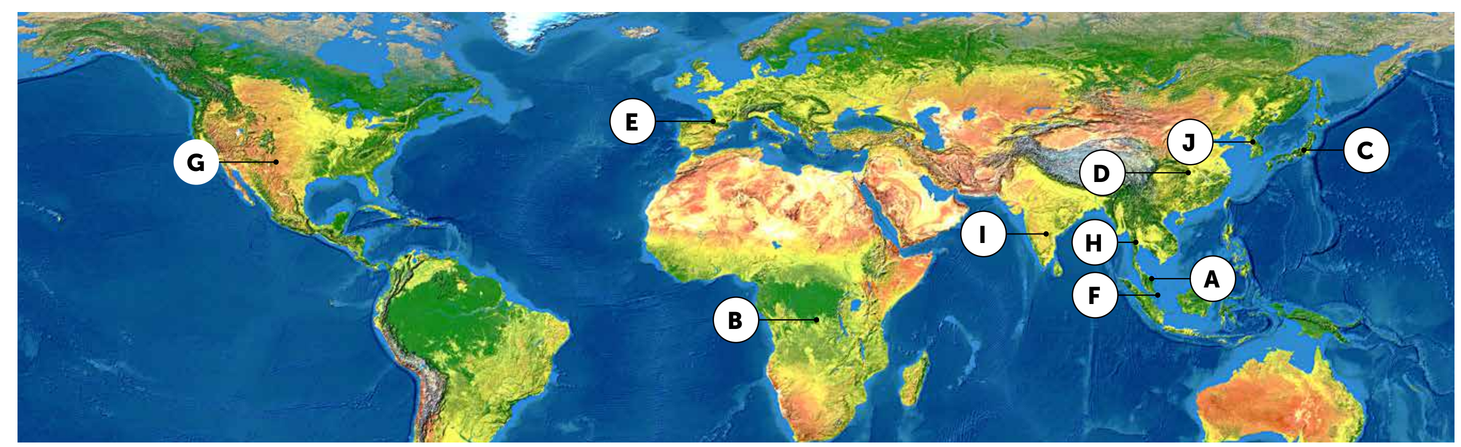
- International Operations: **31%**
- Exports: **36%**
- Domestic: **33%**

Revenue from exports remained as our biggest contributor, at 36 per cent of Group revenue or RM85.8 billion. Exports revenue was down by 13 per cent from FY2018, primarily attributed to lower prices for major products coupled with lower sales volumes.

Revenue from domestic operations recorded a consistent increase over the years primarily contributed by higher regulated prices for processed gas and higher term contracts for petroleum products, further supported by higher sales volume.

International operations revenue, which accounted for 31 per cent of total revenue, was down 6 per cent from FY2018, mainly due to lower sales volume and product prices.

REVENUE BY GEOGRAPHICAL SEGMENT



A	Malaysia	33%	Sales of petroleum products and gas sales
B	Africa	15%	Sales of petroleum products and crude oil and condensates
C	Japan	9%	Sales of LNG
D	China	6%	Sales of LNG, petrochemicals and petroleum products
E	Europe	5%	Sales of LNG, petroleum products, crude oil and condensates and natural gas
F	Singapore	5%	Sales of petroleum products and LNG
G	Americas	4%	Maritime and logistics business, sales of petroleum products and crude oil and condensates
H	Thailand	4%	Sales of crude oil and condensates, LNG and natural gas
I	India	3%	Sales of crude oil and condensates and petroleum products
J	Korea	3%	Sales of LNG
	Rest of Asia	8%	Sales of LNG, petroleum products, crude oil and condensates, petrochemicals and natural gas
	Rest of the world	5%	Sales of petroleum products, crude oil and condensates, natural gas and LNG

Letter from the Executive Vice President and Group Chief Financial Officer

SEGMENT EARNINGS

The Group operated three core businesses in FY2019: Upstream, Downstream and a newly introduced business segment, Gas and New Energy, which will be focusing on gas and renewable energy. Corporate and Others, which complements our core businesses, comprises the logistics and maritime segment, property segment and central treasury, as well as the project delivery and technology function.

Upstream

Upstream contributed 55 per cent to Group PAT in FY2019, maintaining its position as the major contributor to the Group's total earnings. Upstream PAT decreased by 15 per cent from RM26.1 billion in FY2018 to RM22.2 billion in FY2019, attributable to lower revenue and net impairment on assets.

The decrease in Upstream revenue was primarily attributed to lower prices for liquid and gas, partially offset by the favourable effects of the weakening of Ringgit Malaysia against the US dollar exchange rate. Higher production volume of 2 per cent came mostly from international assets in support of the Group's portfolio expansion. Domestically, gas production also increased as a result of production ramp-up activities.

Further details on Upstream's operational performance can be found on pages 56 - 61.

Gas and New Energy

Gas and New Energy recorded a PAT of RM9.8 billion in FY2019, contributing 24 per cent to the Group's PAT. The lower PAT by 43 per cent compared with RM17.2 billion in FY2018 was mainly attributed to net impairment on assets and higher product costs.

Higher impairment losses arose from lower price outlook while higher product costs were seen in line with the increased number of cargoes delivered during the year. LNG sales volume for the year was higher by 1.7 million tonnes compared with FY2018, mainly attributed to higher volume from the PLC.

More information on Gas and New Energy's operational performance is available on pages 62 - 67.

Downstream

Downstream PAT stood at RM5.2 billion in FY2019, lower by RM1.6 billion or 24 per cent from the previous year. The decrease was mainly attributed to lower petrochemical product spreads and refining margins. In FY2019, Downstream recorded an OEE of 90.6 per cent while plant reliability stood at 97.6 per cent.

Our petrochemicals business sustained its operational performance with a plant utilisation rate of above 90 per cent and achieved overall petrochemical production volume of 10.4 million metric tonnes.

More information on Downstream's operational performance is available on pages 68 - 73.

Corporate and Others

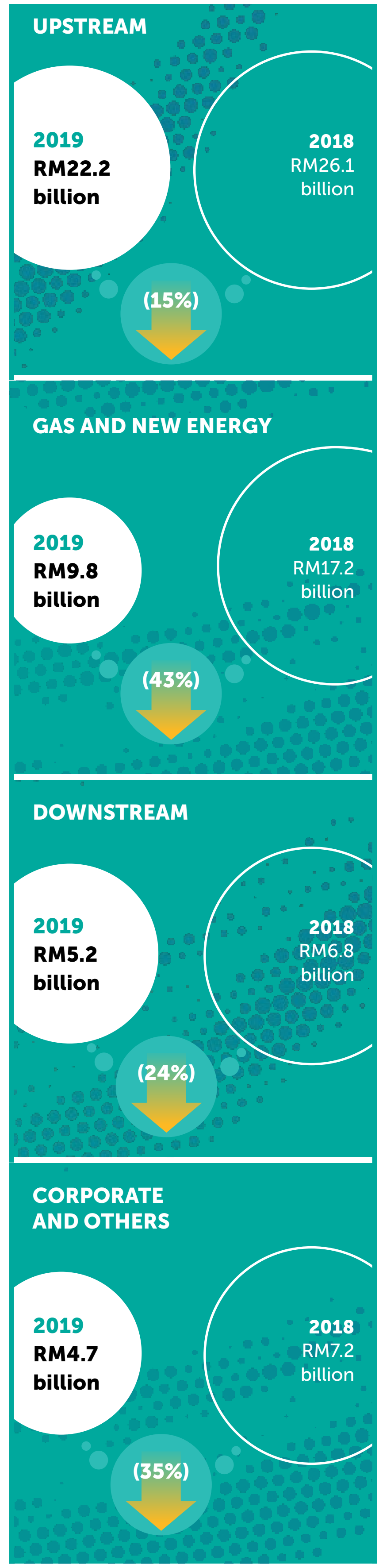
Our Corporate and Others business recorded a lower PAT of RM4.7 billion, 35 per cent less than FY2018's RM7.2 billion. This was mainly due to lower gains on the disposal of investments.

MISC Berhad (MISC) and KLCC Property Holdings Berhad (KLCCP) were the two major contributors to this segment. MISC recorded a PAT of RM1.4 billion, mainly contributed by its LNG and offshore businesses. KLCCP's PAT was RM0.9 billion, mainly contributed by property investment income.

Further information is provided in MISC's and KLCCP's 2019 annual reports.

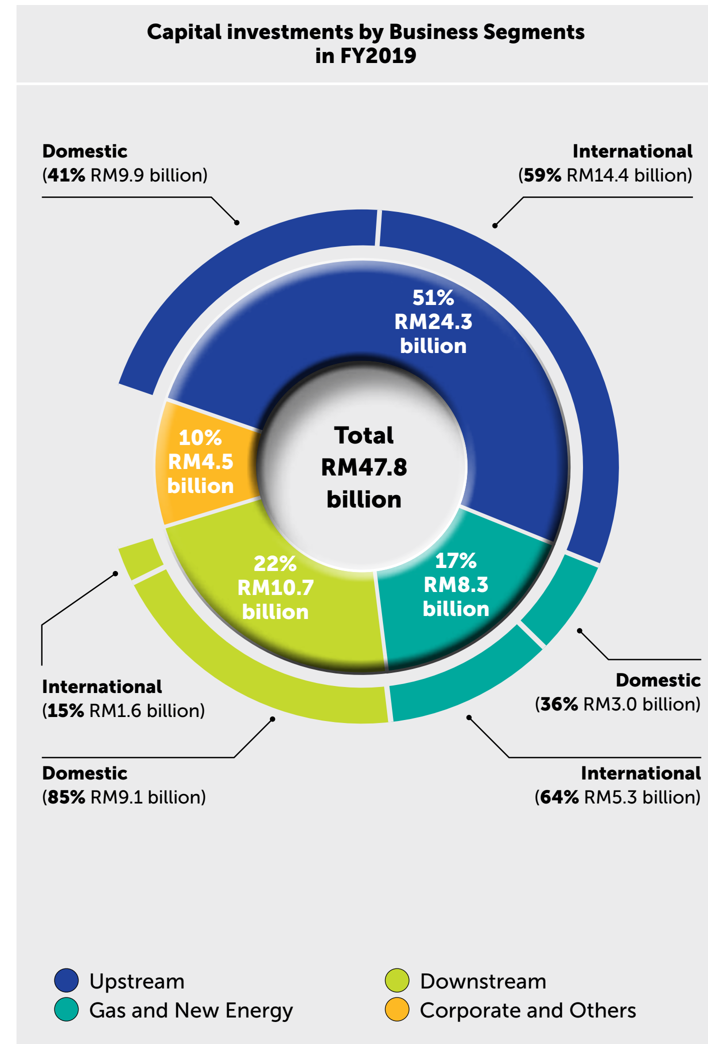
Segment earnings include inter-segment profit arising from transactions between the segments, which are adjusted and eliminated in deriving consolidated profit.

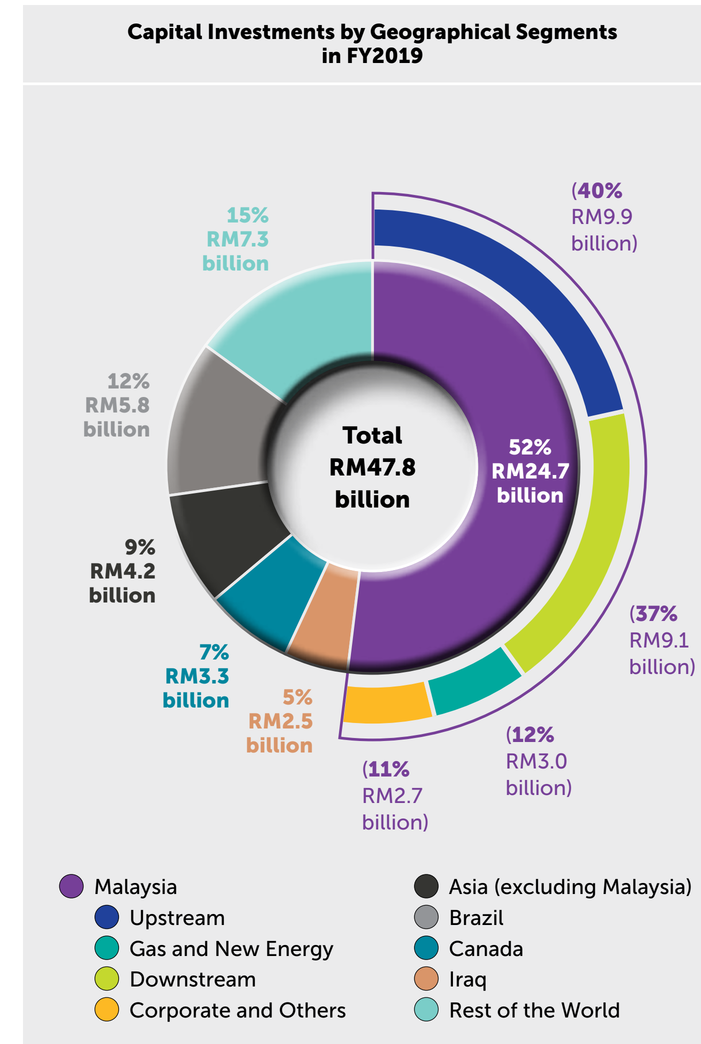
PAT BY BUSINESS SEGMENTS:



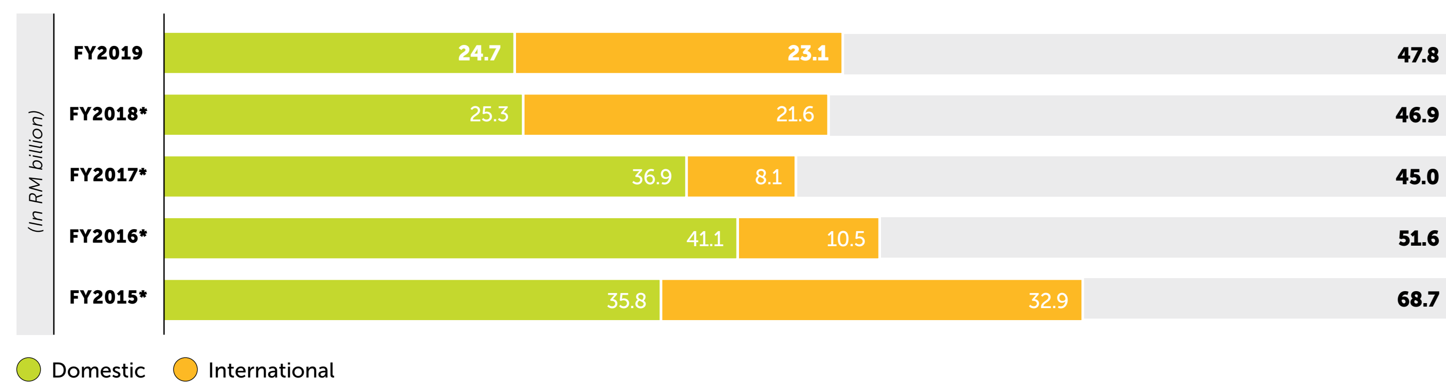
Letter from the Executive Vice President and Group Chief Financial Officer

SEGMENT CAPITAL INVESTMENTS





DOMESTIC AND INTERNATIONAL CAPITAL INVESTMENTS BREAKDOWN



* *The figure has been restated to include cost of acquisition of subsidiaries and investment in associates and joint ventures.*

Despite the challenging environment, PETRONAS persevered with its growth ambitions. On that note, capital investments during the financial year were higher by RM0.9 billion or 2 per cent at RM47.8 billion, compared with RM46.9 billion in FY2018, aligned with our commitment to growth.

Letter from the Executive Vice President and Group Chief Financial Officer

SEGMENT CAPITAL INVESTMENTS

Upstream

Upstream saw the deployment of 51 per cent of our capital investments, as the Group further strengthened its businesses in Malaysia and abroad.

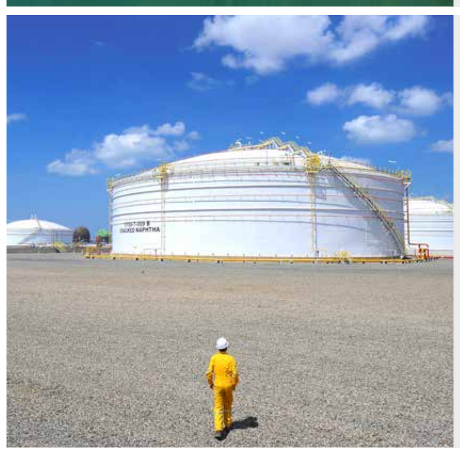
A total of RM14.4 billion was spent on international growth investments, mainly for the Group's acquisition of Brazilian exploration blocks and 50 per cent equity interests in the Tartaruga Verde producing field and Module III of the Espadarte field.

Domestic capital spending accounted for 41 per cent of Upstream's capital investments. Key projects in Malaysia included the Baram Delta Enhanced Oil Recovery (EOR) Project, and the Balingian and Samarang Asam Paya fields.

Gas and New Energy

Gas and New Energy utilised 17 per cent of the Group's capital investments, focusing expenditure on broadening the gas and renewable energy investment portfolio locally and abroad.

Notable investments during the year were its acquisition of a Singapore-based company, Amplus Energy Solutions Pte Ltd (M+), and further investments in its LNG project in Canada.



Downstream

Downstream business accounted for 22 per cent of the Group's capital investments.

The bulk of the spending went to the Pengerang Integrated Complex (PIC), which is now ready to fulfil the increasing market demand for products ranging from differentiated to speciality chemicals. PETRONAS Chemicals Group also marked its entry into speciality chemicals during the year by acquiring Da Vinci Group B.V.

Corporate and Others

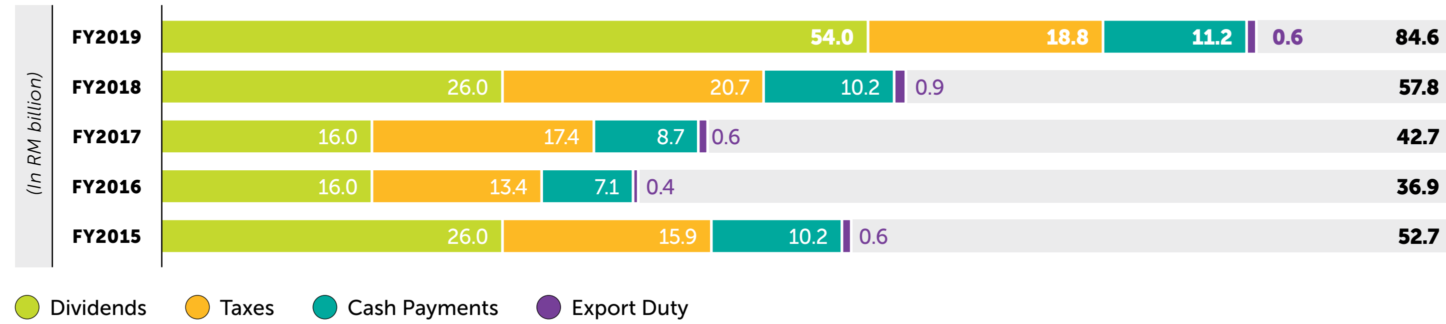
Capital investments in the Corporate and Others business amounted to RM4.5 billion in FY2019.

MISC and KLCC Holdings (KLCCH) took up 53 per cent and 24 per cent of this amount, respectively. During the year, MISC acquired an LNG vessel and completed milestones for two petroleum tanker new-builds. Another seven petroleum tankers and two LNG carriers are still under construction.

Letter from the Executive Vice President and Group Chief Financial Officer

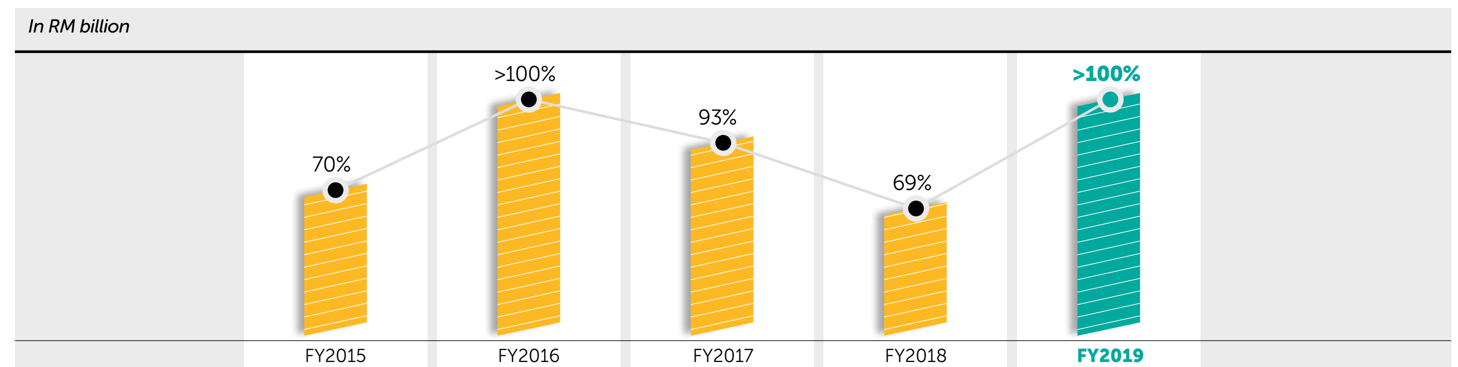
CONTRIBUTIONS TO GOVERNMENTS

Components of Contributions to the Federal and State Governments of Malaysia



PETRONAS' contributions to the Federal and State Governments of Malaysia for the year ended 31 December 2019 amounted to RM84.6 billion, higher by RM26.8 billion compared with 31 December 2018. As at 31 December 2019, PETRONAS' contributions totalled RM1.2 trillion (2018: RM1.1 trillion).

Dividend Payout Ratio



Dividends paid in FY2019 of RM54.0 billion translated to a dividend payout ratio of more than 100 per cent of our preceeding year's Profit After Tax and Non-Controlling Interests (PATANCI). The dividends consisted of RM24.0 billion declared for FY2018 and a special dividend of RM30.0 billion.

Revenue Forgone

In RM billion	FY2019	FY2018	+/(-)	Cumulative Total Since 1997
Power Sector	**3.0**	3.6	(17%)	167.1
Non-Power Sector (including industrial, commercial, residential users and NGV)	**3.3**	3.3	-	193.9
Total	**6.3**	6.9	(9%)	261.0

For FY2019, the revenue forgone in respect of the regulated pricing mechanism imposed on the supply of sales gas in Peninsular Malaysia's power and non-power sectors was at RM6.3 billion, compared with FY2018 of RM6.9 billion. The decrease in revenue forgone was mainly attributed to lower contract prices, in line with lower benchmark prices. Cumulatively, total revenue forgone has reached RM261.0 billion in FY2019, since regulated prices came into effect in May 1997.

OUTLOOK

The outlook for the oil and gas industry remains bearish, given the ongoing geopolitical uncertainties, prolonged trade tensions and near-term demand disruptions due to the COVID-19 health crisis. The Board expects the financial performance for 2020 to be affected by these factors. However, notwithstanding these challenges, PETRONAS will continue to deliver operational excellence and growth strategies.

Amid slumps in prices and demand caused by the COVID-19 pandemic as well as oversupply in the market, PETRONAS will continuously re-evaluate our capital expenditures as part of ongoing efforts to strengthen our resiliency in facing the greater uncertainty of the global markets moving forward.

Upstream

Production volume of:
2.4
million boe/d
– A 2 per cent increase from 2018

9.24 bboe
Proved and Probable (2P) Reserves, an increase of 11 per cent from 2018

1P Reserve Life Index (RLI), of 9.2 years
(increase from 8.1 in 2018)

11
exploration discoveries

35 projects achieved first hydrocarbon

6
Production Sharing Contracts (PSCs) awarded

47 projects achieved Final Investment Decision (FID)

3-year Average 1P Reserve Replacement Ratio (RRR): +1.5

Overall (2P+2C) Resources Life Index (ORLI) at 38 years

Loss of primary containment (LOPC) 45 per cent reduction in 2019 compared with 2018. Overall LOPC reduction of 50 per cent at Malaysia Asset under Malaysia Assets LOPC Reduction Programme

Upstream recorded a commendable year in 2019 on numerous fronts in line with PETRONAS' Three-Pronged Growth Strategy despite market and geopolitical volatilities. This includes notable achievements in the form of increased production, portfolio growth, and resources and reserves replenishment.

Adif Zulkifli
Executive Vice President and Chief Executive Officer, Upstream

As a progressive energy and solutions partner, PETRONAS' solid track record of successful operations is the result of winning and sustainable partnerships with host governments, partners and operators. Underpinning these achievements is the importance we place in ensuring the safety and health of our employees, contractors and communities wherever we operate.

Digitalisation will continue to be pursued to fuel innovation and growth in the upstream sector, empowering our people with data-based decision-making and redefining the way we work to ensure sustainable production, safer operations and business excellence.

As we move forward into increasingly uncertain times, we continue to remain prudent in our approach and focus on strengthening our partnerships while we progress to explore new opportunities and grow the business sustainably.

Note: Unless stated otherwise, all Discovered Resources (Reserves and Contingent Resources) are reported in entitlement volume, all Undiscovered Resources (Prospective Resources) are reported in gross volume and International is reported in equity volume.

Upstream

HOW WE CREATE VALUE

We had a good year in portfolio growth, focusing on operational excellence while balancing domestic and international capital investments. Moving forward, we want to ensure a healthy funnel of resources and reserves to sustain our portfolio where we deploy our technology and capabilities on high-value activities; and tough challenges are turned into advantageous opportunities – all to enrich lives for a sustainable future.

Replenishing Our Resources and Reserves

In ensuring sustainability of production, we continued our efforts in replenishing our reserves.

- In 2019, we added 0.9 billion barrels of oil equivalent (bboe) of reserves, mainly through the sanctioning of 47 projects including the Kasawari field offshore Sarawak and the acquisition of the Tartaruga Verde field and Module III of the Espadarte field in Brazil.

- As at 1 January 2020, PETRONAS' total petroleum 2P reserves stood at 9.24 bboe, an increase of 11 per cent from 2018. This has resulted in increasing PETRONAS' Proved (P90) Reserves Life Index (1P) RLI to 9.2 years from 8.1 years in 2018.

PETRONAS' total Contingent Resources (2C) meanwhile stood at 15.08 bboe as at 1 January 2020. This was in part the result of 11 new exploration discoveries made during the year which contributed approximately 0.48 bboe of 2C to our portfolio.

- Among the major discoveries made were the Lang Lebah field located in offshore Sarawak, holding approximately 4 trillion cubic feet (tcf) of natural gas (gross), one of the world's top 10 largest discoveries in 2019.

We also continued to secure new exploration acreages in material basins and increased our Prospective Resources (2U) by 27 per cent to 10.85 bboe from 8.52 bboe in 2018.

- This includes the acquisition of three exploration blocks in the offshore Campos Basin in Brazil. Brazil is considered as one of the most prolific exploration and production regions within the Atlantic, with a proven petroleum system and superior reservoir performance.

Overall, we continued our year-on-year improvements in reserves and acreage addition while expanding our portfolio to new areas such as the Americas.

ENSURING SUSTAINABLE PRODUCTION

We continued to contribute to **Maximising Cash Generators** by recording a higher production volume of 2.4 million barrels of oil equivalent (boe) per day, a 2 per cent increase compared with 2018. This was contributed by higher liquid production from international operations and higher natural gas production in Malaysia.

At the same time, 35 projects achieved first hydrocarbon in both Malaysia and international including countries such as Iraq, Myanmar, Republic of South Sudan, Indonesia and Argentina. This contributed 62 thousand boe per day of new production for the year. We continue to focus on harnessing technology to enhance cost efficiencies **and maximising our reserves recovery** while balancing the implementation of our medium to long-term strategies in ensuring sustainable production.

Upstream

ACHIEVING OPERATIONAL EXCELLENCE

We strive to continuously improve our processes and conduct our operations in a sustainable manner, through a combination of technology, digital and innovative solutions. In 2019, we took more deliberate steps to reduce our impact to the environment.

- We successfully relocated a wellhead platform from the Ophir field to the Jitang field, offshore Malaysia, by our subsidiary Vestigo Petroleum Sdn Bhd (Vestigo), in one piece without any further structural modifications. It was a world's first and was accomplished within a record-breaking time of three days.

- We completed the plugging and abandonment of 28 wells in Malaysia, achieving 40 per cent lower than benchmark cost with environmental practices in place.

  Find out more about our Decommissioning and Abandonment actions on page 92 in the Safeguard the Environment section.

- In realising PETRONAS' carbon commitments, **we accelerated our reduction of greenhouse gas (GHG) emissions** by reducing venting and flaring in operations. We have recovered 42 MMscfd as sales gas from facilities operated by PETRONAS Carigali alone and achieved emissions reduction of 3.0 million mtpa since 2017. In 2019, a 12 per cent GHG reduction was achieved through five projects with more in the pipeline for 2020.

  PETRONAS Carbon Commitments drive us to find new solutions, read more about our climate response in the Safeguard the Environment section on page 85.

DIGITALISATION OF OPERATIONS

Upstream's Digital Agenda continues to create new value while boosting operational and cost efficiency. More importantly, our digital initiatives are holistic, which involve people, processes and tools, in ensuring our people remain safe, and the business continues to deliver sustainable value.

- We improved offshore operations and assets, digitalising them at lowered cost. Ninety per cent of PETRONAS Carigali's global production (49 fields) are enabled on **Digital Fields**. Since 2017, **value generated from Digital Fields** exceeded USD200 million (RM868 million), with RM328 million generated in 2019 alone.

- Meanwhile, we also strengthened the **NextGen Health, Safety, Security and Environment (HSSE)** via digital tools such as ePTW (Permit to Work) and Offshore/Onshore Safety Integrated System (OSIS) which allows automated verification and **shorter processing time**, contributing to 100 per cent PTW compliance and annual savings of RM1 million.

- We leveraged **collaboration** across Upstream and digital tools to sustainably manage our petroleum resource funnel, for example wells digitalisation and the Upstream Project Management System (UPMS). Meanwhile, our **approved FIDs increased by 21 per cent** compared with 2018 which reflects the effectiveness of UPMS in promoting pace to deliver development projects.

- We are innovating complex Exploration and Production (E&P) data processing with **emerging data intelligence technologies** by collaborating with GEOGUEST, a wholly owned subsidiary of Schlumberger (SLB).

- We **get everyone involved in the Digital Transformation journey** by crowdsourcing digital solutions for operational improvements. A total of 140 solutions were crowdsourced which improves operations and asset integrity via predictive analytics at a value potential of RM240 million. We also empower personnel with **analytics at their fingertips** by enabling a mobile ecosystem, for data-driven decision-making.

Note: Unless stated otherwise, all Discovered Resources (Reserves and Contingent Resources) are reported in entitlement volume, all Undiscovered Resources (Prospective Resources) are reported in gross volume and International is reported in equity volume.

Upstream

Upstream

ACHIEVING INVESTMENT EFFICIENCY

Upstream capital expenditure (CAPEX) was higher in 2019 (RM24.3 billion) against 2018 (RM20.5 billion) by 19 per cent, mainly contributed by the increase in development projects in Malaysia, coupled with increased activities in International operations. Among the countries where our international CAPEX for 2019 focused on included Iraq, Brazil, Canada and Argentina, countries with abundant hydrocarbon resources. In 2019, operating expenditure (OPEX) was RM22.3 billion, a reflection of the cost rationalisation efforts that we have embarked on since 2018 to maintain PETRONAS' resilience and competitiveness.

CAPEX (RM billion)	FY2019 (actual)	FY2018 (actual)	FY2017 (actual)
Malaysia	9.9	6.1	5.5
International	14.4	14.4	6.6
TOTAL	24.3	20.5	12.1

INTENSIFYING SAFETY EFFORTS BEYOND COMPLIANCE

In 2019, we reduced Major LOPC by 60 per cent and Minor LOPC by 40 per cent. We recorded lost time injury frequency (LTIF) of 0.11 and fatal accident rate (FAR) of 1.01 but this was regrettably overshadowed by the single fatality in our Iraq operations. We continue to strive hard to ensure that everybody gets home safely.

We endeavour to go beyond compliance underscored by emphasis on good environmental and safety practices in PETRONAS. In 2019,

- We achieved **50 per cent reduction of Malaysia Asset LOPC** through intensified efforts under Malaysia Asset LOPC Reduction Programme, initiated in 2016 with zero Major LOPC in 2019 as compared with 2018. This included thorough inspections beyond the current coverage of the PETRONAS Risk Based Inspection (PRBI). Intervention plans that included leveraging application of advanced inspection technology saw **LOPC reduction at an average of 52 per cent per year since 2017**.

- We deployed the **Fatigue Management System across assets in Malaysia to curb non-compliance with the Hours of Service Limit (HSL)**. This also reduced the number of avoidable medical evacuations.

- We boosted **safety culture across all operations** through the HSE Recognition Programme implemented in 2019. This programme is designed to help create the right environment for staff to gain recognition for their efforts while also emphasising the utmost importance of compliance and understanding consequences.

CHALLENGES AND MITIGATION IN 2019

The upstream sector continues to face risks with the constant shift in the energy landscape, making it more challenging to harvest value from investments. We continue to plan and execute our Upstream activities in accordance with the requisite regulatory and governance requirements. We prioritise stakeholder management of the relevant authorities, partners and communities in all the locations that we operate in to ensure that we continuously conduct our business sustainably, in accordance with international oil and gas industry standards and best practices.

We remain steadfast to stay the course in safeguarding our people, assets, reputation and the environment.

OUTLOOK AND PROSPECTS

In the medium to long-term, the Upstream business is expected to face an increasingly challenging outlook amid low prices, stagnated spending, increased costs, depleting resources and production gaps as the shift to a low-carbon economy picks up pace. These factors are compounded by the global onset of the COVID-19 pandemic.

We will remain agile in executing our Upstream strategies and plans to fulfill production targets and deliver excellence across Exploration, Development and Production through best-in-class and disciplined execution.

We will continue to improve our operational excellence and intensify our digital efforts to deliver energy in a cost-effective manner, at pace and with a lower carbon footprint. Underlying all this is our top priority in ensuring everyone goes home safely.

GOVERNANCE AND DISCLOSURE (RESERVES AND RESOURCES)

In April 2019, PETRONAS conducted its second independent audit of its Reserves and Contingent Resources base as at 1 January 2019. Sproule was again appointed as PETRONAS' independent oil and gas reserves auditor. The scope of this audit was expanded to include an audit of the net present value (NPV) (after tax basis) of PETRONAS' total entitlement of Reserves and Contingent Resources. The following is Sproule's audit opinion in respect of PETRONAS' reserves and contingent resources as at 1 January 2019:

"Based on the results of our audit, it is our opinion that PETRONAS' internally generated 1P, 2P and 3P crude oil, natural gas and natural gas products Reserves and the related NPV8 value (KPBI basis), and the 1C, 2C and 3C crude oil, natural gas and natural gas products Contingent Resources and the related NPV8 value (KPBI basis) are, in aggregate, reasonable, and have been prepared in accordance with generally accepted oil and gas engineering and evaluation practices as set out in the PETRONAS Reserves and Resources Management System (PRrMS)."

While PETRONAS' estimated volumes came within +/-2 per cent of Sproule's estimates for "2P+2C" (Proved plus Probable Reserves and best estimate of Contingent Resources) for the data as at 1 January 2018, its estimated volume came within +/-0 per cent of Sproule's estimates for "2P" (Proved plus Probable Reserves) and +/-3 per cent for "2C" (best estimate of Contingent Resources) for the data as of 1 January 2019. These results demonstrate the integrity and robustness of PETRONAS' internally generated Reserves and Contingent Resources estimates.

(i) ARPR 1.1.2020 Reserves and Contingent Resources

Reserves	ARPR 1.1.2020		
	1P	2P	3P
	(in bboe)		
PETRONAS Group - Entitlement			
Malaysia	3.75	5.77	7.81
International	2.10	3.47	4.20
TOTAL	**5.85**	**9.24**	**12.01**

Contingent Resources	ARPR 1.1.2020		
	1C	2C	3C
	(in bboe)		
PETRONAS Group - Entitlement			
Malaysia	6.09	9.14	13.01
International	4.40	5.94	7.84
TOTAL	**10.49**	**15.08**	**20.85**

Reserves	ARPR 1.1.2020		
	1P	2P	3P
	(in bboe)		
PETRONAS Group - Entitlement			
Oil	1.31	1.90	2.52
Gas	4.12	6.63	8.57
Condensate + LPG	0.42	0.71	0.92
TOTAL	**5.85**	**9.24**	**12.01**

Contingent Resources	ARPR 1.1.2020		
	1C	2C	3C
	(in bboe)		
PETRONAS Group - Entitlement			
Oil	1.43	2.07	2.85
Gas	8.59	12.35	17.09
Condensate + LPG	0.47	0.66	0.91
TOTAL	**10.49**	**15.08**	**20.85**

(ii) Reserves and Resources Performance Indicators:

3-year Average 1P RRR: 1.5x	**1P RLI: 9.2 years**	**2P+2C ORLI: 38 years**

Note: Unless stated otherwise, all Discovered Resources (Reserves and Contingent Resources) are reported in entitlement volume, all Undiscovered Resources (Prospective Resources) are reported in gross volume and International is reported in equity volume.

Gas and New Energy

LNG production capacity of more than **34.7** **million tonnes per annum (mtpa)**

Operating one of the world's largest LNG facilities in Bintulu, Sarawak

130 tcf total gas resources worldwide

600 MWp of solar capacity under operation and development

Overall Equipment Effectiveness (OEE) - **97.1%**

- LNG Assets OEE - **96.6%**
- Gas and Power Assets OEE - **99.3%**

>4,000 employees powering our operations in **12 countries**

World's first owner and operator of two Floating LNG facilities

One of the largest LNG producers in the world

Malaysian average sales gas volume up **4%** to **2,887** MMscfd in 2019

Delivered more than **11,000 LNG cargoes**

Operating gas pipelines amounting to **approximately 2,623km**

The formation of the Gas and New Energy (GNE) business is a testament to PETRONAS' commitment to cleaner energy solutions. This new business unit that streamlines LNG, Gas and Power as well as New Energy under one banner, enables PETRONAS to function as a one-stop centre for cleaner energy, anchored on advocacy, market development and innovative solutions.

Adnan Zainol Abidin
Executive Vice President and Chief Executive Officer, Gas and New Energy

We continued to remain resilient amid a challenging business environment, with strong operational performance and steady business growth recorded across business segments.

The GNE business resonates with our Statement of Purpose, which describes the company as a progressive energy and solutions partner enriching lives for a sustainable future. We seek new opportunities to meet evolving demands and have made great strides in 2019 with strong operational performance and steady business growth while strengthening our gas and solar energy portfolio.

Moving forward, we are guided by the Three-Pronged Growth Strategy and GNE's Strategic Agenda, which focuses on customer-centricity, operational and commercial excellence, and sustainability, supported by the right talent, culture and digital innovations. Additionally, we also emphasise on maintaining good Health, Safety, Security and Environment (HSSE) performance and managing any potential business risks in the right manner.

HOW WE CREATE VALUE

In line with the Group's commitment to reducing our impact on the environment, our strategies are designed to drive sustainable business growth while advocating the use of cleaner energy.

We contributed to **Maximising Cash Generators** **by growing LNG sales volume by 6 per cent** at 30.6 million metric tonnes in 2019.

- In **Maximising Cash Generators**, we **reached the naming ceremony milestone for PFLNG DUA**, our second Floating LNG facility that is set to define the future of LNG. The facility, which is capable of monetising deepwater gas up to 1,500 metres in depth with a production capacity of 1.5 million tonnes of LNG per year, is set for commercialisation by end of 2020.

Advocating the use of natural gas is a key climate action for PETRONAS. Find out more about our cleaner energy initiatives in the Safeguard the Environment section on page 85.

In 2019, LNG production for the year remained strong with an increment of 5 per cent to 28.1 million metric tonnes, a direct result of higher feed gas supply and stable plant performance. In 2019,

- PFLNG SATU, our maiden Floating LNG facility was successfully relocated and commissioned at the Kebabangan Gas Field, Sabah. The first cargo was achieved by June 2019, and 10 cargoes were loaded by end of the year. This added to the unblemished record of over 11,000 LNG cargoes being delivered around the world to date from our LNG assets.
- PETRONAS Gas Berhad's 350 MW co-generation plant in Gebeng, Pahang is poised to supply steam and electricity to Polyplastic Asia Pacific Sdn Bhd for an extended duration of 22 years, following the sales agreement signed between the two parties in the middle part of the year.
- Following Malaysia's gas market liberalisation and implementation of third party access, our Regasification Terminal (RGT) in Sungai Udang, Melaka received its first third party cargo, accelerating the move towards achieving a market-based gas pricing environment.

INNOVATIVE SOLUTIONS FOR MARKET NEEDS

While we invest in existing businesses to grow revenue, we keep a sharp focus to meet market needs and secure strategic market positioning.

Thus, as a cleaner energy solutions partner, we seek opportunities across the value chain to deliver innovative, flexible and customer-centric solutions. In 2019,

- We **conducted four LNG ship-to-ship transfers in Labuan waters** to serve our LNG customers' needs for smaller LNG parcels.
- We have successfully **completed eight instances of gassing up, cooling down (GUCD) services** at our RGT in Pengerang, Johor and Bintulu, Sarawak. to serve post dry-dock and warm LNG vessels.
- We reached the Final Investment Decision (FID) for the Virtual Pipeline System (VPS) facility in RGT Pengerang to transport LNG via trucks (ISO tanks) to off-grid customers located away from the main pipeline in Peninsular Malaysia.
- Upon the successful reloading of the world's largest LNG Bunker Vessel at Pengerang regasification terminal in 2018, PETRONAS continues to push the boundaries in providing LNG bunkering service to LNG-fuelled vessels. In line with this business aspiration, a Time Charter Party (TCP) agreement was signed with MISC Berhad and Avenir LNG Ltd to charter a 7,500-cubic metre LNG Bunkering Vessel (LBV) to provide bunkering solutions from middle of 2020 onwards.

ACCELERATING MOVE INTO RENEWABLE ENERGY

As part of **Stepping Out** ▶, PETRONAS is advancing in the energy transition by accelerating its presence in the renewable energy space. Our portfolio is strengthened this year with a bold move into solar energy.

- **Acquired a leading Singapore-based company, Amplus Energy Solutions Pte Ltd (M+)**, with a portfolio of distributed, renewable energy assets in Asia. With a total capacity of 600 MWp under operation and development, M+ is serving more than 150 commercial and industrial customers at over 200 locations across India, the Middle East and Southeast Asia.
- **Launched M+ by PETRONAS, the first customisable and affordable solar solution** in Malaysia designed for both commercial and industrial use. This reaffirms our strategic intent to grow in the renewable energy space to future-proof the business. In addition, these efforts support Malaysia's ambition to increase the proportion of renewable energy in Malaysia's energy generation mix from 2 per cent in 2018 to 20 per cent by 2025.

We are adjusting our portfolio mix to include more renewable energy, find out more in the Safeguard the Environment section on page 86.

DIGITAL AND INTEGRATED WAYS OF WORKING

We have developed digital solutions, known as Alpha LNG, to provide end-to-end visibility of our LNG portfolio while identifying optimisation opportunities across the LNG value chain. We achieve this by leveraging Alpha LNG's analytics and data science models, which enable us to adapt to market changes and make decisions at pace; to ultimately capture the highest value for the business.

End-to-End Value Chain Visibility

Alpha LNG connects data across the LNG value chain on a single platform to remove data-silos and enable seamless integrated planning.

Data-Driven Decision-Making

Alpha LNG has prescriptive capabilities that rapidly generate insights to achieve optimisation across the value chain, from LNG production to cargo deliveries. These insights have enabled the LNG business to maximise revenue generation from existing LNG assets.

Enhanced Collaboration

New ways of working have been established to facilitate the integration of planning data and to enhance collaboration across the LNG value chain; to ultimately realise the optimisation opportunities generated with pace and data-driven decisions.

Gas and New Energy

Gas and New Energy

HSSE IS OUR LICENSE TO OPERATE

In 2019, GNE recorded one Tier-1 Process Safety Event which resulted in major fire and major loss of primary containment (LOPC) and two lost time injury (LTI) incidents. These incidents have triggered a sense of chronic unease in managing process safety risks associated in our operations. Lessons learnt from these incidents are taken as essential input in coming up with our HSSE strategies and key focus areas as we move forward into the year 2020, aiming for Zero Fatality, Zero Major Fire, Zero Major LOPC and Zero LTI. We strive to achieve the latter through the demonstration of chronic unease coupled with the adoption of preventive approach in managing HSSE risks, focusing on three key pillars namely:

1. Reinforce **LEADERSHIP** role and instil personal accountability at all levels for sustainable HSSE performance
2. Intensify HSSE **CAPABILITY** at all GNE workforce in driving HSSE excellence
3. Deliver compliance **CULTURE** with sustainable HSSE solutions

CHALLENGES AND MITIGATION IN 2019

2019 was another transformative year for the global LNG market. Global LNG supply increased by approximately 39 million tonnes, sending the market into oversupply. The year also marked the lowest LNG spot prices in the past five years, plunging to a low of USD4/MMBtu.

Structural changes, a growing number of players and evolving business models point towards increasing commoditisation of the market. Closer to home, Malaysia's market liberalisation to boost natural gas demand has also shifted the supply dynamics, allowing for a healthy competition at market-determined prices.

The headwinds were coupled with grand coalitions emerging from climate change concerns, as well as increasing pressure for oil and gas players to play its part in reducing global emissions.

Amid all these challenges, PETRONAS remained resilient, securing higher LNG sales by 6 per cent and domestic gas sales by 4 per cent. We demonstrated greater focus on customer centricity through the provision of solutions for evolving customer needs including LNG ship-to-ship transfers and gassing up, cooling down services. Heeding the call for cleaner energy, our acquisition of M+ has established our presence in the renewable energy space towards becoming a one-stop centre for cleaner energy solutions.

OUTLOOK AND PROSPECTS

The outbreak of the coronavirus (COVID-19) rattled a global oil and gas industry that was already plagued by challenges such as oversupply and declining prices. The effects of this pandemic and oil price collapse are expected to persist throughout the year. Hence, in walking this tightrope, added vigilance is required to achieve progress in 2020.

Unrelenting pressure on LNG demand and prices coupled with excess LNG supply will test our resilience in operating in this environment. Despite the weak market outlook, policy uncertainties in the three largest LNG markets – Japan, China and South Korea – as well as potential growth in emerging markets may provide some upside to LNG demand. Backed by our cost-competitive supply portfolio, we continue to intensify our efforts to provide accessible cleaner energy to customers globally while at the same time progressing our projects to enhance reliability and security of supply for our customers.

On the domestic front, the implementation of third party access (TPA) in Peninsular Malaysia and market-based pricing for natural gas will continue to attract new suppliers, as well as incentivising future upstream investment. Internationally, PETRONAS has LNG growth projects currently ongoing in Canada. Together with our joint venture partners, we own approximately 900,000 gross acres of mineral rights with more than 60 trillion cubic feet of reserves and contingent resources.

Successful management of the transition towards market reform is critical to mitigate any threats to the efficacy of the liberalised market. The TPA will also strengthen long-term security of supply and optimise development costs and gas infrastructure utilisation, creating a vibrant marketplace that will ultimately benefit consumers.

In the renewable energy space, solar and wind will remain as areas with the biggest growth potential, given the continuous technology improvements leading to decreasing costs. We will continue to be vigilant in our search for innovative business models and in adopting new technologies. Particularly, we are exploring clean hybrid and storage solutions to diversify our renewable energy portfolio in response to evolving market and customer requirements. Through these ventures, we are able to create new revenue streams for the business that are cushioned from hydrocarbon price volatility and future-proof PETRONAS in the energy transition.

Downstream

Overall Equipment Effectiveness (OEE) of

90.6%

Petrochemical plant utilisation above

90%*

* Plant Utilisation based on Nexant

Overall marketing sales volume

25.4 billion litres

Seamless and frictionless customer experience through Setel and ROVR

Total man-hours of

130 million

Pengerang Integrated Complex (PIC) achieved Ready For Start Up and is gearing up to make its entry into the market, with utilities already in stable operations

Strategic growth

- PETRONAS Chemicals Group (PCG) **strengthened its position in specialty chemicals with the acquisition of Da Vinci Group B.V.**
- PCG introduced PETRONAS AireBlue, a quality diesel exhaust fluid made up of high purity ammonium-based reagent, **in its effort to drive a greener future through innovative solutions**.
- PETRONAS Lubricants International (PLI) **launched PETRONAS iona**, our very **first e-fluids for electric vehicles**, part of the company's commitment to address climate challenge and CO_2 emissions through Fluid Technology Solutions™.
- PLI launched the **world's first PETRONAS AutoExpert service centre** in Malaysia which offers top-end products and high-quality car maintenance services, bringing together PETRONAS' fluid technology and technical expertise under one roof.
- PETRONAS Dagangan Berhad (PDB) launched the **new PETRONAS Primax 95 with Pro-Drive** that promises a smoother drive, responsive engine performance and enhanced fuel efficiency.
- **Setel** was developed to address consumer pain points in fuelling by **offering a seamless and frictionless customer experience**, while **ROVR** was **launched to expand PDB's retail fuel network**.

Awards

- PETRONAS Dagangan Berhad - Putra Brand Awards: Winner for 10 consecutive years (2010-2019).
- Engen Petroleum Limited - Voted as South Africa's Coolest Petroleum Brand for 10 consecutive years (2010-2019).

For the year in review, the Downstream business recorded strong production numbers and growing sales volume, amid challenging market conditions. Our approach to building business has allowed us to remain resilient in maintaining our operations to weather the various uncertainties of the industry.

The business remains committed to enriching lives through solutions as we continue to face the reality of prolonged volatility. We have equipped our operations with new tools, advanced infrastructure and high-value products to enable sustainable and long-term value creation opportunities.

Datuk Md Arif Mahmood
Executive Vice President and Chief Executive Officer, Downstream

Downstream

Downstream

HOW WE CREATE VALUE

PETRONAS' Downstream enhances molecules into value-added petroleum and petrochemical products through a wide array of businesses, coupled with a relentless focus on customer excellence and driving growth opportunities.

We remain guided by the core pillars of our Downstream Focused Framework: Operational Excellence, Commercial Excellence and Growth Delivery Excellence to improve our overall efficiency, mitigate operational challenges in our integrated value chain, and ensure the organisation is well supported by the right talent and culture. This is further aligned with the Group's Three-Pronged Growth Strategy.

OPERATIONAL EXCELLENCE THROUGH CONSISTENT PERFORMANCE

The Downstream business recorded commendable operational results in 2019, demonstrating consistent production capacity and growing sales volumes amid challenging market conditions. Through this challenging period, all Downstream businesses remained focused on maintaining their operational performance by delivering sustainable and innovative solutions.

- Our OEE recorded a sustained performance of 90.6 per cent across all business segments, with domestic refineries recording an improved OEE of 93.2 per cent, whereas the refinery in Durban, South Africa registered an OEE of 88.4 per cent.
- Our petrochemical arm PCG, also sustained its overall plant utilisation rate at above 90 per cent, backed by a strong plant performance and high reliability. Despite market uncertainties, our operation continues to function at an optimum level and recorded an overall petrochemical production volume of 10.4 million metric tonnes. The sales volume remained above 8 million metric tonnes through strong demands for our petrochemical products.

COMMERCIAL EXCELLENCE DRIVEN BY A ROBUST STRATEGY

Our business goal is to drive efficiency and capture bigger margins by delivering more with less. While we continue to expand our core business and generate more revenue for the Group, our strategic efforts are focused on long-term value creation that will drive the growth of the business. In 2019,

- Our marketing sales volume **consistently increased throughout the year, recording total sales of 25.4 billion litres, an increase of 5.1** per cent across all businesses. This was mainly contributed by PDB, our domestic retail marketing arm. PDB recently won the prestigious Putra Brand Awards for the 10th consecutive year, and registered its highest sales volume since 2015, attributed to PETRONAS Primax 95 with Pro-Drive, higher Smartpay sales and growing demand from commercial clients.
- The new **PETRONAS Primax 95 with Pro-Drive was launched** and promises a smoother drive, responsive engine performance and enhanced fuel efficiency. This is part of the company's commitment to deliver a seamless and frictionless experience to its customers. The fuel formulation was engineered using PETRONAS Fluid Technology Solutions™, an advanced formula developed from the Group's collective experience in motorsports, gaining insights and expertise from its pool of global scientists, engineers and the Mercedes-AMG PETRONAS Formula One™ team at its facilities in Europe and the USA.
- Our lubricants business, **PLI recorded an improved sales volume of 12.4 per cent**, while the retail section under Engen Petroleum Limited in South Africa, recorded an increase in sales volume for both retail and commercial businesses. In our continuous commitment to producing a seamless and frictionless experience, PLI launched the world's first PETRONAS AutoExpert service centre in Malaysia.

It is a one-stop centre that offers top-end products and high-quality car maintenance services, bringing together PETRONAS' fluid technology and technical expertise under one roof. In collaboration with PETRONAS Lubricants Marketing (Malaysia) Sdn Bhd (PLMM), it aims to provide convenience to our customers through nine centres in Malaysia. There are also three AutoExpert service centres in China, with plans to expand in Europe within the next five years.

- In our **pursuit** of **Expanding Core Business**, **the Downstream business continues to invest in widening our portfolio of products and infrastructure** to remain competitive in the market. PETRONAS' **largest Downstream investment at USD27 million, the PIC** will cater to the growing demand for a range of petroleum products to differentiated and specialty chemicals. In 2019, cargoes of petroleum products achieved their first lifting, while the petrochemical complex saw on-spec polymers including polypropylene (PP), linear low-density polyethylene (LLDPE) and ethylene glycols (EG) being shipped out from its terminal in Pengerang, Johor.
- In anticipation of increasingly stringent automotive emission regulations in Southeast Asia, PCG has **pushed the boundaries of innovation to develop PETRONAS AireBlue**, an internationally certified product that boasts superior quality compared to similar solutions in the market. Designed primarily for Euro V and VI diesel engines, PETRONAS AireBlue ensures more environmentally-friendly vehicular emissions by converting harmful Nitrogen Oxides (NOx) into harmless nitrogen and water. With this product, PCG is ahead of the curve in its bid to capture the exhaust emissions segment in Southeast Asia.

Read more about Our Fuel Efficient Products on page 86 in the Safeguard the Environment section

OPTIMISING VALUE CREATION FOR BUSINESS GROWTH

- Committed to diversifying our portfolio to future-proof our business, Downstream, through its subsidiary PLI, has **ventured into the electric vehicle market through the launch of PETRONAS iona**, our very first range of fluids for electric vehicles. This innovative solution is part of our pledge to lower CO_2 emissions through our fluid technology. PLI also introduced a new range of its flagship oil, PETRONAS Syntium with °CoolTech™, specially formulated to fight against excessive engine heat for improved engine performance and better fuel efficiency. The range comprises the premium low-viscosity PETRONAS Syntium 7000 Ultimate Series featuring PETRONAS Syntium 7000 Hybrid with °CoolTech™, the company's first oil for hybrid vehicles.
- As part of the Three-Pronged Growth Strategy of **Stepping Out**, we identify opportunities that will complement our business strategies and boost our capabilities to be fit for the future. **The acquisition of Da Vinci Group B.V. marks PCG's entry into specialty chemicals, focusing on manufacturing silicones, lube oil additives and other chemicals**. This strategic move not only complements the business, but also strengthens PCG's foothold in the Asia Pacific region, enhancing our competitive position in attractive end-markets such as personal care, construction, paints and coatings, electronics, automotive, and healthcare.
- PCG is also **embarking on a comprehensive New Plastics Economy (NPE) initiative** which involves working with technology experts to convert plastic waste into circular feedstock and alternative energy. PCG plays a critical role as one of the founding members of the Malaysia Plastic Pact (MPP) that drives the implementation of the Circular Economy Roadmap (CER) for Malaysia, initiated by the Ministry of Energy, Science, Technology, Environment and Climate Change (MESTECC) in 2019.
- In addition, a **collaboration between PCG and Cypark Resources Berhad was established to develop advanced facilities, called Solid Waste Modular Advanced Recovery and Treatment (SMART)**, that aims to process and convert municipal waste to generate electricity. This is part of PCG's initiatives to provide solutions for effective plastic waste management, and to support the Malaysian Government's aspiration of having at least one waste-to-energy (WTE) facility in each state. Other initiatives under the NPE include strategic collaborations with authorities and partners, aiming to promote better waste management efforts, for a greener and cleaner environment. We aim to inspire change within the industry and accelerate innovative ideas that embrace sustainable practices together for a better quality of life.

We are leveraging the concept of the circular economy to manage our plastic waste, read more about this on page 89 of the Safeguard the Environment section.

Downstream

THE WAVE OF DIGITAL DISRUPTION

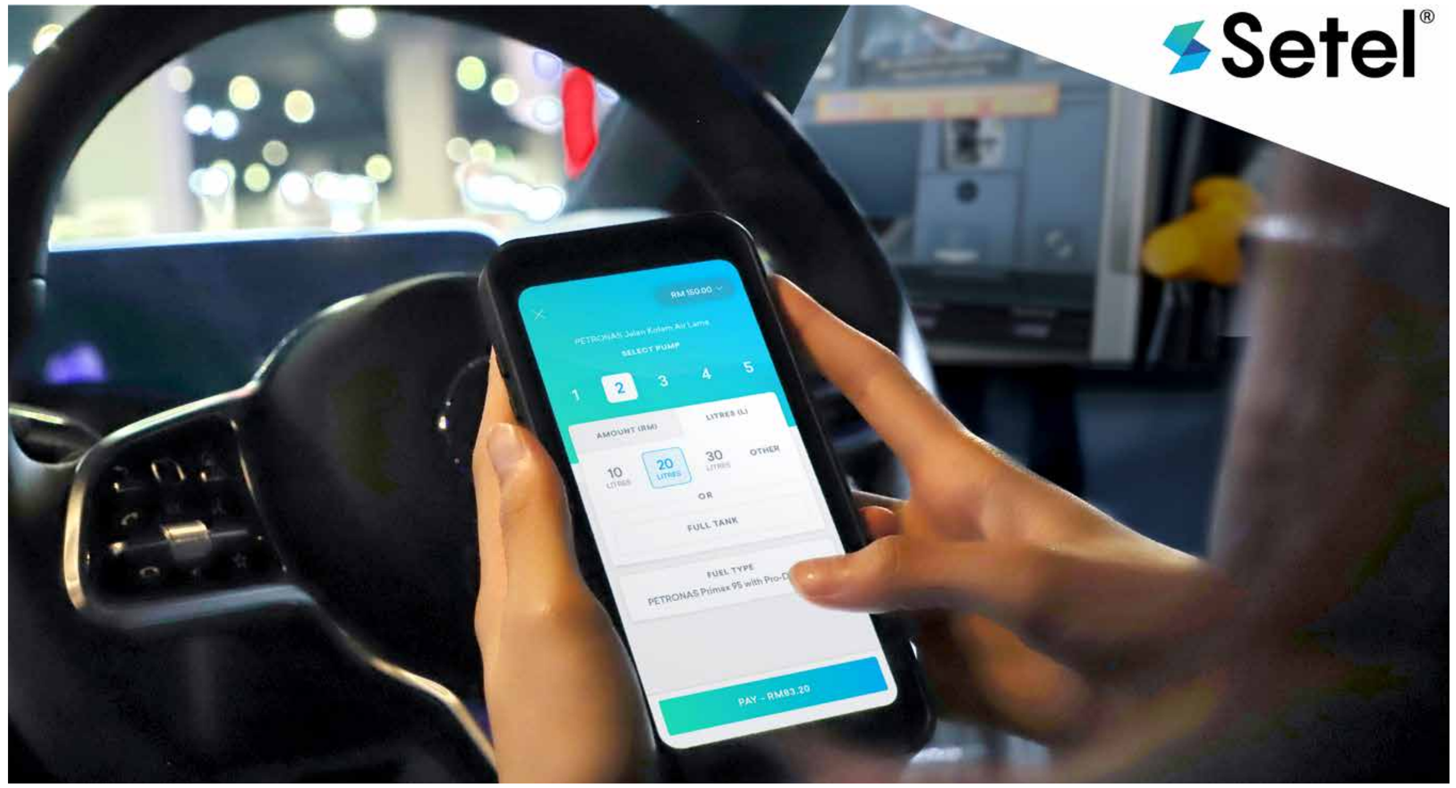
In an industry characterised by fluctuation and challenges, our business continuously pursues new methods to create value for the Group. We have disrupted the traditional business model, driving focus towards untapped opportunities that give us a competitive advantage.

- Through **Project DOVE, we leverage technological and digital advancements to continuously reinvent our business with goals** to support organisational transparency, facilitate better data-driven decision-making, increase personal accountability and promote enterprise collaboration within PETRONAS.

- The agility in digitalisation allows us to deliver business value on a scale that is constantly on the move. We use digitalisation as a lever to achieve operational excellence by improving efficiency and **increasing the performance visibility of our refineries and petrochemical plants, as demonstrated through our enterprise effort, Project PIVOT**.

- In keeping up with ever-changing consumer demand, we strive to cater beyond existing products and solutions. Under PDB, **Setel, Malaysia's first mobile application of its kind, was developed to eradicate everyday pain points associated with the refuelling process** including long queues, the use of physical loyalty cards and RM200 credit card hold. This new retail experience provides a seamless on-the-go refuelling for PETRONAS customers. Today, it integrates payment and loyalty benefits into a single application, offering a seamless and frictionless experience to our customers.

- Beyond retail, we introduced **ROVR, the first mobile refuelling service in Malaysia for both commercial and everyday drivers**, which extends PDB's coverage beyond the extensive network of PETRONAS stations nationwide. ROVR has also given PDB a competitive advantage in addressing challenges in existing business paradigms by easing logistical planning and enabling more efficient operations management for commercial customers. For everyday drivers, ROVR is available at local hotspots, bringing PETRONAS fuel to customers in areas with no nearby PETRONAS stations for their convenience.



Downstream

CONTINUOUS COMMITMENT TO SAFETY

Safety has always been a top priority for the Downstream business. Execution of our signature campaign, **"Jom Patuh & Tegur", continues to be implemented** across the Group. We conduct numerous Health, Safety, Security and Environment (HSSE)-related training and awareness programmes throughout the year in adopting a HSSE Generative Culture. The Downstream business saw a **reduction in fatalities, lost time injury (LTI) and major fire incidents in 2019 at 67 per cent, 64 per cent and 50 per cent, respectively**. However, despite stringent supervision, we regretfully suffered one fatality in 2019.

As we continue to reinforce our zero-incident target, we need to remind ourselves that good HSSE practices are always a collective responsibility. Strict compliance with the rules and policies, coupled with a mindset that requires us to look out for one another, will help us achieve our HSSE goals.

CHALLENGES AND MITIGATION

Managing market and industry volatility is a given condition for all major players. Our integrated value chain, ranging from refining, trading and manufacturing to marketing, is always susceptible to these uncertainties.

In a volatile environment driven by customer demands, industry players must strive to drive cost reductions and productivity gains to remain competitive. As customers become more sophisticated, the demand to cater for their needs becomes more crucial than ever. As an experienced energy and solutions partner, we identify challenges as seen through our customers' lens and aim to become the preferred partner to our customers by enriching their customer journey.

OUTLOOK AND PROSPECTS

Moving forward, the marketplace is expected to remain volatile and challenging. We will continue to seek opportunities in this evolving market to cater to unforeseeable challenges like the COVID-19 pandemic and fluctuating product prices.

We have equipped our operations with robust strategies and business models that will help to continuously position us at a competitive advantage. Our integrated value chain and advanced infrastructure will support our operations in delivering high value products and solutions for a seamless and frictionless customer experience.

As a business entity, our goal is to be a solutions partner with a culture that fosters innovation to address market challenges and foresee demands. Our business model continues to evolve as we unlock untapped areas that enable us to respond to market volatility and industry disrupters. We continue to be sensitive to market expectations by further strengthening our presence and diversifying our portfolio beyond existing commodities, including new product lines to cater to the medical and chemical industries and pursuing technological advancements to future-proof the business. With continued collaboration and focused execution, we look forward to delivering value to our partners and stakeholders.

Project Delivery and Technology

Project Delivery and Technology (PD&T) unites technical expertise, technology and a solution-focused approach to deliver sustainable energy and progressive value for the entire Group. Our role has become even more crucial in the face of unprecedented challenges moving forward, especially in ensuring that PETRONAS is at an advantageous position in all areas encompassing project, technology, technical and procurement across the Group.

Project

- Ensure project delivery excellence with achievement of top quartile performance accorded by the Independent Project Analysis (IPA) benchmark.
- Pervasive capital expenditure (CAPEX) compression for projects in delivering best-in-class projects for the Group.
- Streamline design and technical standards for projects for efficient problem-solving and smoother operations.

Technology

- Drive competitive advantage with dynamic in-house research and development efforts headquartered in PETRONAS Research Sdn Bhd (PRSB) in Bangi.
- 500 technical talents in research and development that drive innovation and over 600 proprietary technology development.
- Accelerate innovation by crowdsourcing ideas with 10 Innovation Gateway@PETRONAS (IG@P) conducted to date.

Technical

- Group Technical Solutions deploys technology and solutions that enable the business to achieve assets operational excellence and energy efficiency, with the achievement of 20x value creation on technology deployment and replication activities.
- Group Technical Data improves operational efficiency through entrenching data usage and digital culture awareness.
- Improved hydrocarbon recovery with RM1.5 billion value creation was recorded from Idle Well Prevention and Restoration initiatives.
- Group Technical Capability Management builds a pipeline of technically competent workforce, with a recent achievement of piloting RESCISCO in accelerating Technical Talent Development.

Read more on how we help our talents progress under our RESCISCO programme on page 77.

Procurement

- Procurement centralisation driven by unified strategies to achieve cost advantage and greater efficiency.
- Shapes the industry by engaging government agencies, financial institutions and other key enablers to nurture local Oil and Gas Services and Equipment (OGSE) capabilities.
- Provides a platform to facilitate Malaysian OGSE players to venture beyond Malaysia, focusing on long-term sustainability.

HOW WE CREATE VALUE

As the builders of the engines that drive Groupwide growth, we execute our mandate as the Group's Centre of Excellence (CoE) to maximise the value produced by Upstream, Downstream, and Gas and New Energy (collectively known as "the Businesses"). We do this by leveraging technology and pursuing excellence as differentiators, to deliver best-in-class performance and top quartile assets. PD&T is guided by PETRONAS' Three-Pronged Growth Strategy, which is aligned to eight focus areas and empowered by four enabling elements to help us produce value for the Group.

Project Delivery and Technology

PD&T's contributions to maximising business value have been wide-ranging and impactful:

1 Key projects and achievements

Since PD&T's establishment in 2016, we have tripled the value delivered to the Group by combining best-in-class project management with advanced technology and technical expertise. We have delivered top quartile projects including the world's first floating LNG facility - PFLNG SATU and accelerated project delivery beyond industry average records, including integrated offshore development projects such as BARDEGG-2 and Baronia EOR, and NC3 in Sarawak, onshore facilities such as MLNG Train 9 in Sarawak and the Regasification Terminal 2 in Pengerang, Johor.

In 2019,

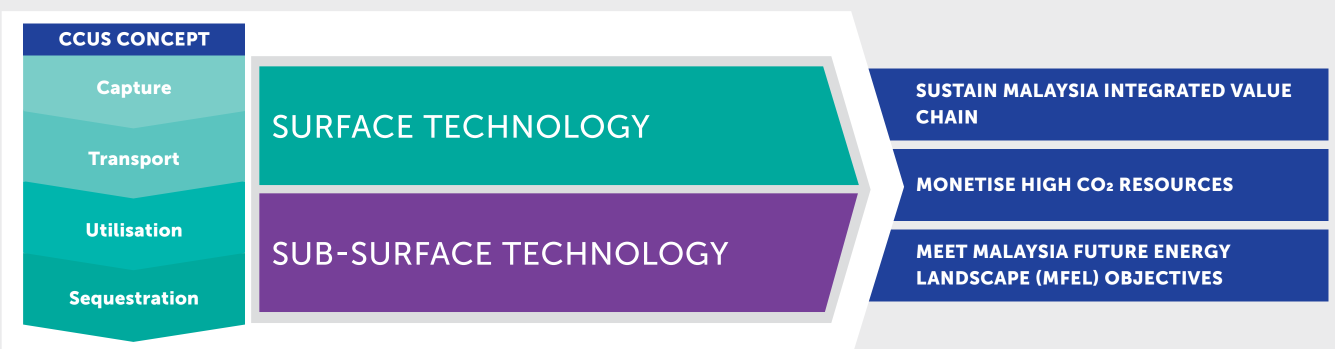
- We achieved first oil in D18 Ph 2 and D18 EMP respectively ahead by 42 days (2 November) and 63 days (8 October) with early oil monetisation value at approximately RM16 million and RM20.3 million each.
- We completed the Yetagun Infill Drilling PH7 in Myanmar below Final Investment Decision (FID) cost (RM71 million vs RM105 million) with zero lost time injury (LTI) and lost time absence to date, creating additional volume to support gas supply commitment.
- We achieved first oil five months ahead of schedule for ErbWest Infill Project (SALTEC) in Sabah, bringing an overall project cost optimisation of RM33 million.

New projects in the pipeline:

- Kasawari—Integrated Offshore High Contaminant Project in Sarawak (Complex Acid Gas Removal Unit to be installed offshore).

2 Transforming challenges into opportunities

Using **CCUS technology** that involves the carbon capture, transport, utilisation and sequestration processes, CO_2 content in natural gas can be reduced from 70 per cent to 6.5 per cent, separated in liquid form and eventually stored in carbonate reservoirs offshore. This technology minimises platform footprint and weight, mitigating subsurface uncertainties to unlock value.



The PETRONAS Carbon Commitments drive us to find new solutions, read more about our climate response in the Safeguard the Environment section on page 84.

3 Enhancing our Fuel and Lubricant business

A novel additive developed in-house has enabled combustion improvement for our Fuel while our Lubricants outperformed other commercial products in both friction and wear. In the mass market, we recorded:

A **4.5 per cent volume increase in sales** with a new fuel launch	Daimler's usage of PETRONAS product **increased by 33 per cent**	PETRONAS' supply of genuine oil to Mercedes Benz **increased 10 times**

Project Delivery and Technology

PD&T's contributions to maximising business value have been wide-ranging and impactful: (continued)

4 Managing assets end-life portfolio to meet affordability

PD&T has implemented numerous key strategies to ensure we keep costs low for Decommissioning and Abandonment operations. These strategies include strategic fit clusterisation and innovative decommissioning options and contracting strategy, as well as collaboration and sharing with the government, regulatory bodies and regional oil and gas players.

Among the results were the optimisation of Republic of South Sudan Decommissioning and Abandonment (D&A) scoping, planning and estimation by further defining the requirement, scope optimisation, efficient resource integration and planning which was accepted by the Republic of South Sudan's Ministry of Petroleum as the host authority.

Domestically, the establishment of the Reefing Framework in December 2019 marked the continuous collaboration between PETRONAS and the Department of Fisheries (DoF) in delivering decommissioning projects in a sustainable manner and benefitting the nation's food security agenda.

Find out more about our Decommissioning and Abandonment actions on page 92 in the Safeguard the Environment section.

5 Nurturing local OGSE capabilities

PD&T's Group Procurement provides extensive support to empower local OGSE companies, including initiatives such as the Vendor Development Programme (VDP), VDP^x, VDP Innotech, Lestari Programme, Access to Financing, Road to Bursa, Internationalisation Programme and the PETRONAS Activity Outlook.

As at 2019, we have successfully appointed 105 vendors in PETRONAS VDP and three vendors in VDP Innotech Programmes. Due to our collaborative approach with 46 Anchors in VDP^x Programme, 20 VDP^x vendors were appointed by 10 Anchors to groom more local vendors to support the oil and gas industry. The OGSE Vendor Financing Programme (VFP) has enabled access to financing for more than 130 vendors, with RM814 million total financing amount approved, as of 31 December 2019. To date, there are nine partner banks under the programme - Bank Islam, EXIM, HSBC, Maybank, RHB, UOB, Bank Rakyat, Bank Muamalat and CIMB. To ensure effectiveness of the programme, we also conducted a 101 Oil and Gas Overview for bankers, to share more information on the nature of jobs in oil and gas industry at different stages.

6 Future-proofing competencies and talent development

Introduced RESCISCO, an enhanced Technical Capability Development Framework and Programme. Through RESCISCO, talents will be able to pursue their personal development along the lines of different talent clusters that match their individual strengths and inclinations. In 2019, RESCISCO was successfully piloted at PETRONAS Chemicals Olefins, Glycols and Derivatives as well as for the Mechanical and Geo-science skill groups.

Link to Group Technical Capability Management, same section on page 74.

7 Strengthening compliance with data governance and escalating internal technical data capabilities

- PETRONAS along with six other corporations: DHL Asia Pacific Shared Services, TM One of Telekom, Datamicron, IJM Corporation, PPG Coatings and Top Glove have engaged in the 2u2i Programme; an initiative under the Ministry of Higher Education driven by Malaysian Digital Economy Corporation (MDEC) providing industrial placement for the pioneering batch of students from Universiti Teknologi Malaysia (UTM) majoring in Bachelor of Science in Computer Science (Data Engineering). This programme aims to support flexible education and support the Malaysia Education Blueprint 2015-2025 towards holistic, entrepreneurial and balanced graduates.
- Collaborated with CoE Operational Excellence (CoE OE), Turkmenistan Operation (TO) and Garraf Operation (GO) to launch PETRONAS Rotating Equipment Analytics (PROTEAN), a platform that allows cross collaboration for International Assets to share their pain points.

PD&T's contributions to maximising business value have been wide-ranging and impactful: (continued)

8 Digitalisation and technological advancement

Digitalisation and technological advancement transformed the way we engage with and serve our customers and allowed us to implement better internal processes to optimise cost and create new value. Throughout the Group, pervasive digital change is taking place, with Upstream benefitting from enhancements to Health, Safety, Security and Environment (HSSE) work processes as well as realising gains from its Digital Fields, while Downstream engages customers through digital applications that enhance customer experience. Powered by innovation and analytics, we are transforming our very core in PD&T to disrupt the industry as opposed to being the ones getting disrupted.

Procurement Transformation via Digital

- PETRONAS has embarked on its digital procurement transformation journey since 2017.
- The aim is to digitally transform the procurement function with the vision of being:
  - Digitally Advanced as a key factor behind the business transformation
  - Digitally Entrenched in the way of working to deliver new value, and
  - Digitally Seamless to remove friction and drive stakeholder connectivity.
- This will enhance the overall procurement experience by bringing the full, end-to-end procurement spectrum into one fluid workflow, designed as a flexible, cloud-native and open platform.

IN 2019,

- We accelerated reutilisation of surplus material with greater visibility of inventories through **Liquid88 Marketplace**.
- We sustained value creation of **RM2.4 billion** through Bid Analyser 1.0 (Accelerator).
- We deployed Rule-Based Procurement Lever Recommendation through **Category Workbench**.
- We embarked on **seamless sourcing experience** for above-threshold tenders benefitting business users and suppliers through **S2C**.
- We made **Interactive Procurement Information** available at fingertips within seconds through **NiCo**.
- We built Leaner Inventory and Agile stocking through **Inventory Analytics (ZENtory)**.

Bio-based Specialty Surfactants:

- Natural, eco-friendly and non-irritant emollient in personal care products.
- Versatile and eco-friendly non-ionic surfactant for household cleaning agents and for Upstream production chemicals.
- Ultra-mild amphoteric surfactant for personal care products.

Biomass to Chemicals

- Production of mono-ethylene glycol (MEG) from palm's empty fruit bunch.

Advanced Materials

- Development of a novel, patented composite material system with improved mechanical and corrosion properties for structural and pipeline application.

Robotics and Automation

- Remote operations.
- Drone for vessel thickness inspection.
- Robotic inspection.

Fuels and Lubricants

- Fluid development: Ionic Liquid and Graphene, developed for F1 for optimum race performance, where the technology and capability can be transferred and applied in passenger car.
- The technology is being developed together with Daimler (Mercedes-AMG).
- The collaboration with Daimler involves seven representatives from PD&T, PLI and Downstream.

HSSE

HSSE EFFORTS AND ACHIEVEMENTS

Beyond Compliance
Moving beyond compliance culture and integrating HSE Management System into PD&T core business processes.

Best-in-Class Contractors
Reinforcing PD&T business partners' HSE-intrinsic capability and capacity.

Sustainable Development
Realising a better and more sustainable future for all by aligning to the United Nations Sustainable Development Goals (SDGs).

IAMHSE Culture and Competency
Nurturing CARE Leadership, "IAMHSE" culture, and HSE Competency across PD&T groupwide workforce.

Digital HSSE
Integrating HSSE digital platform and data lakes for predictive and prescriptive risk analysis and interventions.

OUTLOOK AND PROSPECTS

The onset of the COVID-19 pandemic has brought about an increasing risk of impact towards some projects due to prolonged lockdowns and further disruptions anticipated to the global supply chain and industry providers. PD&T has put in place early measures to ensure that we continue to operate our total business value chain as optimally, and as safely and efficiently as possible. PD&T remains committed to the long-term goals of its technology agenda, which addresses four main themes that disrupt current patterns - Clean Energy, Artificial Intelligence, Hyper-Connectivity and Advanced Materials. PETRONAS also crowdsources innovation through the Technology Marketplace and by establishing collaborations and partnerships with universities and global research centres. Some of our plans to future-proof PETRONAS are already underway and are discussed below:

Facilities of the Future

Our Facilities of the Future programme leverages the use of subsea technologies, digitalisation, automation, robotics, hyper-connectivity, artificial intelligence and machine learning to create new ways of approaching our business. The aim of the programme is to reduce operating expenditure (OPEX) by 50 per cent and is targeted at the main cost levers of surface operations, maintenance and logistics. Reducing operational cost is crucial against the backdrop of declining production outlook and increasing development complexity. In addition, it also tackles the need for a more efficient and skilled workforce while reducing HSE exposure.

This will fundamentally change the way we operate our assets (our operating philosophy) and our technical and capability requirements to deliver solutions for both **greenfield developments** and **brownfield assets**.

Greenfield Developments

For Greenfield developments, the programme will provide subsea factories with technological solutions complemented by an onshore-based integrated command centre. This concept will allow for an operating philosophy that is fully unmanned (reducing HSE exposure) and requires zero or very minimal maintenance intervention (reducing operational costs). This approach will also help to unlock more value from marginal fields, shallow water and deepwater assets.

Brownfield Assets

For brownfield assets, the programme focuses on developing the following technologies:

i. Robotics inspection, maintenance and tele-operation
ii. Renewable energy for lowering opportunity cost
iii. Industrial Internet of Things (IIOT) and analytics expansion from current programmes

What is a Subsea Factory?

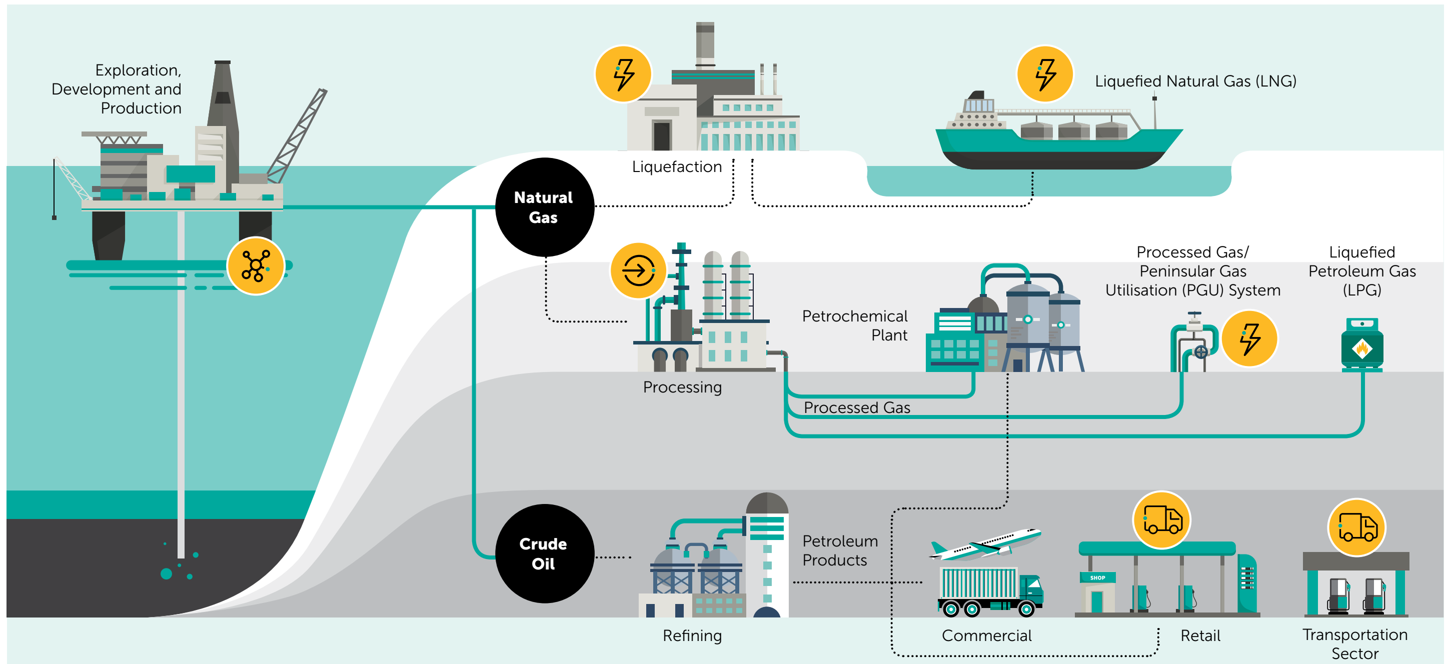
Subsea Factory is a solution to pursue growth in the Material Oil segment. Moving from the conventional way of minimal subsea (SPS, SURF) to total subsea factory (subsea separation, SURF, Separation, Storage, seawater injection, multiphase booster pump). As natural reservoir pressure declines, subsea compression can efficiently generate enough pressure to maintain production and manage flow-related challenges as it is located close to the reservoir.

Aims to reduce OPEX by 50 per cent | **Increase Recovery Factor (RF)** | **Safer operations**

Project Delivery and Technology

EXPLORING NEW ENERGY OPTIONS—HYDROGEN

Hydrogen is a multipurpose energy vector that can be converted to various forms of final energy, providing cross-cutting grid application. In line with PETRONAS' Future Positioning in Hydrogen, PD&T is maturing Electrolyser Technology for Hydrogen to sharpen PETRONAS' competitive edge.



H_2 as industrial feedstock

Clean H_2 can be used as a **feedstock to the petrochemical** industry, enabling production of "green" petrochemicals and decarbonising existing operations at the same time.

H_2 as a high CO_2 field enabler

Clean H_2 can **"unlock" gas production** without increasing GHG levels by combining the CO_2 with H_2 into a secondary product.

H_2 as a new energy carrier

While not a primary energy source, H_2 can be an energy carrier, **enabling conversion of renewable energy** into molecules.

H_2 as transportation fuel

Clean H_2 usage in fuel cell vehicles as a new fuel offering and a **decarbonisation solution** for the transportation sector.

We Are Committed to Delivering Energy Responsibly

Sustainability at PETRONAS is about delivering energy responsibly and it is embedded in everything we do. On the following pages, you can read about how we are making strategic progress in the area of sustainability as we continue to generate value alongside business growth.

HIGHLIGHTS IN 2019

Continued Value Creation

Safeguard the Environment

- **1.2 million tCO_2e** Reduction of direct (Scope 1) GHG emissions from hydrocarbon flaring and venting at oil fields in offshore Sarawak.
- **892 kWp** Installed Solar PV capacity resulting in reduction of indirect (Scope 2) GHG emissions of 0.713 million tCO_2e through Project SINARAN.
- **600 MWp** Additional Solar PV capacity under operations and development to diversify the portfolio mix towards energy transition.

Positive Social Impact

- Additional **800 people** benefitted from sustainable clean water supply through PDB Water for Life Programme in 2019.
- **10,100 national schools** in Malaysia gained from the distribution of "Plastic, Sustainability and You" multilingual and interactive learning module by PCG.
- **6,900 beneficiaries** of PETRONAS Educational Programme.
- **57% reduction** in fatal accident rate (FAR) as compared with 2018.

Responsible Governance

- **250 classroom** training sessions focusing on Ethics and Integrity, Data Privacy, Sanctions, Export Control and Competition.

Safeguard the Environment

In support of SDGs:

We believe that safeguarding the environment means going beyond compliance with existing environmental legislation. Equally important is the environmental impact our operations may have on society over time. Anchoring on this approach, we manage impacts across the entire business value chain by driving improvements in operational efficiency, innovation and the use of advanced technology to acquire accurate operational data.

Concurrent to strengthening our core operations responsibly, we are Stepping Out ▶ into the renewable energy space and continue to advocate natural gas and LNG as alternative low-carbon fuels. These actions will ease the shift to decarbonisation towards a sustainable future for society.

PETRONAS' Climate Change Position

PETRONAS duly recognises its corporate responsibility as a player in the global energy sector to balance the issue of climate change with the challenge of sustainably producing affordable and reliable energy.

CLIMATE RESPONSE

Responding to a changing climate poses both risks and opportunities for PETRONAS. As governments, societies and other key stakeholders around the world call for concerted climate action, it is clear that the energy industry has an important responsibility to take action. Some of the diverse actions taken include reducing and measuring greenhouse gas (GHG) and methane emissions, improving energy efficiencies in our operations, delivering low-carbon solutions to our customers and upholding responsible reporting practices, in line with international standards, to address stakeholder concerns.

CONTINUOUS IMPROVEMENTS IN OPERATIONAL EXCELLENCE

Reduction of direct (Scope 1) and indirect (Scope 2) GHG emissions:
- Hydrocarbon flaring and venting reduction
- Energy efficiency improvements to generate renewable electricity in our operations through Project SINARAN

R&D in carbon capture, utilisation and sequestration

DELIVER LOW-CARBON SOLUTIONS

Supply natural gas and LNG as low-carbon fuels

Increase installed renewable energy capacity to diversify portfolio mix

Improve fuel efficiency in our products

RESPONSIBLE REPORTING TO STAKEHOLDERS

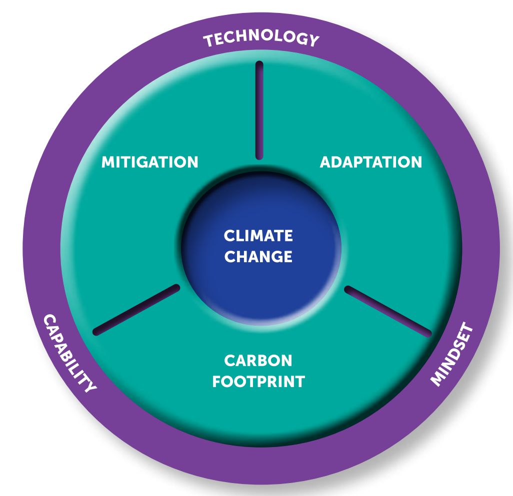
Improve transparency and disclosure of climate action performance:
- Capability building on GHG monitoring, reporting and verification
- Digitalisation of GHG and energy monitoring and reporting

Internal and external GHG verification exercises

A cornerstone of the climate response equation is the transition towards a low-carbon economy, and PETRONAS has progressed well in reducing emissions, advocating clean energy and driving operational excellence. These actions meet the requirements of the PETRONAS Climate Change Framework and PETRONAS Carbon Commitments. We support Malaysia's National Determined Contribution (NDC) to reduce GHG emissions by 45 per cent and the NDCs of the countries where we operate.

Overarching Framework

PETRONAS Climate Change Framework:
We focus on carbon footprint, mitigation and adaptation, enabled through technical innovation, technology deployment and capability development.



Carbon Footprint:
Good GHG accounting practices (relating to our carbon footprint) enable us to monitor, report and take proactive measures to reduce GHG emissions within our operations and products.

Mitigation:
Mitigation delivers economic benefits through operational excellence and gas monetisation.

Adaptation:
Strengthening our resilience to physical impacts of climate change will build business sustainability as well as reduce potential asset damage.

Safeguard the Environment

Safeguard the Environment

PETRONAS CARBON COMMITMENTS

The PETRONAS Carbon Commitments (PCC) were developed in 2012 to guide the management of our GHG emissions mainly through hydrocarbon flaring and venting reduction, and energy efficiency improvement. The PCC have since matured operationally, evolving with the market, and leveraging technical innovation and advanced technology.

We enhanced the PCC in 2017 to incorporate new requirements on managing high CO_2 fields, carbon price, carbon offsets and renewable energy. The PETRONAS Carbon Commitments Guidelines provide the business and Petroleum Agreement Contractors (PACs) the approach for an effective implementation of the PCC. Group Health, Safety, Security and Environment (GHSSE), PD&T, and Upstream, GNE and Downstream businesses oversee the incorporation of the PCC requirements in both domestic and international business systems and processes where relevant.

Planning and Projects

- Zero continuous flaring and venting of hydrocarbon to be incorporated in the design of new Upstream and Downstream facilities and projects.
- Malaysia Petroleum Management (MPM) to apply a country-level CO_2 emission allowance in the planning process for high CO_2 field development.
- High CO_2 field development in Upstream to incorporate carbon capture, transport, utilisation and sequestration (CCUS) technologies at the design stage.
- Carbon price shall be considered in project decision-making together with the option of carbon offsets where economically feasible.

Operations

- Zero continuous venting of hydrocarbon for all existing Upstream and Downstream facilities.
- Reduce continuous flaring of hydrocarbon for all existing Upstream and Downstream facilities where operationally and economically feasible.
- Downstream and LNG operating assets to meet and sustain top-quartile energy performance.

Renewable Energy

- Renewable energy technologies to be considered in all facilities and projects where operationally and economically feasible.

The PCC drive climate actions in reducing GHG emissions in our operations and projects, as well as in investing in renewable energy, while creating value and strengthening our businesses. We identify, assess and prioritise climate risks that could impact our business operations and subsequently integrate them into the PETRONAS Enterprise Risk Management profile for Groupwide implementation. To manage potential exposure arising from carbon liability, we focus on understanding emerging legislation in relation to climate change; and to add value, we ensure adequate and suitable technologies, such as CCUS, are developed at the right time.

Climate Actions

PETRONAS carried out various climate actions in our operations to deliver clean and low-carbon energy to our customers through key projects that deliver high value.

Promoting Natural Gas as a Low-Carbon Fuel

We believe we can deliver clean and low-carbon energy with the use of natural gas and LNG as an alternative to high-carbon fossil fuels to limit rising temperatures. Deploying advanced technologies, such as CCUS, helps to ensure sustainable extraction and processing of natural gas and LNG as we continue to expand our Gas business portfolio in our energy transition journey.

PFLNG DUA

PETRONAS marked another milestone in contributing to cleaner energy solutions by naming its second floating LNG facility in South Korea. Built in South Korea through collaborations with Samsung Heavy Industries and JGC Corporation, PFLNG DUA is moored at the Rotan Gas Field at a water depth of 1,300 metres, located 140 km offshore Kota Kinabalu, Sabah. The 393-metre-long floating LNG facility is able to produce 1.5 million tonnes of LNG per annum.

Minimising Flaring

PETRONAS designs projects to have zero continuous flaring and reduced continuous flaring by monetising the hydrocarbon gas for existing facilities where feasible.

We strive to minimise flaring by improving gas compressor availability and reliability and enhancing plant processes to reduce low-pressure flare gas. In 2019, we reduced 1.2 million tonnes of CO_2e GHG emissions from vent to flare conversion at an oilfield offshore Sarawak, bringing the amount of emission reduction to 12.8 million tonnes of CO_2e since 2012.

Improving Energy Efficiency in Our Operations

Continuous efforts in Downstream have improved energy utilisation via the Energy and Loss Management System (ELMS) and ameliorated OEE, which have increased plant utilisation rate from 85.2 in 2018 to 90.6 in 2019 and subsequently reduced Downstream GHG emissions.

For Upstream, **PETRONAS Energy Canada Ltd** has implemented an initiative to reduce its overall GHG emissions footprint through the electrification of its newly built production facilities in the Town North b-89-J gas plant in British Columbia. PETRONAS Canada decided on using co-generation which generates electricity and useful heat at the same time. The expected capital expenditure on the project is CAD48 million and it is expected to be completed by the first quarter of 2020. It will reduce GHG emissions by about 37,000 tonnes of CO_2e annually. The implementation of new technologies to reduce GHG emissions in the life cycle of our operations is critical to achieve regulatory compliance, allow for business growth, and maintain and continue to strengthen our reputation with key stakeholders, indigenous peoples, the government and the public.

Safeguard the Environment

A Continuous Journey of Methane Reduction

Managing hydrocarbon venting reduces methane emissions. The initiative at one of Sarawak's platforms started in 2017 with the upgrading and recommissioning of a low-pressure compressor to recover approximately 20MMscfd of vented hydrocarbon gas. This has reduced 0.8 million tonnes of CO_2e since implementation. Complying with the PCC aspiration of zero continuous hydrocarbon venting, a vent to flare conversion project was commissioned in 2019 that further reduced emissions by 1.2 million tonnes of CO_2e. We completed a situational assessment in 2019 that resulted in improvements to quantification and governance practices.

Renewable Energy Solutions

PETRONAS generates clean electricity sourced from five key installations, namely:

- **Rooftop Solar PV** at KLCC Suria Mall by KLCC Holdings (685 kWp, 2012)
- **Rooftop Solar PV** at PETRONAS Solaris Putra and Serdang twin petrol stations by PETRONAS Dagangan Berhad (180 kWp, 2014)
- **Large-scale Solar Farm** in Gebeng (Pahang) by GNE business (10,000 kWp, 2014)
- **Rooftop Solar PV** at AREXONS (Italy), PETRONAS Lubricant International (440 kWp, 2016)
- **Rooftop Solar PV** at Pengerang Integrated Complex (Johor) by Downstream business (207 kWp, 2018)

Renewable Energy Generated

Year	2017	2018	2019
Total Renewable Electricity Generated from Solar PV Installations (MWh)	13,627	14,039	**13,973**

Project SINARAN (Solar Installation and Application on PETRONAS Rooftops and Assets Nationwide) continues this journey with a potential of 22.5 MWp of installed capacity. A total of 183 sites over 13 operating units have been identified as being suitable for the installation of grid-connected solar PV systems to harvest the sun's energy. Once completed, the project will reduce our total electricity consumption by 2.2 per cent. This will contribute to a reduction in GHG emissions of 24,281 tonnes of CO_2e per annum. As of 2019, we have installed solar capacity worth 893 kW under Project SINARAN at seven sites.

- **PETRONAS Research in Bangi – 624 kW**
- **PETRONAS Gas in Seremban – 143 kW**
- **PETRONAS stations at five locations – 125 kW**

Energy generated at these sites will potentially reduce GHG emissions by 713,000 tonnes of CO_2e, which is equivalent to planting 133,000 trees or powering 290 households. In addition, it translates to cost savings of 20 to 40 per cent for electricity bills at these sites.

For more information please refer to Gas and New Energy business on pages 62 - 67.

Innovative Actions

- **Considering carbon price in our business decision-making** for new projects to future-proof our investments.
- **Pursuing technology-related initiatives** such as the development CCUS solutions to manage future high CO_2 gas field development.

Delivering Fuel Efficiency in our Products

We are constantly improving our products to be more fuel-efficient. The new PETRONAS Primax 95 with Pro-Drive and our flagship PETRONAS Syntium with °CoolTech™ are examples of this. Read more about our efforts in the Downstream business section on page 71.

Safeguard the Environment

Conserving our Forests for Carbon Sequestration

We are currently exploring opportunities to use natural forest-based carbon sinks that will sequester CO_2 from the atmosphere. In 2019, we conducted training sessions and workshops on forest-based carbon offsets. We also hosted the first oil and gas industry carbon offset workshop in Kuala Lumpur, organised by the International Petroleum Industry Environmental Conservation Association (IPIECA).

For more information please refer to Positive Social Impact on pages 94 - 116.

Enhancing GHG Monitoring, Reporting and Verification

We continue to improve GHG monitoring, reporting and verification to strengthen GHG data accuracy and stakeholder confidence through:

- **Digitalisation programme** – We created a centralised data repository and upgraded existing software, which will increase transparency and advance our aspiration for automated GHG calculations, i.e. meter to report.
- **Internal verification** – Internal verification was completed in 2019 at Malaysia LNG (MLNG), following earlier completion in the Downstream, and Gas and New Energy businesses.
- **External GHG verification contracting (2020 to 2022 plan)** – External GHG verification contracting was initiated in 2019 and is planned to be completed in 2022. The scope includes domestic and International PETRONAS operations with operational control.

Climate Change Capability Development

- In 2019, a technical competency ruler was established to develop Competent Climate Change Persons for a cohort of PETRONAS employees across the business.
- Selected Change Persons were upskilled with capabilities in GHG monitoring, reporting and verification for operations and projects, as well as forest-based carbon offset and climate change adaptation training.
- Vulnerability assessments, upskilling training sessions and workshops were conducted to increase understanding on the vulnerability and exposure of our operations, assets, people and surrounding communities to climate hazards.

Moving forward, our Malaysian operations in Upstream, Downstream, and Gas and New Energy will continue to be the primary focus for mitigation initiatives as they contribute to the majority of PETRONAS' GHG emissions.

Safeguard the Environment

GHG EMISSIONS PERFORMANCE

PETRONAS has taken concrete measures and increased our efforts over the years to manage our GHG emissions, and we have continued to innovate in this direction. In 2019, we continue to reduce a total of 1.2 million tCO_2e. Cumulatively since 2013, we have achieved a reduction of 12.8 million tCO_2e leading our way to the targeted GHG emissions by 2024.

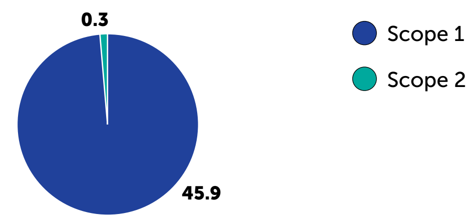
We target to reduce our overall emissions capped at 49.5 million tCO_2e by 2024

GHG Emissions

Year	2017	2018	2019
Malaysia Operations	50.1	45.9	**46.2**
International Operations	2.3	1.5	**1.7**
Total Greenhouse Gas Emissions (millions tCO_2e)	52.4	47.4	**47.9**

Note: RAPID, MISC and KLCCH emissions are not included

Emissions for Malaysia operations only



PORTFOLIO MIX

PETRONAS has begun to take steps to adjust its energy portfolio by Stepping Out ▶ into new energy opportunities that will enhance our competitiveness and business resilience while at the same time reduce our emissions. The Group now has a Gas and New Energy business that serves as our platform to drive cleaner energy solutions and renewable energy solutions. The investment in renewable energy improves operational excellence in addition to moving the business forward in step with the rest of the world.

We target to achieve installed renewable energy capacity of 3,000 MW by 2024

Amplus Energy Solutions Acquisition

PETRONAS made its first international solar venture acquisition by acquiring Singapore-based solar energy company Amplus Energy Solutions Pte Ltd (M+) in April 2019. The company has a cumulative capacity of over 600 MWp under operation and development and has projects across India, the Middle East and Southeast Asia.

For more details about this acquisition, please refer to Gas and New Energy on pages 62 to 67.

Safeguard the Environment

ENVIRONMENTAL MANAGEMENT

We continue to embed environmental management in our operations as we brace for more challenging and stringent environmental expectations from our stakeholders. To reduce our environmental footprint, we focus on improving the design of our facilities, sustaining operational excellence and streamlining internal processes.

We place high priority on ensuring compliance with applicable environmental regulations in a sustained manner. Internal environmental standards and guidelines have been established for Groupwide implementation and benchmarked against international standards such as the World Bank guidelines and the International Finance Corporation (IFC) Performance Standards on Environment and Social Sustainability. For example, operations of the Pengerang Integrated Complex are aligned with the IFC Performance Standards on Environmental and Social Sustainability and the applicable World Bank Group/ IFC Environmental, Health and Safety Guidelines.

In addition, our staff are trained to become Environment Specialists working with other technical skills groups to achieve the common goal of environmental sustainability in our business.

Waste Management

In 2019, we generated approximately 274,000 metric tonnes of hazardous waste as compared with 112,000 metric tonnes in 2018. The increase was due to tank cleaning maintenance activities resulting in the generation of oily sludge. The total waste recycled or recovered was 66,000 metric tonnes, equivalent to 24 per cent of total waste generated.

Moving forward, we have identified waste minimisation as a metric, based on the application of the circular economy concept, towards a 2024 target. This will be carried out in collaboration with the Malaysian Government on the New Plastic Economy initiative.

The New Plastic Economy

RETHINK PLASTICS

Rethink Plastics – Towards a Circular Economy

With the increase in human population, the demand for plastic increases, resulting in the need for good waste management and improved infrastructure to manage plastic waste. Studies have indicated that by 2050, there will be more plastic than fish in the sea, thus making it imperative for us to look at how we can create value by turning plastic into a resource.

In our efforts to change the mindset from viewing "plastic as waste" to "plastic as a resource", our subsidiary, PCG collaborates with the Malaysian Government in addressing plastic pollution in the country. PCG is spearheading the New Plastic Economy initiative, Malaysia's Roadmap Towards Zero Single-Use Plastics 2018-2030. We are working with internal and external stakeholders from government agencies, industry players and local communities to realise the success of this programme.

Based on Malaysia's existing waste management framework, gaps were identified leading to the formulation of four pillars:

INNOVATION
To apply advanced recycling technologies to convert plastic waste that cannot be recycled using conventional methods.

INFRASTRUCTURE
To develop effective and sustainable waste recovery systems.

EDUCATION
To impart knowledge on how we can continue to benefit from the versatility of plastic without damaging the environment by adopting proper waste management practices.

CLEAN-UP
To turn education into action through hands-on clean-up activities within communities.

The New Plastic Economy (continued)

Performance and Key Initiatives

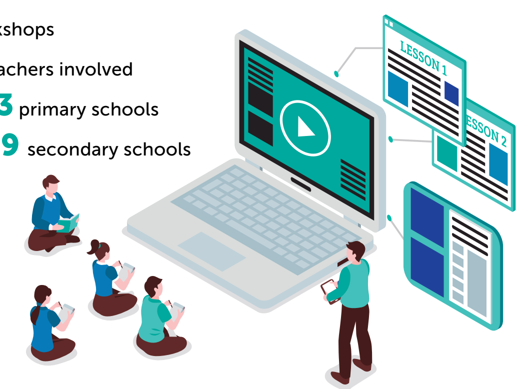
INNOVATION
We inked a collaboration with Plastic Energy Ltd to look into technology development to process non-recyclable plastic waste into crude naphtha. The crude naphtha produced will then be fed as alternative feedstock for the production of recycled virgin-quality polymers. The aim of the collaboration is to build a chemical recycling plant with the capacity to process 25,000 tonnes per annum of plastic waste to naphtha, the first of its kind in Southeast Asia. PCG is working closely with plastic converters as well as brand owners to close the loop in ensuring that recycled virgin-quality polymers produced from this process will benefit the industry and reduce plastic waste leakages to the environment.

INFRASTRUCTURE
In addressing the existing gap in recyclable materials recovery, we are collaborating with Cypark Resources Berhad (Cypark) to develop a Solid Waste Modular Advanced Recovery and Treatment (SMART) system for municipal waste. Through the system, mixed waste will be sorted into types at a semi-automatic facility. The recyclable materials recovered from this facility will then be processed to create more value instead of ending up in landfills. Plastic collected from this system will be channelled into the most appropriate facilities for treatment and reprocessing prior to being fed back into the circular economy.

EDUCATION
We collaborated with the Ministry of Education (MOE), the Malaysian Plastics Manufacturers Association (MPMA) and Solid Waste and Public Cleansing Corporation (SWCorp) to develop an educational module for primary and secondary schools on the sustainable use of plastic.

The "Plastic, Sustainability and You" module has been developed for teachers to supplement their Science, Additional Science, Chemistry, Geography and Sustainability subjects. It emphasises that everyone has a role to play in reducing global warming and marine litter, which negatively impact environmental sustainability, by managing waste responsibly. The content is available in Malay, English, Mandarin and Tamil, and is complemented by videos and interactive learning modules to make learning more fun and interesting.

- **5** workshops
- **45** teachers involved
- **7,773** primary schools
- **2,329** secondary schools



CLEAN-UP
To complement our educational programmes and expand our reach to the community, we have enhanced our signature CSR programme, Be Green, to include talks on plastic waste management and community clean-up activities. In 2019, we incorporated the 3R (reduce, reuse, recycle) elements in Be Green via a nationwide #recycleforlifecycle campaign, with the objective of inculcating a culture of 3R and waste segregation. We target to recover plastic waste volume equal to our production volume of polymers for the Malaysian market by 2030, and to redirect this waste into the circular economy.

Water Management

Water is crucal to our business, especially to the Downstream business that utilises approximately 90 per cent of our total freshwater withdrawal. Water is mainly used for cooling and generation of steam for manufacturing purposes. Any disruption to this essential resource will affect our operations; thus, we have adopted robust internal standards and policies, as well as initiatives, to optimise our water consumption.

In 2019, we optimised water consumption and minimised water wastage following the completion of a Groupwide water balance exercise, the continuing review of water practices (WAPS) activities and water stress screening using the World Resource Institute's (WRI) Aqueduct Water Stress Atlas for locations where we operate.

Our water management initiatives are not just about managing water withdrawal and consumption in our business operations. They include contributing to communities through water-related activities.

Since 2013, our "Water For Life" programme, initiated by PETRONAS Dagangan Berhad and carried out in partnership with the Malaysian Nature Society, has provided rural villages with sustainable clean water supply. Close to 9,000 people have benefitted from the programme, which has garnered support from about 900 volunteers across the country. In 2019, the programme was brought to Kampung Kubang Tok Lebai (Sik, Kedah) and Kampung Kuala Pangsun (Hulu Langat, Selangor). The work typically involves building water infrastructure to enable clean water supply to the communities, as well as awareness programmes to educate the communities on water conservation and health risks associated with unclean water consumption.

Since 2013, "Water for Life" has rallied **900** volunteers and positively impacted **9,000** people living in rural areas

Freshwater Withdrawal

In 2019, our total freshwater withdrawal was 58.33 million cubic metres from Malaysian and international operations, which was comparable with the 59.21 million cubic metres recorded in 2018.

Wastewater Discharge

Our wastewater is treated before being released into the environment. The oil in water content decreased from 715 metric tonnes in 2018 to 634 metric tonnes in 2019 due to lower operational activities.

Air Emissions

We continue to evaluate risks and monitor air emissions from our facilities. To expedite the interventions required, we have developed online monitoring of air pollutants such as nitrogen oxides, sulphur oxides and carbon monoxide to enhance data visibility. We work closely with relevant stakeholders to streamline an integrated air emission management approach.

Sulphur oxides emissions in 2019 stood at 93,948 metric tonnes compared with 113,256 metric tonnes in 2018. The decrease in emission value was mainly due to the usage of cleaner fuel (low-sulphur compliant fuel) in our fleets.

Nitrogen oxides emissions in 2019 stood at 151,445 metric tonnes compared with 151,519 metric tonnes in 2018. The slight decrease in emission value was due to operational improvements and a reduction in venting activities.

Safeguard the Environment

Oil Spills and Response Preparedness

Our preventive maintenance and routine monitoring have prevented spills at source and maintained our facilities' reliability. We recorded a total of seven hydrocarbon spills in 2019 with a total estimated volume of 24.9 cubic metres, which was similar to the seven spills recorded in 2018 (22.6 cubic metres).

Spill incidents due to land transportation accidents (three out of eight) continued to be minimal in 2019. The small number of accidents was the result of intensified road safety campaigns and the enforcement of our Road Transport Operation Guideline (RTOG). Our RTOG comprises continuous development of drivers' competencies, structured procedures, work and rest hours (WRH) monitoring, driver behaviour monitoring and journey management plans (JMP). Based on the campaigns and enforcement, we achieved a 60 per cent reduction in speeding violations and a 26 per cent improvement in our in-vehicle monitoring system (IVMS) violations per million kilometres as compared with 2018.

In 2019, our Oil Spill Management under the Crisis and Incident Management Department continued to strengthen PETRONAS' oil spill response (OSR) capabilities. Two OSR quantitative risk analyses were completed for PETRONAS Carigali Turkmenistan Operations (PCTO) and PFLNG SATU, respectively and one OSR equipment assessment for PCTO.

Intensifying organisational OSR capability is also done through upskilling and training. In 2019, there were a total of eight training sessions conducted. This included four sessions for the Upskilling of the Emergency Management Team (EMT), three sessions for the Training of the Oil Spill Response Team (OSRT) and one session of OSR Awareness involving 158 personnel.

To strengthen collaboration regarding oil spill matters, an OSR Technical Forum was conducted in October 2019 with MPM. The forum saw the participation of 82 OSR stakeholders representing the industry, oil spill response service providers as well as the authorities. It also provided a strategic avenue for the sharing of relevant OSR information such as the mechanism for responding to wildlife affected by oil spills and the tiered preparedness and response wheel.

Decommissioning

PETRONAS has been in operation for 46 years and it has been more than 100 years since oil production activities began in Malaysia. Thus, we expect to see a marked increase in decommissioning and abandonment activities given that some assets have reached or are reaching the end of their life cycles. In 2019, we endorsed six integrated decommissioning projects and over 20 well plugs and abandonments. We estimate the abandonment liability of our current assets to be around RM60 billion. This estimate has the potential to rise to over RM100 billion if the abandonment or decommissioning process is not managed well.

As part of the decommissioning options assessment, we emphasise evaluating feasible options in reusing the facility's material to support the growth of marine life and provide protection from illegal trawling activities. This entails detailed social and economic analysis on refurbishing retired oil and gas structures into artificial reefs, and we work closely with the Department of Fisheries (DOF) Malaysia. In 2019, we established a Reefing Framework with the DOF for future artificial reef collaboration as a result of decommissioning works.

We have benchmarked against and collaborated with other stakeholders, as well as local and foreign players, to ensure we have instituted the best practices, especially to mitigate our impact on the environment. PETRONAS collaborated with the Department of Environment (DOE) Malaysia to develop a national-level "Environmental Guideline for Decommissioning of Oil and Gas Facilities in Malaysia".

Safeguard the Environment

Biodiversity and Ecosystem Services

Biodiversity and Ecosystem Services (BES) is the goods and services ecosystem provided for human well-being and economic development. Large-scale development can impact BES and create material risk for the industry. PETRONAS recognises that any disruptions to BES in our areas of operations can potentially affect the quality and availability of BES to the local communities as well as our operations. Conserving and maintaining the ecosystems are important for both the present and future generations, and further supported by fostering and enhancing relationships with the local authorities and communities.

In 2019, we undertook the following initiatives to promote biodiversity conservation:

1. Biodiversity and Ecosystem Services Risk Assessment (BESRA) for three of our operations namely Malaysian Refining Company Sdn Bhd (MRCSB), Sabah Gas Terminal (SBGAST) and Engen, identified potential BES risks and recommended mitigation measures for all three sites.

2. Continued our efforts in the Imbak Canyon Conservation Area (ICCA), a Class 1 Forest Reserve in Borneo and home to a wide variety of flora and unique endangered wildlife. Through collaboration with Yayasan Sabah, PETRONAS has committed RM83 million for the conservation of ICCA, making it the first and largest ever local partnership to conserve a gazetted forest protection area in Sabah. As a member of the Imbak Canyon Steering Committee, PETRONAS led the conservation efforts by launching the Imbak Canyon Studies Centre on 26 March and held the ICCA Scientific Expedition 2019 from 8 to 18 December as part of the ICCA Biodiversity Programme.

3. Biodiversity Awareness Day was held on 23 April 2019 in conjunction with International Day for Biological Diversity. The objective of the event was to create awareness among PETRONAS employees on the importance of protecting threatened and endangered species. The event also saw the participation of speakers and exhibitors from Jabatan Perlindungan Hidupan Liar dan Taman Negara (PERHILITAN), Universiti Malaya, Yayasan PETRONAS, WWF-Malaysia, Malaysia Nature Society (MNS) and Reef Check.

Positive Social Impact

In support of SDGs:

PETRONAS drives positive social impact by identifying the needs of our stakeholders, driving the change required to meet those needs and ensuring that the change continuously creates value and remains sustainable. We empower our people through training and development programmes, making safety our value proposition and a key component of PETRONAS' purpose.

We take great care of the health and wellness of our people and we do not tolerate discrimination in any form, as we operate on merit and equality. Under our holistic approach, we ensure human rights are upheld throughout the Group and our supply chain. Risks that our products may pose to the environment are also managed upfront to minimise the impact on the environment and the community. As we continue to grow, we extend our responsibility to the wider community, Yayasan PETRONAS, our corporate social responsibility arm, which drives active volunteerism and philanthropy towards enriching lives.

Health and Safety

PETRONAS is committed to the health and safety of all stakeholders wherever it operates. To us, this means that our employees and contractors are at their best level of health, and are working in the safest possible conditions. We work hard to ensure that both the level and quality of health are maintained, or enhanced, while in terms of safety, we take an unrelenting approach to enforce stringent safety policies across a hugely complex business.

HEALTH, WELL-BEING AND WORKPLACE

Occupational Health

Employees who are in good health and who are supported by a healthy work environment contribute to optimal performance and productivity, which will positively impact our operations. This in turn contributes to PETRONAS being recognised as an attractive employer and workplace, thus positively impacting the sustainability of the business.

We went beyond compliance with our Group standards and regulatory health requirements, which comprise effective health management and emergency response including public health outbreaks of significance. PETRONAS introduced the MESTIfit4health programme to manage health risk factors and to promote a healthy lifestyle. This Groupwide programme targets five areas to improve the health of our employees:

M	E	S	T	I
MOVE RIGHT!	EAT RIGHT!	SLEEP RIGHT!	THINK RIGHT!	INDIVIDUAL RIGHT!
Addresses physical inactivity	Promotes healthy eating and a balanced diet	Addresses issues of fatigue by promoting good sleep habits	Promotes good mental health and resilience	Promotes responsible behaviour from the perspective of managing individual health risk towards oneself and others

MESTIfit4health – PETRONAS' Groupwide flagship health promotion programme

- Annual MESTIfit4health survey reported a 7 per cent improvement in health behaviours among employees in 2019 compared with 2018.
- Completion of Groupwide team-based Walking Challenge involving 6,853 staff completing 3.6 billion steps over a three-month period, with average daily steps of 8,000 per participant.
- Launched a one-year Walk4Trees challenge from 1 December 2019 to 1 December 2020. The Group, in partnership with Yayasan PETRONAS, has committed to planting one tree for every one million steps walked by staff and their families.

A total of **3.6 billion** steps achieved by **6,853 staff** over a three-month period

Intensification of MESTIfit4health programme

In 2019, MESTIfit4health was intensified for our international operations in PETRONAS Lubricants International (PLI) and Engen South Africa. In conjunction with the launch in PLI, a walking challenge was held involving 400 employees from PLI operations globally. Engen rebranded their health and wellness initiatives and launched MESTIfit4health on 2 December 2019 with a livestream to all Engen operating units in Africa and organised a week of health activities.

Digital Healthy Lifestyle Coaching (DHLC)

DHLC is an online health coaching app featuring professional health coaches and a risk-based approach for employees with significant risk factors or chronic diseases. Following the success of the pilot DHLC in 2018, we extended the programme to 517 employees in 2019. These comprised 441 employees with significant risk factors or chronic diseases and 76 employees in a Targeted Intervention Group identified as unfit to carry out job-specific tasks.

Eating right e-Module

An e-Module called "A Guide to Healthy Eating" was rolled out to increase employee awareness on the benefits of healthy and balanced diets as a means of promoting wellness and weight management.

Positive Social Impact

Food Poisoning Intervention

Food poisoning incidents remain a major contributor to occupational illnesses. As such, we continued our efforts towards improving food safety management across all our assets. This involved conducting three catering workshops involving a total of 82 contractor caterers where we reinforced food safety requirements and jointly agreed that the caterers would obtain food hygiene certification, i.e. BeSS (Clean, Safe and Healthy) recognition, from the health authorities. As at end-2019, 67 per cent of the caterers have obtained BeSS. BeSS is a form of recognition given to food premises operators by the Ministry of Health Malaysia to encourage the provision of safe and healthy food.

Moving forward, assessments have been scheduled with the target of achieving 100 per cent BeSS certifications by the end of 2020.

Fatigue Management

The Fatigue Management System (FMS), which digitally tracks and monitors hours of service limits (HSL) – working hours, days and rest periods based on work groups, now covers 55 assets in Malaysia. The pilot rollout to offshore assets was also successfully completed in 2019 and determined to be feasible for rollout to offshore assets, depending on risk and priority factors. In 2020, we will be leveraging digitalisation to strengthen fatigue management in land transport with the integration of the Fatigue Management System into the In-Vehicle Monitoring System. This will enable real-time monitoring to allow us to intervene before an occurrence of non-compliance.

Along with the integration of FMS in land transport, to improve management of the risk of fatigue among land transport drivers, we proceeded to develop and implement the Fatigue Remedy and Sleep Hygiene (FReSH) module. FReSH is a train-the-trainer module focusing on training land transport contractors to get enough sleep and serves as a proactive measure towards preventing and reducing fatigue among drivers. Training was conducted for 60 trainers from eight land transport contractors and the training was subsequently delivered to 711 contractor drivers in Malaysia. We are currently engaging with the Engen fleet team with a plan to commence FReSH in 2020.

Industrial Hygiene

Effective management of industrial hygiene remains a focus for PETRONAS. In 2019, we worked to reduce usage of and exposure to chemicals of very high concern (CVHC), minimised and controlled exposure to noise and hazardous chemicals and ensure implementation of human factors engineering in projects.

The initiatives implemented by Noise Improvement Control and Engineering (NICE) Taskforce achieved a significant noise reduction of up to 27dB(A) (a 99.8 per cent reduction) from identified sources within our operations in Sarawak and two locations in Terengganu. Up to 56 per cent of identified high-risk asbestos-containing material were removed or further controlled to lower risk. In addition, the top three most frequently used CVHC were identified for substitution.

Environmental Health

We continuously safeguard community health by adopting a risk-based approach that addresses potential cumulative health impacts. In 2019, we conducted human health risk assessments at selected Malaysian Operations facilities. The assessment findings will strengthen the decision-making process for future risk-based mitigations.

Positive Social Impact

SAFETY

We protect our employees and contractors by ensuring an uncompromising approach to providing a safe and healthy work environment. Compliance with stringent regulatory requirements including governance over safe work processes are imposed and adhered to. We believe our strong safety mindset has led to more than 50 per cent reduction in the FAR in our operations for 2019.

57% reduction in fatal accident rate (FAR) as compared with 2018

The PETRONAS Health, Safety and Environment (HSE) Policy reflects our commitment to ensuring the safety of our people, assets and the environment. The PETRONAS HSE Policy ensures every person in the areas where we operate does the right thing, every time. Prudent due diligence is carried out where risk assessment findings, including intervention plans, are deliberated regularly at our Board Audit Committee and Board Risk meetings for continuous improvement.

Safety in PETRONAS covers personal safety, contractor management, land transport operations and process safety. Continuous improvements on safety is a norm in our operations and new safety initiatives are introduced to maintain positive safety impact.

Riding the Digital Wave - myHSSE

As we move towards operating in an increasingly complex environment, we have strengthened our digital and analytics capacities. In 2019, we improved operational data sharing and knowledge from analytics in seeking ways to increase efficiency and standardisation across the stakeholders we serve. As of 2019, Group Health, Safety, Security and Environment (GHSSE) has embarked on 10 different digital platforms and work processes to improve HSSE performance across PETRONAS' domestic and international operations.

By navigating a centralised platform of myHSSE, we aim to simplify user experience on our systems for both staff and contractors. This centralisation allows all users to gain instinctive knowledge of how to record, track and monitor HSSE reporting. myHSSE also provides solutions that can integrate HSSE considerations into improving users' yields and operations.

GHSSE also benefits from the massive amount of data inputs for improvements and to build progressive analytics solutions. Ultimately, these tools protect the rights of our workers and will improve HSSE key performance indicators across business units to ensure that each and every worker in PETRONAS goes home safely.

The real-world applications of digitalisation in the HSSE context include improvement in work productivity, where time taken to process employee medical assessments in SHIELD had reduced to 95 per cent. The simplification of methods to report Unsafe Act Unsafe Condition (UAUC) has also increased the number of immediate actions taken to eliminate incidents at the work place. Through the FMS, more than 20,000 potential fatigue-related incidents have been avoided as any employee or contractor who exceeds the hours of service limits (HSL) will not be allowed to enter PETRONAS premises.

Positive Social Impact

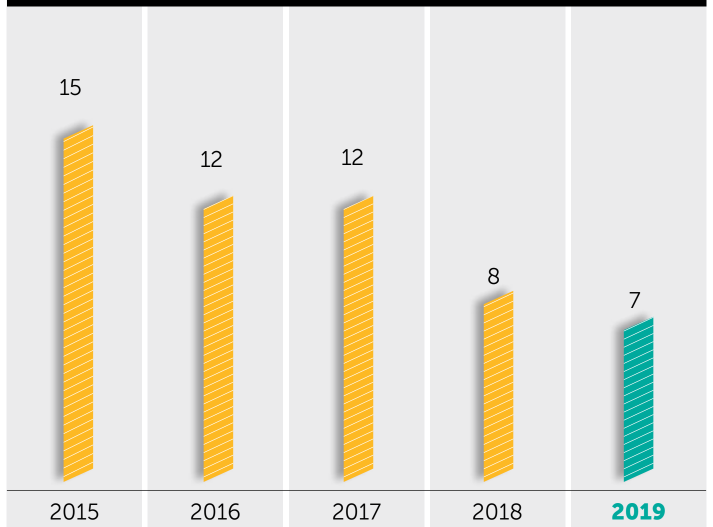
Process Safety

Our process safety efforts revolve around early prevention and mitigation of Major Process Safety Events, which include loss of primary containment (LOPC), fire and injury (loss time injury) to avoid the significant impact when they occur.

We are vigilant in managing risks by embedding the aspects of Process Safety in our HSE Management System and PETRONAS Technical Standards. Our Process Safety Loss of Primary Containment Reduction (PSLR) Framework and the Fire Prevention and Mitigation Framework (FPMF) work in tandem to prevent and mitigate Process Safety Events. These frameworks, introduced in 2017 and 2018 respectively, signify our focused intent on tackling LOPC and fire risks. Our efforts have shown encouraging results, whereby the number of Tier 1 Process Safety Events (PSE) was reduced by about 42 per cent from 12 in 2017 to seven in 2019.

In addition to the frameworks, we also prioritise the monitoring and reporting of leading indicators, which enable us to address potential risks proactively. This is in line with best industry practices promoted by international organisations such as the Centre for Chemical Process Safety (CCPS), of which PETRONAS is a member company.

PSE Tier 1 (Five-Year Trending)



The number of Tier 1 Process Safety Events has decreased from 12 in 2017 to 7 in 2019

Shaping Generative HSSE Culture

In 2019, we extended the Culture Maturity Survey to our international assets. With a 78 per cent response rate, comprising respondents from across the Group, the results showed PETRONAS is progressing towards a "Generative" HSSE culture, indicating HSSE is embedded in how we do business in PETRONAS. Our efforts to shape Generative HSSE Culture focused on behavioural change by reinforcing the culture of accountability, HSSE leadership development and effective communication. In the year under review, we have trained a total of 96 leaders inclusive of top leaders and middle managers. Additionally, we also upskilled 308 frontline supervisors with the relevant capabilities to accelerate our HSSE journey. Moving forward, we will continue to amplify our efforts to upskill and train more leaders and frontliners as our change agents in shaping PETRONAS' Generative HSSE culture towards a sustainable HSSE performance.

Crisis and Incident Management

Effective crisis and incident management is crucial to the business continuity of PETRONAS in the locations where we operate. The aim is to keep our people safe and businesses running, as we move from a reactive to a proactive approach.

With the integration of crisis and incident management into our HSE Management System (HSE MS) and Mandatory Control Framework (MCF), PETRONAS has built a strong foundation with the appropriate governing procedures for continuous improvements. Our framework takes into account lessons learnt from incident investigations. Real-life cases have impressed upon us the need to have a coordinated response and preparedness with the right interventions and controls to minimise the fallout from any incident.

We have in place a three-tiered response system Groupwide that provides a clear demarcation of roles and responsibilities for emergency site management, operating unit management, our corporate office and the authorities.

Our facilities and assets conduct scheduled emergency drills and exercises to ensure readiness in an emergency or crisis. In addition, PETRONAS Management's readiness to manage emergencies and crises is also assessed at the corporate level.

Positive Social Impact

Initiatives of Crisis and Incident Management

- **The Incorporation of Centralised Emergency and Fire Services (CEFS) BINTULU**
  The establishment of CEFS BINTULU provides centralised services and a pool of resources to respond to any major incident such as tank fire, major chemical release, oil spill or mass casualties given the nature of the business operations in the Bintulu industrial area. This single-source managed solution, combined with full turnout of skilled manpower, equipment and vehicles, has delivered better coverage of incidents and more effective management of cross-boundary incidents, as well as provide value-added services related to firefighting training and equipment maintenance to its members.

- **Poly-and Perfluoroalkyl Substances (PFAS) Chemical Utilisation in Emergency Responses**
  PFAS are a family of man-made chemicals known and used for extinguishing fires effectively via firefighting foams that effectively reduce the combustion of liquid hydrocarbons. However, there is concern that their firefighting ability should be balanced with safety, performance, cost and environmental considerations as PFAS are known to be very persistent in the environment, and can be harmful to humans. To this end, PETRONAS has established a guideline on the screening of foams, their handling, storage and use, waste and wastewater management and other measures relevant to the use of firefighting foams in order to manage the risks accordingly.

- **Incident Management System (IMS) - Tripod Beta Practitioners**
  In 2019, PETRONAS accelerated its development of Groupwide Incident Investigators under the Tripod Beta programme. More than 10 upskilling sessions were conducted in 2019, with one conducted specially for HSSE Senior Management on Human Factors in Tripod Beta. As of end-2019, PETRONAS has certified more than 160 Tripodeans, classified as Bronze, Silver and Gold Practitioners. Our goal is to conduct structured and effective incident investigations, which should ultimately reduce incident recurrence by identifying their causes and recommending solutions.

- **Oil Spill Management**
  In November 2019, the National Oil Spill Contingency Plan (NOSCP) Review Committee Meeting, chaired by the Department of Environment, agreed with PETRONAS' proposal to include the Oiled Wildlife Response Management mechanism as part of the NOSCP. The Department of Environment entrusted PETRONAS with the task of drafting the Oiled Wildlife Response Management mechanism for implementation at national level.

- **Emergency Preparedness and Response (EPR) Malaysian Standard**
  PETRONAS is one of the committee members that established the Malaysian Standard for Emergency Preparedness and Response. The Department of Occupational Safety and Health (DOSH) and Department of Standards Malaysia (JSM) have agreed to adopt 90 per cent of PETRONAS' requirements in the new Malaysian Standard for EPR.

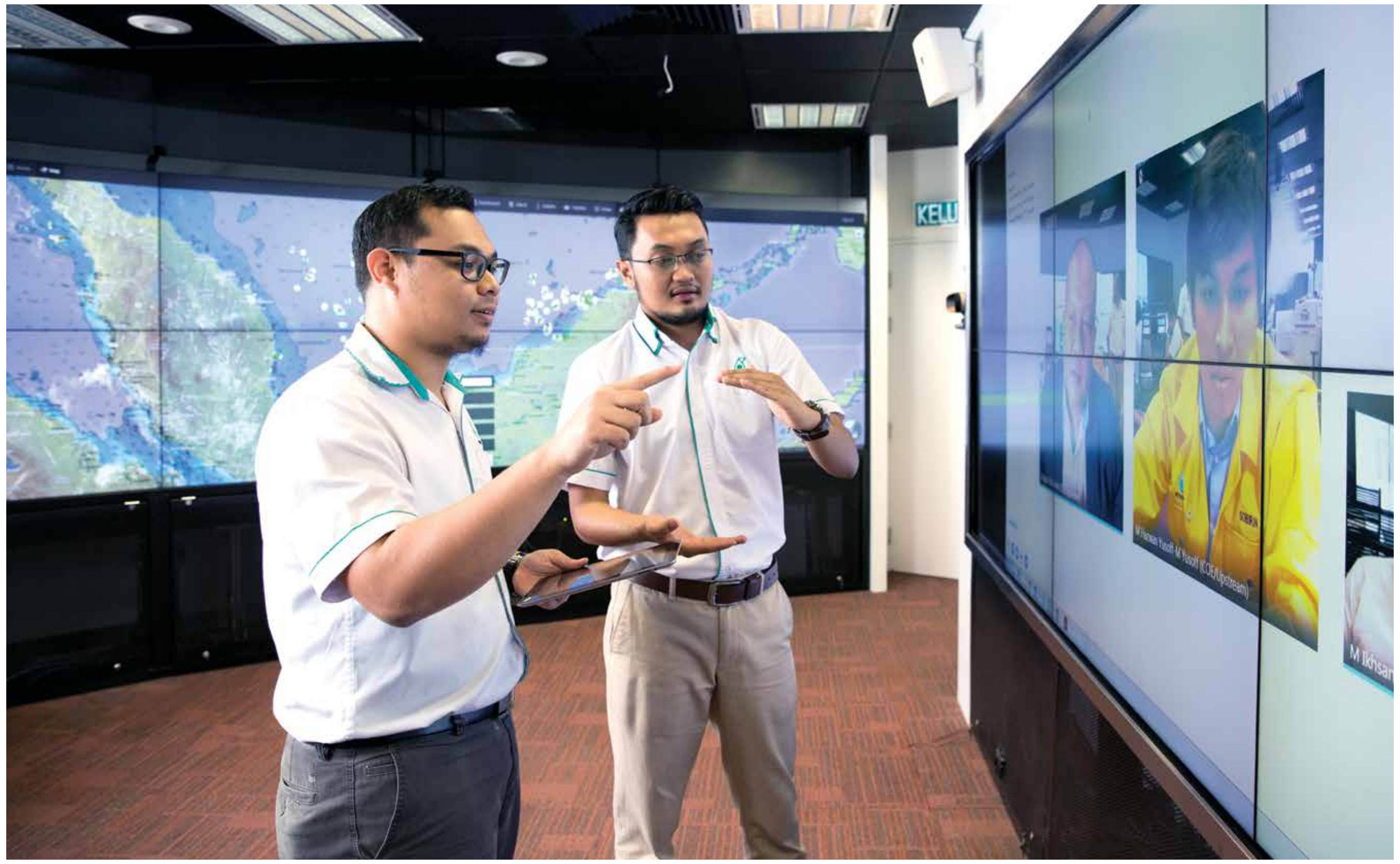
- **PETRONAS' Contributions in Response to the Sungai Kim Kim, Pasir Gudang, Pollution Incident**
  In March 2019, PETRONAS was called upon by the MESTECC to provide technical assistance and support. PETRONAS provided technical and strategic advice on gas monitoring and surveillance, including equipment, small and medium enterprises, and consequence modelling. We are part of a Technical Committee assisting the Malaysian Government in gas monitoring of surrounding areas as well as in consequence modelling by consolidating gas-monitoring data.

- **Ex-Siaga 5**
  Ex-Siaga is a building-evacuation exercise for PETRONAS Twin Towers to test the effectiveness of our current building-evacuation protocols and business continuity. This year's participation rate was the highest since the exercise was first conducted in 2013. About 10,037 tenants participated, which was a 63 per cent increase over the previous exercise. 2019 was also the first time a radio-frequency identification (RFID) system was used for Headcount Management, which showed an effectiveness rate of 94 per cent.

- **Towards Digitalisation - Crisis Management Information System (CMIS)**
  PETRONAS has improved its CMIS by utilising its very own enterprise geographic information system (GIS) framework, PiriGIS. CMIS is a set of digital tools that helps to facilitate responder and management decision-making during emergencies or crises. Responders will be able to select tactical and strategic responses that include a Firefighting Foam Calculator, Spill Impact Mitigation Assessment (SIMA) and Shoreline Cleanup Assessment Techniques (SCAT).

  The first phase, launched in first quarter 2019, consisted of a Common Operating Picture based on the IPIECA model for integrated response with our web-based Emergency Log System (ELS). ELS is an online integrated system that allows live and simultaneous data entry from multiple emergency and crisis teams. It provides navigation to other application systems such as the Environmental Sensitivity Index (ESI), which involves all of PETRONAS' facilities including storage tanks, as well as police stations, fire stations and hospitals.

Positive Social Impact



SECURITY

PETRONAS is working towards safeguarding our people, information, property and operations wherever we operate. Our holistic approach entails continuous assessment on the availability, adequacy, reliability and effectiveness of existing security controls. In doing so, we are mainly guided by laws and regulations as well as PETRONAS Security Policy and Security Management System (SeMS).

In the period under review, we placed a stronger emphasis on physical and security preparedness. The intent was to proactively address current and emerging security threats.

Security Governance and Assurance

We conducted the Asset Classification Exercise (ACE) across various asset types globally to enforce stricter compliance levels with the PETRONAS Mandatory Minimum Security Standards. In 2019, we have identified assets with higher risk security exposure and ensured its security compliance levels meets our established requirement.

We are also on track in the upgrading works for the PETRONAS SeMS for seamless reporting between Security and HSE, following inclusions of security related matters in PETRONAS Technical Standards on HSSE Reporting and conduct Integrated Assurance Programme (IAP) for continuous improvements.

Positive Social Impact

Proactive Risk Management

We carry out security risk assessments for our onshore, offshore and maritime operations. This includes providing tailored insights on the adequacy of available security controls and mechanisms. Findings from such assessments are used in the development of additional security controls and to facilitate informed business decision-making. For example, we upgraded our security passes for our Malaysian operations in 2019. The RFID technology was a proactive step to protect the security of encrypted information, while further tightening our physical controls to prevent unauthorised accessibility into our assets.

Another key highlight in 2019 was the large-scale table-top security preparedness exercise alongside the relevant Malaysian enforcement authorities and government agencies in preparation for PFLNG DUA sail-away to Malaysia.

In the period under review, we expanded our scope to include internal periodic security forecasting and analysis. The effort enabled timely decision-making, deployment of security resources and enhancements in upholding uninterrupted business activities. In this regard, efforts to further strengthen our capabilities in the area of security data analytics are in the pipeline.

Security Compliance Culture

At PETRONAS, we adopt the concept that "Security is Everyone's Responsibility". We continue to emphasise the importance of individual accountability in mitigating security risks through various security awareness and communications initiatives. In 2019, we focused on raising security consciousness among staff on general security best practices and common security oversights at the workplace. Targeted security awareness programmes were also executed during the festive and holiday seasons, during which our staff participated in a Group-led campaign - "Jom Patuh dan Tegur".

A notable achievement in the period under review was the successful execution of our Security Day, themed "Empowering Women: Protect Yourself from Attacks". The event, held at the PETRONAS Twin Towers in Malaysia, was aimed at inculcating the right security behaviours and civic consciousness among our female fraternity towards shaping a safe, secure and agile workforce. The event emphasised crime motivation factors from a criminological perspective and included practical physical self-defence tips.

Stakeholder Engagements

We view the pursuit of knowledge and skills as imperatives to enhance the competitiveness of our security controls as well as management practices. In 2019, we further accelerated our engagements with our local and international stakeholders, comprising local enforcement and government agencies, including our peers from the energy sector. These engagements focused on collaboration avenues to leverage shared resources and expertise, including discussions on emerging security risks impacting our industry. This essentially led to improved response times and measures to prevent untoward security occurrences, as well as the identification of feasible avenues for converging our existing physical and digital security solutions, among others.

In 2019, PETRONAS organised a Security Community of Practice, titled "Drone – Friend or Foe", on 11 September in Kuala Lumpur, Malaysia. The engagements and sharing centred on mitigating the consequences of the unauthorised use of drones on the oil and gas industry's operations, given their wide accessibility, affordability and applicability. The event saw the participation of PETRONAS security practitioners from across the Group, local regulatory authorities and government agencies, as well as representatives from international oil companies.

Subsequent to this event, PETRONAS led a joint roundtable discussion in December 2019 in Kuala Lumpur, Malaysia involving identified external stakeholders. The event was a cornerstone of comprehensive deliberation on the emerging security threats posed by drones to the Malaysian energy sector. Several strategic solutions were formulated, with implementation targeted in 2020.

Talent and Education

PETRONAS continues to attract, retain and develop talents through competitive remuneration, rewarding them based on performance and promoting diversity and inclusion in the organisation. Our total manpower stood at 47,669 as at 31 December 2019 and with 83 per cent employed in Malaysian operations.

2019

Total Employees	Total	Male	Female
	47,669	73%	27%

Total Technical Expertise	Technical Authorities (TA)	Technical Professionals (TP)	Technical Trade Specialists (TTS)
	340	1,028	240
Women in Technical Positions	14%		

HR AWARDS AND ACCOLADES

Randstad Award for Most Attractive Employer in Malaysia for 2019	Graduate's Choice Award for Overall Category 2019 (1st Runner-up)	Voted by students as one of Malaysia's 100 Leading Graduate Employers	HR Excellence Award 2019 – Excellence in Leadership Development for Top Talent Management Strategy	HRDF's Human Resources Development Award 2019 (PETRONAS Carigali Sdn Bhd)	2018 Brandon Hall Excellence Award

Positive Social Impact

HUMAN CAPITAL DEVELOPMENT

PETRONAS promotes capability-building and information-sharing to enhance the skills and knowledge of its employees. The aim is to accelerate the development of our employees and strengthen leadership capabilities to pave their way into leadership roles and help address sustainability risks arising from succession planning. Investment in talent development has always been a key pillar of PETRONAS' agenda, with an emphasis on leadership and functional competencies across disciplines.

This is guided by the PETRONAS Global Talent Strategy that focuses on Right Talent, Right Leader and Right Environment. It guides the nurturing of talent and the development of leaders, and provides a conducive environment premised on the concept of lifelong learning through investments in knowledge, expertise and leadership.

1 Right Talent

- Continuous development of talents' capabilities and competencies to ensure that they are self-driven.
- Recruitment of right talents at the right time that maintains business continuity at the right pace.
- Creation of Human Capital Investment initiatives that build the talent pipeline for PETRONAS and ultimately contribute to nation building.
- Establishment of Talent Development Framework that focuses on talent development of our employees from the time they join PETRONAS to their last day with the organisation.
- Clear career progression and capability development for our talents, e.g. Skill Group Development (SGDP), Accelerated Capability Development (ACD) and cross-functional mobility.

2 Right Leader

- Adoption of the PETRONAS 3P Leadership Model of Passion, People-Centric and Performance-Focused and standards that are anchored on our shared values and culture.
- Availability of leadership development programmes at the PETRONAS Leadership Centre (PLC).
- Creation of a top talent development programme to further nurture and shape talents who show leadership potential to be part of PETRONAS' Top 150.
- Development of a techno-commercial leadership programme for high potential talents who are sent to the top 10 business schools in the world.
- Continuous development of succession planning target of 3:1 ratio for PETRONAS' corporate-critical positions with our PETRONAS Talent Council deliberating on the further development and readiness of our talents to be groomed as successors.

3 Right Environment

- Redefining talent experience through "emb.arc", a PETRONAS Talent programme that aspires to create an empowered, agile and enabled ecosystem.
- Providing employee benefits that cater to the needs and requirements of our talents, e.g. benefits for working mothers, pilgrimages for various religions, flexible working arrangements and others.
- Creating workplace environments founded on equality and merit, irrespective of gender, age, nationality, ethnicity and religion.

Positive Social Impact

HUMAN CAPITAL INVESTMENT

PETRONAS believes that investing in education and human capital development across all levels of education will enable a continuous and sustainable pipeline of talents for PETRONAS, the industry, and the nation. While we aspire to realise our business goals, we continue to uphold our contributions to sustainable development through our own higher learning institutions and sponsorship programmes awarded to tertiary students. Since 1975, we have invested over RM3 billion on human capital development programmes. We focus on supporting the growth of science, technology, engineering and mathematics (STEM) curriculum in education to equip the next generation to be competitive in future job markets.

Link to Sentuhan Ilmu on page 110 in the Positive Social Impact section.

In 2019, the Group helped more than 400 students to further their studies and secure a brighter future at Universiti Teknologi PETRONAS (UTP) and other selected universities abroad under our PETRONAS Education Sponsorship Programme (PESP).

We also continue to build awareness about PESP and careers in the oil and gas industry in general through our Discover PETRONAS @ Schools programme for secondary school students.

	Total		
Number of PETRONAS-sponsored Students Recruited	206	Recruited by PETRONAS 67%	Recruited by Others 33%
Number of Sponsorships Awarded to Malaysians	399	International Universities 46%	Malaysian Universities 54%
Number of Sponsored Non-Malaysians at UTP, Malaysia	78		

Improving Employability

It is important to PETRONAS that the employability of our sponsored students are enhanced, which will contribute to having a sustainable talent pool especially for technical positions. We carry out two key programmes to address this – the Graduate Employability Enhancement Scheme and Vocational Institution Sponsorship and Training Assistance.

Graduate Employability Enhancement Scheme (GEES)

This soft skills training programme introduced by PETRONAS is in support of the Professional Training and Education for Growing Entrepreneurs (PROTÉGÉ) programme, an effort initiated by the Malaysian Government to enhance young Malaysian graduates' employability and boost the nation's human capital development.

In 2019, 200 graduates were accepted to the programme as apprentices and began with a two-month long classroom training, while 150 from the previous intake underwent a six-month on-the-job training at various PETRONAS operating units across Malaysia. The programme was further enhanced with the introduction of two new modules related to entrepreneurship and environmental sustainability and social impact.

A total of 1,040 graduates have benefitted from this programme from 2011 to 2019, with 85 per cent of the apprentices gaining employment.

Positive Social Impact

Vocational Institution Sponsorship and Training Assistance (VISTA)

This initiative helps prepare vocational institutions for the development of technical and vocational capabilities in Malaysia. Assistance ranges from infrastructure, equipment, trainers and programmes, including collaborations with government agencies for identified programmmes in welding, gas pipe fitting, chargemen, scaffolding, building maintenance, oil and gas related engineering modules.

To date, 28 institutions have benefitted from this programme since 1992, with 17 institutions that are currently active.

DIVERSITY AND INCLUSION

PETRONAS operates its business based on a strong foundation of merit and equality, irrespective of gender, age, nationality, ethnicity, educational background and religion. Diversity brings together different strengths and experiences that encourage and motivate talents to deliver, backed by a high-performance culture. Our talent composition is 80 per cent Malaysian and 20 per cent non-Malaysian from more than 100 nationalities, all united by a common purpose and intent on delivering superior business results.

PETRONAS Leading Women Network (PLWN)

As part of our diversity and inclusion agenda, PETRONAS strives to nurture strong female leadership and career development among the female workforce within the organisation. In 2015, PETRONAS set up the PETRONAS Leading Women Network (PLWN), a platform for women to grow through leadership programmes and support for each other. Led by PETRONAS Vice President of Exploration, Emeliana Rice-Oxley, PLWN organises engagement sessions internally and externally, including a mentoring programme to empower women in the oil and gas industry.

Following a survey that outlined the feasibility of creating value through gender diversity, PLWN rolled out gender bias awareness sessions for middle and senior managers by conducting workshops on gender diversity and inclusive leadership, gender bias training and bias-free performance evaluation. For instance, PLWN created "Tips on Removing Bias" cards as guides in performance appraisals, discussions and assessments, which received positive feedback from both male and female colleagues. To ensure a conducive working environment for women, PLWN successfully championed for the provision of safety coveralls specially designed for women in 2019. Prior to this PLWN initiaitive, women had to wear coveralls that catered for men, which were ill-fitting and inefficient in providing them protection. PLWN, which is also part of the Malaysian Women in Energy (MyWie) advocacy group, hopes to be the advocate of policy changes that enable equal growth opportunities within the organisation.

Social Performance

In 2019, the Group continued its efforts to enhance the way we manage social performance by embedding it into key business processes across all levels. This emphasis on social performance enhanced our social licence to operate and has added value through a risk-based management approach to the overall business.

Social Performance Initiatives in 2019

Initiative	What we did	Observations and impact	What's next?
Contractor Management	Surveyed 873 contractors with active contracts on the PETRONAS Contractors Code of Conduct on Human Rights (COCHR), with a 75 per cent response rate. From the survey responses, 143 contractors with potentially high human rights risks were identified. 29 contractors were engaged through on-site assessments. *For more information, refer "Human Rights in Supply Chain" at page 107.*	The majority of contractors showed adherence to the PETRONAS COCHR. Good practices were observed in main contractors for foreign and migrant workers with direct hiring to minimise risk of exposure to forced labour. Contractors' capability to manage human rights issues, in the context of the COCHR principles, needs to be improved. These principles include freedom of labour, grievance mechanisms, non-discrimination and oversight on subcontractors and manpower agencies.	Complete further assessments on the next tier of contractors. Inclusion into Group Procurement's processes as an annual self-assessment for contractors.
Capability Building	Launched "Human Rights Management in PETRONAS" e-learning module for our employees. Conducted 90 engagement sessions on human rights for 650 staff and 120 contractors. Conducted eight training sessions for 240 members of auxiliary police.	The human rights e-learning module provided participants with an understanding of PETRONAS' Human Rights Commitment and the relevant governance tools in PETRONAS. The engagement and training sessions upskilled participants on operationalising human rights in their respective roles.	Develop e-learning module on Grievance Mechanism. Continue efforts in engagement and training sessions.
Grievance Mechanism	Trained more than 100 staff on grievance mechanism (GM). Grievance mechanism has been included in the Group's Incident Management System. GM procedures established in all operations. Assessed effectiveness of GM implementation in Upstream operations.	Implementation of GM in our Malaysian Upstream assets was assessed overall as "Fair", demonstrating PETRONAS' commitment to an effective process and ensuring adherence to our Human Rights Commitment.	100 per cent implementation in Downstream operations. Establish single digital system to manage GM.
Social Risk Assessments	Piloted integrated Environmental, Social, Health Risk Assessment (ESHRA) at three sites. Social Risk Assessments were conducted in 12 operations and projects as well as in due diligence for merger and acquisition (M&A) exercise.	ESHRA – A process to share data and cross-reference impacts, developed to enable newer Environment and Social Performance (E&SP) aspects to be included in assessments as part of managing sustainability risks. Social risks identified in the Social Risk Assessments and prior to an M&A will identify any red flags that may erode asset value or increase operational cost.	Conduct ESHRA in selected international assets. Continue support for M&A due diligence and other assessments. Establish digital system for Social Risk Assessment and Human Rights Due Diligence.

Labour and Supply Chain

Supply chain management is critical for PETRONAS to function optimally in Upstream petroleum exploration, development, production and abandonment activities, as well as in Downstream product manufacturing and distribution.

By optimising our supply chain management, we can increase competitiveness and customer satisfaction and ultimately, increase productivity and maximise profit margins. We continuously empower local contractors and ensure their sustainability in moving into a more challenging digital and technological environment. By doing so, we strengthen the OGSE ecosystem and increase the competitiveness and capability of contractors.

SUPPLY CHAIN*

In 2019, PETRONAS awarded over RM5.7 billion worth of projects to more than 58 contractors of goods and services in Malaysia alone. Optimal management of our supply chain is critical for PETRONAS to gain a competitive advantage across its various business activities in Upstream, Downstream and manufacturing, production and distribution. By gaining this advantage, we will be maximising revenue opportunities while also increasing efficiency. The Group strives to involve local vendors and contractors as much as possible, and in 2019, 92 per cent of operations activities were awarded to local contractors in Malaysia.

At the same time, we take great care in ensuring that suppliers, wherever we operate, meet our high safety expectations and technical and environmental requirements, as well as strictly observe human rights obligations. This essentially involves the concept of stewardship, which means the Group takes the lead in implementing best practices across our entire supply chain and all the products we deliver.

HUMAN RIGHTS IN SUPPLY CHAIN

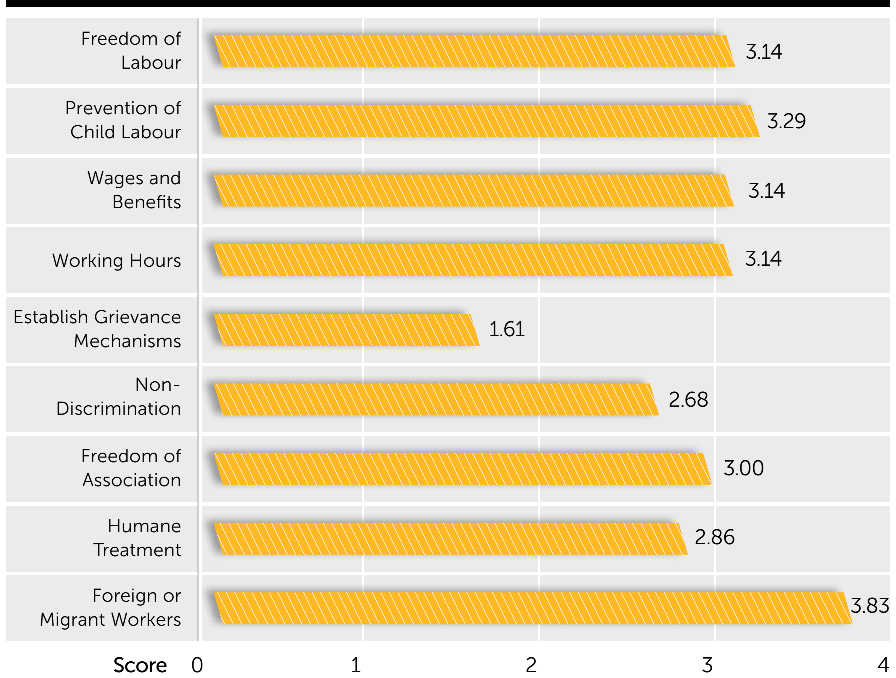
PETRONAS recognises that our contractors and suppliers contribute towards economic growth for the benefit of society. This is in line with our Sustainability Agenda to create positive social impacts, which includes a focus on United Nations Sustainable Development Goal 8 – Decent Work and Economic Growth.

Our approach to suppliers and contractors is clearly established in the COCHR. The COCHR was initiated to develop a supply chain that respects the rights of workers, while creating opportunities for development, consistent with PETRONAS' Human Rights Commitment. The focus in 2019 was to assess our compliance with the COCHR to identify potential risks in the areas of supply chain and good practices, as well as areas for improvement.

In order to establish a baseline on COCHR compliance, we leverage technology to enable digital self-assessments by contractors and suppliers on matters pertaining to labour and human rights, with an encouraging response rate of 75 per cent.

Average Score on the 9 Human Rights Principles

(Score: 0-4, 4 : the Principle is being managed sustainably; 0 : the Principle is not being managed at all)



*
- *The numbers do not include project drillings and Plant Changes/Facilities Improvement Project (FIPs) managed by Procurement Regions.*
- *The numbers also do not include total small purchase values of less than RM5 million and works executed using common contracts.*
- *Percentage of awarded local contractors refers to projects only, excluding drilling, Plant Changes/FIPs and Operation and Maintenance, and is not based on total procurement spend.*

Positive Social Impact

In addition, face-to-face engagements were conducted with 70 per cent of our contractors and suppliers who were in the elevated risk category due to the value of the contracts, the high-risk nature of the work, the remote locations where the work was conducted and the hiring of third party labour. The engagements were used to discuss the results of the self-assessment, as well as issues and risks in their procurement processes.

Overall, suppliers and contractors were able to comply with the COCHR. Areas for improvement identified were subcontractor assessments and the effective implementation of contractor grievance mechanisms. A total of 29 engagement sessions on human rights were also conducted with contractors to ensure they understood the importance of complying with the COCHR.

Moving forward, the Group plans to complete assessments for the next tier of contractors and to include this annual self-assessment for contractors in Group Procurement's processes for contractors.

2019 Contractor Assessment on COCHR (Phase 1)

1,000+	100+	29
Contractors and suppliers identified for self-assessment in 2019	Contractor and suppliers with potential human rights risks identified	Contractor and suppliers with potential high human rights risks, totaling a contract value of RM4.6 billion and 15,800 workforce selected for face-to-face assessment

PRODUCT STEWARDSHIP

Product stewardship manages HSE risks throughout the life cycle of a product. In addition to complying with regulatory requirements, we are enhancing our supply chain due diligence in raw materials procurement, expanding our product life cycle assessments (LCAs), and supporting an international chemical management policy framework through the following initiatives:

Raw Material Management	Life Cycle Assessment (LCA)	Product Risk Assessment
We rolled out the Raw Material Information Request (RAWMIR) initiative, starting with Engen, which requires vendors to furnish additional information on supplied chemicals beyond the information in safety data sheets. This is one of the early steps in a larger strategic goal to achieve complete supply chain mapping of our raw materials throughout PETRONAS. This process will help leverage raw material intelligence from our supply chain to ultimately facilitate the phasing out of Substances of Very High Concern (SVHC) in our products and to alleviate the usage of Conflict Minerals.	Product LCA provides an environmental footprint, which enhances PETRONAS' product brand value. In 2019, LCAs were conducted for PETRONAS Gas Berhad (PGB) and PETRONAS Chemicals Group (PCG) products. Moving forward, we are expanding LCAs to selected Upstream, Downstream and GNE products to evaluate the environmental performance associated with a product across its life cycle.	As part of our continuous support of the Strategic Approach to International Chemicals Management (SAICM) 2020 goals, we have completed and published Global Product Strategy Safety (GPSS) summaries on the International Council of Chemical Associations (ICCA) portal and PETRONAS SDS portal for PGB and PCG products.

Positive Social Impact




Corporate Social Responsibility (CSR)

Yayasan PETRONAS is the CSR arm of PETRONAS with the mission of contributing to the well-being of society. Incorporated as a foundation, it is accountable to a Board of Trustees. All CSR activities within the PETRONAS Group of companies are steered by Yayasan PETRONAS according to its four principles: value creation, sustainable impact, effective partnership and innovative solutions.

"Where Good Flourishes"

Yayasan PETRONAS is committed to delivering value in social well-being through better philanthropy, sustainable, scalable impacts on society and shared success. Yayasan PETRONAS aims to assist underprivileged youth and B40 communities in transforming opportunities into social value. We are looking to replicate success stories and scale up the delivery of our programmes to involve and benefit more people, while engaging with a broader ecosystem to drive sustainable change. Launched in March 2019, Yayasan PETRONAS has strengthened Groupwide CSR efforts that have been ongoing since 1974.

Yayasan PETRONAS focuses on three main areas:

SENTUHAN ILMU – Education

Focus on underprivileged students from the B40 income segment, Sentuhan Ilmu's series of programmes are aimed at improving students' education opportunities to realise their potential through science, technology, engineering and mathematics (STEM).

DESIRED IMPACT:
TO CONTRIBUTE TOWARDS 60:40 NATIONAL STEM ENROLMENT

SENTUHAN HARAPAN – Community Well-Being and Development

The programmes in this focus area aim to improve the standards of living of underprivileged communities and youth by creating opportunities for sustainable livelihoods.

DESIRED IMPACT:
SUSTAINABLE ECONOMIC GROWTH

SENTUHAN ALAM – Environment

This area focuses on the conservation of environmental and natural resources for the well-being of current and future generations. Encompassing marine, forest, rivers and shores, Sentuhan Alam's programmes are structured to better the environment through biodiversity, conservation and carbon-neutral programmes.

DESIRED IMPACT:
TO REDUCE YEAR-ON-YEAR ENVIRONMENTAL IMPACT

SENTUHAN ILMU – Education

PETRONAS has positively impacted students, teachers and parents through its Human Capital Investment programmes since 1975. In 2019, we rolled out various educational programmes, where we partnered with state governments and the Ministry of Education (MOE) to provide better education opportunities for underprivileged students. Yayasan PETRONAS strives to assist the underprivileged by equipping teachers and students to close the gap and enable communities to progress collectively as a nation.

We target to achieve **24,100 beneficiaries*** from PETRONAS Educational Programme by 2024

* *Beneficiaries include students, teachers and school counsellors.*

Signature Programmes:

Program Duta Guru

The programme is a collaboration between Yayasan PETRONAS and the MOE via Pusat STEM Negara Malaysia to contribute in strengthening our teachers' capability and continuously improve the quality of teaching. It aims to produce teachers who are highly competent and committed to STEM, to serve as role models in enhancing higher order thinking skills (HOTS) through STEM, as a foundation to improving the nation's competitiveness.

Objective:
To enhance teacher's capability by developing highly competent and committed STEM teachers who will serve as Role Models to enhance higher order thinking skills through STEM education as a foundation to be a competitive nation by 2030

Target:
To upskill 4,500 teachers by 2030

How it Works:
The first cohort of 150 teachers have been selected from across the nation to undergo a two-year teacher development programme. The programme complements the MOE's existing teacher development programmes through three strategic priorities:

- **Training and Coaching:** Empower teachers with on-the-ground and virtual coaching and support
- **Content:** Curate high-quality STEM pedagogy and curriculum content
- **Infrastructure:** Provide teachers access to the latest STEM teaching and learning resources such as the STEM Hub managed by Petrosains

Underprivileged Students

In collaboration with Petrosains, The Discovery Centre and the Malaysia's Ministry of Educaton (MOE), Yayasan PETRONAS provides assistance to underprivileged students from the B40 and M40 income segments to realise their potential through STEM education by enhancing their interest in STEM subjects. This programme is designed to create interest in science and mathematics, problem-solving and critical thinking skills.

How it Works:
Provide learning aid, extra classes, refurbishment (of labs, IT facilities, halls), and motivational programmes.

Desired Value Creation:
To increase interest in STEM subjects, problem-solving and critical thinking skills

Other Sentuhan Ilmu Programmes:

Back to School Programme

Yayasan PETRONAS enriched the lives of 21,000 primary school students from the B40 segment nationwide. Held from October to December 2019, the programme helped to alleviate the burden of B40 parents, motivated students to stay in school and promoted the importance of education among the students. This was in line with the MOE's aim of reducing the school dropout rate from 0.29 per cent in 2017 to 0.27 per cent in 2019.

How Yayasan PETRONAS helped:
Each student received a back-to-school starter kit worth RM250 comprising two pairs of school uniforms, one pair of black shoes, one pair of socks, a school bag, a stationery set, a tumbler and a poncho

Program BUDI-PETRONAS

Program BUDI-PETRONAS is a sponsorship programme in collaboration with Majlis Amanah Rakyat (MARA) since 2015. More than 600 selected underprivileged students from six Maktab Rendah Sains MARA (MRSMs) within Sabah and Sarawak have benefitted from this programme, which aims to instill learning interest among underprivileged students and motivate them to achieve academic excellence specifically in STEM. The students receive an annual education allowance that consists of school uniforms, sports apparel, learning aids and other basic necessities.

Trust School Programme

The intent of this programme is to drive sustainable school transformation, focusing on excellence and holistic student outcomes, in line with the aspirations of the Malaysia Education Blueprint 2013-2025. PETRONAS, in collaboration with Yayasan AMIR, is driving the implementation of a five-year school transformation programme that began in 2015 at 20 selected public schools within Sabah, Sarawak and Terengganu.

The Kimanis cluster and Lundu cluster in Sabah and Sarawak, respectively are in their fourth year now and have shown an improvement in the implementation of transformation culture. The schools are headed in the right direction to implement the school transformation programme on their own. The Kijal cluster and Marang cluster in Terengganu are in the third year of the programme and have also shown healthy and stable improvement.

PETRONAS Counsellors Programme (PCP)

The PCP was crafted together with the Counselling Unit under the Ministry of Education with the objective of strengthening a counsellor's role when advising students on career pathways, with a focus on STEM and Technical and Vocational Education (TVET). The PCP provides a platform for school counsellors to gain more insight on career prospects, especially in STEM in PETRONAS. In 2019, 923 counsellors in eight different locations throughout Malaysia participated in the PCP and gained:

- Awareness on different types of careers available in the market, focusing on STEM and oil and gas-related careers
- Awareness on PETRONAS and Other STEM/TVET Learning Institutions

Transforming English in Terengganu (TRENGLISH)

PETRONAS works hand-in-hand with the State Government of Terengganu to enhance English proficiency skills among the local students. TRENGLISH, which has impacted 40 secondary schools and 10 primary schools since 2015, includes initiatives such as English camps, circulation of magazines, newspaper insertions and TRENGLISH activities in schools.

Positive Social Impact

We go the extra mile to open greater access to quality education and spur interest in STEM.

Construction of Maktab Rendah Sains MARA (MRSM) in Sabah and Sarawak

PETRONAS is funding the construction of an MRSM each in Sabah and Sarawak. The MRSM Ranau project is a collaboration between PETRONAS, the Sabah State Government and MARA. MRSM Bintulu is a collaboration between PETRONAS, the Sarawak State Government, Yayasan Sarawak and MARA. The MRSMs have a combined capacity of 900 students (450 each) and are estimated to be completed by 2021. The aim of the project is to encourage and promote students' interest in STEM while developing their talents.

Construction of Asrama Harian Luar Bandar (AHLB) in Sabah and Sarawak

PETRONAS funded the construction of an AHLB each in Pulau Balambangan, Sabah and Paloh, Sarawak in collaboration with both State Governments and the Ministry of Education. It aims to provide access to education for the rural communities of Sabah and Sarawak in addition to creating opportunities for the children in Paloh and Pulau Balambangan to pursue education in a conducive learning environment. The construction of the AHLB in Paloh and Pulau Balambangan were completed in July and October respectively, with a total investment of RM8.7 million. Each hostel can house 120 students and is equipped with male and female dormitories, a dining hall, a kitchen and storage, a surau, two sick bays, two warden rooms, a hostel office, bathrooms, and toilets and a laundry area. Both AHLB are ready to be occupied by students in 2020.

Positive Social Impact

SENTUHAN HARAPAN – Community Well-Being and Development

Sentuhan Harapan is a key platform for PETRONAS to engage with the underprivileged communities and youth through programmes that create opportunities for sustainable livelihoods.

Signature Programmes:

MEKAR (Memampankan Ekonomi Asas Rakyat)

MEKAR is an extension of PETRONAS' Planting Tomorrow* initiative, which started in 2017 in Sabah and Terengganu through collaborations with government agencies to enrich communities with self-sustainable skills. In 2019, PETRONAS rolled out MEKAR in five districts in Kedah with the Northern Corridor Economic Region (NCER) as a programme partner. MEKAR is aimed at providing basic needs and access to economic opportunities through skills training to strengthen the income stream of B40 communities, who are mainly the urban and rural poor.

Target:

To reach 13,600 beneficiaries (3,400 families) in eight states over two years

Outcomes:

- **Improve Standard of Living**
  90 per cent of the participating communities will have access to basic needs such as clean water, electricity (renewables) and food.
- **Strengthen Income Stream**
  Targeted beneficiaries will be provided with skills training and resources based on market demand. Focus areas include agricultural skills and technology resources, technical services and repair works, and small businesses owners selling pastries and providing spa services. They will also be motivated and equipped with entrepreneurship skills that include financial knowledge and marketing.
- **Sustainable Income Stream**
  Beneficiaries will be assisted with financial solutions through a buyers' network, an employers' network and microfinancing. The aim is to increase income by 50 to 70 per cent over six years, elevating their income status from B40 to M40.

* *Planting Tomorrow is a joint effort with Yayasan Sejahtera Sabah to improve access to water in Sabah. The programme has benefitted the local communities by improving sanitation and increasing their income through agriculture (to learn more about this programme, please visit https://www.yayasanpetronas.com.my/voices-of-inspiration-planting-tomorrow/)*

Empowering SMEs through Retail

PDB's Perusahaan Kecil Sederhana (PKS) or the Small and Medium-sized Enterprises (SMEs) Programme is aimed at enhancing local economies and accelerating the development of PKS partners through a structured programme that offers entrepreneurial skills and facilities such as a marketing platform and training.

This programme enables PKS to market and sell their products at Kedai Mesra and through "Mornings at Mesra" campaigns. To date, over 350 PKS are supplying their products to Kedai Mesra.

In November 2019, PDB extended the Kempen Beli Barangan Malaysia, initiated by the Ministry of Domestic Trade and Consumer Affairs, to over 700 of its Kedai Mesra nationwide to promote local food and beverage products. The campaign was in line with PETRONAS' SME programme that was established more than 25 years ago to support local entrepreneurs. Further to the campaign, PDB also holds regional events to promote PKS products to the local communities.

Positive Social Impact

All About Youth

PETRONAS' All About Youth (AAY) functions as an incubator for Form Two and Form Four students of Malaysia's curriculum to generate ideas, experiment, design, innovate and obtain sustainable solutions to solve real-world issues.

In 2019, Sekolah Menengah Kebangsaan (SMK) Riam Miri from Sarawak won first prize in the Sentuhan Harapan–All About Youth (AAY) Chairman's Circle Award 2019* by innovating Riam Xplug, a device that unplugs electrical appliances through a smartphone app and automatically shuts off the electricity. The school won RM30,000 and an opportunity to commercialise their project with a social enterprise.

* *The AAY Chairman's Circle Award 2019 is a platform for schools with high potential to further enhance their solutions to capitalise on their impact and sustainability as well as their commercial viability. The schools are provided with business model canvas workshops, and validation, input or investments from varsities, industry leaders and government agencies. Students come up with a working prototype that could potentially be commercialised. Through this award, students will be able to pitch their solutions to gain investors buy-in, so that successfully implemented solutions can benefit the community at large.*

Since 2014, AAY reached out to **5,600 students** from **250 schools** across **6 states** with **250 PETRONAS volunteers** executing **250 projects** benefiting the environment and community.

Collaboration with Cancer Research Malaysia (CRM)

Yayasan PETRONAS has pledged RM8 million to Cancer Research Malaysia (CRM) to support cutting-edge research in hereditary cancers among Asians. Yayasan PETRONAS believes that social progress must be inclusive. A community cannot sustain socio-economic growth if its people are encumbered with a debilitating disease such as cancer. It is said, "prevention is better than cure." Thus, continuous research on cancer will benefit millions of Malaysians suffering from the disease. Recently, Cancer Research Malaysia senior researchers have won the Newton Fund Impact Scheme (NFIS) from the Medical Research Council (UK) and MIGHT (Malaysian Industry-Government Group for High Technology) for their work aimed at accelerating the discovery of new cancer medicines in oral cancer. NFIS is delivered by the British Council in partnership with UK Research and Innovation on behalf of all Newton Fund delivery partners. We hope that the partnership with CRM will continue to place Malaysia in the global spotlight for cancer research as it opens the door for more collaboration with global top scientists, while it nurtures the next generation of Malaysian cancer researchers.

Other Sentuhan Harapan Programmes:

Sentuhan Kasih Festive

Yayasan PETRONAS organises memorable celebrations for the less fortunate during festive seasons to bring joy and love via the Sentuhan Kasih programme in conjunction with key festivities in Malaysia, i.e. Chinese New Year, Hari Raya Aidilfitri, Gawai, Kaamatan, Deepavali and Christmas. The initiative has benefitted 4,000 individuals and households comprising underprivileged students, single mothers, old folks and orphans. The Sentuhan Kasih Yayasan PETRONAS programme is part of the foundation's community well-being and development focus area, initiated to coincide with major celebrations in Malaysia. It provides an avenue for Yayasan PETRONAS to engage with communities to provide them with basic needs and improve their well-being.

Positive Social Impact

SENTUHAN ALAM – Environment

Yayasan PETRONAS aims to reduce the impact of climate change through its biodiversity conservation efforts and recycling initiatives. Our focus is on the Imbak Canyon Conservation Area (ICCA), a Class 1 Forest Reserve in Borneo and home to thousands of unique flora and fauna species. By performing more research on biodiversity, carbon sinks and new energy, we aspire to reduce Malaysia's year-on-year environmental impact and reach carbon-neutral status by 2050, as laid out in the 11th Malaysia Plan.

Focus Areas	Outcomes
• Research – Areas of biodiversity, carbon sinks and new energy at Imbak Canyon Studies Centre • Renewables – To come up with renewable solutions benefitting the local community in Sabah	• Preserve and conserve flora and fauna • Discover new solutions or cures benefitting the people and industries – biotech, pharmaceuticals, specialty chemicals, medicine, industrial applications • Improve livelihood of local communities • Promote ethno-forestry

Signature Programmes:

Imbak Canyon Studies Centre (ICSC)

Launched on 26 March 2019, ICSC marks a significant milestone in biodiversity conservation by PETRONAS and Yayasan Sabah to protect and conserve the 27,599-hectare Imbak Canyon Conservation Area (ICCA) in Sabah.

To spur research activities, PETRONAS, through Yayasan PETRONAS, plans for a sustainable model in the areas of conservation, biodiversity and community via a Memorandum of Understanding with Yayasan Sabah. Yayasan PETRONAS funded the Imbak Canyon Scientific Expedition at Gunung Kali Research Station from 18 to 28 December 2019.

Since 2010, PETRONAS has invested a total of **RM83 million** towards the conservation of Imbak Canyon, which also includes implementation of environmental awareness and community enhancement programmes.

Positive Social Impact

ecoCare

ecoCare, another conservation initiative that is driven by PCG in collaboration with the Malaysian Nature Society (MNS) was established in 2005. Being the first environmental education centre in the east coast of Peninsular Malaysia, it promotes awareness on the importance of mangrove ecosystems in the protection of biodiversity as well as coastal terrain. Through ecoCare, we engage with local community volunteers in carrying out conservation and rehabilitation activities, and also employ members of the local community to operate the centre.

In 2019, more than **6,300 mangrove trees** and seedlings were planted, while the ecoCare Environmental Education Centre (EEC) attracted more than **4,000 visitors**.

PCG Be Green

PCG Be Green is an annual environmental conservation and plastics usage awareness programme conducted since 2013 promoting 3R (Reduce, Reuse, Recycle). This year, PCG collaborated with Yayasan PETRONAS to enhance the programme and introduced the #recycleforlifecycle awareness campaign and clean-up programme. The key objective of PCG Be Green is to educate the community through regular workshops and talks on proper waste collection and segregation, and keeping the area clean through 3R education. The programme also focuses on anti-littering as well as the benefits and impacts of plastic usage on the environment. In 2019, these initiatives reached out to more than 2,700 participants and volunteers. In addition, the programme aims to raise awareness on preserving clean rivers as a raw water source. Sungai Langat marks the first location for clean-up activities, followed by Kertih, Bintulu and Kuantan. The clean-up of Sungai Langat will be carried out in phases over five years.

Market Landscape

Mounting Challenges

Our external environment remained challenging in 2019 and going forward into 2020, market uncertainty is expected to prevail. Spending in the upstream sector is seen declining as players reviewed plans and cut back on investments. In downstream, rising supply at a time of demand destruction is eroding margins. The oil and gas industry is facing a period of unprecedented challenges, keeping players on edge as prices plummeted.

The global economy experienced a synchronised slowdown, with global GDP growth at

2.9%

the slowest pace since the 2008/2009 global financial crisis.

LNG

In the long term, demand for LNG is growing at a faster rate than natural gas because of higher demand for LNG to be sent from supply centres to key demand areas that lack pipeline connectivity.

For more information please refer Our Business from pages 6 - 11.

DOWNWARD PRESSURE

Greater oil price volatility is expected in the market

For more information please refer to page 119.

2019 IN REVIEW

ECONOMY

The global economy experienced a synchronised slowdown, with global GDP growth at 2.9 per cent — its slowest pace since the 2008/2009 global financial crisis. Growth was weakened by trade barriers and increased geopolitical tensions. Populism and protectionism became more entrenched. The increased policy uncertainties weighed on economic and trade activities, and also energy demand. A sharp deterioration in manufacturing activities and global trade along with higher tariffs had crippled investments and demand for capital goods.

Growth was also slowed by country-specific factors in several emerging market economies, particularly India, Argentina and Turkey, and by structural forces, such as low productivity growth and ageing demographics in advanced economies.

UPSTREAM

Upstream spending, including expenditure on LNG development, rose for a fourth year although the level was still way below the peak seen in 2014 amid greater price volatility and uncertainty. Exploration and production spending was led by North America, Brazil, the North Sea and the Middle East. These are areas with large proven reserves, making them more attractive for development because of economies of scale. Costs did not rise as fast as expected, prompting project developers to lock in contracts with oilfield service providers.

LNG

For LNG, the year had the largest amount of project sanctioning, as developers aimed to take advantage of the need for new volume by 2023/2024. A total of 71 mtpa of LNG projects achieved Final Investment Decision (FID). About half of these were from the US, tapping the large shale gas resources. Other projects included Russia's Arctic LNG-2, the largest LNG development sanctioned during the year, at almost 20 mtpa, and also the 13-mtpa Mozambique LNG. A rush of supply, especially from Australia and the US, flooded the market, pushing Asian LNG spot prices to a three-year low in August 2019. Global LNG demand reached 350 mtpa. China's consumption grew slower than expected and the nation was only behind Japan in LNG imports, at about 60 mtpa.

DOWNSTREAM

Dated Brent averaged USD64 a barrel in 2019, 10 per cent lower compared with 2018. Price volatility increased, with Brent fluctuating between USD53 in early January and a year-high of USD75 in mid-May before ending the year at USD67, supported by heightened geopolitical tension in the Middle East and OPEC+ measures to cut production. Price gains were capped by robust US crude oil production and weaker demand.

The oil market remained oversupplied with commercial inventories in the Organisation for Economic Cooperation and Development (OECD) countries surpassing the five-year average of 2.8 billion barrels, despite the OPEC+ production cut of 1.2 million barrels per day (bpd) that started in January 2020.

Market Landscape

Oil demand increased by 0.8 million bpd to 100 million bpd, the smallest gain since 2011 due to a weaker global economic environment and the escalation of the US-China trade conflict. US production climbed to a record 12.3 million bpd in April 2019, which led to the nation overtaking Russia and Saudi Arabia in total oil output.

PETROCHEMICALS

Prices for ethylene, the major building block for petrochemicals, declined by almost 30 per cent in Southeast Asia in 2019 from a year earlier. Prices touched a 10-year low on ample supply and lacklustre demand due to China's growth deceleration and the US-China trade tension. A weaker economic environment, reflected in slowing activities in the construction and auto sectors, has dampened demand for packaging, auto parts and construction materials. This led to slower ethylene demand. The market was also affected by rising supply. Global capacity increased by more than 5 mtpa, a 3 per cent gain, of which 80 per cent came from the US and China. The issue of sustainability gained traction and petrochemical industry players gradually adopted more advanced technology to reduce and reuse plastic waste.

ENERGY AND ENVIRONMENT

Global primary energy demand in 2019 grew by a marginally smaller amount than the 2.3 per cent recorded a year earlier. The growth was led by North America, as well as by developing countries in Asia and Africa, offsetting deceleration in developed countries. Renewables growth outpaced that of fossil fuels amid the global expansion of large-scale solar and wind projects. A greater push for climate action is prompting oil and gas companies to expand into new energy and pursue renewables, especially in power and utilities.

2020 OUTLOOK

ECONOMY

The global economy is expected to contract sharply in 2020. There are considerable uncertainties especially when major economies such as the US, Japan and China are expected to slow further into 2020 amid the COVID-19 outbreak which has spread to countries beyond China. The pandemic has caused significant disruptions to international economies, weakening demand for oil and leading to a decline in oil prices that began in January 2020.

UPSTREAM

Upstream spending is forecasted to fall below USD400 billion in 2020. The sector's focus will be on lowest cost and large resources as crude oil price volatility is driven higher by increased geopolitical tension and higher output. Focus areas in exploration and production will still be the large acreages off Brazil and deepwater developments in the Gulf of Mexico.

Market Landscape

LNG

The trend of project sanctioning in the LNG industry is seen slowing in 2020 after oil and gas prices plunged, driving companies to reduce spending. While slowing economic growth will sap demand in larger markets, countries such as China and India are still being depended on to purchase LNG in their quest for cleaner burning fuels. Europe, with its domestic supply shrinking, is also seen importing more LNG. Overall, demand for LNG is growing at a faster rate than natural gas because of higher demand for LNG to be sent from supply centres to key demand areas that lack pipeline connectivity.

DOWNSTREAM

A combination of global demand erosion from COVID-19 and rising supply from OPEC+ will put downward pressure on oil prices. Greater oil price volatility is expected to persist in 2020. High supply from OPEC+ and other non-OPEC countries, especially the US, Norway, Brazil, Guyana and Canada, will put significant strain on the oil market in 2020.

PETROCHEMICALS

Petrochemical product prices and margins are expected to continue to be under pressure amid feeble demand on the back of a weakening global economic environment that is exacerbated by the COVID-19 pandemic. Global consumption of ethylene is expected to grow, albeit at a slower pace while ethylene capacity is projected to increase, of which 90 per cent of growth is seen coming from Asia-Pacific and North America. Weaker demand and robust capacity additions could squeeze margins, forcing chemical companies to explore ways to mitigate the challenges by rationalising their product portfolios.

ENERGY AND ENVIRONMENT

Global primary energy demand is anticipated to increase at a slower pace on the back of higher energy efficiency in the industrial, residential and commercial market segments. In the longer term, cost reductions in renewables and advances in digital technologies will continue to open up opportunities for energy transitions while creating some new energy security dilemmas. Solar will remain attractive to most countries with offshore also taking off. Decarbonisation efforts will continue, enabled by a proliferation of large scale renewables power auction, particularly in China and India. Energy storage will be a core component for many renewables power projects and the speed at which battery costs decline will be a critical variable for power markets as well as for electric cars.

The global economy is expected to register growth below 3 per cent in 2020 amid the COVID-19 pandemic.

Engaging with Stakeholders

WHAT STAKEHOLDERS MEAN TO PETRONAS

Stakeholders are any individuals or organisations who may affect or can be affected by PETRONAS' business activities. PETRONAS' continued success as a progressive energy and solutions partner depends on the support of our stakeholders and our responsiveness to their needs and concerns. We continue to devote significant attention to engaging with our broad and diverse range of stakeholders, who have varied perceptions and expectations of PETRONAS.

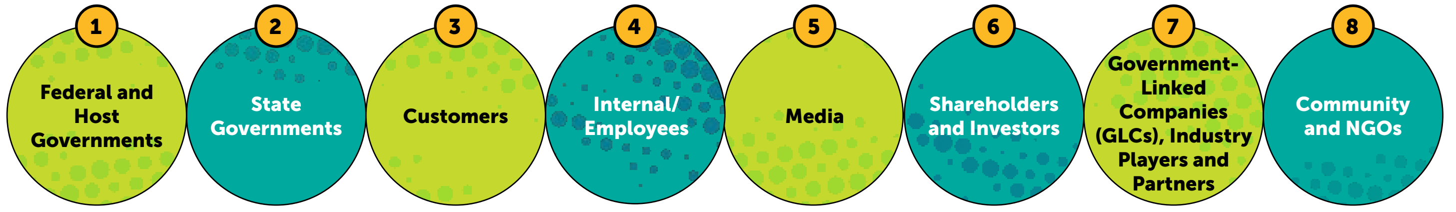
PETRONAS strives to establish close relationships with our stakeholders through meaningful engagement with them. We believe authenticity and trust help nurture these relationships. We build on this by taking time to understand the needs, and interests of our stakeholders, and more importantly, by responding to them in a timely and appropriate manner.

HOW WE IDENTIFY OUR KEY STAKEHOLDERS

Over the years, PETRONAS' operating footprint has expanded substantially across many stakeholder groups, internally and externally. The range of key stakeholders in areas where we operate, together with their multiple, sometimes competing, needs and interests, are thoroughly considered and appraised. In order to understand our stakeholders and build positive and meaningful partnerships with them, PETRONAS has a Stakeholder Management Process that is adopted across the Group to ensure a strategic, forward-looking and coordinated approach to identifying and managing our stakeholders.

Under the Stakeholder Management Process, key stakeholder groups are identified based on their relevance to PETRONAS. We then determine the importance of a stakeholder via the significance of their influence. The current state of these relationships are also considered to help determine the engagement approach, which enables stakeholder management to be more proactive and targeted. The identification process is dynamic as we continue to recognise emerging and newer groups.

We currently recognise the groups below as our key stakeholders:



As part of the value creation process, PETRONAS understands the concerns of our diverse base of stakeholders and responds to these concerns through a collaborative approach to build trust, gain recognition and earn stakeholder advocacy. Forming a mutual understanding that we are all in this together in partnership with each other is our principle for business sustainability. Our stakeholders' concerns, interests and needs are received through various forms and channels and are diligently monitored and followed through. The frequency of the engagements varies.

Below, we discuss the key concerns of our stakeholders, how we respond, and how we impact each other.

COMMON AREAS OF INTEREST FOR ALL STAKEHOLDERS:

Business Interest	PETRONAS is a strategic partner in contributing towards greater and impactful value creation opportunities.
Opportunities for Locals	PETRONAS promotes local participation in the oil and gas industry.
Human Capital Development of Local Talents	Career opportunities within the Group, PETRONAS education sponsorships and capability building opportunities.
CSR and Community Well-Being	PETRONAS, through Yayasan PETRONAS, contributes to the well-being of communities.

Engaging with Stakeholders

Engaging with Stakeholders

Stakeholder Groups	Engagement Platforms	How We Impact Each Other	Key Areas of Concern for the Stakeholder Groups	Our Actions
FEDERAL GOVERNMENT/ HOST GOVERNMENT	Formal meetings, strategic and informal engagements, dialogues, regular reporting to relevant government agencies (including statutory and regulatory reporting), hosting visits to our assets/operations for government agencies, briefings with government agencies, participation in government programmes.	Our conformance to laws and regulations to ensure smooth and ethical business operations strengthens our reputation as a responsible energy group. This in turn allows us to support governments in their efforts to stimulate economic growth, creating job opportunities and improving the quality of life.	• Compliance with laws and regulations • Nation-building agenda • Ethical business practices • Health and safety • Environment • Social development • Human capital development • Employment	• Playing our role as a nation-building partner in providing advice (as a thought partner) to shape and facilitate the implementation of policies • Providing clear, regular and concise business and sustainability updates • Adhering to global agendas such as the United Nations Sustainability Development Goals (SDGs) • Supporting the Malaysian Government agenda for nation-building initiatives *Read about how we support Malaysia's New Plastic Economy initiative on page 89.*
STATE GOVERNMENT	Formal meetings, dialogues and feedback, hosting visits to our assets and operations, regular meetings and briefings with state government representatives, participation in state government's programmes.	Each state has its own unique expectations and interests; thus, receiving its endorsement is key to ensuring the sustainability of our operations in the state. In return, our business will continue to be an engine that spurs the state's local economy and enriches the communities.	• Compliance with laws and regulations • Nation-building agenda • Ethical business practices • Health and safety • Environment • Social development • Human capital development • Employment	• Implementing regular reporting and a transparent business approach with the state governments • Supporting state economic transformation projects by empowering communities with self-sustaining skills. *Read about how we collaborate with government agencies to increase income of the B40 communities on page 113.*
CUSTOMERS	Visits to customers' establishments/sites, hosting annual customer receptions, customer satisfaction surveys, feedback management system and customer appreciation programmes.	The sustainability of our business growth relies on having a strong customer base. We strive to grow this through the delivery of superior quality products and solutions. We enrich the lives of our customers who are the beneficiaries and advocates of our energy products, technology and solutions.	• Positive customer experience • Product quality and timely product delivery • Competitive product pricing • After-sales support • Consumer data protection • Collaborative solutions and technologies • Confidence and trust in PETRONAS brands	• Ensuring PETRONAS businesses deliver our products and solutions efficiently • Maintaining superior quality with continued development and innovation of state-of-the-art technology • Upgrading and improving digital customer service support • Site visits, promotional and marketing campaigns, exhibitions, perception surveys and networking forums *Read about how we ride the Wave of Digital Disruption and create a new customer experience in retail and beyond on page 72.*
INTERNAL/ EMPLOYEES	Town halls, employee performance management feedback sessions, intranet announcements, staff engagement and appreciation sessions, PETRONAS festive events, e.g. PETRONAS Hari Raya Open House, and campaigns, Group Health, Safety, Security and Environment (GHSSE) Safety campaigns.	Our talents are the backbone of our success. Clearly cascaded business directions with open lines of communication ensure employees are engaged, motivated and content, which leads to greater productivity. They are our best advocates in shaping positive perceptions about PETRONAS and are living examples of our brand and reputation. In return, PETRONAS continues to provide professional and personal growth opportunities while promoting a high-performance work culture.	• Business sustainability • Growth strategies • Health and safety • Work/life integration • Capability development • Employee welfare • Workplace environment • Responsible and ethical business practices • Diversity, inclusivity and gender equality	• Continuous staff engagement • Enhancing staff benefits to be more reflective of current practices and industry standards • Providing progressive capability development and mobility • Providing a conducive workplace environment • Establishing the PETRONAS Leading Women Network (PLWN) *Read about how we invest in Human Capital Development on page 103.*

Engaging with Stakeholders

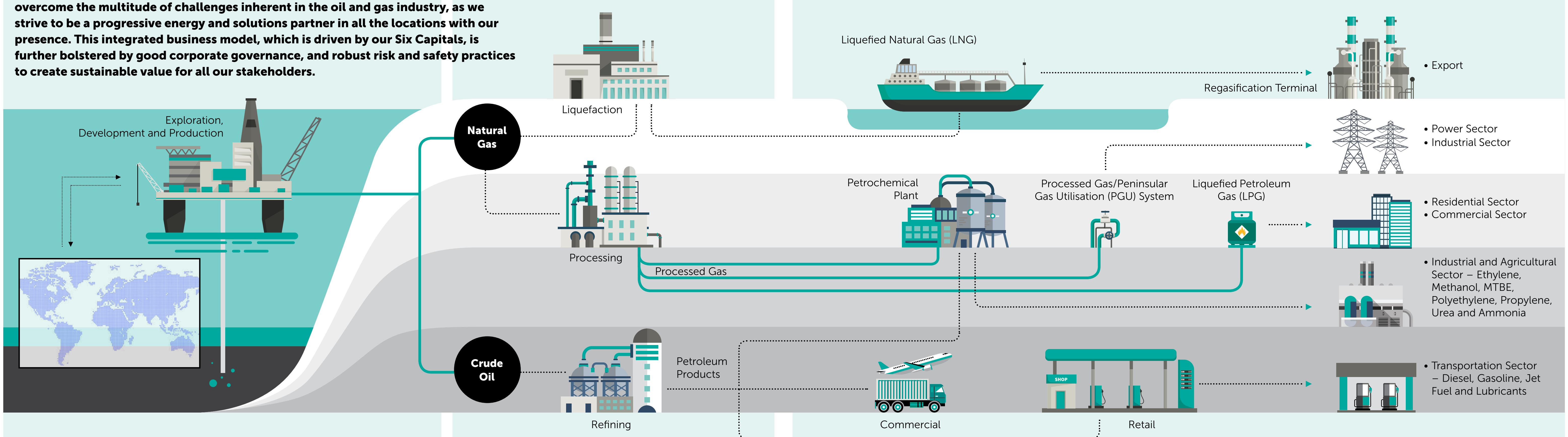
Engaging with Stakeholders

Stakeholder Groups	Engagement Platforms	How We Impact Each Other	Key Areas of Concern for the Stakeholder Groups	Our Actions
MEDIA	Press conferences, networking and business sharing sessions for events with the media, e.g. Iftar with the media during Ramadhan and press, informal engagements and media visits to our facilities.	The media helps to strengthen our reputation and credibility by providing a fair and balanced view of our organisation, which helps to amplify our efforts in attaining stakeholder advocacy. PETRONAS will continue to provide the media with access to timely, reliable and transparent information about our operations. Media engagement complements stakeholder engagement in managing the Group's reputation.	• Ethical business practices • Timely disbursement of information • Regulatory compliance • Health and safety • Data protection • Environmental, social and governance (ESG) updates • New innovations and technology • Business growth • Media investment and support	• Networking and sharing sessions with the media, hosting events with the media as well as events like Iftar with the media during Ramadhan, holding press conferences, providing press releases. *Read about Imbak Canyon, a Class 1 Forest Reserve in Borneo where media were brought for a familiarisation trip on page 93.*
SHAREHOLDERS/ INVESTORS	Investor and analyst briefings, annual reports, site visits, Annual General Meetings, announcements via Bursa Malaysia, meetings, investment conferences and the Group's website.	Shareholders/investors are providers of financial capital. The sustained trust and confidence of shareholders and investors are key to business growth, good credit ratings, increased dividend value and the rise of share prices of our public listed subsidiaries. In return, a robust business with a resilient financial position yields high returns to investors and good dividend payments to shareholders.	• Business outlook and risks • Cash utilisation and dividends • Shareholders' returns • Governance, integrity and business ethics • Health and safety • Sustainability matters • Business viability and regulatory compliance • Leadership changes	• Investor and analyst briefings • Annual reports • Site visits • Annual General Meetings • Announcements via Bursa Malaysia • Meetings, investment conferences and the Group's website *This voluntary Annual Report is one of our commitments to keep our shareholders well informed of our activities.*
GLCS/INDUSTRY PLAYERS/ PARTNERS	Periodic meetings, day-to-day interactions, forums/conferences/industry dialogues, site visits, networking sessions.	Collaboration with GLCs, industry players and partners to promote growth through synergism instead of competition. Collaboratively leveraging shared resources and expertise to elevate the standards of the industry so that everyone can reap the benefits of a thriving energy industry.	• Governance and integrity • Health and environment • Industry requirements, local content, regulations and policies • Business opportunities • Continuous value creation through partnerships; and the creation of more opportunities from PETRONAS • Oil and gas capability development • Industry sustainability	• Networking sessions between PETRONAS and partners and industry players • Establishing signature programmes and initiatives to increase competitiveness of and boost capabilities of local industry players. • Collaboration with other industry players/partners *Read about how we have enriched the industry ecosystem in the Letter from the President and Group CEO on page 44 and 45.*
COMMUNITY/ NGOs	CSR programmes, periodic briefings and engagements with local communities, celebration for festivals.	Communities and NGOs have the power to influence the viability and sustainability of PETRONAS' business operations. As a responsible Group, we provide opportunities to improve community well-being and livelihoods through collaboration with relevant NGOs for the benefit of all.	• Governance and integrity • Health and environment • Education • Social well-being • Compliance with relevant legislation	• Establishing Yayasan PETRONAS to carry out CSR programmes based on the three pillars of Education, Community Well-being and Development, and Environment. • We contribute to improving the quality of people's lives through: - Youth development programmes - Providing infrastructure development support - Providing employment opportunities for locals - Enabling sustainable economic participation through enterprise development programmes *Read about Yayasan PETRONAS' CSR activities from pages 109 - 116.*

Continued Value Creation

Continued Value Creation

Our business model considers the diverse businesses we operate and how we overcome the multitude of challenges inherent in the oil and gas industry, as we strive to be a progressive energy and solutions partner in all the locations with our presence. This integrated business model, which is driven by our Six Capitals, is further bolstered by good corporate governance, and robust risk and safety practices to create sustainable value for all our stakeholders.



1 EXPLORATION AND PRODUCTION

Finding new oil and gas resources is the primary and critical concern for PETRONAS as it allows us to replenish our portfolio and opens up new opportunities to grow our business. We then invest further into developing fields and constructing platforms, wells and pipelines which will enable the extraction of hydrocarbon.

2 PROCESSING

We liquefy and process gas at our plants, and produce a range of petroleum products at our refineries. Our integrated petrochemical plants are well equipped with advanced infrastructures that will increase our product output ranging from high value polymers to specialty chemicals.

3 MARKETING AND DISTRIBUTION

Getting our products to our retail, commercial and industrial customers is an important component of the business model. We also invest heavily in innovation to ensure our products continue to meet changing customer needs.

Our Six Capitals drive our integrated value chain, providing the basis for all aspects of the business.

NATURAL CAPITAL

This is the core capital of our business. It consists of the hydrocarbons that we extract, and the air, water and energy that we use to convert it into products. PETRONAS invests heavily to ensure optimal usage of these precious resources, and that we mitigate our impact on the climate and environment as much as is feasible. The Group has robust frameworks and policies in place to address both climate and environmental concerns.

MANUFACTURED CAPITAL

Our business relies heavily on the construction or procurement of various assets which include platforms, terminals, pipelines, floaters and vessels. In the Downstream segment, we build petrochemical plants and refineries, as well as retail stations. In Gas and New Energy, our LNG assets include Malaysia LNG, the PFLNG SATU and PFLNG DUA, regasification terminals and the recently acquired Amplus Energy Solutions Pte Ltd (M+), a solar energy company.

HUMAN CAPITAL

Our employees are a key component that enables PETRONAS to successfully conduct its business. We have more than 47,000 employees worldwide comprising a diverse range of nationalities and skillsets. PETRONAS takes great care to ensure our employees are constantly engaged through meaningful programmes that look after their wellness, safety and the upgrading of their skills.

INTELLECTUAL CAPITAL

To ensure PETRONAS remains efficient, competitive and sustainable requires the deployment of resources to constantly innovate and improve our processes. Leveraging digitalisation and technology has helped us to achieve this, and we see encouraging prospects in this area going forward.

SOCIAL AND RELATIONSHIP CAPITAL

As the custodian of Malaysia's oil and gas resources, we explore, produce and deliver energy to meet society's growing needs. Equally important is to ensure our social license to operate. PETRONAS contributes generously to various communities through three pillars – Education, Community Well-Being and Development, and Environment.

FINANCIAL CAPITAL

Financial Capital has an interdependent relationship with all other Capitals. In order to unlock value from the other Capitals, we need to invest financial resources. The value derived from the operations of the other Capitals will add value to our Financial Capital over time. To derive more value from this Capital, PETRONAS is continuously implementing cost optimisation measures.

Risks Linked to Creating Value

As an integrated energy company, PETRONAS is exposed to various risks that are particular to its Upstream, Downstream, and Gas and New Energy businesses. Additionally, our operating environment can have an impact on our business, financial condition, results of operations, prospects as well as reputation.

PETRONAS has in place an ongoing process for managing significant risks. This process includes identifying, evaluating, managing and monitoring these risks. Risk management and its ongoing improvement in strengthening the review and monitoring of these risks remain a key focus of the Board in building a successful and sustainable business.

For each of our identified material risks, we have controls in place to minimise the exposure and impact of the risk. The approach and strategy in managing material risks are described in our Statement on Risk Management and Internal Control (SORMIC), which is available on pages 150 - 157 of this report.

Our business is subject to a number of factors, some of which are beyond our control. These and other risks, whether known or unknown, may have a material adverse impact on our business. The risks set out below are linked to our Three-Pronged Growth Strategy and are not an exhaustive list of the challenges that we currently face or may develop in the future. The order in which these risks and uncertainties appear does not necessarily reflect the likelihood of their occurrence or the relative magnitude of their potential material adverse impact on our business.

RISK	CONTEXT
RISK #1: MARKET RISK ***Our financial performance is impacted by the fluctuation in prices of crude oil and natural gas, change of customer preferences, exchange rate fluctuations, and the general macroeconomic outlook.***	PETRONAS' ability to maintain and develop its business and revenues will be affected by crude oil and natural gas prices which are at present, expected to continue to be volatile and are subject to a variety of factors beyond PETRONAS' control. Changes in crude oil and natural gas prices may also have an impact on gas and petrochemical prices, which typically tend to lag feedstock price changes. Prolonged periods of low oil and gas prices could result in projects being delayed, deferred or cancelled, impairment of certain assets and the viability of projects may be affected. PETRONAS also faces significant competition in the development of innovative products and solutions, including the development of new technologies for its core Upstream, Downstream, and Gas and New Energy businesses. In addition, other competitive sources of energy are expected to come into operation in the future. The rapid development of unconventional and alternative energy resources will create competition for the conventional energy industry. Changes in the US dollar to the Ringgit Malaysia exchange rate could have an adverse impact on PETRONAS' results of operations and financial condition. In addition, as a global company present in many countries, PETRONAS is also exposed to changes in the value of other currencies. The effects of weak global and domestic economic conditions could lead to reduced demand or lower prices for crude oil, natural gas and related products including petrochemicals. Economic factors such as unemployment, inflation and the unavailability of credit could also have a material adverse impact on the demand for energy. *We have in place processes and initiatives to minimise the impact of this risk. Further information on the control efforts can be found in our SORMIC.*
RISK #2: FINANCIAL LIQUIDITY RISK ***Our business activities require significant capital expenditures, sufficient operating cash flow and/or sufficient external financing to maintain or increase oil and gas reserves, both in Malaysia and internationally.***	Reductions in PETRONAS' income as well as the inability to obtain financing during times of global or regional financing challenges may limit PETRONAS' ability to make capital investments. In addition, a global or regional financial crisis and unfavourable credit and market conditions may negatively affect PETRONAS' liquidity, customers, businesses, and results of operations. *Our liquidity position is monitored and reviewed regularly to limit the impact of this risk. More of these details can be found in our SORMIC.*

RISK	CONTEXT
RISK #3: EXECUTION RISK ***Our business, financial condition and results of operations are dependent on the successful delivery of complex, long-term, capital-intensive projects, as well as asset portfolio optimisation. Consequently, insufficient insurance coverage could have material adverse impact on PETRONAS' fiscal bottom line.***	The success of PETRONAS' Upstream, Downstream, and Gas and New Energy businesses depends on the successful execution of projects. This requires a high degree of project management expertise and skilled employees. PETRONAS seeks to optimise the value of its portfolio of assets, which include assets that it holds directly and its interests in subsidiaries. Optimisation efforts might entail divestments of assets and sales of shares, which could result in PETRONAS being exposed to additional risks or liabilities, place additional demands on management time and other resources, or the transactions may not be successful due to market conditions or other execution challenges. PETRONAS has in place insurance policies covering some of these risks, including exploration, development, production, project, equipment, distribution, transportation and storage risks. These policies may not fully cover all liabilities, and insurance may not be available for all risks or on commercially reasonable terms. *Our key internal controls address this risk. For further information on these controls, please refer to our SORMIC.*
RISK #4: LEGAL AND REGULATORY RISK ***Changes in the regulatory environment and rising climate change concerns could increase the cost of compliance, reduce demand for our products, affect our provisions and limit our access to new growth opportunities. Additionally, inherent uncertainty of litigation proceedings could have material adverse impact on PETRONAS' business operations.***	PETRONAS is subject to critical laws and regulations such as international sanctions, antitrust, anti-bribery, anti-corruption, anti-money laundering and data protection laws that carry significant fines and expose PETRONAS and/or its employees to criminal sanctions and civil suits. PETRONAS is exposed to various claims, suits and legal proceedings that arise from time to time that could involve shareholder, labour, intellectual property, tax and other matters. Disputes and legal proceedings that PETRONAS may be involved in are often subject to many uncertainties beyond our control and have outcomes that are difficult to predict. Due to the inherent uncertainty of the litigation and dispute resolution process, the resolution of any particular legal proceeding or dispute may have a material adverse impact on PETRONAS' business operations, future cash flow and results of operations or financial condition. In addition, PETRONAS faces various environmental laws and regulations governing land use, air emissions, discharges to waters, waste materials, and decommissioning and abandonment of installations, in connection with the design and operation of its Upstream and Downstream oil and gas facilities in Malaysia and in its countries of operations. The stricter enforcement or interpretation of existing environmental laws and regulations are often difficult and costly to comply with and carry substantial penalties for non-compliance. Concerns regarding chemicals and plastics, including their safe usage and potential impact to the environment, have led to more restrictive regulations or new regulations, which could result in delays or failures in obtaining or retaining regulatory approvals. This could also lead to increased costs related to complying with more restrictive regulations, delayed product launches, lack of market acceptance, lower sales volumes or discontinuance of chemicals or plastics products. PETRONAS expects continued and increased attention to climate change from all facets of society. This attention has led, and PETRONAS expects it to continue to lead, to additional regulations designed to reduce GHG emissions. These and other measures to limit GHG emissions could result in lower demand for many of PETRONAS' products, which could lead to lower revenue and in the long-term, potential impairment of certain assets. *Our Governance, Compliance and Legal frameworks, along with our continued efforts in implementing sustainability agenda are expected to reduce the impact of these risks. The ways we mitigate these risks can be found throughout this report and in our SORMIC.*

Risks Linked to Creating Value

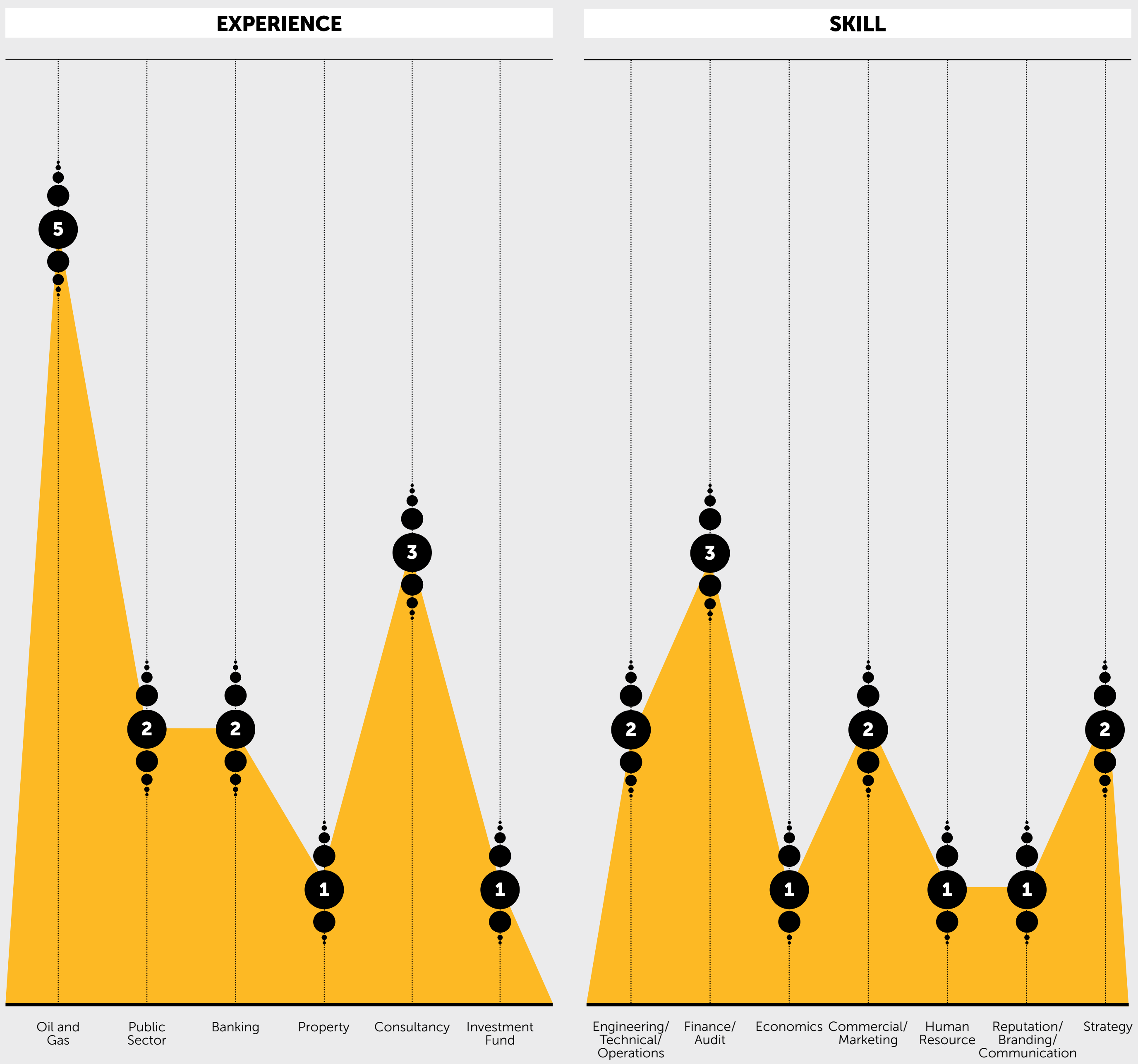
RISK	CONTEXT
RISK #5: GEOPOLITICAL RISK ***Our businesses, in Malaysia and globally, are exposed to a wide range of political, legal and fiscal developments, which could lead to changes to the operating and regulatory environment.***	PETRONAS operates in numerous countries which have differing degrees of political, legal and fiscal stability. This exposes us to a wide range of political developments that could result in changes to contractual terms, laws and regulations. PETRONAS' global business activities are also subjected to regulations and directives of national and host governments with respect to matters such as limitations on production volumes and exports, pricing policies, environmental protection controls and possible nationalisation of assets, expropriation and cancellation of rights. Governments may intervene directly or indirectly in PETRONAS' commercial and operational affairs, which would have a material adverse impact on PETRONAS. Consequently, disputes involving ongoing maritime boundaries delimitation in Malaysia could affect PETRONAS' offshore operations and explorations activities. *Governance, Compliance and Legal frameworks as well as our internal control environment assist to mitigate these concerns. More details of our efforts in this regard can be found in our SORMIC.*
RISK #6: HEALTH, SAFETY, SECURITY AND ENVIRONMENT (HSSE) RISK ***Exposure to a wide range of health, safety, security threats and environmental risks could cause harm to people, the environment and our social assets as well as result in regulatory action, legal liability, business interruption, increased costs and damage to our reputation, potentially affecting our social licence to operate.***	The occurrence of any incidents connected with production, processing and transporting of PETRONAS' products could result in injury or loss of life, environmental damage, resulting in containment, clean-up and repair expenses, equipment damage and damage to PETRONAS' facilities. A shutdown of the affected facilities could disrupt PETRONAS' production and significantly increase its production costs. Malaysia and other countries have experienced, or may experience, outbreaks of viruses, various forms of influenza or any other communicable diseases that could result in a widespread health crisis. The COVID-19 pandemic, for example, caused significant disruptions to international economies, as well as financial and oil markets, and affected global consumer demand. The lockdown and restricted movement orders due to the pandemic could also impact abilities of PETRONAS and its suppliers to adequately staff their respective operations, thus disrupting the supply chains and distribution networks for PETRONAS' products where customers are based. The security threats that could adversely impact our business include acts of terrorism against PETRONAS' production and exploration facilities, offices, pipelines, means of transportation or computer systems, or breaches of PETRONAS' security systems. Failure to manage these risks could result in injury or loss of life, damage to or the destruction of wells and production facilities, ships, pipelines and other properties, as well as the environment. *Our Health, Safety and Security practices, along with our compliance and internal control on Environment help mitigate these risks. More details can be found throughout this report and in our SORMIC.*

Risks Linked to Creating Value

RISK	CONTEXT
RISK #7: RESERVES AND RESOURCES RISK ***The level of PETRONAS' oil and gas reserves, resources and production may decline over time. The level of our reserves depends on successful discovery and development of commercially exploitable oil and gas reserves and resources as well as the reliability of discovered resource estimation.***	Future oil and gas production will depend on our access to new reserves and resources through exploration, negotiations with relevant parties and acquisitions, as well as on developing and applying new technologies to existing fields. Failure to replace existing reserves could result in lower future production, potentially having a material adverse impact on our earnings, cash flows and financial condition. PETRONAS' crude oil and natural gas discovered resource estimates involve some degree of uncertainty and may prove to be incorrect over time or may not accurately reflect actual discovered resource levels. The reliability of discovered resource estimates depends on the quality and quantity of technical and economic data, the production performance of the fields, and may also be subject to revision due to changes in published rules and guidance. *We identify, assess, analyse, monitor and review continually to reduce the impact of this risk. Our risk management processes can be found in our SORMIC.*
RISK #8: TECHNOLOGY RISK ***Technology and innovation are essential for PETRONAS to remain competitive. If it inadvertently develops technologies and products that cause unfavourable effect to the environment or health of individuals, there could be a material adverse impact on its earnings, cash flows and financial condition.***	Technology and innovation are essential to our efforts to meet the world's energy demands in a competitive way. There could be a material adverse impact on the delivery of our strategy and our licence to operate if we do not develop the right technology and products, do not have access to such technology and products or do not deploy these effectively. If we are unable to develop the right technologies and products in a timely and cost-effective manner, or if we develop technologies and products that adversely impact the environment or health of individuals, there could be a material adverse impact on our earnings, cash flows and financial condition. PETRONAS is subject to fast-evolving risks from cyber threats. A breach or failure of our digital infrastructure including cyber-attacks could result in the loss or misuse of data or sensitive information, injury to people, disruption to our business, harm to the environment or our assets, legal or regulatory breaches and legal liability. *Our continued efforts in developing and deploying the right technology as well as robust digital infrastructure help manage this risk. The ways we mitigate these risks can be found throughout this report and in our SORMIC.*

Our Board at a Glance

While traditional diversity criteria, such as gender and independence are important, we also value diversity of skills, experience, knowledge and thinking styles.



A Director may have more than one experience and skill
All information as at 31 March 2020

Profile of the Board of Directors

Datuk Ahmad Nizam Salleh
Non-Independent Non-Executive Chairman/Director

Age/Gender/Nationality

64/Male/Malaysian

Date Appointed to the Board

1 August 2018

Academic/Professional Qualifications

- Bachelor of Business Administration, Ohio University, United States of America
- Advanced Management Programme, Wharton School, University of Pennsylvania, United States of America

Other Current Appointments

- Chairman of Yayasan PETRONAS
- Chairman of KLCC Property Holdings Berhad
- Chairman of KLCC (Holdings) Sdn Bhd
- Chairman of KLCC REIT Management Sdn Bhd
- Pro-Chancellor, Universiti Teknologi PETRONAS
- Director, University of Malaysia Terengganu

Past Appointments/Experiences

- Joined PETRONAS in 1981
- Held various positions including analyst, planner and project coordinator in corporate planning and finance functions within PETRONAS' Corporate Head Office from 1981 to 1987
- Other key positions previously held within the Group:
  - Head Project, Tender and Contract Division
  - Deputy Project Director of LNG 2 Project
  - Executive Assistant to the President/Chief Executive Officer
  - Senior General Manager, Crude Oil Group
  - Senior General Manager, Group Treasury
  - Managing Director/Chief Executive Officer of Malaysia LNG Group of Companies
  - Vice President, Corporate Services Division
  - Managing Director/Chief Executive Officer of Engen Petroleum Limited, South Africa
  - Member of the PETRONAS Management Committee
  - Chairman of the PETRONAS Central Tender Committee
  - Chairman of the PETRONAS Risk Management Council
  - PETRONAS representative on the Boards of MISC Berhad, Putrajaya Holdings Berhad, Bintulu Port Holdings Berhad and other PETRONAS subsidiaries

Board Committee :

Chairman of Committee
Member of Committee
BAC Member of Board Audit Committee
RC Member of Risk Committee
NRC Member of Nomination and Remuneration Committee

Profile of the Board of Directors

BAC
NRC

Tan Sri Wan Zulkiflee Wan Ariffin
Executive Director, President and Group CEO

Age/Gender/Nationality

59/Male/Malaysian

Date Appointed to the Board

1 August 2007

Academic/Professional Qualifications

- Bachelor of Engineering, University of Adelaide, Australia.
- Senior Management Development Programme, INSEAD
- Advanced Management Programme, Harvard Business School
- Honorary Fellowship, Institution of Chemical Engineers, United Kingdom

Other Current Appointments

- Chairman of the National Trust Fund
- Pro-Chancellor of Universiti Teknologi PETRONAS
- Member of the Advisory Council for the National Institute of Public Administration (INTAN)
- Member of the Board of Trustees for the Razak School of Government
- Member of the Board of Trustees for the Merdeka Award Trust
- Council Member of the East Coast Economic Region Development Council (ECERDC)
- Chairman of the ECERDC Audit Committee
- Member of Northern Corridor Implementation Authority (NCIA)
- Chairman of the NCIA Audit Committee
- Adjunct Professor at the International Islamic University Malaysia (IIUM)
- Member of the World Economic Forum (WEF) Oil and Gas Governors Forum
- Member of the WEF Stewardship Board for System Initiatives on Shaping the Future of Energy
- Malaysia's Alternate Member of the Asia-Pacific Economic Cooperation (APEC) Business Advisory Council (ABAC)

Past Appointments/Experiences

- Joined PETRONAS as a Process Engineer in 1983
- Other key positions previously held within the Group:
  - Executive Assistant to the President
  - General Manager, International Projects Management Division of OGP Technical Services
  - General Manager, Strategy and Business Development Unit
  - Managing Director and Chief Executive Officer (PETRONAS Gas Berhad)
  - Vice President of Gas Business
  - Executive Vice President and Chief Executive Officer for Downstream Business
  - Chairman (PETRONAS Chemicals Group Berhad)
  - Chairman (PETRONAS Dagangan Berhad)
  - Chief Operating Officer, PETRONAS

Ainul Azhar Ainul Jamal
Independent Non-Executive Director

Age/Gender/Nationality

60/Male/Malaysian

Date Appointed to the Board

15 May 2018

Academic/Professional Qualifications

- Bachelor of Electrical Engineering, University of Sussex, United Kingdom
- Advanced Finance, IMD Lausanne, Switzerland
- Emerging Leaders Programme, Daniel Business School, University of Denver, Colorado, United States of America

Other Current Appointments

- Member of the Student Development Advisory Council, Universiti Teknologi PETRONAS, Malaysia
- Chairman of PETRONAS Board Audit Committee
- Member of PETRONAS Nomination and Remuneration Committee

Past Appointments/Experiences

- Joined Schlumberger Limited in 1984. Spent over 32 years with Schlumberger with vast experience in oilfield services and technologies. Held various key positions around the world including:
  - Managing Director for Malaysia, Brunei, Philippines and Singapore
  - Reservoir Group HR Director
  - Treasurer of Schlumberger Foundation
  - Vice President Global Accounts
  - Chairman for Asia-Pacific
- Held directorships at several private companies and was an Independent Non-Executive Director as well as Chairman of the Risk Committee at a public listed company in Malaysia

Board Committee :

Chairman of Committee / Member of Committee	BAC Member of Board Audit Committee	RC Member of Risk Committee	NRC Member of Nomination and Remuneration Committee

Profile of the Board of Directors

BAC
RC
NRC

Zakiah Jaafar
Non-Independent Non-Executive Director

Age/Gender/Nationality

53/Female/Malaysian

Date Appointed to the Board

15 October 2018

Academic/Professional Qualifications

- Postgraduate Diploma in Public Administration, National Institute of Public Administration, Malaysia (INTAN)
- Bachelor of Science (Honours) (Economics), University of Warwick, United Kingdom
- Master of Social Science (Economics), University of Birmingham, United Kingdom
- Advanced Management and Leadership Programme, University of Oxford, United Kingdom
- Premier Executive Advanced Development Programme, Razak School of Government, Canberra, Australia

Other Current Appointments

- Presently the Deputy Secretary General (Investment) for the Ministry of Finance, Malaysia
- Member of PR1MA Corporation Malaysia
- Member of UJ Property Management Sdn Bhd
- Member of Pengurusan Aset Air Berhad
- Member of Employees Provident Fund
- Member of MARA Council
- Member of Bintulu Port Holdings Berhad
- Member of PETRONAS Board Audit Committee
- Member of PETRONAS Risk Committee
- Member of PETRONAS Nomination and Remuneration Committee

Past Appointments/Experiences

- Responsible for coordinating, monitoring and updating policies, regulations, Acts and strategies pertaining to government investment companies, statutory bodies, public assets and strategic public investments
- Former Deputy Secretary General (Macro) of the Ministry of Economic Affairs (MEA)
- Responsible for the preparation of medium and long-term macroeconomic framework for the Malaysian economy and also oversees the policy directions for the manufacturing and services sectors, science and technology and innovation, environment economics as well as knowledge-based economy

BAC
RC

Tan Sri Dato' Seri Mohd Bakke Salleh
Independent Non-Executive Director

Age/Gender/Nationality

65/Male/Malaysian

Date Appointed to the Board

18 June 2019

Academic/Professional Qualifications

- Bachelor of Science (Economics), London School of Economics, United Kingdom
- Fellow of Institute of Chartered Accountants in England and Wales
- Member of the Malaysian Institute of Accountants

Other Current Appointments

- Director of Eastern & Oriental Berhad
- Governing Council member of Yayasan Sime Darby
- Pro Chancellor of Universiti Putra Malaysia
- Chairman of PETRONAS Risk Committee
- Member of PETRONAS Board Audit Committee

Past Appointments/Experiences

- Held key positions in a number of Government linked companies and local corporations:
  - Chairman of Federal Land Development Authority (FELDA)
  - Chairman of Malaysian Palm Oil Board (MPOB)
  - Chairman of Yayasan FELDA
  - Executive Deputy Chairman/Managing Director of Sime Darby Plantation Berhad
  - President and Group Chief Executive Officer of Sime Darby Berhad
  - Group President and Chief Executive Officer of Felda Global Ventures Holdings Berhad
  - Group Managing Director of Felda Holdings Berhad
  - Group Managing Director and Chief Executive Officer of Lembaga Tabung Haji
  - Director, Property Division of Pengurusan Danaharta Nasional Berhad
  - Group General Manager in Island and Peninsular Berhad

Board Committee :

Chairman of Committee / Member of Committee	BAC Member of Board Audit Committee	RC Member of Risk Committee	NRC Member of Nomination and Remuneration Committee

Profile of the Board of Directors

RC
NRC

Ahmad Faris Rabidin
Independent Non-Executive Director

Age/Gender/Nationality

46/Male/Malaysian

Date Appointed to the Board

18 June 2019

Academic/Professional Qualifications

- Bachelor of Science (Honours) in Actuarial Mathematics and Statistics, University of Heriot Watt, Edinburgh, United Kingdom

Other Current Appointments

- Director of Securities Commission of Malaysia
- Member of Debt and Liability Committee, Prime Minister Office
- Investment Panel Member, KWAP
- Chairman of PETRONAS Nomination and Remuneration Committee
- Member of PETRONAS Risk Committee

Past Appointments/Experiences

- Independent consultant with the Asian Development Bank (ADB) providing strategic technical assistance covering market development, market infrastructure design, technology, financial market regulation and systemic risk to Badan Pengawas Pasar Modal dan Lembaga Keuangan (Bapepam-LK) and the Otoritas Jasa Keuangan (OJK) of Indonesia from 2006-2018.
- Regional Director of Mainstream & Co Ltd specialising in Enterprise Risk Management Solutions, incubated Bond Pricing agencies in Malaysia and Indonesia.
- Member of 1MDB Investing Committee and Secretariat of the Council of Eminent Persons from May 2018 until September 2018.

Tengku Muhammad Taufik
Executive Director, Executive Vice President and Group Chief Financial Officer

Age/Gender/Nationality

46/Male/Malaysian

Date Appointed to the Board

15 October 2018

Academic/Professional Qualifications

- Bachelor of Arts (Honours) (Finance and Accounting), University of Strathclyde, United Kingdom
- Scottish International Foundation, Langside College, United Kingdom
- Fellow of the Institute of Chartered Accountants in England and Wales
- Member of the Malaysian Institute of Accountants

Other Current Appointments

- Director of MISC Berhad
- Director of KLCC Property Holdings Berhad

Past Appointments/Experiences

- Accumulated more than 20 years of experience in the field of finance and business investment.
- Partner at PricewaterhouseCoopers (PwC) Malaysia prior to rejoining PETRONAS.
- Former Chief Financial Officer for two public listed companies, responsible for financial and management reporting, merger and acquisition activities, as well as developing and implementing key stakeholder engagement strategies.
- Experienced in strategic planning, investment valuations, developing entry strategies for businesses, and structuring fit-for-purpose funding requirements.
- Areas of expertise include financial reporting, project analysis, feasibility reviews, capital projects structuring and risk management, with primary focus on the oil and gas industry.

Board Committee :

Chairman of Committee / Member of Committee	BAC Member of Board Audit Committee	RC Member of Risk Committee	NRC Member of Nomination and Remuneration Committee

Profile of the Company Secretaries

Intan Shafinas (Tuty) Hussain
Company Secretary

Age/Gender/Nationality

47/Female/Malaysian

Date of Appointment

1 June 2018

Academic/Professional Qualifications

- Graduate Diploma in Law, University of Western Australia, Australia.
- Bachelor of Laws (Honours), University of Leicester, United Kingdom
- Certificate in Legal Practice, Legal Profession Qualifying Board, Malaysia
- Licensed Company Secretary

Other Current Appointments

- Currently the Company Secretary of PETRONAS and Head of Group Secretarial and Board Governance, Group Legal, PETRONAS.

Past Appointments/Experiences

- Joined PETRONAS in 2001 and has over 18 years of extensive experience in legal, corporate governance and company secretarial matters.
- Previously served as the Joint Company Secretary of PETRONAS Gas Berhad and Head of Legal of PETRONAS Gas Berhad.
- Other portfolios held include Legal Counsel of Legal Corporate Services, PETRONAS Chemicals Group Berhad, Corporate Services and Technology as well as Petrochemical Business of PETRONAS.

Hazleena Hamzah
Company Secretary

Age/Gender/Nationality

47/Female/Malaysian

Date of Appointment

1 September 2018

Academic/Professional Qualifications

- Bachelor of Laws (Honours), University of Bristol, United Kingdom
- Degree of an Utter Barrister, Lincoln's Inn, United Kingdom
- Master of Business Administration, Middlesex University, United Kingdom
- Licensed Company Secretary

Other Current Appointments

- Currently the Joint Company Secretary of PETRONAS, Secretary to the PETRONAS Executive Leadership Team and Head of Corporate Secretariat, Group Secretarial and Board Governance, Group Legal, PETRONAS.

Past Appointments/Experiences

- Joined PETRONAS in 2001 and served in various positions within PETRONAS with exposure in various fields of law.
- Areas of expertise include legal finance and company secretarial and compliance.

Executive Leadership Team

									
	Tan Sri Wan Zulkiflee Wan Ariffin Executive Director, President and Group CEO Profile is presented on page 134	**Adif Zulkifli** Executive Vice President and Chief Executive Officer, Upstream	**Adnan Zainol Abidin** Executive Vice President and Chief Executive Officer, Gas and New Energy	**Datuk Md Arif Mahmood** Executive Vice President and Chief Executive Officer, Downstream	**Tengku Muhammad Taufik** Executive Vice President and Group Chief Financial Officer Profile is presented on page 136	**Farehana Hanapiah** Vice President, Group Human Resource Management	**Mazuin Ismail** Senior Vice President, Corporate Strategy	**Samsudin Miskon** Senior Vice President, Project Delivery and Technology	**Maliki Kamal Mohd Yasin** Senior Vice President, Group General Counsel, Group Legal
Age/Gender/Nationality		49, Male, Malaysian	59, Male, Malaysian	57, Male, Malaysian		51, Female, Malaysian	51, Male, Malaysian	59, Male, Malaysian	56, Male, Malaysian
Date Appointed	1 April 2016	1 April 2019	1 April 2019	1 April 2016	15 October 2018	1 January 2020	16 April 2016	16 October 2019	1 June 2017
Academic/ Professional Qualifications		• Bachelor of Science (Hons) in Petroleum Engineering, Colorado School of Mines • Master of Business Administration, Kellogg School of Management, Northwestern University	• Bachelor of Science in Chemical Engineering, University of Leeds, United Kingdom	• Bachelor of Science (Summa Cum Laude) (Electrical Engineering), Boston University, United States of America • Master of Business Administration, Massachusetts Institute of Technology, United States of America		• Bachelor of Commerce and Administration (Accountancy), Victoria University of Wellington, New Zealand • Advanced Management Programme, Harvard Business School	• Bachelor of Science (Civil and Structural Engineering), University of Bradford, United Kingdom • Master of Business Administration (Advance), University of Adelaide, Australia	• Bachelor of Science (Honours) Chemical Engineering, Aston University, United Kingdom • Master of Science in Project Management, University of Reading, United Kingdom	• Bachelor of Law (Honours), International Islamic University Malaysia, Malaysia
Appointments/ Experiences		• Joined PETRONAS in 1993 • Has more than 25 years of experience in the oil and gas industry • Other key positions currently held within the Group: o Chairman of PETRONAS Gas Berhad o Director of PETRONAS Carigali Sdn Bhd o Director of PETRONAS International Corporation Ltd o Director of PETRONAS Energy Canada Ltd • Other key positions previously held within the Group: o Executive Vice President, Gas and New Energy o Senior Vice President, PETRONAS Development and Production Upstream Business o Senior Vice President, Corporate Strategy o Vice President, Malaysia Petroleum Management o Head, Strategy and New Ventures Upstream Business	• Joined PETRONAS in 1984 • Has more than 35 years of experience in the oil and gas industry • Other key positions currently held within the Group: o Chairman of MLNG Group of Companies o Chairman of PETRONAS LNG Sdn Bhd o Chairman of PETRONAS Canada LNG Ltd o Chairman of PETRONAS ICT Sdn Bhd • Other key positions previously held within the Group: o Senior Vice President, Project Delivery and Technology o Vice President, LNG Assets o Vice President, Global LNG Projects	• Joined PETRONAS in 1984 • Has more than 35 years of experience in the oil, gas and petrochemicals industries, in the field of engineering, operation and strategic planning, business development and merger and acquisition • Led the acquisition of Canada's Progress Energy Inc. in 2012 and established the joint venture partnership with Saudi Aramco for Pengerang Integrated Complex • Other key positions currently held within the Group: o Chairman of PETRONAS Chemicals Group Berhad o Chairman of BASF-PETRONAS Chemicals Sdn Bhd o Chairman of PETRONAS Dagangan Berhad o Chairman of PETRONAS Marketing International Sdn Bhd o Chairman of Pengerang Petrochemical Company Sdn Bhd o Chairman of Pengerang Refining Company Sdn Bhd o Director of PETRONAS Carigali Sdn Bhd o Director of PETRONAS International Corporation Ltd o Director of PETRONAS Refinery & Petrochemical Corporation Sdn Bhd o Director of Johor Petroleum Development Corporation		• Joined PETRONAS in 1990 • Has almost 30 years of experience in corporate functions • Other key positions currently held within the Group: o Director of PETRONAS Management Training Sdn Bhd o Director of PETRONAS ICT Sdn Bhd o Director of Institute of Technology PETRONAS Sdn Bhd o Director of PETRONAS Lubricants International Sdn Bhd • Other key positions previously held within the Group: o General Manager, Group Strategic Planning o Head, Commercial Development and JV Formation, Pengerang Integrated Complex o Head, Human Capital Expertise, Group HRM o Chief Executive Officer, PETRONAS Management Traning Sdn Bhd	• Joined PETRONAS in 1991 • Has almost 30 years of experience in PETRONAS covering project execution and engineering, internal audit, governance, and business development. He had also held leadership roles in petroleum management, strategic planning and change management • Other key positions currently held within the Group: o Chairman of Kertih Terminal Sdn Bhd o Chairman of Petroleum Research Fund o Director of PETRONAS Carigali Sdn Bhd o Director of PETRONAS International Corporation Ltd o Director of Institute of Technology PETRONAS Sdn Bhd o Director of PTV International Ventures Ltd • Other key positions previously held within the Group: o Senior Vice President, Project Delivery and Technology o Vice President of Technical Global PETRONAS	• Joined PETRONAS in 1983 • Has more than 30 years of experience in the field of human resource management • Other key positions currently held within the Group: o Chairman of Primesourcing International Sdn Bhd o Chairman of Sanzbury Stead Sdn Bhd o Director of KLCC (Holdings) Sdn Bhd o Director of Energas Insurance (L) Ltd • Other key positions previously held within the Group: o General Manager of Malaysia LNG Dua Sdn Bhd o Senior General Manager of MLNG Plant Complex o MD/CEO of PETRONAS Gas Berhad o Vice President of Group Procurement	• Joined PETRONAS in 1990 • Has more than 30 years of experience in the legal and company secretariat field • Other key position currently held within the Group: o Director of Malaysian Jet Services Sdn Bhd • Other key positions previously held within the Group: o Head of Legal and Corporate Secretariat (PETRONAS Chemicals Group) o General Counsel of RAPID Project o Head of Legal Finance and Secretariat (PETRONAS) o Company Secretary (PETRONAS) o Head of Legal for Downstream, Finance and Technology (PETRONAS)
Other Current Appointments		• Chairman of the Society of the Petroleum Engineers, Asia Pacific Advisory Council • Vice Chairman, International Petroleum Technology Conference Board of Directors	• Nil	• Member of the Universiti Teknologi PETRONAS, Industry Advisory Panel		• Nil	• Nil	• Nil	• Nil

Corporate Governance at PETRONAS

Corporate Governance at PETRONAS

GOVERNANCE, ETHICS AND INTEGRITY

The Board upholds the highest standards of corporate governance. The Board believes that strong governance is critical in realising our growth strategy, value creation and sustainability in line with the PETRONAS Sustainability Agenda.

The Board sets the Company's core values and standards, and maintains a corporate governance framework that embeds a culture of performance, conformance and integrity across the PETRONAS Group.

The Board is committed to ensure that PETRONAS achieves its key objectives and oversees the implementation of the Three-Pronged Growth Strategy.

The Board is also responsible to ensure the Company maintains effective governance on risk, internal controls and compliance with applicable laws and regulations. This enables the Board to formulate mitigation strategies to safeguard the Company's businesses and reputation.

EMBRACING BEST GOVERNANCE PRACTICES

Dedicated time for Three-Pronged Growth Strategy deliberation.

Board Charter that stipulates the roles of Chairman, President, Non-Executive Directors and Executive Directors.

Positions of the Chairman, and the President and Group CEO are held by two different individuals.

Regular engagements of the Non-Executive Directors without the presence of Executive Directors.

Established Board Selection Criteria and Guiding Principles on appointment/re-appointment of Directors.

Annual Independent Directors' Review via a two-tiered assessment to appraise independence of its Independent Non-Executive Directors.

OUR GOVERNANCE PRACTICES AT A GLANCE

BOARD AND BOARD COMMITTEE MEETING ATTENDANCE FOR 2019

DIRECTORS as at 31 December 2019	DESIGNATION	BOARD	BAC	RC	NRC
Datuk Ahmad Nizam Salleh	Chairman	17/17			
Tan Sri Wan Zulkiflee Wan Ariffin	President and Group CEO	17/17			
Ainul Azhar Ainul Jamal	Independent Non-Executive Director	17/17	10/10		6/6
Zakiah Jaafar	Non-Independent Non-Executive Director	17/17	2/2	4/5	2/2
Tan Sri Dato' Seri Mohd Bakke Salleh	Independent Non-Executive Director	9/11	6/6	2/2	
Ahmad Faris Rabidin	Independent Non-Executive Director	8/8		2/2	2/2
Tengku Muhammad Taufik Tengku Aziz	EVP and Group CFO	16/16			

DIRECTORS who have resigned in 2019	DESIGNATION	BOARD	BAC	RC	NRC
Tan Sri Amirsham A Aziz (Resigned w.e.f. 30/5/2019)	Independent Non-Executive Director	5/5		3/3	
Tan Sri Muhammad Ibrahim (Resigned w.e.f. 29/5/2019)	Independent Non-Executive Director	5/5		3/3	4/4
Dato' Mohamad Idris Mansor (Resigned w.e.f. 29/5/2019)	Independent Non-Executive Director	4/5	4/4		4/4
Krishnan a/l CK Menon (Resigned w.e.f. 29/5/2019)	Independent Non-Executive Director	5/5	4/4	3/3	
Datuk Siti Zauyah Md Desa (Resigned w.e.f. 14/11/2019)	Non-Independent Non-Executive Director	10/11	8/8		

BOARD Board

The Board is collectively responsible for effective oversight of the Company and the helming of the Company's strategic direction and objectives, business plan, viability, and governance structure that will help achieve PETRONAS' strategic growth and deliver sustainable shareholders value.

The Board sets the risk appetite, determines the principal risks for the Company and takes the lead in areas such as safeguarding the Company's reputation, financial policy, as well as ensuring the existence, adequacy and effectiveness of the internal control system and risk management.

BAC Board Audit Committee

The Board Audit Committee assists the Board in fulfilling its oversight functions in relation to the Company's internal controls and financial reporting to safeguard PETRONAS' assets. The Committee provides the Board with quality and reliability assurance of the financial information reported by the Company, while promoting efficiency and good governance practices.

RC Risk Committee

The Risk Committee is responsible for the review of principal risks, and oversees the adequacy and effectiveness of the risk assessment and risk management system for the PETRONAS Group. The Committee also reviews and recommends to the Board the appropriate corporate governance policies and procedures in accordance with good governance standards and best practices.

During the year under review, the Board nomination oversight function was transferred to the Nomination and Remuneration Committee. The Board Governance and Risk Committee was thereafter renamed as the Risk Committee.

NRC Nomination and Remuneration Committee

The Nomination and Remuneration Committee is responsible for assessing the performance of the Board, as well as identifying, nominating, and orientating new Directors. The Committee also supports the Board on the development of a succession management plan for the Board, President and Group CEO, and Top Management as well as Top Management's appointments/renewals.

The Committee recommends to the Board the remuneration policy for the Non-Executive Directors and Top Management. The Committee also reviews the President and Group CEO's annual Performance Scorecard for the year.

With the newly accorded Board nomination oversight function in the year under review, the Remuneration Committee was thereafter renamed as the Nomination and Remuneration Committee.

EMBRACING BEST GOVERNANCE PRACTICES

Adopted Non-Executive Directors Remuneration Guidelines and Package.

Adopted Framework on External Auditors which requires the Board Audit Committee to assess and monitor the performance, suitability, objectivity, and independence of the external auditors.

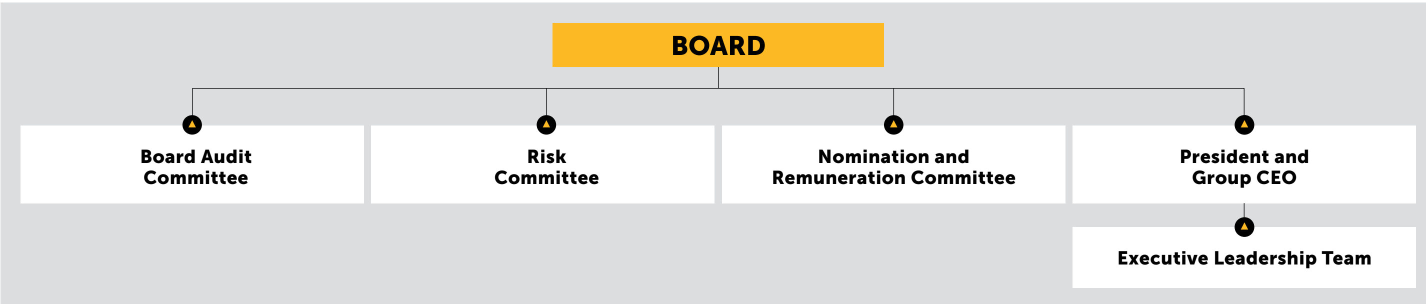
Board Assessment conducted every three years by an independent external consultant, with the results reported to the Board.

Board Composition is reviewed on a regular basis, and in 2019 PETRONAS appointed two new Directors.

Established the Board Diversity Policy where PETRONAS will continue to include diversity in its selection and appointment of Directors.

Corporate Governance at PETRONAS

PETRONAS BOARD GOVERNANCE STRUCTURE



The Board Governance Structure aims to enhance strategic alignment and efficient decision-making to govern the Group. It delineates roles and areas of accountability while recognising the duties required for the Board and Top Management respectively. The structure is supported by the Board Charter, Board Committees' Terms of References as well as governance frameworks and guidelines.

Delegation of the Board's authority to the Management is subject to defined limits of authority and monitoring by the Board. The Board however has the overall responsibility to manage and supervise the affairs of the Company in accordance with the law. There are matters which are reserved for the Board's consideration as set out in the Board Charter:

Matters Reserved for the Board

1. **Strategy and Management** – Strategy, policies, annual budgets and major investment decisions which include capital projects, mergers and acquisitions, and funding requirements.

2. **Financial, Governance and Risk** – Financial reporting and control, and risk management.

3. **Corporate Matters** – Reputation and stakeholder management, Health, Safety, Security and Environment (HSSE), Board and Board Committees' memberships, and Directors' remuneration and succession planning.

BOARD COMPOSITION

At the time of this report, the Board comprises seven members, five Non-Executive Directors and two Executive Directors.

Chairman

Responsible to provide leadership to the Board and ensure the Board fulfils its obligations to the Company. The Chairman leads the Board in the oversight of Management and sets the agenda to take full account of the issues and concerns of the Directors while ensuring the links among the shareholders, Board and Management remain strong.

Non-Executive Directors

Responsible to provide alternative insights and constructively challenge proposals to ensure all relevant matters are objectively considered by the Board. They also provide oversight on Management activities and performance as well as monitor the delivery of Group strategy within the risk and control environment set by the Board.

President and Group Chief Executive Officer

Responsible for the day-to-day leadership and management, while providing direction to implement strategies and business plans as approved by the Board and the overall management of the business operations groupwide. The President and Group CEO also chairs the Executive Leadership Team which assists him in his management of PETRONAS, particularly in relation to strategic business development, high impact and high value investments, and related business matters within the Group.

Company Secretary

Responsible to provide support and advice to the Board on policies and procedures, rules and regulations, relevant laws and compliance matters as well as corporate governance best practices. The Board has full access to the Company Secretaries.

BOARD KEY MATTERS IN 2019

The Board dedicated sufficient time to set the direction and provide oversight to the Group's Key Matters:

- **Diversity and Inclusiveness** – The Board embraced the benefits of diversity by establishing the PETRONAS Board Diversity Policy aligned with the PETRONAS Diversity and Inclusion Statement.
- **Brand Positioning** – The Board recognises the importance of PETRONAS' brand positioning and tagline which entailed among others, the new PETRONAS Statement of Purpose.
- **Group Risks** – The Board factored risk as an integral part of the Company's resilience and made enhancements to the PETRONAS Risk Policy as well as assessment on the adequacy and effectiveness of internal control systems.

Corporate Governance at PETRONAS

OUR BOARD COMMITTEES

BOARD AUDIT COMMITTEE

Ainul Azhar Ainul Jamal
Chairman

Tan Sri Dato' Seri Mohd Bakke Salleh
(Appointed w.e.f. 18 June 2019)

Zakiah Jaafar
(Appointed w.e.f. 14 November 2019)

Dato' Mohamad Idris Mansor
(Resigned w.e.f. 29 May 2019)

Krishnan a/l CK Menon
(Resigned w.e.f. 29 May 2019)

Datuk Siti Zauyah Md Desa
(Resigned w.e.f. 14 November 2019)

Details of member's attendance can be found on page 140 and 141.

KEY MATTERS IN 2019

Financial

During the year under review, the Committee reviewed the quarterly financial results and the financial performance of business segments and of the PETRONAS Group including updates on significant events particularly on new business ventures and share sale transactions at subsidiaries (Malaysia and international). The Committee also reviewed the effects of the application of accounting judgments and estimates on impairment assessment, provision for decommissioning, dismantling, removal and restoration (DDRR) as well as the application of new accounting standards for 2019 i.e. MFRS 16 on leases and MFRS 123 on borrowing costs.

Audit Activities

The Committee reviewed and deliberated on the effectiveness of the governance, risk and internal control of the following:

1. The availability and reliability of governance and the management of IT and Digital mechanism including the implementation of cyber security at plants.
2. Management on the delivery of selected ongoing projects with focus on project management activities, reliability of reporting and compliance with applicable regulatory and procedural requirements.
3. Efficiency and effectiveness of operations management, the existence of internal controls as well as accuracy of reporting on selected domestic and international assets.
4. The implementation of the Whistle Blowing Policy that includes efficient administrative and industrial relations practices under existing guidelines and procedures.
5. Property and land management in the Upstream and Downstream business segments.
6. Audit review on the commercial, marketing and brand management of key accounts within the lubricant business in Malaysia and selected international offices.
7. The effectiveness and reliability of the PETRONAS Resiliency Model in relation to risk oversight including structure, roles and responsibilities as well as reporting of risk and mitigation measures.
8. The effectiveness and efficiency of commodity trading and marketing activities with focus on risk management to safeguard value while optimising returns.
9. Various corporate functions and enablers within PETRONAS were reviewed and assessed to ensure the effectiveness of the enabler functions and quality of support to drive PETRONAS businesses and its growth strategies.

The Committee reviewed the comprehensiveness of Annual Audit Planning developed on the enterprise business risks and strategies, overall performance of Group Internal Audit and audit operations. Updates on Agreed Corrective Actions arising from audit assignment are also reviewed on a quarterly basis.

During the year under review, the Committee recommended to the Board on the establishment of a framework on external auditor for PETRONAS. The aim of this framework is to facilitate the Committee in assessing and monitoring the performance, objectivity and independence of external auditors.

FOCUS AREAS FOR 2020

The Committee will review the implementation of a cyber-defence mechanism for the Group including the newly developed cyber security structure and operating model.

In line with the Committee's role to ensure the robustness of audit activities in the Group, the internal audit team will develop and update the Committee on the audit plan on culture with a view to provide an insight on culture-related performance for HSSE and risk matters.

OUR BOARD COMMITTEES

RISK COMMITTEE

Tan Sri Dato' Seri Mohd Bakke Salleh
Chairman
(Appointed w.e.f. 18 June 2019)

Zakiah Jaafar

Ahmad Faris Rabidin
(Appointed w.e.f. 18 June 2019)

Tan Sri Amirsham A Aziz
(Resigned w.e.f. 30 May 2019)

Tan Sri Muhammad Ibrahim
(Resigned w.e.f. 29 May 2019)

Krishnan a/l CK Menon
(Resigned w.e.f. 29 May 2019)

Details of member's attendance can be found on page 140 and 141.

KEY MATTERS IN 2019

1. The Committee continues to oversee the adequacy and effectiveness of the risk management system in the PETRONAS Group. The Committee assists the Board in reviewing the PETRONAS Group's Corporate Risk Profile and Risk Appetite on a quarterly basis.
2. During the year under review, the Committee endorsed the enhancement of the PETRONAS Risk Policy and was apprised on the establishment of the escalation process for breach of risk appetite.
3. The Committee was also apprised on the Trading Risk Control Framework, and the management of risks in relation to cyber security, critical legal areas affecting the Company and anti-bribery management.
4. The Committee also reviewed the revision to the Company's Limits of Authority, reflecting the current organisational structure.
5. Further to this, the Committee received updates on the findings of the PETRONAS integrity survey conducted in December 2018 based on the employees' responses pertaining to their understanding of PETRONAS values, codes, policies and procedures, misconduct (detection, prevention and response) as well as perceived tone and culture.

Following the PETRONAS Diversity and Inclusion Statement, the Committee deliberated and recommended to the Board on the establishment of the PETRONAS Board Diversity Policy.

FOCUS AREAS FOR 2020

The Committee will continue to strengthen PETRONAS' commitment to become a risk resilient organisation by providing oversight into the adoption of the enhanced PETRONAS Risk Policy.

Focus will also be given to provide overall quality assurance in the implementation of Enterprise Risk Management projects, reforms on risk reporting mandate of the Chief Risk Officer and the comprehensive commodity risk exposure management.

Continued support will be rendered to increase internal stakeholders' awareness on risk through training and communication efforts.

Corporate Governance at PETRONAS

NOMINATION AND REMUNERATION COMMITTEE

Ahmad Faris Rabidin
Chairman
(Appointed w.e.f. 18 June 2019)

Ainul Azhar Ainul Jamal

Zakiah Jaafar
(Appointed w.e.f. 18 June 2019)

Tan Sri Muhammad Ibrahim
(Resigned w.e.f. 29 May 2019)

Dato' Mohamad Idris Mansor
(Resigned w.e.f. 29 May 2019)

Details of member's attendance can be found on page 140 and 141.

KEY MATTERS IN 2019

1. The Committee reviewed the President and Group CEO's 2018 performance against the 2018 scorecard, which includes the sequential steps taken since 2015 to build resilience and to future-proof PETRONAS. The Committee also endorsed the 2019 scorecard to deliver the Three-Pronged Growth Strategy by focusing on the Group's plans and budget.
2. During the year under review, the Committee reviewed and endorsed the appointment of the Executive Vice President and CEO to lead the newly created Gas and New Energy business unit.
3. The Committee also reviewed the Top Management's service contracts, renewals and mobility.

In line with its responsibility to oversee the Top Management's remuneration and compensation policy, the Committee evaluated and recommended to the Board the enhancement to the Top Management's annual bonus guidelines.

FOCUS AREAS FOR 2020

The Committee is committed to ensure a stable and robust succession for PETRONAS' Top Management and support the holistic talent development strategies in driving competitiveness of our resources and the organisation.

The Committee will also focus on succession planning for the Board to ensure that governance and independence objectives are delivered.

Corporate Governance at PETRONAS

Corporate Governance at PETRONAS

BOARD DIVERSITY

The Board recognises the importance of diversity and the value it brings to the PETRONAS Group. Diversity promotes the inclusion of different perspectives, raising the standards of good practice in Board leadership and enhancement of valuable insights in business judgment.

DIRECTOR INDEPENDENCE

The Board assesses the independence of its Non-Executive Directors annually. The independence assessment takes into account whether the Non-Executive Directors has demonstrated an independent state of mind and objective judgment in their deliberation and decision-making.

The assessment on the independence of Non-Executive Directors were undertaken in the following circumstances:

1 PRIOR TO THE APPOINTMENT OF NON-EXECUTIVE DIRECTORS

Prior to the appointment of Non-Executive Directors, the independence of each individual candidate will be reviewed and determined by the Board based on the recommendation from the Nomination and Remuneration Committee upon reviewing his/her criteria per the Independent Non-Executive Directors Guidelines.

2 ANNUAL REVIEW

The Board determines the independence of each Non-Executive Director annually, based on the recommendation from the Nomination and Remuneration Committee upon reviewing his/her criteria per the Independent Non-Executive Directors Guidelines.

3 NOTICE OF CHANGE OF CIRCUMSTANCES

Each Non-Executive Director has an obligation to notify the Nomination and Remuneration Committee of any change in circumstances that may affect his/her independence status. Once notified, the Board will review and determine such Non-Executive Director's independence status based on the recommendation made by the Nomination and Remuneration Committee.

CONFLICTS OF INTEREST

In ensuring the transparency and integrity of decision-making as well as to prevent any conflict of interest, a declaration of interest by Directors is a fixed agenda item at the start of every Board meeting. Disclosure of the nature and extent of the Directors' interest are recorded in the minutes of the Board meetings. To govern the way Directors conduct themselves in a conflict of interest situation, a document was established in 2017 and corresponds with the Companies Act 2016 and the Code of Conduct and Business Ethics (CoBE).

The Directors are also required to declare their interest annually, in line with the requirements on the disclosure of Director's interest in the Company's Audited Financial Statements.

BOARD EVALUATION

The Board, through the Nomination and Remuneration Committee (NRC), endeavours to conduct annual performance evaluation of the Board and its Committees, facilitated by the Company Secretary.

Evaluation results are reported to the NRC and endorsed by the Committee's Chairman. Individual Director's evaluation results are made available to the NRC Chairman and reported directly to the Chairman of the Board. The Chairman of the Board will then conduct feedback sessions through peer-to-peer meetings.

PROFESSIONAL DEVELOPMENT

New Directors on the Board receive a comprehensive induction, including one-on-one meetings with the Chairman and Top Management briefings on the Group's corporate governance, strategy and business plans, and compliance requirements.

Directors have full access to roundtable discussions, seminars and other events, covering topics relevant to the Group and their roles. The Company provides Directors with the necessary resources to update their knowledge and capabilities throughout the year.

A suite of development programmes, the PETRONAS Board Excellence was developed and deployed since 2016, to chart the Directors development plans in a structured manner:

SUITE	PETRONAS BOARD EXCELLENCE (PBE)								
SOLUTION	ONBOARDING	FOUNDATIONAL*		ADVANCED			CONTINUOUS EDUCATION	CONFERENCE	
PROGRAMME	Onboarding Programme for New Directors	Essentials for Directorship	Rising Above 2	Best Practices for Board Excellence (Advanced 1)	Effective Strategy for Stakeholder Management (Advanced 2)	Round Table	Updates on trends	Directors Conference	Audit Committee Forum
CONTINUOUS PROGRAMME	E-Learning (5 Critical Legal Areas, Code of Conduct, Anti Corruption, Data Privacy)								
	Board Assessment (Observation, Interview and Digital)								

* The Foundational programmes only apply to the directors who are employees of the PETRONAS Group, thus, the PETRONAS Directors, upon their onboarding, will attend the Advanced programmes of the PBE.

BOARD REMUNERATION POLICY

Given the highly competitive market, PETRONAS designed a robust fee structure to attract, retain and appropriately compensate the diverse and internationally experienced Non-Executive Directors. The fee framework is illustrated below:

PETRONAS Non-Executive Directors Remuneration Framework

- **Annually**: Retainer Fees: Board and Board Committees
- **Per Meeting**: Attendance Allowance; Special Fee*
- **Benefits**

* Only for the Non-Executive Directors who are eligible

Corporate Governance at PETRONAS

Corporate Governance at PETRONAS

COMPLIANCE

LEGAL COMPLIANCE FRAMEWORK (LCF)

To effectively manage legal compliance which embeds and integrates compliance assurance and reporting, PETRONAS has developed the Legal Compliance Framework (LCF) for critical legal areas as a control oversight and monitoring of compliance for the PETRONAS Group. It consists of a set of procedures, standards, and controls aimed to ensure compliance with legal and regulatory requirements in the five (5) critical legal areas, which pose as enterprise risk to the PETRONAS Group. These critical legal areas are Ethics & Integrity, Data Privacy, Sanctions, Export Control and Competition which are international laws with extra-territorial effect that could result in high civil and criminal penalties and severe reputational impact to the enterprise. LCF will be the structured process to manage and ensure compliance with the legal controls by PETRONAS entities within the PETRONAS Group.

Governance and Risk Assessment

PETRONAS has in place the following applicable governance documents in relation to the five (5) critical legal areas for adoption and implementation by companies across the PETRONAS Group. These governance documents such as policies, standards, guidelines, frameworks, procedures and others, form the basis for carrying out internal controls across the organisation within the PETRONAS Group.

Critical Legal Area	Governance Document
Ethics and Integrity	i. PETRONAS Code of Conduct and Business Ethics ii. PETRONAS Anti-Bribery and Corruption Policy and Guidelines (ABC Manual) iii. PETRONAS Whistleblowing Policy iv. PETRONAS Raid Protocol v. PETRONAS Human Rights Commitment
Data Privacy	i. PETRONAS Corporate Privacy Policy ii. PETRONAS Master Guidelines to the PETRONAS Corporate Privacy Policy
Sanctions	i. PETRONAS Economic Sanctions and Export Control Policy and Guidelines
Export Control	i. PETRONAS Economic Sanctions and Export Control Policy and Guidelines
Competition	i. PETRONAS Competition Law Guidelines

Training and Awareness

Training and communication programmes are key to raising awareness and understanding of the five (5) critical legal areas across PETRONAS Group. Delivery of effective training programmes is high on the agenda for PETRONAS and its staff to inculcate and build strong compliance culture within the PETRONAS Group. PETRONAS' heightened efforts can be seen in more than 250 classroom trainings it conducted on the five (5) critical legal areas, the development of e-learning modules targeted to reach out to all PETRONAS staff groupwide as well as creating awareness through digital platforms, email blasts, banners and posters to ensure that PETRONAS staff are sufficiently trained and regularly updated on the five (5) critical legal areas and their related policies and guidelines.

During the year under review, PETRONAS directors also participated in training programmes, on-boarding sessions and seminars covering the areas of leadership, risk management and governance, particularly and specifically on corporate liability, emphasizing on Section 17A of the Malaysian Anti-Corruption Commission Act.

2019 also saw PETRONAS organising a PETRONAS Compliance Conference to communicate to external parties of its zero tolerance position to non-compliance with the five (5) critical legal areas and share PETRONAS' best practices in ensuring good governance and compliance to the areas.

Monitoring and Assurance

The governance of business activities and operations at all levels within the PETRONAS Group is necessary to ensure compliance with the critical legal areas. To evaluate and monitor compliance status with the five (5) critical legal areas, an assurance program is established to identify potential areas of weakness, non-compliance, and/or unsound practices on the status of PETRONAS' legal compliance to ensure effective and informed decision making for the business. The LCF assurance process is performed, documented and consolidated in PETRONAS' integrated myAssurance platform.

Business Practice

Implementation of existing and new business practice across the PETRONAS' Group as part of LCF control and risk mitigation:

PETRONAS Privacy Notices and Statements for the PETRONAS Group
The PETRONAS Privacy Notices and Statements (Privacy Notices and Statements) are notices and statements that are designed to provide notice of and assist in understanding why and how PETRONAS collects and uses personal data, to whom such data is disclosed and to whom data access requests can be addressed. In implementing the Privacy Notices and Statements, it will ensure that the flow and management of personal data processed by the PETRONAS Group is in compliance with the PETRONAS Corporate Privacy Policy, the Master Guidelines and applicable personal data protection and privacy laws.

Competition
The development of the PETRONAS Competition Law Compliance Protocol on Meetings and Information Sharing, and the PETRONAS Competition Law Compliance Protocol on Merger and Acquisition Transaction. These supplement the existing Competition Law Guidelines, having regards to the standard operating procedures in order to properly manage the risk inherent to the business operations of PETRONAS and provide general guidance on competition law in the areas which receive the greatest scrutiny from competition law enforcers worldwide.

Third Party Risk Management
The Third Party Risk Management (TPRM) is a due diligence process in order to safeguard the PETRONAS Group from any corporate liability that can be attributed to PETRONAS arising from the misconduct of third parties (e.g. partners, contractors, vendors, suppliers, distributors, agents and etc) in the five (5) critical legal areas.

The TPRM applies to all businesses to detect possible red-flags of potential third parties prior to any formal engagement, and seeks to provide the necessary mitigation or contractual safeguard against any risks of legal, financial or reputational damages that may be caused by them to PETRONAS. PETRONAS is committed towards ensuring its third parties observe and comply with the standards as set out in all its governance documents and regulatory requirements.

ANTI-BRIBERY AND CORRUPTION

PETRONAS Integrity Compliance Framework (PICF)
The PICF was further enhanced to strengthen PETRONAS' efforts and measures on the implementation of the new Section 17A of the Malaysian Anti-Corruption Commission Act, with emphasis on the Guidelines on Adequate Procedures (Adequate Procedures), as the Adequate Procedures are the pillars of defence against corporate liability, particularly corruption offenses. PETRONAS has taken a holistic approach in its implementation of the Adequate Procedures by adopting its principles of top level commitment, risk assessment, to undertake control measures such as a systematic review and to monitor for further development.

PETRONAS has continuously maintained its standards to the International Organization for Standardization 370001 on Anti-Bribery Management System (ISO 37001) certification where it validates PETRONAS' strategy in implementing global best practices to combat bribery and corruption. The certification also evidences PETRONAS' commitment to anti-bribery and anti-corruption in a verifiable way and is a testament of PETRONAS' zero tolerance against bribery and corruption.

PETRONAS RAID PROTOCOL

Enhancement of PETRONAS Raid Protocol to serve as a better guidance to PETRONAS employees on the scope and powers of authorities, including duty to cooperate.

PETRONAS WHISTLEBLOWING POLICY AND PROCEDURES

PETRONAS continues to encourage disclosures to its secure, confidential and accessible whistleblowing channels, which are operated with the highest standards of integrity and accountability, while providing clarity on the oversight and responsibilities of the whistleblowing process, the reporting process, protection to whistleblowers and the confidentiality afforded to whistleblowers.

Applicable to every employee, officer, and director of PETRONAS, joint venture companies in which PETRONAS is not a controlling stakeholder and associate companies of PETRONAS are nevertheless encouraged to adopt this policy whilst contractors, agents, outsourced workers, and business associates are required to always act consistently with applicable parts of the policy when dealing with, acting on behalf of or in the name of PETRONAS.

The Whistleblowing Policy and Procedures is available on PETRONAS' corporate website at https://www.petronas.com/whistleblowing

Statement on Risk Management and Internal Control

Petroliam Nasional Berhad and its subsidiaries (the PETRONAS Group) are exposed to a variety of risks that can have an impact on our businesses and prospects, future performance, financial position, liquidity, asset values, growth potential, sustainable development and reputation. Risk management is one of the core responsibilities of the PETRONAS Board (the Board), and is central to the decision-making process. We recognise uncertainties attached to risk and opportunities, and continuously endeavour to build high levels of resilience. Effective risk management and internal control system is essential to the PETRONAS Group's operations and governance processes. This helps the PETRONAS Group anticipate risk exposure, put controls in place to minimise threats and maximise opportunities. The result of such processes give full and due consideration to the balance of risk and reward in pursuing strategies to optimise the achievement of our objectives. This section explains the key features of our risk management and internal control system.

BOARD'S ACCOUNTABILITY

The Board is responsible to oversee and ensure a sound system of risk management and internal control for the PETRONAS Group. An effective risk management framework helps the PETRONAS Group to achieve its optimal performance and profitability targets by incorporating risk information for better decision-making, while sound internal controls enable appropriate response to manage identified risks, thus facilitating effective and efficient operations while safeguarding shareholders' investment and the PETRONAS Group's assets.

The Board is also cognisant of its role in providing risk oversight sets the tone and culture towards embedding risk management practices across the PETRONAS Group.

The PETRONAS Board Charter includes risk management and internal control oversight as one of the main functions of the Board, in line with the requirements under the Companies Act 2016.

The Board risk oversight is supported by the following committees:

Risk Committee (RC)
Established in 2010, the RC assists the Board in providing, among others, direction, guidance and oversight on risk management matters. The RC reviews risk policies, strategies, principal risks, risk practices and oversees the adequacy of the risk management system to effectively monitor and manage risks in the PETRONAS Group.

Board Audit Committee (BAC)
Established in 1985, the BAC assists the Board in fulfilling its responsibilities relating to internal controls and financial reporting by performing oversight functions on behalf of the Board to ensure good governance practices and proper conduct while safeguarding the PETRONAS Group's assets.

RISK MANAGEMENT

Our risk management frameworks help identify and manage risk in a way that is supportive of our strategic priorities towards building a successful and sustainable business. Our approach towards risk management is framed by our ongoing understanding of the risks that we are exposed to, our risk appetite and how these risks change over time. Risks across the PETRONAS Group are being managed on an integrated basis within stipulated and approved Limits of Authority (LOA). Evaluations of those risks are incorporated into the decision-making process.

The PETRONAS Group has ongoing processes to manage principal risks affecting strategic objectives. This includes identifying, evaluating, managing and monitoring risks. These processes continue to be in place for the year under review and up to the date of approval of this statement.

Groupwide implementation of risk management and internal control is supported by the following committees:

Executive Leadership Team (ELT)
The ELT was established to assist the President and Group Chief Executive Officer (CEO) in the management of the Company and is responsible for providing a holistic approach to all business development strategies as well as high impact and high value investments including mergers and acquisitions. The ELT reviews key risk management matters to provide guidance and direction before RC and the Board reporting. The ELT has Focused ELT Meetings to discuss specific matters which include HSSE and People Development.

Risk Management Committee (RMC)
The RMC was formed to serve as a platform to assist the ELT, the RC and the Board in identifying principal risks, and reviewing governing documents at the corporate level as well as provides assurance on risk management practices across the PETRONAS Group to protect and safeguard its interest. The RMC also promotes sound risk management practices through the sharing of information, best practices and lessons learnt to enhance the risk culture across the PETRONAS Group.

Risk Management Functions/Focus Risk Areas
Dedicated risk management functions exist within the PETRONAS Group, particularly for listed subsidiaries, to assess and evaluate the risk management processes for reporting to their respective Management and Board. Internal controls were also developed to facilitate standardisation of processes and practices across the PETRONAS Group for focus risk areas such as Financial, Health, Safety, Security and Environment (HSSE), Plant and Facilities, Project, Procurement, Digital, Reputation, Human Capital, and Country.

The PETRONAS Group's system of risk management and internal control (refer to Chart 1) seeks to manage and control risks appropriately and are designed to manage rather than eliminate the risk of failure to achieve business objectives. It also helps to ensure appropriate oversight and accountability of risk, that facilitates reporting and escalation to safeguard shareholders' investment and the PETRONAS Group's assets. All employees have a role to play in risk management and internal control. Assurance programmes are conducted regularly to ensure compliance with established governing documents and effectiveness of risk management implementation processes. This system provides reasonable but not absolute assurance against material misstatement or loss, or the occurrence of unforeseeable circumstances.

***Chart 1 :** The PETRONAS Group's system of risk management and internal control*

Risk Policy

PETRONAS Risk Policy (refer Chart 2) stipulates the general principles and guidelines for actions which influence decisions. It clearly communicates the management's expectations in relation to risk management practices throughout the PETRONAS Group.

It is complemented by the PETRONAS Resiliency Model that provides an integrated and holistic view of the overall strategy to manage the PETRONAS Group's risks, focusing on three areas of business resilience, namely Enterprise Risk Management (ERM), Crisis Management (CM) and Business Continuity Management (BCM). These are supported by risk management frameworks and the relevant guidelines to govern, guide and institutionalise risk management practices across the PETRONAS Group. The status of risk management practices across the PETRONAS Group are monitored and reported quarterly to the RMC.

PETRONAS RISK POLICY

PETRONAS shall adopt and implement risk management best practices by identifying, assessing, treating and monitoring risks as well as effectively responding to crises.

In the event of prolonged disruption, business continuity practices shall be adopted to restore and ensure continuity of PETRONAS' key business activities.

ENTERPRISE RISK MANAGEMENT	CRISIS MANAGEMENT	BUSINESS CONTINUITY MANAGEMENT
Structured and holistic approach to identify, assess, treat and monitor risks. The aim is to reduce the likelihood and impact of identified risks to enhance the organisation's ability to achieve its strategic objectives.	Comprehensive set of processes that aim to prepare the organisation to respond and manage crises in the risk areas to protect people, environment, assets and reputation.	Holistic management process that aims to build the capability of an organisation to recover and continue delivery of products or services at acceptable predefined levels following a prolonged disruptive incident.

***Chart 2:** PETRONAS Risk Policy and PETRONAS Resiliency Model*

Statement on Risk Management and Internal Control

Enterprise Risk Management

The Enterprise Risk Management (ERM) (refer Chart 3) process is an integral part of managing the business as it provides a guide to systematically identify, assess, treat, monitor and review risks. It aims to improve the ability to reduce the likelihood and/or impact of the identified risks that may affect the achievement of business objectives.

Risk profiles established through the ERM process are monitored at the corporate level and across the PETRONAS Group and consist of identified principal risks with the corresponding risk mitigations and key risk indicators. This allows actions to be taken to ensure that risks are being effectively managed by respective units. Such actions shall be endorsed by the Head of Department of the respective Holding Company Units (HCUs), Business Units (BUs) or Operating Units (OPUs), and reported to their respective Management and Board on quarterly basis.

The PETRONAS Group's Risk Appetite articulates the type of risks that the PETRONAS Group is willing to accept to guide strategic decisions at the corporate level in pursuit of business values and objectives. It reflects the PETRONAS Group's position, propensity and acceptability to take risks in various areas, namely strategic, financial, operational, reputational, while maintaining legal and regulatory compliance, and is defined by the respective area's tolerances and threshold levels. At the corporate level, PETRONAS Group's Risk Appetite is monitored and reported on quarterly basis to the ELT, RC and the Board.

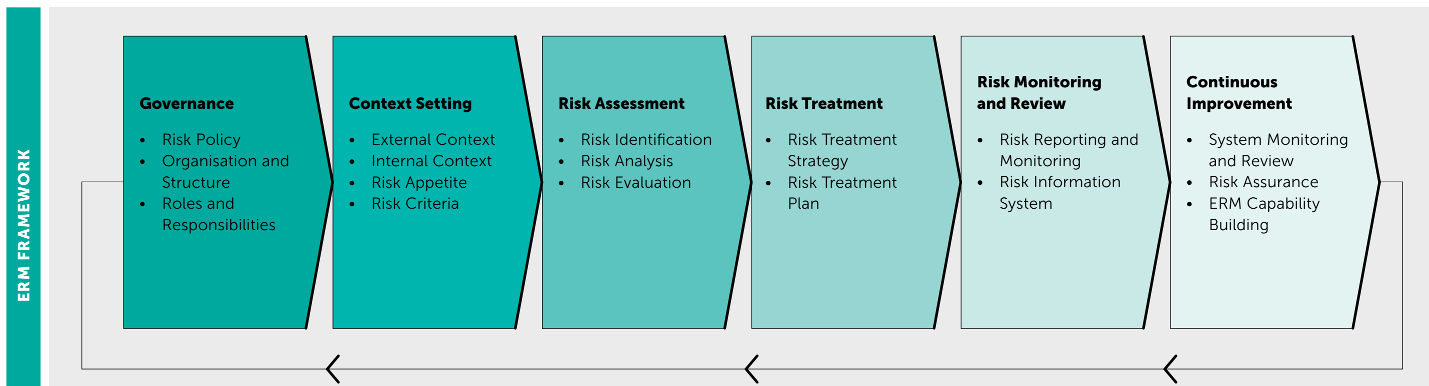


Chart 3: *Enterprise Risk Management Framework*

Crisis Management

Crisis Management (CM) (refer Chart 4) is an integrated process that aims to prepare an organisation, at both domestic and international operations, to respond to and manage crises in the risk areas to protect People, Environment, Asset, and Reputation (PEAR).

Under CM, there is a three-tiered response protocol that provides the demarcation of roles and responsibilities between emergency site management, operating unit management, corporate and internal/external response agencies and/or authorities. Testing and Exercising (T&E) via simulation of test scenarios validates the effectiveness of response strategies as well as promotes continuous improvement as identified in the Emergency/Crisis Management Plan. T&E programmes are carried out at the respective HCUs, BUs and OPUs.

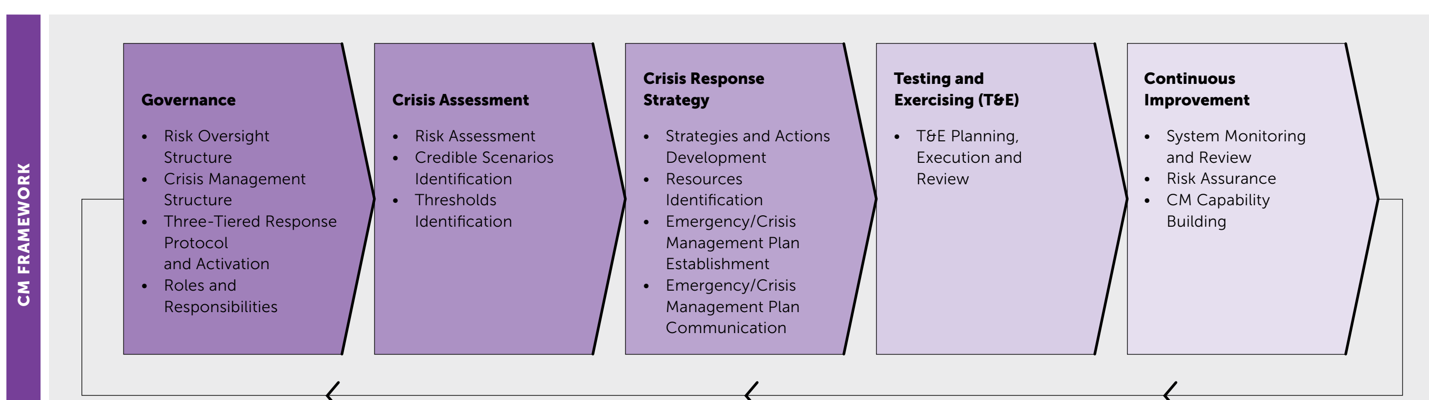


Chart 4: *Crisis Management Framework*

Statement on Risk Management and Internal Control

Business Continuity Management

Business Continuity Management (BCM) (refer Chart 5) is a management process that aims to build the capability of the PETRONAS Group to recover and continue delivery of products or services at acceptable predefined levels following any prolonged disruption.

Key to the BCM Framework, Business Continuity Plans (BCP) are established to enhance the PETRONAS Group's preparedness to recover and restore businesses' critical functions within a reasonable period in view of sustaining the PETRONAS Group's activities and minimising disruptions to stakeholders. T&E via simulation of test scenarios validates the effectiveness of recovery strategies as well as maintains a high level of competence and readiness as identified in the BCP. T&E programmes are carried out at the respective HCUs, BUs and OPUs.

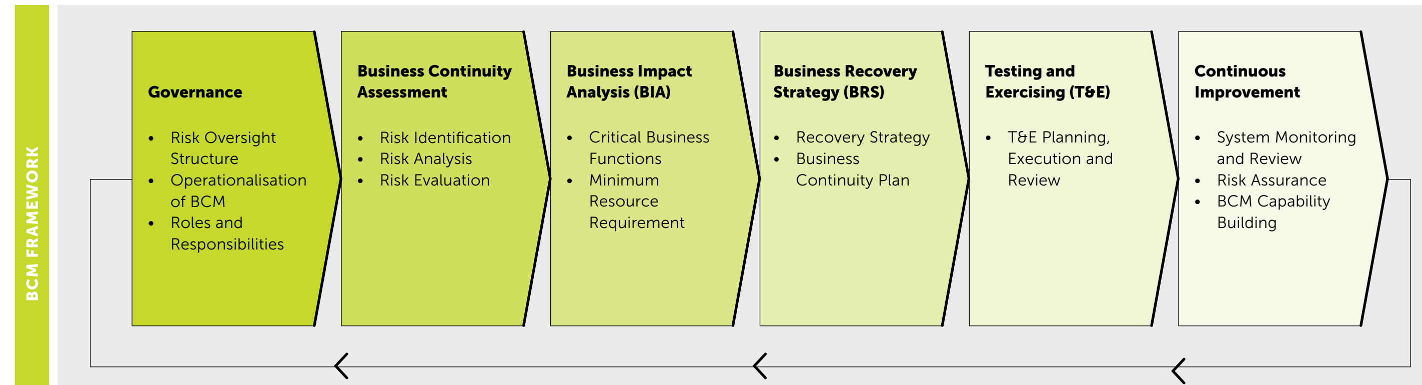


Chart 5: *Business Continuity Management Framework*

CAPABILITY DEVELOPMENT AND KNOWLEDGE MANAGEMENT

In order to build highly capable practitioners to meet risk management requirements, the PETRONAS Group provides continuous risk management capability development and knowledge sharing programmes.

The risk management capability development programme consists of classes and e-learning modules which are carried out to build the competency of risk practitioners across the PETRONAS Group. Corporate membership to risk associations also provided platforms for risk practitioners to participate in risk management conferences and seminars to keep abreast with risk management standards and best practices.

The knowledge sharing programme consists of publications and conversations related to risk management, a community of practice and series of risk engagements, all of which propagate the sharing of current risk management practices and lessons learnt.

Statement on Risk Management and Internal Control

KEY INTERNAL CONTROLS

As part of the PETRONAS Resiliency Model, internal controls are developed for focus risk areas to facilitate the standardisation of processes and practices across the PETRONAS Group, encompassing elements such as oversight structure, governing documents, reporting and assurance.

FINANCIAL

Limits of Authority
The Limits of Authority (LOA) is an instrument of delegation of Board's powers which defines the decision-making limits within the PETRONAS Group, providing a balance between effective and quality decision-making and appropriate management control.

All LOA development and revisions are independently reviewed by the Group Financial Control Department, to ensure adherence and consistency with the PETRONAS Group LOA Framework and the PETRONAS LOA Guidelines.

Budget Approval
The budget approval process is an important internal control mechanism used by the PETRONAS Group to ensure an agreed allocation of resources and that the operational managers are sufficiently guided in making business decisions. The PETRONAS Group performs a comprehensive annual planning and budgeting exercise including the development and validation of business strategies for a rolling five-year period, and establishment of performance indicators against which BUs as well as subsidiary companies are evaluated.

The PETRONAS Group budget performance is reported to the Board on quarterly basis. The PETRONAS Group's strategic directions are also reviewed at reasonable intervals taking into account changes in market conditions and significant business risks.

Financial Control Framework
The PETRONAS Group implements Financial Control Framework (FCF) with the principal objective of providing assurance on the quality of financial reporting through a structured process of ensuring the adequacy and effectiveness of key internal controls operating at various levels within the PETRONAS Group at all times.

The FCF requires among others, documentation of key controls, testing of internal control design effectiveness, remediation of control gaps as well as a periodic testing of control operating effectiveness. On a semi-annual basis, each key process owner at various management levels is required to complete and submit a letter of assurance which provides assurance on the effectiveness of the key controls for the areas that they are accountable for.

Corporate Financial Policy
The Corporate Financial Policy (CFP) prescribes the PETRONAS Group's governing requirements in effecting the consistent practice of financial management, as well as to form the foundation upon which financial risk exposures are identified and strategies to manage such risks are developed.

The financial risk management practices are implemented across the PETRONAS Group in accordance with the requirements of the CFP. This enables visibility on the PETRONAS Group's key financial risk exposures for improved risk management. Self-assessment and assurance fieldwork activities were conducted to assess compliance with CFP requirements on financial management and financial risk management.

In addition to the CFP, the PETRONAS Liquidity Risk Contingency Protocol (LRCP) and PETRONAS Trading Mandate have been established to safeguard PETRONAS Group's liquidity position and its financial sustainability, as well as to ensure alignment of risk appetite between PETRONAS and its OPUs on trading activities.

HEALTH, SAFETY, SECURITY AND ENVIRONMENT (HSSE)

The PETRONAS Group's Health, Safety and Environment (HSE) policy is supported by the HSE Management System (HSE MS) and the HSE Mandatory Control Framework (MCF). Besides this PETRONAS Security policy is supported by the Security Management System (SeMS) with Minimum Mandatory Security Standard (M2S2) to strengthen HSSE governance within the PETRONAS Group. HSE MCF includes clear requirements on health, operational and process safety and environment for consistent and effective groupwide implementation, while the M2S2 outlines the minimum security standards required to effectively manage security risks and protect the PETRONAS Group's assets.

The PETRONAS HSSE Executive Leadership Team (HSSE ELT) being the highest management committee, also steers groupwide HSSE policies, strategies as well as reviews PETRONAS' HSSE performance through dedicated bi-annual meetings focused on HSSE matters. Group HSSE Leadership Team (GHSSE LT) is a platform to discuss effective execution of key strategies and associated issues that impact groupwide HSSE key result areas, risk management and internal controls, and provide guidance on the way forward.

HSE and Security Risk Assessments were carried out to identify potential hazards/threats, analyse the adequacy of current HSE and Security measures and to propose mitigations, gap closure activities and counter measures.

Group HSSE conducts assurance at OPUs to review the effectiveness of HSSE controls. OPUs carried out self-assessment on compliance with regulatory requirements and HSSE procedures. The findings from HSE and Security Risk Assessments and HSE Assurances were presented to HCU/BU/OPU management committees to provide them with a clear view of their respective HSE and Security risks.

Statement on Risk Management and Internal Control

KEY INTERNAL CONTROLS

PLANT AND FACILITIES

The risk management of plant and facilities in PETRONAS is governed by Reliability and Integrity Management Systems (RIMS), PETRONAS Maintenance Management System (PMMS) Guideline, Plant and Facilities Risk Management (PFRM) Guideline, PETRONAS Technical Standard (PTS), PETRONAS Basic Technical Requirement (PBTR) and PETRONAS Technical Guideline (PTG).

PFRM prescribes the principles and structured processes in managing operational risks in accordance with the PETRONAS Resiliency Model. It guides plant and facilities to systematically identify, assess, control, monitor and review operational risks to improve the ability to reduce the likelihood and/or impact of identified risks. The remaining governing documents prescribe the specific system and work processes required by the PETRONAS Group's plant and facilities over the asset life cycle in order to operate safely and achieve the targeted reliability, integrity, and performance.

The risk profiles of the respective plants and facilities have been developed through the PFRM process where risks are rated based on their probability and impact on the operations. These will determine the appropriate mitigations for every principal risk for actions to be taken to ensure that operational risks are being managed. In addition, plant and facilities self-assessment and assurance fieldwork activities were conducted to ensure groupwide plant and facilities internal controls are in place and in compliance with the established governing documents.

PROJECT

Project risk management is implemented in accordance with the PETRONAS Project Management System (PPMS). The PPMS Phase Gated Process is designed to retain and maximise project value across a project's life cycle from the identification of business opportunity until operationalisation of the project.

The purpose of the PPMS Phase Gated Process is to bring a measure of rational processes to the decision-making associated with transforming business opportunity into operational assets. The PPMS Phase Gated Process consists of structured phases from framing, feasibility study, scope selection, scope definition, and execution to operationalisation. Each phase prescribes the project management standards to ensure consistency of practices.

Project risks are identified, assessed, mitigated and validated through assurance programmes under the PPMS framework. The processes are meant to reduce the risk of unexpected technical and/or commercial factors significantly affecting the project's viability.

PROCUREMENT

Procurement management serves as a key function in supporting the management and is implemented based on the PETRONAS Procurement Management System (P2MS) as the standards and guidelines which describe the minimum requirements to govern procurement activities duly established for groupwide adoption.

The Group Procurement Leadership Team (GP LT) provides stewardship on the overall strategic direction of the Group Procurement (GP) sector. GP LT also reviews the overall performance of the sector's business proposal, and progress of key strategic initiatives as well as resolve key issues of mutual concern and interest.

GP has clearly defined authorisation procedures for awarding tenders and all procurement transactions covering both capital and revenue expenditure items. Procurement Council, Category Councils and Tender Committees with cross functional representation provide the oversight functions on tendering while Contractor Performance Review Appeal Committee and Vendor Evaluation Committees deliberate on contractors' and/or vendors' performance matters prior to approval by the approving authorities as set out in the LOA approved by the respective boards.

In addition, procurement assurance programmes are also conducted to assess compliance to the procurement process with regards to the comprehensiveness and effectiveness of the procurement management implementation.

DIGITAL

PETRONAS Group Digital is responsible to shape and drive a unifying digital vision and strategy groupwide and accelerate concerted effort in driving digital transformation for the PETRONAS Group. PETRONAS Group Digital is also accountable to uphold Digital and ICT governance across the PETRONAS Group in the areas of Cyber Security, Enterprise Architecture and Enterprise Data.

PETRONAS Group Digital's governance is led by the Chief Digital and Information Officer supported by dedicated committees such as Digital Council and Cyber Security Council.

PETRONAS Information Security is guided by the PETRONAS ICT Principles and PETRONAS Records Management Principles. It is supported by seven ICT Standards and Guidelines which set out the purpose, commitment and governance of ICT and Records Management which shall be adhered to by the PETRONAS Group.

The PETRONAS Information Security processes are accredited with the International Organization for Standardization (ISO) 27001:2013 – Information Security Management System Standard. PETRONAS Group Digital has in place ICT security tools and procedures to detect, respond and mitigate any ICT-related threats.

PETRONAS Group Digital also has in place a Disaster Recovery Plan (DRP) for identified critical business applications. Scheduled drills and exercises are conducted annually to ensure readiness in the event of an ICT disaster.

Statement on Risk Management and Internal Control

KEY INTERNAL CONTROLS

REPUTATION

The Group Strategic Communications Leadership Team (GSC LT) sets the strategic directions for Strategic Communications function to support PETRONAS' business strategy. The GSC LT also performs an oversight role on strategic communications matters within the PETRONAS Group.

Reputation Risk Framework and Reputation Risk Guideline have been established and implemented to govern and institutionalise reputation risk management across the PETRONAS Group.

Risks and issues impacting the PETRONAS Group's reputation are constantly monitored and reported to the Management in providing insight for formulation of effective response strategy.

GSC conducts assurance activities to review adequacy and effectiveness of controls for reputation management activities for its domestic and international operations.

HUMAN CAPITAL

PETRONAS Group Human Resource Management (GHRM) operates through a formal organisation structure with delineated lines of authority, responsibility and accountability.

GHRM LOA, guidelines and procedures are established and implemented to govern and monitor Human Capital Management, which is represented by the entire GHRM value chain i.e. Organisation Development and Job Management, Strategic Workforce Planning, Talent Acquisition, Leadership and Capability Development, Top Talent Management, Employee Relation and Industrial Relation, and Remuneration Management.

The GHRM Leadership Team (GHRM LT) is the main platform that deliberates and decides on matters related to HRM strategies, investments, policies, guidelines, project prioritisation and performance review. Matters related to HRM strategies, policies reviews and enhancement are further deliberated at the ELT People Development Committee (ELT PDC).

The GHRM Risk Management Committee was established to track and deliberate on risk matters pertaining to the effectiveness and robustness of human capital solutions as well as to address business dynamics, and sustain continuous talents at all levels to achieve PETRONAS' business strategies.

The PETRONAS Talent Council deliberates on issues and risks impacting PETRONAS Corporate Critical Positions.

COUNTRY

Country Risk Management Framework (CRMF) prescribes oversight structure, roles and responsibilities, and assessment tools in ensuring country risks are managed in a systematic and structured manner across the PETRONAS Group.

CRMF describes how Country Risk Management (CRM) oversights and functions shall be organised within the PETRONAS Group, and defines clear roles and responsibilities at respective management levels. It also prescribes requirements on pre-entry, in-country and exit management to support decision-making in relation to international investments and managing in-country risk holistically.

Pre-entry assessment, in-country assessment and development of an exit strategy for the identified countries are conducted and reported to respective country's Management and Board.

Statement on Risk Management and Internal Control

INTERNAL AUDIT

The internal audit function is an independent and objective assurance function that helps the PETRONAS Group to achieve its objective by bringing a systematic and disciplined approach in evaluating and improving the design and effectiveness of the PETRONAS Group's governance, risk management and internal control. The primary role of the internal audit function, through its assurance activities, is to safeguard the PETRONAS Group's value by protecting its assets, reputation and sustainability.

The PETRONAS Group Internal Audit (GIA) reports directly to the PETRONAS BAC. In addition, public listed subsidiaries within the PETRONAS Group have their own individual BACs. PETRONAS Group's Internal Audit functions support their respective BACs to add value and improve the PETRONAS Group's operations.

PETRONAS GIA's position within the PETRONAS Group, its authority, responsibilities and scope of work, are defined in the Internal Audit Charter approved by the PETRONAS BAC. The Charter is aligned with the standards and principles outlined in the International Professional Practices Framework (IPPF) issued by the Institute of Internal Auditors (IIA). In performing audits, PETRONAS GIA refers to internal control framework and guidance issued by the Committee of Sponsoring Organisations of the Treadway Commission (COSO). COSO is an internationally recognised organisation providing guidance on internal control, enterprise risk management and governance. In the PETRONAS Group context, enterprise risk management refers to PETRONAS Resiliency Model which covers ERM, CM and BCM.

The key responsibility of the PETRONAS' Internal Audit functions is to assist the PETRONAS Group in accomplishing its goals by bringing a systematic and disciplined approach to evaluate and improve the effectiveness of risk management, internal control and governance processes. The Internal Audit function maintains its impartiality, proficiency and due professional care by having its plans and reports directly under the purview of the respective BACs.

The respective BACs review reports on internal audits performed under its purview, which include the agreed corrective actions to be undertaken by the respective HCU/BU/OPU. These are then reported to PETRONAS BAC. The internal audit functions monitor the status of the agreed corrective actions through the Quarterly Audit Status Report submitted by the respective HCU/BU/OPU which have been assessed and verified by the internal audit. The consolidated status of the audit issues are submitted and presented to the respective BACs for deliberation on quarterly basis.

OTHER MATTERS

The risk management and internal control system discussed in this statement does not apply to entities where the PETRONAS Group does not have control, which includes joint arrangements.

AFFIRMATION BY THE BOARD

The Board has received assurance from the President and Group CEO and the Executive Vice President and Group Chief Financial Officer that the PETRONAS Group's financial records are properly maintained and that the risk management and internal control system is operating adequately and effectively in addressing the material risks within the PETRONAS Group in its current business environment.

The Board is of the view that risk management and internal control instituted throughout the PETRONAS Group are sound and provides a reasonable level of confidence, but not absolute assurance that the PETRONAS Group is not affected by any event that cannot be reasonably foreseen.

For the year under review, the Board is not aware of any significant control failure or weakness that would have resulted in material losses, contingencies or uncertainties requiring separate disclosure in the Annual Report.

The Board however recognised the State of Sarawak's claim issue which may give rise to material business impact. Measures have been taken including engagement with the shareholder to manage any risks that may arise from this issue. The State of Sarawak has also taken legal action against PETRONAS for the recovery of the alleged State Sales Tax (SST) and PETRONAS is currently defending this action. PETRONAS has also filed a judicial review application before the Kuching High Court to determine that the Sarawak Government does not have the legislative right to impose SST on petroleum products. On 13 March 2020, the Court has dismissed the said application. Whilst PETRONAS has filed for an appeal and stay of execution until the final disposal of the appeal, PETRONAS remains open to other means of resolution.

Following the recent precipitous decline in oil prices and the economic effects of the COVID-19 pandemic, the Board will continue to review measures initiated by the PETRONAS Group to minimise the potential risk and impact arising from these situations.

REVIEW OF STATEMENT BY EXTERNAL AUDITOR

The external auditors have reviewed this Statement on Risk Management and Internal Control pursuant to the scope set out in the Audit and Assurance Practice Guide (AAPG) 3, Guidance for Auditors on Engagements to Report on the Statement on Risk Management and Internal Control included in the Annual Report issued by the Malaysian Institute of Accountants (MIA) for inclusion in the Annual Report of PETRONAS for the year ended 31 December 2019 and reported to the Board that nothing has come to their attention that cause them to believe that the statement intended to be included in the Annual Report of PETRONAS, in all material respects, has not been prepared in accordance with the disclosures required by paragraphs 41 and 42 of the Statement on Risk Management and Internal Control: Guidelines for Directors of Listed Issuers, or is factually inaccurate.

AAPG 3 does not require the external auditors to consider whether the Directors' Statement on Risk Management and Internal Control covers all risks and controls, or to form an opinion on the adequacy and effectiveness of the PETRONAS Group's risk management and internal control system including the assessment and opinion by the Board of Directors and management thereon. The auditors are also not required to consider whether the processes described to deal with material internal control aspects of any significant problems disclosed in the Annual Report will, in fact, remedy the problems.

This statement is made in accordance with the resolution of the Board of Directors dated 22 April 2020.

Financial Statements
And Other Information

Discover how we manage our capital and finances as we continue to exercise financial prudence in all our endeavours.

DIRECTORS' REPORT

For the year ended 31 December 2019

The Directors have pleasure in submitting their report and the audited financial statements of the Group and of the Company for the year ended 31 December 2019.

PRINCIPAL ACTIVITIES

The principal activities of the Company in the course of the financial year remained unchanged and consist of exploitation of oil and gas, the marketing of petroleum and petroleum products and investment holding. The principal activities of key subsidiaries, key associates and joint ventures are stated in note 43, note 44 and note 45 to the financial statements respectively. The principal activities of other subsidiaries are available at the Company's registered office and the Board deems such information is included in the Company's Directors' Report by such reference and shall form part of the Company's Directors' Report.

The Company is wholly-owned by the Government of Malaysia.

SUBSIDIARIES

The details of the Company's subsidiaries are disclosed in note 43 to the financial statements.

RESULTS

In RM Mil	Group	Company
Profit for the year	40,472	41,594
Attributable to:		
Shareholders of the Company	33,021	41,594
Non-controlling interests	7,451	-

DIVIDENDS

During the financial year, the amount of dividends paid by the Company were as follows:

- a special tax exempt dividend of RM300,000 per ordinary share amounting to RM30 billion declared on 22 November 2018 and paid in instalments between January and November 2019 in respect of financial year ended 31 December 2018;

- a final tax exempt dividend of RM240,000 per ordinary share amounting to RM24 billion declared on 28 February 2019 and approved by the shareholders on 30 May 2019 and paid in instalments between June and November 2019 in respect of financial year ended 31 December 2018 as reported in the Directors' Report of that year.

The Directors propose a final tax exempt dividend of RM240,000 per ordinary share amounting to RM24 billion in respect of the financial year ended 31 December 2019 for shareholders' approval at the forthcoming Annual General Meeting.

The financial statements for the current financial year do not reflect this proposed final dividend. Such dividend, if approved by the shareholders, will be accounted for in equity as an appropriation of retained profits in the financial year ending 31 December 2020.

Further details on dividends are disclosed in note 30.

DIRECTORS' REPORT
For the year ended 31 December 2019

RESERVES AND PROVISIONS

There were no material movements to and from reserves and provisions during the year other than as disclosed in the financial statements.

DIRECTORS

Directors who served during the financial year until the date of this report are:

Datuk Ahmad Nizam bin Salleh (Chairman)
Tan Sri Wan Zulkiflee bin Wan Ariffin
Ainul Azhar bin Ainul Jamal
Tengku Muhammad Taufik
Zakiah binti Jaafar
Ahmad Faris bin Rabidin (appointed on 18 June 2019)
Tan Sri Dato' Seri Mohd Bakke bin Salleh (appointed on 18 June 2019)
Krishnan C K Menon (resigned on 29 May 2019)
Dato' Mohamad Idris bin Mansor (resigned on 29 May 2019)
Tan Sri Muhammad bin Ibrahim (resigned on 29 May 2019)
Tan Sri Amirsham bin Abdul Aziz (resigned on 30 May 2019)
Datuk Siti Zauyah binti Md Desa (resigned on 14 November 2019)

The Company has been granted a relief order pursuant to Section 255(1) of the Companies Act, 2016 relieving the Company's Directors from full compliance to the requirements under Section 253(2) of the Companies Act, 2016.

The names of Directors of subsidiaries are available at the Company's registered office and the Board deems such information is included in the Company's Directors' Report by such reference and shall form part of the Company's Directors' Report.

DIRECTORS' INTERESTS

The Directors in office at the end of the year who have interests in the shares of the Company related corporations other than wholly-owned subsidiaries (including the interests of the spouses and/or children of the Directors who themselves are not directors of the Company) as recorded in the Register of Directors' Shareholdings are as follows:

	Number of ordinary shares in PETRONAS Gas Berhad			
Name	**Balance at 1.1.2019**	**Bought**	**Sold**	**Balance at 31.12.2019**
Datuk Ahmad Nizam bin Salleh	2,000	-	-	2,000

	Number of ordinary shares in PETRONAS Chemicals Group Berhad			
Name	**Balance at 1.1.2019**	**Bought**	**Sold**	**Balance at 31.12.2019**
Datuk Ahmad Nizam bin Salleh	10,000	-	-	10,000
Tan Sri Wan Zulkiflee bin Wan Ariffin	20,000	-	-	20,000

DIRECTORS' REPORT
For the year ended 31 December 2019

DIRECTORS' INTERESTS (CONTINUED)

	Number of ordinary shares in Malaysia Marine and Heavy Engineering Holdings Berhad			
Name	**Balance at 1.1.2019**	**Bought**	**Sold**	**Balance at 31.12.2019**
Tan Sri Wan Zulkiflee bin Wan Ariffin	10,000	-	-	10,000

	Number of ordinary shares in KLCC Property Holdings Berhad			
Name	**Balance at 1.1.2019**	**Bought**	**Sold**	**Balance at 31.12.2019**
Ainul Azhar bin Ainul Jamal	4,500	-	-	4,500

None of the other Directors holding office at 31 December 2019 had any interest in the ordinary shares of the Company and of its related corporations during the financial year.

DIRECTORS' BENEFITS

Since the end of the previous financial year, no Director of the Company has received or become entitled to receive any benefit (other than the benefit included in the aggregate amount of remuneration received or due and receivable by Directors as shown in note 37 of the financial statements), by reason of a contract made by the Company or a related corporation with the Director or with a firm of which the Director is a member, or with a company in which the Director has a substantial financial interest.

There were no arrangements during and at the end of the financial year which had the object of enabling Directors of the Company to acquire benefits by means of the acquisition of shares in or debentures of the Company or any other body corporate.

ISSUE OF SHARES

There were no changes in the issued and paid up capital of the Company during the financial year.

OPTIONS GRANTED OVER UNISSUED SHARES

No options were granted to any person to take up unissued shares of the Company during the financial year.

INDEMNITY AND INSURANCE COSTS

During the financial year, Petroliam Nasional Berhad (PETRONAS) and its subsidiaries (hereinafter referred to as "PETRONAS Group"), including the Company, maintained a Directors' and Officers' Liability Insurance in accordance with Section 289 of the Companies Act, 2016. The total insured limit for the Directors and Officers Liability Insurance effected for the Directors and Officers of PETRONAS Group was RM1,290 million (2018: RM1,290 million) per occurrence and in the aggregate. The insurance premium for the Group and the Company are RM1,133,279 (2018: RM1,109,143) and RM408,327 (2018: RM342,046) respectively.

DIRECTORS' REPORT

For the year ended 31 December 2019

OTHER STATUTORY INFORMATION

Before the financial statements of the Group and of the Company were made out, the Directors took reasonable steps to ascertain that:

(i) the necessary actions had been taken in relation to the writing off of bad debts and the provisioning of doubtful debts and satisfied themselves that all known bad debts have been written off and adequate provision made for doubtful debts; and

(ii) any current assets which were unlikely to be realised in the ordinary course of business, their values as shown in the accounting records of the Group and of the Company, had been written down to an amount which they might be expected so to realise.

At the date of this report, the Directors are not aware of any circumstances:

(i) that would render the amount written off for bad debts, or the amount of the provision for doubtful debts, in the Group and in the Company inadequate to any substantial extent, or

(ii) that would render the value attributed to the current assets in the financial statements of the Group and of the Company misleading, or

(iii) which have arisen which render adherence to the existing method of valuation of assets or liabilities of the Group and of the Company misleading or inappropriate, or

(iv) not otherwise dealt with in this report or the financial statements, that would render any amount stated in the financial statements of the Group and of the Company misleading.

At the date of this report, there does not exist:

(i) any charge on the assets of the Group or of the Company that has arisen since the end of the financial year and which secures the liabilities of any other person, or

(ii) any material contingent liability in respect of the Group or of the Company that has arisen since the end of the financial year.

No material contingent liability or other liability, other than as disclosed in the financial statements, of any company in the Group has become enforceable, or is likely to become enforceable within the period of twelve months after the end of the financial year which, in the opinion of the Directors, will or may substantially affect the ability of the Group and the Company to meet their obligations as and when they fall due.

In the opinion of the Directors, the financial performance of the Group and of the Company for the financial year ended 31 December 2019 have not been substantially affected by any item, transaction or event of a material and unusual nature other than those that have been disclosed in the financial statements, nor has any such item, transaction or event occurred in the interval between the end of that financial year and the date of this report.

In respect of the Directors or past Directors of the Company:

(i) the amount of fees and other benefits paid to or receivable by them from the Company or its subsidiary companies as remuneration for their services to the Company or its subsidiary companies; and

(ii) the estimated money value of any other benefits received or receivable by them otherwise than in cash from the Company or from any of its subsidiaries

are disclosed in note 37.

DIRECTORS' REPORT
For the year ended 31 December 2019

OTHER STATUTORY INFORMATION (CONTINUED)

There are no amounts paid to or receivable by any third party in respect of the services provided to the Company or any of its subsidiary companies by any Director or past Director of the Company.

AUDITORS

The auditors, KPMG PLT, have indicated their willingness to accept re-appointment.

The auditors' remuneration is disclosed in note 27 to the financial statements.

Signed on behalf of the Board of Directors
in accordance with a resolution of the Directors:

Datuk Ahmad Nizam bin Salleh
Chairman

Tan Sri Wan Zulkiflee bin Wan Ariffin
Director

Kuala Lumpur,
Date: 26 February 2020

STATEMENT BY DIRECTORS

In the opinion of the Directors, the financial statements set out on pages 166 to 318, are drawn up in accordance with Malaysian Financial Reporting Standards, International Financial Reporting Standards and the requirements of the Companies Act, 2016 in Malaysia so as to give a true and fair view of the financial position of the Group and of the Company as of 31 December 2019 and of their financial performance and cash flows for the financial year then ended on that date.

Signed on behalf of the Board of Directors
in accordance with a resolution of the Directors:

Datuk Ahmad Nizam bin Salleh
Chairman

Tan Sri Wan Zulkiflee bin Wan Ariffin
Director

Kuala Lumpur,
Date: 26 February 2020

STATUTORY DECLARATION

I, **Tengku Muhammad Taufik**, the Director primarily responsible for the financial management of **PETROLIAM NASIONAL BERHAD (PETRONAS)**, do solemnly and sincerely declare that the financial statements set out on pages 166 to 318 are, to the best of my knowledge and belief, correct and I make this solemn declaration conscientiously believing the same to be true, and by virtue of provisions of the Statutory Declarations Act, 1960.

Subscribed and solemnly declared by the abovenamed
Tengku Muhammad Taufik
MIA Membership Number: 28845
at **Kuala Lumpur** in **Wilayah Persekutuan**
on 26 February 2020.

BEFORE ME:

PESURUHJAYA SUMPAH
W530
TAN SEOK KETT
BC/T/301
1/1/2019-31/12/2021
MALAYSIA

Lot 333, 3rd Floor, Wisma MPL,
Jalan Raja Chulan,
50200 Kuala Lumpur

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

As at 31 December 2019

In RM Mil	Note	2019	2018
ASSETS			
Property, plant and equipment	3	**319,204**	310,385
Investment properties	4	**8,714**	8,964
Land held for development	5	**2,994**	2,957
Prepaid lease payments	6	**-**	1,173
Investments in associates	8	**6,746**	6,997
Investments in joint ventures	9	**9,156**	8,551
Intangible assets	10	**26,260**	22,513
Long term receivables	11	**20,383**	16,795
Fund and other investments	12	**1,929**	2,300
Deferred tax assets	14	**20,573**	14,245
TOTAL NON-CURRENT ASSETS		**415,959**	394,880
Trade and other inventories	15	**14,447**	14,503
Trade and other receivables	16	**41,285**	46,205
Assets classified as held for sale	17	**398**	2,003
Fund and other investments	12	**8,710**	5,147
Cash and cash equivalents	18	**141,622**	173,576
TOTAL CURRENT ASSETS		**206,462**	241,434
TOTAL ASSETS		**622,421**	636,314
EQUITY			
Share capital	19	**100**	100
Reserves	20	**388,996**	380,371
Total equity attributable to shareholders of the Company		**389,096**	380,471
Non-controlling interests	21	**49,819**	44,781
TOTAL EQUITY		**438,915**	425,252
LIABILITIES			
Borrowings	22	**53,422**	45,011
Deferred tax liabilities	14	**12,598**	9,986
Other long term liabilities and provisions	24	**44,486**	44,135
TOTAL NON-CURRENT LIABILITIES		**110,506**	99,132
Trade and other payables	25	**53,968**	54,571
Borrowings	22	**15,316**	23,561
Taxation		**3,716**	3,798
Dividend payable		**-**	30,000
TOTAL CURRENT LIABILITIES		**73,000**	111,930
TOTAL LIABILITIES		**183,506**	211,062
TOTAL EQUITY AND LIABILITIES		**622,421**	636,314

The notes set out on pages 178 to 318 are an integral part of these financial statements.

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

For the year ended 31 December 2019

In RM Mil	Note	2019	2018
Revenue	26	**240,263**	250,976
Cost of revenue		**(155,926)**	(158,080)
Gross profit		**84,337**	92,896
Selling and distribution expenses		**(7,536)**	(7,022)
Administration expenses		**(12,862)**	(12,139)
Net impairment (losses)/write-back		**(7,151)**	4,753
Other expenses		**(2,261)**	(2,563)
Other income		**5,158**	4,828
Operating profit	27	**59,685**	80,753
Financing costs	28	**(3,734)**	(4,707)
Share of profit after tax and non-controlling interests of equity accounted associates and joint ventures		**1,019**	684
Profit before taxation		**56,970**	76,730
Tax expense	29	**(16,498)**	(21,420)
Profit for the year		**40,472**	55,310
Other comprehensive (expenses)/income			
Items that will not be reclassified subsequently to profit or loss			
Net changes in fair value of equity investments at fair value through other comprehensive income ("OCI")		**(3)**	(140)
Items that may be reclassified subsequently to profit or loss			
Net movements from exchange differences		**(1,286)**	465
Others		**(62)**	(373)
Total other comprehensive expenses for the year, net of tax		**(1,351)**	(48)
TOTAL COMPREHENSIVE INCOME FOR THE YEAR		**39,121**	55,262
Profit attributable to:			
Shareholders of the Company		**33,021**	47,865
Non-controlling interests		**7,451**	7,445
PROFIT FOR THE YEAR		**40,472**	55,310
Total comprehensive income attributable to:			
Shareholders of the Company		**32,005**	47,546
Non-controlling interests		**7,116**	7,716
TOTAL COMPREHENSIVE INCOME FOR THE YEAR		**39,121**	55,262

The notes set out on pages 178 to 318 are an integral part of these financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the year ended 31 December 2019

In RM Mil	Note	*Attributable to shareholders of the Company* — *Non-distributable* Share Capital	Capital Reserves	Foreign Currency Translation Reserve	Fair Value through OCI Reserve
Balance at 1 January 2018		100	14,425	31,267	65
Net movements from exchange differences		-	-	218	-
Net changes of equity investments at fair value through OCI:					
- Changes in fair value		-	-	-	(140)
Other comprehensive (expenses)/income		-	(397)	-	-
Total other comprehensive (expenses)/ income for the year, net of tax		-	(397)	218	(140)
Profit for the year		-	-	-	-
Total comprehensive (expenses)/ income for the year		-	(397)	218	(140)
Additional issuance of shares to non-controlling interests		-	-	-	-
Changes in ownership interest in subsidiaries		-	-	(78)	-
Disposal of subsidiaries		-	-	(162)	-
Redemption of redeemable preference shares in subsidiaries		-	163	-	-
Dividends	30	-	-	-	-
Total transactions with shareholders		-	163	(240)	-
Balance at 31 December 2018		100	14,191	31,245	(75)

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The notes set out on pages 178 to 318 are an integral part of these financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the year ended 31 December 2019 (continued)

In RM Mil	Note	*Attributable to shareholders of the Company* — *Distributable* General Reserve	Retained Profits	Total	Non-controlling Interests	Total Equity
Balance at 1 January 2018		12,000	331,496	389,353	42,980	432,333
Net movements from exchange differences		-	-	218	247	465
Net changes of equity investments at fair value through OCI:						
- Changes in fair value		-	-	(140)	-	(140)
Other comprehensive (expenses)/ income		-	-	(397)	24	(373)
Total other comprehensive (expenses)/income for the year, net of tax		-	-	(319)	271	(48)
Profit for the year		-	47,865	47,865	7,445	55,310
Total comprehensive (expenses)/ income for the year		-	47,865	47,546	7,716	55,262
Additional issuance of shares to non-controlling interests		-	-	-	21	21
Changes in ownership interest in subsidiaries		-	(188)	(266)	67	(199)
Disposal of subsidiaries		-	-	(162)	-	(162)
Redemption of redeemable preference shares in subsidiaries		-	(163)	-	(5)	(5)
Dividends	30	-	(56,000)	(56,000)	(5,998)	(61,998)
Total transactions with shareholders		-	(56,351)	(56,428)	(5,915)	(62,343)
Balance at 31 December 2018		12,000	323,010	380,471	44,781	425,252

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The notes set out on pages 178 to 318 are an integral part of these financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the year ended 31 December 2019 (continued)

		Attributable to shareholders of the Company			
		Non-distributable			
In RM Mil	Note	Share Capital	Capital Reserves	Foreign Currency Translation Reserve	Fair Value through OCI Reserve
Balance at 1 January 2019					
- As previously reported		100	14,191	31,245	(75)
- Effect of the adoption of MFRS 16	46	-	-	-	-
At 1 January 2019, restated		100	14,191	31,245	(75)
Net movements from exchange differences		-	(5)	(854)	-
Net changes of equity investments at fair value through OCI:					
- Changes in fair value		-	-	-	(3)
Other comprehensive (expenses)/income		-	(154)	-	-
Total other comprehensive expenses for the year, net of tax		-	(159)	(854)	(3)
Profit for the year		-	-	-	-
Total comprehensive (expenses)/ income for the year		-	(159)	(854)	(3)
Changes in ownership interest in subsidiaries		-	-	(117)	-
Disposal of subsidiaries		-	-	(260)	-
Redemption of redeemable preference shares in subsidiaries		-	477	-	-
Dividends	30	-	-	-	-
Total transactions with shareholders		-	477	(377)	-
Balance at 31 December 2019		100	14,509	30,014	(78)

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The notes set out on pages 178 to 318 are an integral part of these financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the year ended 31 December 2019 (continued)

		Attributable to shareholders of the Company				
		Distributable				
In RM Mil	Note	General Reserve	Retained Profits	Total	Non-controlling Interests	Total Equity
Balance at 1 January 2019						
- As previously reported		12,000	323,010	380,471	44,781	425,252
- Effect of the adoption of MFRS 16	46	-	(1,542)	(1,542)	(172)	(1,714)
At 1 January 2019, restated		12,000	321,468	378,929	44,609	423,538
Net movements from exchange differences		-	-	(859)	(427)	(1,286)
Net changes of equity investments at fair value through OCI:						
- Changes in fair value		-	-	(3)	-	(3)
Other comprehensive (expenses)/income		-	-	(154)	92	(62)
Total other comprehensive expenses for the year, net of tax		-	-	(1,016)	(335)	(1,351)
Profit for the year		-	33,021	33,021	7,451	40,472
Total comprehensive (expenses)/ income for the year		-	33,021	32,005	7,116	39,121
Changes in ownership interest in subsidiaries		-	2,539	2,422	3,805	6,227
Disposal of subsidiaries		-	-	(260)	-	(260)
Redemption of redeemable preference shares in subsidiaries		-	(477)	-	(73)	(73)
Dividends	30	-	(24,000)	(24,000)	(5,638)	(29,638)
Total transactions with shareholders		-	(21,938)	(21,838)	(1,906)	(23,744)
Balance at 31 December 2019		12,000	332,551	389,096	49,819	438,915

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The notes set out on pages 178 to 318 are an integral part of these financial statements.

CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended 31 December 2019

In RM Mil	Note	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES			
Profit before taxation		**56,970**	76,730
Adjustments for:			
Depreciation of property, plant and equipment and investment properties		**35,900**	31,324
Amortisation of intangible assets and prepaid lease payments		**2,778**	3,003
Net change in contract liabilities		**(422)**	(89)
Net impairment losses/(write-back) on:			
- Property, plant and equipment		**6,539**	(3,331)
- Intangible assets		**204**	20
- Loan and advances to an associate and a joint venture		**62**	101
- Receivables		**69**	(1,592)
- Investment in an associate		**230**	65
- Other investments		**251**	4
Net impairment/write-off on well costs		**1,248**	653
Net inventories written down to net realisable value		**35**	108
Share of profit after tax and non-controlling interests of equity accounted associates and joint ventures		**(1,019)**	(684)
Property, plant and equipment written off		**136**	95
Gain on disposal of investments in subsidiaries, a joint venture, other investments and property, plant and equipment		**(462)**	(1,918)
Loss on disposal of property, plant and equipment and intangible assets		**69**	431
Bad debts written off		**18**	16
Net loss on derivatives		**64**	31
Unrealised loss on foreign exchange		**392**	1,082
Interest income		**(6,889)**	(6,509)
Financing costs		**3,734**	4,707
Net change in provisions		**(1,395)**	11,608
Operating profit before changes in working capital		**98,512**	115,855
Change in trade and other receivables		**9,230**	(7,002)
Change in trade inventories		**57**	456
Change in trade and other payables		**(902)**	(3,243)
Cash generated from operations		**106,897**	106,066
Interest income from fund and other investments		**6,889**	6,509
Interest expenses paid		**(2,990)**	(2,967)
Taxation paid, net of refund		**(20,025)**	(23,288)
Net cash generated from operating activities		**90,771**	86,320

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The notes set out on pages 178 to 318 are an integral part of these financial statements.

CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended 31 December 2019 (continued)

In RM Mil	Note	2019	2018
CASH FLOWS FROM INVESTING ACTIVITIES			
Net cash used in investing activities	31	**(52,177)**	(41,129)
CASH FLOWS FROM FINANCING ACTIVITIES			
Net cash used in financing activities	32	**(69,880)**	(2,162)
NET (DECREASE)/INCREASE IN CASH AND CASH EQUIVALENTS		**(31,286)**	43,029
INCREASE IN CASH AND CASH EQUIVALENTS RESTRICTED		**(699)**	(39)
NET FOREIGN EXCHANGE DIFFERENCES		**(622)**	1,904
CASH AND CASH EQUIVALENTS AT BEGINNING OF THE YEAR		**172,458**	127,564
CASH AND CASH EQUIVALENTS AT END OF THE YEAR		**139,851**	172,458
CASH AND CASH EQUIVALENTS			
Cash and bank balances and deposits	18	**141,622**	173,576
Bank overdrafts	22	**(409)**	(455)
		141,213	173,121
Less: Cash and cash equivalents restricted	18	**(1,362)**	(663)
		139,851	172,458

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The notes set out on pages 178 to 318 are an integral part of these financial statements.

STATEMENT OF FINANCIAL POSITION

As at 31 December 2019

In RM Mil	Note	2019	2018
ASSETS			
Property, plant and equipment	3	**17,756**	16,353
Investments in subsidiaries	7	**153,229**	152,807
Investments in associates	8	**302**	302
Investments in joint ventures	9	**992**	992
Long term receivables	11	**121,831**	115,959
Fund and other investments	12	**1,050**	1,073
Deferred tax assets	14	**9,927**	9,350
TOTAL NON-CURRENT ASSETS		**305,087**	296,836
Trade and other inventories	15	**173**	100
Trade and other receivables	16	**19,231**	23,462
Fund and other investments	12	**3,992**	1,690
Cash and cash equivalents	18	**55,961**	91,822
TOTAL CURRENT ASSETS		**79,357**	117,074
TOTAL ASSETS		**384,444**	413,910
EQUITY			
Share capital	19	**100**	100
Reserves	20	**299,684**	283,383
TOTAL EQUITY		**299,784**	283,483
LIABILITIES			
Borrowings	22	**25,788**	26,773
Other long term liabilities and provisions	24	**34,309**	34,775
TOTAL NON-CURRENT LIABILITIES		**60,097**	61,548
Trade and other payables	25	**17,416**	24,189
Borrowings	22	**5,465**	12,424
Taxation		**1,682**	2,266
Dividend payable		**-**	30,000
TOTAL CURRENT LIABILITIES		**24,563**	68,879
TOTAL LIABILITIES		**84,660**	130,427
TOTAL EQUITY AND LIABILITIES		**384,444**	413,910

The notes set out on pages 178 to 318 are an integral part of these financial statements.

STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

For the year ended 31 December 2019

In RM Mil	Note	2019	2018
Revenue	26	**121,202**	130,820
Cost of revenue		**(72,032)**	(74,312)
Gross profit		**49,170**	56,508
Selling and distribution expenses		**(501)**	(467)
Administration expenses		**(6,409)**	(5,622)
Net impairment losses		**(2,786)**	(409)
Other expenses		**(989)**	(259)
Other income		**15,416**	10,311
Operating profit	27	**53,901**	60,062
Financing costs	28	**(4,449)**	(3,018)
Profit before taxation		**49,452**	57,044
Tax expense	29	**(7,858)**	(6,046)
PROFIT/TOTAL COMPREHENSIVE INCOME FOR THE YEAR		**41,594**	50,998

The notes set out on pages 178 to 318 are an integral part of these financial statements.

STATEMENT OF CHANGES IN EQUITY

For the year ended 31 December 2019

In RM Mil	Note	Non-distributable Share Capital	Distributable General Reserve	Distributable Retained Profits	Total Equity
At 1 January 2018		100	12,000	276,385	288,485
Profit for the year		-	-	50,998	50,998
Total comprehensive income for the year		-	-	50,998	50,998
Dividends representing transaction with shareholders of the Company	30	-	-	(56,000)	(56,000)
Balance at 31 December 2018		100	12,000	271,383	283,483
Balance at 1 January 2019					
- As previously reported		**100**	**12,000**	**271,383**	**283,483**
- Effect of the adoption of MFRS 16	46	**-**	**-**	**(1,293)**	**(1,293)**
At 1 January 2019, restated		**100**	**12,000**	**270,090**	**282,190**
Profit for the year		**-**	**-**	**41,594**	**41,594**
Total comprehensive income for the year		**-**	**-**	**41,594**	**41,594**
Dividends representing transaction with shareholders of the Company	30	**-**	**-**	**(24,000)**	**(24,000)**
Balance at 31 December 2019		**100**	**12,000**	**287,684**	**299,784**

The notes set out on pages 178 to 318 are an integral part of these financial statements.

STATEMENT OF CASH FLOWS

For the year ended 31 December 2019

In RM Mil	Note	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES			
Profit before taxation		**49,452**	57,044
Adjustments for:			
Depreciation of property, plant and equipment		**3,656**	2,939
Loss on derivative valuation		**97**	27
Net changes in fair value of cess receivables		**(666)**	(3,019)
Net change in contract liabilities		**(1,691)**	(444)
Net impairment (write-back)/losses on:			
- Trade and other receivables		**(93)**	172
- Loan and advances to subsidiaries		**(10)**	(38)
- Property, plant and equipment		**-**	170
- Investment in subsidiaries		**2,889**	105
Net write-off on:			
- Other receivables		**7**	-
- Property, plant and equipment		**-**	1
Net change in provisions		**(2,049)**	(1,314)
Interest income		**(6,739)**	(7,060)
Financing costs		**4,449**	3,018
Gain on partial disposal of subsidiaries and other investments		**(5,403)**	(112)
Gain on disposal of property, plant and equipment		**(430)**	-
Net foreign exchange		**632**	384
Dividend income		**(28,850)**	(32,226)
Operating profit before changes in working capital		**15,251**	19,647
Change in trade and other receivables		**1,745**	(2,866)
Change in trade inventories		**(73)**	181
Change in trade and other payables		**(2,129)**	4,258
Cash generated from operations		**14,794**	21,220
Interest income received		**6,662**	6,313
Interest expenses paid		**(1,655)**	(1,819)
Taxation paid		**(9,011)**	(9,636)
Net cash generated from operating activities		**10,790**	16,078
CASH FLOWS FROM INVESTING ACTIVITIES			
Net cash generated from investing activities	31	**21,567**	36,286
CASH FLOWS FROM FINANCING ACTIVITIES			
Net cash used in financing activities	32	**(68,420)**	(26,000)
NET (DECREASE)/INCREASE IN CASH AND CASH EQUIVALENTS		**(36,063)**	26,364
NET FOREIGN EXCHANGE DIFFERENCES		**202**	(106)
CASH AND CASH EQUIVALENTS AT BEGINNING OF THE YEAR		**91,822**	65,564
CASH AND CASH EQUIVALENTS AT END OF THE YEAR		**55,961**	91,822
CASH AND CASH EQUIVALENTS			
Cash and bank balances and deposits	18	**55,961**	91,822

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The notes set out on pages 178 to 318 are an integral part of these financial statements.

NOTES TO THE FINANCIAL STATEMENTS

31 December 2019

1. BASIS OF PREPARATION

1.1 Statement of compliance

The financial statements of the Group and of the Company have been prepared in accordance with Malaysian Financial Reporting Standards ("MFRS"), International Financial Reporting Standards and the requirements of the Companies Act, 2016 in Malaysia.

As of 1 January 2019, the Group and the Company had adopted new MFRSs, amendments to MFRSs and IC Interpretation (collectively referred to as "pronouncements") that have been issued by the Malaysian Accounting Standards Board ("MASB") as described fully in note 42.

MASB has also issued new and revised pronouncements which are not yet effective for the Group and the Company and therefore, have not been adopted in these financial statements. These pronouncements including their impact on the financial statements in the period of initial application are set out in note 42. There is no new or revised pronouncements that are not relevant to the operations of the Group and of the Company.

The financial statements were approved and authorised for issue by the Board of Directors on 26 February 2020.

1.2 Basis of measurement

The financial statements of the Group and of the Company have been prepared on historical cost basis except that, as disclosed in the accounting policies below, certain items are measured at fair value.

1.3 Functional and presentation currency

The individual financial statements of each entity in the Group are prepared using the currency of the primary economic environment in which the entity operates ("the functional currency"). The functional currency of the Company has been determined as Ringgit Malaysia. The Group's and the Company's financial statements are presented in Ringgit Malaysia, which is the Company's reporting currency.

All financial information is presented in Ringgit Malaysia and has been rounded to the nearest million, unless otherwise stated.

1.4 Use of estimates and judgments

The preparation of financial statements in conformity with MFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised and in any future periods affected.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

1. BASIS OF PREPARATION (continued)

1.4 Use of estimates and judgments (continued)

In particular, information about significant areas of estimation uncertainty and critical judgments in applying accounting policies that have the most significant effect on the amounts recognised in the financial statements are described in the following notes:

(i) Note 3 : Property, Plant and Equipment
(ii) Note 10 : Intangible Assets
(iii) Note 14 : Deferred Tax
(iv) Note 22 : Borrowings
(v) Note 24 : Other Long Term Liabilities and Provisions
(vi) Note 26 : Revenue
(vii) Note 29 : Tax Expense
(viii) Note 40 : Financial Instruments

2. SIGNIFICANT ACCOUNTING POLICIES

The accounting policies set out below have been applied consistently to all periods presented in these financial statements and have been applied consistently by the Group and the Company, unless otherwise stated.

Arising from the adoption of MFRS 16 *Leases*, there are changes to the accounting policies applied to lease contracts entered into by Group entities as compared to those adopted in previous financial statements. The impacts arising from the changes are disclosed in note 46.

At 1 January 2019, the Group and the Company have also applied the amendments in relation to MFRS 123 *Borrowing Costs* arising from the Annual Improvements to MFRS Standards 2015 – 2017 Cycle ("the Annual Improvement"). The Annual Improvement clarifies that general borrowing includes specific borrowings which no longer have a qualifying asset. Accordingly, the Group and the Company have capitalised borrowing costs for specific borrowing where the qualifying asset is no longer available, into the general borrowing. In previous years, the borrowing costs for specific borrowing were expensed off to profit or loss when the qualifying asset is no longer available. Changes in the accounting policies are disclosed in note 42.

2.1 Basis of consolidation

Subsidiaries

Subsidiaries are entities, including structured entities, controlled by the Company. The Group controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Potential voting rights are considered when assessing control only when such rights are substantive. The Group considers it has de facto power over an investee when, despite not having the majority of voting rights, it has the current ability to direct the activities of the investee that significantly affect the investee's return.

Investments in subsidiaries are measured in the Company's statement of financial position at cost less any impairment losses, unless the investment is classified as held for sale or distribution. The cost of investment includes transaction costs.

NOTES TO THE FINANCIAL STATEMENTS

31 December 2019

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.1 Basis of consolidation (continued)

Subsidiaries (continued)

The financial statements of subsidiaries are included in the consolidated financial statements of the Group from the date that control commences until the date that control ceases.

All inter-company transactions are eliminated on consolidation and revenue and profits relate to external transactions only. Unrealised losses resulting from inter-company transactions are also eliminated unless cost cannot be recovered.

Business combinations

A business combination is a transaction or other event in which an acquirer obtains control of one or more businesses. Business combinations are accounted for using the acquisition method from the acquisition date, which is the date on which control is transferred to the Group. The identifiable assets acquired and liabilities assumed are measured at their fair values at the acquisition date. The cost of an acquisition is measured as the aggregate of the fair value of the consideration transferred and the amount of any non-controlling interests in the acquiree. Non-controlling interests are stated either at fair value or at the proportionate share of the acquiree's identifiable net assets at the acquisition date.

When a business combination is achieved in stages, the Group remeasures its previously held non-controlling equity interest in the acquiree at fair value at the acquisition date, with any resulting gain or loss recognised in the profit or loss. Increase in the Group's ownership interest in an existing subsidiary is accounted for as equity transactions with differences between the fair value of consideration paid and the Group's proportionate share of net assets acquired, recognised directly in equity.

The Group measures goodwill as the excess of the cost of an acquisition and the fair value of any previously held interest in the acquiree over the fair value of the identifiable assets acquired and liabilities assumed at the acquisition date. When the excess is negative, a bargain purchase gain is recognised immediately in profit or loss.

Goodwill arising from business combinations prior to 1 October 2009 is stated at the previous carrying amount less subsequent impairments, pursuant to the adoption of MFRS framework by the Group in the financial year ended 31 December 2012.

Transaction costs, other than those associated with the issuance of debt or equity securities, that the Group incurs in connection with a business combination, are expensed as incurred.

Business combinations arising from transfers of interests in entities that are under the control of the shareholder that controls the Group are accounted for as if the acquisition had occurred at the beginning of the earliest comparative period presented, or, if later, at the date that common control was established; for this purpose comparatives are restated. The assets and liabilities acquired are recognised at the carrying amounts recognised previously in the Group controlling shareholder's consolidated financial statements. The components of equity of the acquired entities are added to the same components within Group equity and any resulting gain or loss is recognised directly in equity.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.1 Basis of consolidation (continued)

Non-controlling interests

Non-controlling interests at the end of the reporting period, being the portion of the net assets of subsidiaries attributable to equity interests that are not owned by the Company, whether directly or indirectly through subsidiaries, are presented in the consolidated statement of financial position and statement of changes in equity within equity, separately from equity attributable to the shareholders of the Company. Non-controlling interests in the results of the Group are presented in the consolidated statement of profit or loss and other comprehensive income as an allocation of the profit or loss and total comprehensive income for the year between the non-controlling interests and shareholders of the Company.

Losses applicable to the non-controlling interests in a subsidiary are allocated to the non-controlling interests even if doing so causes the non-controlling interests to have a deficit balance.

The Group treats all changes in its ownership interest in a subsidiary that do not result in a loss of control as equity transactions between the Group and its non-controlling interest holders. Any difference between the Group's share of net assets before and after the change, and any consideration received or paid, is adjusted to or against Group reserves.

Loss of control

Upon loss of control of a subsidiary, the Group derecognises the assets and liabilities of the former subsidiary; any non-controlling interests and the other components of equity related to the former subsidiary from the consolidated statement of financial position. Any surplus or deficit arising on the loss of control is recognised in profit or loss. If the Group retains any interest in the previous subsidiary, then such interest is measured at fair value at the date that control is lost, except when the retained interest is a joint arrangement or associate where such interest is measured at its carrying amount. Subsequently, it is accounted for as an equity-accounted investee or as a fair value through other comprehensive income financial asset depending on the level of influence retained.

2.2 Associates

Associates are entities in which the Group has significant influence including representation on the Board of Directors, but not control or joint control, over the financial and operating policies of the investee company.

Associates are accounted for in the consolidated financial statements using the equity method less any impairment losses, unless it is classified as held for sale or distribution. The consolidated financial statements include the Group's share of post-acquisition profits or losses and other comprehensive income of the equity-accounted associates, after adjustments to align the accounting policies with those of the Group, from the date that significant influence commences until the date that significant influence ceases.

The Group's share of post-acquisition reserves and retained profits less losses is added to the carrying value of the investment in the consolidated statement of financial position. These amounts are taken from the latest audited financial statements or management financial statements of the associates.

When the Group's share of post-acquisition losses exceeds its interest in an equity accounted associate, the carrying amount of that interest (including any long term investments such as loans and advances) is reduced to nil and the recognition of further losses is discontinued except to the extent that the Group has an obligation or has made payments on behalf of the associate.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.2 Associates (continued)

When the Group ceases to have significant influence over an associate, it is accounted for as a disposal of the entire interest in that associate, with the resulting gain or loss being recognised in the profit or loss. Any retained interest in the former associate at the date when significant influence is lost is measured at fair value and this amount is regarded as the initial carrying amount of a financial asset.

When the Group's interest in an associate decreases but does not result in loss of significant influence, any retained interest is not re-measured. Any gain or loss arising from the decrease in interest is recognised in profit or loss. Any gains or losses previously recognised in other comprehensive income are also reclassified proportionately to the profit or loss if that gain or loss would be required to be reclassified to profit or loss on the disposal of the related assets and liabilities.

Unrealised profits arising from transactions between the Group and its associates are eliminated to the extent of the Group's interests in the associates. Unrealised losses on such transactions are also eliminated partially, unless cost cannot be recovered.

2.3 Joint arrangements

Joint arrangements are arrangements of which the Group has joint control, established by contracts requiring unanimous consent for decisions about the activities that significantly affect the arrangements' returns.

Joint arrangements are classified as either joint operation or joint venture. A joint arrangement is classified as joint operation when the Group or the Company has rights to the assets and obligations for the liabilities relating to an arrangement. The Group and the Company account for each of its share of the assets, liabilities and transactions, including its share of those held or incurred jointly with the other investors, in relation to the joint operation. A joint arrangement is classified as joint venture when the Group has rights only to the net assets of the arrangement. The Group accounts for its interest in the joint venture using the equity method as described in note 2.2.

2.4 Property, plant and equipment and depreciation

Recognition and measurement

Freehold land and projects-in-progress are stated at cost less accumulated impairment losses and are not depreciated. Other property, plant and equipment are stated at cost less accumulated depreciation and accumulated impairment losses, if any.

Cost includes expenditures that are directly attributable to the acquisition of the assets and any other costs directly attributable to bringing the assets to working condition for their intended use, and the costs of dismantling and removing the items and restoring the site on which they are located. The cost of self-constructed assets also includes the cost of material and direct labour. For qualifying assets, borrowing costs are capitalised in accordance with the accounting policy on borrowing costs. Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

When the use of a property changes from owner-occupied to investment property, the property is reclassified as investment property at cost.

When significant components of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.4 Property, plant and equipment and depreciation (continued)

Recognition and measurement (continued)

Subsequent costs

The cost of replacing a component of an item of property, plant and equipment is recognised in the carrying amount of the item if it is probable that the future economic benefits embodied within the component will flow to the Group or the Company and its cost can be measured reliably. The carrying amount of the replaced item of property, plant and equipment is derecognised with any corresponding gain or loss recognised in the profit or loss accordingly. The costs of the day-to-day servicing of property, plant and equipment are recognised in the profit or loss as incurred.

Depreciation

Depreciation for property, plant and equipment other than freehold land, oil and gas properties and projects-in-progress, is recognised in the profit or loss on a straight-line basis over the estimated useful lives of each component of an item of property, plant and equipment. Property, plant and equipment are not depreciated until the assets are ready for their intended use.

Amortisation of producing oil and gas properties is computed based on the unit of production method using total proved reserves for capitalised acquisition costs, certain facilities and wells. For other capitalised exploration, development costs, facilities and wells, total proved developed reserves are used.

The estimated useful lives of the other property, plant and equipment are as follows:

• Buildings	5	-	80 years
• Plant and equipment	3	-	67 years
• Office equipment, furniture and fittings	3	-	10 years
• Computer software and hardware	3	-	5 years
• Motor vehicles	3	-	5 years
• Vessels	20	-	30 years

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term (other than certain right-of-use assets related to oil and gas properties which are depreciated using the unit of production method based on reserve cut-off at expiry of lease contract).

Estimates in respect of certain items of property, plant and equipment were revised during the year (refer note 3).

The depreciable amount is determined after deducting residual value. The residual value, useful life and depreciation method are reviewed at each financial year end to ensure that the amount, period and method of depreciation are consistent with previous estimates and the expected pattern of consumption of the future economic benefits embodied in the items of property, plant and equipment.

Derecognition

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. The difference between the net disposal proceeds, if any, and the net carrying amount is recognised in the profit or loss.

NOTES TO THE FINANCIAL STATEMENTS

31 December 2019

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.5 Investment properties

Investment properties are properties which are owned to earn rental income or for capital appreciation or for both, but not for sale in the ordinary course of business, use in the production or supply of goods or services or for administrative purpose. Properties that are occupied by the companies in the Group are accounted for as owner-occupied rather than as investment properties.

Freehold land and projects-in-progress are stated at cost and are not depreciated. Other investment properties are stated at cost less accumulated depreciation and accumulated impairment losses, if any, consistent with the accounting policy for property, plant and equipment as stated in note 2.4.

Cost includes expenditure that is directly attributable to the acquisition of the investment property. The cost of self-constructed investment property includes the cost of materials and direct labour, any other costs directly attributable to bringing the investment property to a working condition for its intended use and capitalised borrowing costs.

Depreciation is recognised in the profit or loss on a straight-line basis over their estimated useful lives ranging between 10 and 50 years for buildings.

An investment property is derecognised on its disposal, or when it is permanently withdrawn from use and no future economic benefits are expected from its disposal. The difference between net disposal proceeds and the carrying amount is recognised in the profit or loss in the period in which the item is derecognised.

2.6 Land held for development

Land held for development consists of land or such portions thereof on which no development activities have been carried out or where development activities are not expected to be completed within the normal operating cycle. Such land is classified as non-current asset and is stated at the lower of cost and net realisable value consistent with the accounting policy for inventories as stated in note 2.16.

Cost includes acquisition cost of land and attributable development expenditure. Cost associated with the acquisition of land includes the purchase price of the land, professional fees, stamp duties, commissions, conversion fees and other relevant levies. Development expenditure includes the cost for development of main infrastructure works.

Land held for development is reclassified as properties under development at the point when development activities have commenced and where it can be demonstrated that the development activities can be completed within the normal operating cycle. Properties under development are, in turn, reclassified as developed properties held for sale upon completion of the development activities.

Properties under development and developed properties held for sale are recognised as trade and other inventories in current assets. The accounting policy is described separately in note 2.16.

2.7 Leases

The Group and the Company have applied MFRS 16 using the modified retrospective approach, under which the cumulative effect of initial application is recognised in retained earnings at 1 January 2019. Accordingly, the comparative information presented for 2018 has not been restated – i.e. it is presented, as previously reported under MFRS 117 Leases and related interpretations.

NOTES TO THE FINANCIAL STATEMENTS

31 December 2019

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.7 Leases (continued)

Current financial year

(i) Definition of a lease

A contract is, or contains, a lease if the contract conveys a right to control the use of an identified asset for a period of time in exchange for a consideration. To assess whether a contract conveys the right to control the use of an identified asset, the Group and the Company assess whether:

- the contract involves the use of an identified asset – this may be specified explicitly or implicitly and should be physically distinct or represent substantially all of the capacity of a physically distinct asset. If the supplier has a substantive substitution right, then the asset is not identified;
- the customer has the right to obtain substantially all of the economic benefits from use of the asset throughout the period of use; and
- the customer has the right to direct the use of the asset when it has the decision-making rights that are most relevant to changing how and for what purpose the asset is used. The customer has the right to direct the use of the asset if either the customer has the right to operate the asset; or the customer designed the asset in a way that predetermines how and for what purpose it will be used throughout the period of use.

At inception or on reassessment of a contract that contains a lease component, the Group and the Company allocate the consideration in the contract to each lease and non-lease component on the basis of their relative stand-alone prices.

(ii) Recognition and initial measurement

(a) As a lessee

The Group and the Company recognise a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the respective Group entities' incremental borrowing rate is used. Generally, the Group entities use their incremental borrowing rate as the discount rate.

Lease payments included in the measurement of the lease liability comprise the following:

- fixed payments, including in-substance fixed payments;
- variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;
- amounts expected to be payable under a residual value guarantee;
- the exercise price under a purchase option that the Group and the Company are reasonably certain to exercise; and
- penalties for early termination of a lease unless the Group and the Company are reasonably certain not to early terminate the contract.

NOTES TO THE FINANCIAL STATEMENTS

31 December 2019

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.7 Leases (continued)

Current financial year (continued)

(ii) Recognition and initial measurement (continued)

(a) As a lessee (continued)

The Group and the Company exclude variable lease payments that linked to future performance or usage of the underlying asset from the lease liability. Instead, these payments are recognised in profit or loss in the period in which the performance or use occurs.

The Group and the Company assess at lease commencement whether it is reasonably certain to exercise the extension options in determining the lease term.

The Group and the Company have elected not to recognise right-of-use assets and lease liabilities for short-term leases that have a lease term of 12 months or less and leases of low-value assets. The Group and the Company recognise the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

The Group and the Company present right-of-use assets that do not meet the definition of investment property in 'property, plant and equipment' and lease liabilities in 'borrowings' in the statement of financial position.

The accounting for MFRS 16 in joint operation depends on whether the Group is the operator or non-operator of a joint arrangement.

Where the Group is an operator and is the sole signatory to a lease contract of an asset to be used in the activities of a specific joint operation, the operator does so implicitly or explicitly on behalf of the joint arrangement. As is the customary norm in Upstream activities operated through joint arrangements, the operator will manage the lease, pay the lessor and subsequently re-bill the partners for their share of the lease costs. In such instances, it is necessary to determine whether:

- the operator is the sole lessee in the external lease arrangement, and if so, whether the billings to partners may represent sub-leases; or
- it is in fact the joint arrangement, which the lessee and other participants account for its proportionate share of the lease.

Where the Group is a non-operator, it is necessary to determine whether the finance sub-lease exists in the lease arrangement.

Depending on the facts and circumstances in each case, the Group recognises the lease liabilities based on the principles described below.

2. SIGNIFICANT ACCOUNTING POLICIES (continued)
2.7 Leases (continued)
Current financial year (continued)
(ii) Recognition and initial measurement (continued)
(a) As a lessee (continued)

The Group as the operator of a joint operation

Where all partners in a joint operation are sharing the primary responsibility for lease payments under a contract, the related lease liability and right-of-use asset will be recognised net by the Group, on the basis of the Group's participation interest in the joint operation.

The Group will recognise a lease liability fully when it has or considered having the primary responsibility for the full external lease payments. When a finance sub-lease exists between the Group and the non-operators, the Group will derecognise a portion of the right-of-use asset equal to the non-operator's interests in the lease, and instead recognise a corresponding finance lease receivable. A finance sub-lease will typically exist when the Group enters into a contract in its own name, where it has the primary responsibility for the external lease payments, and the leased asset is to be used on one specific joint operation, and the costs and risks related to the use of this asset are carried by that specific joint operation.

Where the use of the leased asset on a joint operation is not considered a finance sub-lease, the Group will recognise the related right-of-use asset and lease liability on a gross basis. Such expenses have under the previous lease accounting rules been reflected net by the Group, on the basis of the Group's net participation interest in the joint operation. Expenses which are not included in a recognised lease obligation, such as payments for short-term leases, non-lease components and variable lease payments will continue to be reported net in the Group's statement of profit or loss, on the basis of the Group's net participation interest.

The Group as a non-operator of a joint operation

As a non-operator of a joint operation, the Group will recognise its proportionate share of a lease when the Group shares the primary responsibility for lease payments under a contract. This includes contracts where the Group has co-signed a lease contract and contracts for which the operator has been given a legally binding mandate to sign the external lease contract on behalf of the licence partners.

The Group will also recognise its proportionate share when a lease contract is entered by the operator of a joint operation, and where the operator's use of the leased asset represents a sub-lease from the operator to the non-operators. A sub-lease is considered to take place in situations where the operator agrees with the non-operators for a specified period of time, and where the use of the asset is deemed to be controlled jointly by the joint operation.

NOTES TO THE FINANCIAL STATEMENTS

31 December 2019

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.7 Leases (continued)

Current financial year (continued)

(ii) Recognition and initial measurement (continued)

(b) As a lessor

When the Group and the Company act as a lessor, it determines at lease inception whether each lease is a finance lease or an operating lease.

To classify each lease, the Group and the Company make an overall assessment of whether the lease transfers substantially all of the risks and rewards incidental to ownership of the underlying asset. If this is the case, then the lease is a finance lease; if not, then it is an operating lease.

If an arrangement contains lease and non-lease components, the Group and the Company apply MFRS 15 *Revenue from Contracts with Customers* to allocate the consideration in the contract based on the stand-alone selling price.

The Group and the Company recognise assets held under a finance lease in its statement of financial position and presents them as a receivable at an amount equal to the net investment in the lease. The Group and the Company use the interest rate implicit in the lease to measure the net investment in the lease.

When the Group is an intermediate lessor, it accounts for its interests in the head lease and the sub-lease separately. It assesses the lease classification of a sub-lease with reference to the right-of-use asset arising from the head lease, not with reference to the underlying asset. If a head lease is a short-term lease to which the Group applies the exemption described above, then it classifies the sub-lease as an operating lease.

(iii) Subsequent measurement

(a) As a lessee

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term (other than certain right-of-use assets related to oil and gas properties which are depreciated using the unit of production method based on reserve cut-off at expiry of lease contract). The estimated useful lives of right-of-use assets are determined on the same basis as those of property, plant and equipment. Depreciation of certain right-of-use assets are subsequently capitalised into carrying amount of other assets whenever they meet the criteria for capitalisation. In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The lease liability is measured at amortised cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a revision of in-substance fixed lease payments, or if there is a change in the Group's estimate of the amount expected to be payable under a residual value guarantee, or if the Group changes its assessment of whether it will exercise a purchase, extension or termination option. The Group will reassess whether it is reasonably certain to exercise the extension option if there is a significant change in circumstances within its control.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.7 Leases (continued)

Current financial year (continued)

(iii) Subsequent measurement (continued)

(a) As a lessee (continued)

When the lease liability is remeasured as described in the above paragraph, a corresponding adjustment is made to the carrying amount of the right-of-use asset or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

When there is lease modification due to increase in the scope of lease by adding the right-to-use one or more underlying assets, the Group and the Company assess whether the lease modification shall be accounted for as a separate lease or similar to reassessment of lease liability. The Group and the Company account for lease modification as a separate lease when the consideration for the lease increases by an amount commensurate with the stand-alone price for the increase in scope and any appropriate adjustments.

When there is lease modification due to decrease in scope, the Group and the Company decrease the carrying amount of the right-of-use asset and remeasure the lease liability to reflect the partial or full termination of the lease. The corresponding gain or loss shall be recognised in profit or loss. Lease liabilities are remeasured for all other lease modifications with corresponding adjustments to the right-of-use asset.

(b) As a lessor

The Group recognises lease payments received under operating leases as income on a straight-line basis over the lease term as part of "revenue".

The Group recognises finance income over the lease term, based on a pattern reflecting a constant periodic rate of return on the Group's net investment in the lease. The Group aims to allocate finance income over the lease term on a systematic and rational basis. The Group applies the lease payments relating to the period against the gross investment in the lease to reduce both the principal and the unearned finance income. The net investment in the lease is subject to impairment requirements in MFRS 9 *Financial Instruments* (see note 2.12).

Previous financial year

Leased assets

A lease arrangement was accounted for as finance or operating lease in accordance with the accounting policy as stated below. When the fulfilment of an arrangement was dependent on the use of a specific asset and the arrangement conveys a right to use the asset, it was accounted for as a lease in accordance with the accounting policy below although the arrangement did not take the legal form of a lease.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.7 Leases (continued)

Previous financial year (continued)

Finance lease

A lease was recognised as a finance lease if it transfers substantially all the risks and rewards incidental to ownership to the Group and the Company. Upon initial recognition, the leased asset was measured at an amount equal to the lower of its fair value and the present value of the minimum lease payments. Subsequent to initial recognition, the asset was accounted for in accordance with the accounting policy applicable to that asset. The corresponding liability was included in the statement of financial position as non-current liabilities.

Minimum lease payments made under finance leases were apportioned between the finance costs and the reduction of the outstanding liability. Finance costs, which represent the difference between the total leasing commitments and the fair value of the assets acquired, were recognised in the profit or loss and allocated over the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability for each accounting period.

Contingent lease payments, if any, were accounted for by revising the minimum lease payments over the remaining term of the lease when the lease adjustment was confirmed.

Leasehold land which in substance was a finance lease was classified as property, plant and equipment, or as investment property if held to earn rental income or for capital appreciation or for both.

Operating lease

All leases that did not transfer substantially all the risks and rewards incidental to ownership to the Group and the Company were classified as operating leases, and the leased assets were not recognised on the Group's and the Company's statement of financial position.

Payments made under operating leases were recognised as an expense in the profit or loss on a straight-line basis over the term of the lease. Lease incentives received were recognised as a reduction of rental expense over the lease term on a straight-line basis. Contingent rentals were charged to profit or loss in the reporting period in which they were incurred.

Leasehold land which in substance, an operating lease was classified as prepaid lease payments.

Prepaid lease payments

Prepaid rental and leasehold land which in substance was an operating lease were classified as prepaid lease payments. The payments made on entering into a lease arrangement or acquiring a leasehold land were accounted for as prepaid lease payments that were amortised over the lease term in accordance with the pattern of benefits provided.

2.8 Investments

Long term investments in subsidiaries, associates and joint ventures are stated at cost less impairment loss, if any, in the Company's financial statements unless the investment is classified as held for sale or distribution. The cost of investments includes transaction costs.

The carrying amount of these investments includes fair value adjustments on shareholder's loans and advances, if any (note 2.12(i)).

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.9 Intangible assets

Goodwill

Goodwill arising from business combinations is initially measured at cost as described in note 2.1. Following the initial recognition, goodwill is measured at cost less any accumulated impairment losses. Goodwill is not amortised but instead, it is reviewed for impairment, annually or more frequently if events or changes in circumstances indicate that the carrying value may be impaired.

In respect of equity-accounted investees, the carrying amount of goodwill is included in the carrying amount of the investment. The entire carrying amount of the investment is reviewed for impairment when there is objective evidence of impairment.

Exploration expenditure

Intangible assets also include expenditure on the exploration for and evaluation of oil and natural gas resources (hereinafter collectively referred to as "exploration expenditure"). The accounting policy for exploration expenditure is described separately in note 2.10.

Other intangible assets

Intangible assets other than goodwill and exploration expenditure are measured on initial recognition at cost. The costs of intangible assets acquired in a business combination are their fair values as at the date of acquisition.

Following initial recognition, intangible assets with finite useful lives are carried at cost less accumulated amortisation and any accumulated impairment losses.

Amortisation for intangible assets with finite useful lives is recognised in the profit or loss on a straight-line basis over the estimated economic useful lives, other than certain recoverable expenditure incurred under a service contract which is amortised based on unit of production method, which is calculated based on entitlement of production for the period, and estimated entitlement for the remaining life of the asset.

For the Development and Production Service Contracts ("DPSC") assets, the Group amortises through the unit of production method, which is calculated based on entitlement of production for the period over the entitlement of production for the period and estimated entitlement for the remaining life of the DPSC.

Estimates are made in relation to expected entitlement of production which are based on the actual cost incurred but yet to be recovered and application of the prevailing crude oil price. The amortisation method and the useful life for intangible assets are reviewed at least at each reporting date. Intangible assets are assessed for impairment whenever there is indication that the intangible assets may be impaired.

Intangible assets with indefinite useful lives are carried at cost less accumulated impairment losses. These intangible assets are reviewed for impairment annually or more frequently if events or changes in circumstances indicate that the carrying value may be impaired.

2.10 Exploration and development expenditure

The Group follows the successful efforts method of accounting for the exploration and development expenditure.

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.10 Exploration and development expenditure (continued)

Exploration expenditure

Costs directly associated with an exploration well, including license acquisition, costs of acquiring undeveloped land and drilling costs, are initially capitalised as intangible assets until the results have been evaluated.

If a well does not result in successful discovery of economically recoverable volume of hydrocarbons or the costs of undeveloped land that expires, such costs are impaired or written off. If hydrocarbons are found and, subject to further appraisal activity which may include the drilling of further wells, are likely to be capable of commercial development under prevailing economic conditions, the costs continue to be carried as intangible assets. Such costs are reviewed at least once a year to determine whether the reserves found or appraised remain economically viable. When this is no longer the case, the costs are impaired or written off.

Where development plan is commercially viable and approved by the relevant authorities, the related exploration and evaluation costs are transferred to projects-in-progress in property, plant and equipment.

Development expenditure

Development expenditure comprises all costs incurred in bringing a field to commercial production and is capitalised as incurred. The amount capitalised includes attributable interests and other financing costs incurred on exploration and development before commencement of production.

Upon commencement of production, the exploration and development expenditure initially capitalised as projects-in-progress are transferred to oil and gas properties and are depreciated as described in the accounting policy for property, plant and equipment and depreciation (note 2.4).

2.11 Non-current assets held for sale

Non-current assets and disposal groups comprising assets and liabilities that are expected to be recovered primarily through sale rather than through continuing use, are classified as held for sale. This condition is regarded as met only when the sale is highly probable and the asset is available for immediate sale in its present condition.

Immediately before classification as held for sale, the assets (or all the assets and liabilities in a disposal group) are remeasured in accordance with the Group's applicable accounting policies. Thereafter, on initial classification as held for sale, the assets or disposal groups are measured at the lower of carrying amount and fair value less cost to sell. Any differences are charged to the profit or loss.

Any impairment loss on a disposal group is first allocated to goodwill, and then to remaining assets and liabilities on pro rata basis, except that no impairment loss is allocated to inventories, contract assets, contract costs, financial assets, deferred tax assets, employee benefit assets and investment property, which continue to be measured in accordance with the Group's accounting policies. Impairment losses on initial classification as held for sale or distribution and subsequent gains or losses on remeasurement are recognised in profit or loss. Gains are not recognised in excess of any cumulative impairment loss.

Intangible assets, property, plant and equipment and investment properties once classified as held for sale are not amortised nor depreciated. In addition, equity accounting of equity-accounted investees ceases once classified as held for sale.

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.12 Financial instruments

Recognition and initial measurement

A financial instrument is recognised in the statement of financial position when, and only when, the Group or the Company becomes a party to the contractual provisions of the instrument.

Regular way purchases or sales were recognised on the trade date i.e. the date that the Group and the Company commit to purchase or sell the financial asset.

A financial asset (unless it is a receivable without a significant financing component) and a financial liability is measured at fair value plus or minus, in the case of a financial instrument not at fair value through profit or loss, any directly attributable transaction cost incurred at the acquisition or issuance of the financial instrument. A receivable that does not contain a significant financing component is initially measured at the transaction price.

Fair value adjustments on shareholder's loans and advances at initial recognition, if any, are added to the carrying value of investments in the Company's financial statements.

Classification and subsequent measurement

(i) Financial assets

Financial assets are classified as measured at amortised cost, fair value through other comprehensive income ("FVOCI") and fair value through profit or loss ("FVTPL"), as appropriate.

The Group and the Company determine the classification of financial assets at initial recognition and are not reclassified subsequent to their initial recognition unless the Group changes its business model for managing financial assets in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model.

Amortised cost

Amortised cost category comprises financial assets that are held within a business model whose objective is to hold assets to collect contractual cash flows and its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding. The financial assets are not designated as fair value through profit or loss.

Subsequent measurement

Subsequent to initial recognition, these financial assets are measured at amortised cost using the effective interest method (note 2.12 (v)). Interest income and foreign exchange gains and losses are recognised in profit or loss.

Fair value through other comprehensive income

Debt instruments

This category comprises debt instruments where it is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets, and its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding. The debt instruments are not designated as at fair value through profit or loss.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.12 Financial instruments (continued)

Classification and subsequent measurement (continued)

(i) Financial assets (continued)

Fair value through other comprehensive income (continued)

Equity instruments

Fair value through other comprehensive income category also comprises investment in equity that are not held for trading, and the Group and the Company irrevocably elect to present subsequent changes in the investment's fair value in other comprehensive income. This election is made on an investment-by-investment basis.

Subsequent measurement

Financial assets categorised as fair value through other comprehensive income are subsequently measured at fair value with unrealised gains and losses recognised directly in other comprehensive income and accumulated under fair value through other comprehensive income reserve in equity. For debt instruments, when the investment is derecognised or determined to be impaired, the cumulative gain or loss previously recorded in equity is reclassified to the profit or loss. For equity instruments, the gains or losses accumulated in other comprehensive income are never reclassified to profit or loss.

Financial assets at fair value through profit or loss

All financial assets not classified as measured at amortised cost or fair value through other comprehensive income as described above are measured at fair value through profit or loss. This includes derivative financial assets (except for a derivative that is a financial guarantee contract as per note 2.12 (iii)). On initial recognition, the Group and the Company may irrevocably designate a financial asset that otherwise meets the requirements to be measured at amortised cost or at fair value through other comprehensive income as at fair value through profit or loss if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

Subsequent measurement

Financial assets categorised as fair value through profit or loss are subsequently measured at their fair value with gains or losses recognised in the profit or loss. The methods used to measure fair value are stated in note 2.25.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.12 Financial instruments (continued)

Classification and subsequent measurement (continued)

(ii) Financial liabilities

The categories of financial liabilities at initial recognition are as follows:

Financial liabilities at fair value through profit or loss

Fair value through profit or loss category comprises financial liabilities that are derivatives (except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument), contingent consideration in a business combination and financial liabilities that are specifically designated into this category upon initial recognition.

On initial recognition, the Group or the Company may irrevocably designate a financial liability that otherwise meets the requirements to be measured at amortised cost as at fair value through profit or loss:

(a) if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise;
(b) a group of financial liabilities or financial assets and financial liabilities is managed and its performance is evaluated on a fair value basis, in accordance with a documented risk management or investment strategy, and information about the Group is provided internally on that basis to the Group's key management personnel; or
(c) if a contract contains one or more embedded derivatives and the host is not a financial asset in the scope of MFRS 9, where the embedded derivative significantly modifies the cash flows and separation is not prohibited.

Financial liabilities categorised as fair value through profit or loss are subsequently measured at their fair value with gains or losses, including any interest expense are recognised in the profit or loss.

For financial liabilities where it is designated as fair value through profit or loss upon initial recognition, the Group and the Company recognise the amount of change in fair value of the financial liability that is attributable to change in credit risk in the other comprehensive income and remaining amount of the change in fair value in the profit or loss, unless the treatment of the effects of changes in the liability's credit risk would create or enlarge an accounting mismatch.

Amortised cost

Subsequent to initial recognition, other financial liabilities are subsequently measured at amortised cost using the effective interest method (see note 2.12 (v)).

Gains and losses are recognised in the profit or loss when the liabilities are derecognised as well as through the amortisation process.

(iii) Financial guarantee contracts

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payment when due in accordance with the terms of a debt instrument.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.12 Financial instruments (continued)

Classification and subsequent measurement (continued)

(iii) Financial guarantee contracts (continued)

Financial guarantees issued are initially measured at fair value. Subsequently, they are measured at higher of:
- the amount of the loss allowance; and
- the amount initially recognised less, when appropriate, the cumulative amount of income recognised in accordance to the principles of MFRS 15 *Revenue from Contracts with Customers*.

Liabilities arising from financial guarantees are presented together with other provisions.

(iv) Derivative financial instruments

The Group and the Company use derivative financial instruments such as interest rate and foreign currency swaps, forward rate contracts, futures and options, to manage certain exposures to fluctuations in foreign currency exchange rates, interest rates and commodity prices.

Derivative financial instruments are initially recognised at fair value on the date on which a derivative contract is entered into and are subsequently remeasured at fair value. Derivatives are carried as financial assets when the fair value is positive and as financial liabilities when the fair value is negative.

Any gains or losses arising from changes in fair value on derivatives during the year are recognised in the profit or loss.

In general, contracts to sell or purchase non-financial items to meet expected own use requirements are not accounted for as financial instruments. However, contracts to sell or purchase commodities that can be net settled or which contain written options are required to be recognised at fair value, with gains and losses recognised in the profit or loss.

An embedded derivative is recognised separately from the host contract where the host contract is not a financial asset, and accounted for separately if, and only if, the derivative is not closely related to the economic characteristics and risks of the host contract and the host contract is not measured at fair value through profit or loss. The host contract, in the event an embedded derivative is recognised separately, is accounted for in accordance with policy applicable to the nature of the host contract.

(v) Effective interest method

Amortised cost was computed using the effective interest method. This method used effective interest rate that exactly discounts estimated future cash receipts or payments through the expected life of the financial instrument to the net carrying amount of the financial instrument. Amortised cost takes into account any transaction costs and any discount or premium on settlement.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.12 Financial instruments (continued)

Classification and subsequent measurement (continued)

(vi) Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount is reported in the statement of financial position if, and only if, there is a currently enforceable legal right to offset the recognised amounts and there is an intention to settle on a net basis or to realise the assets and settle the liabilities simultaneously.

(vii) Amortised cost of financial instruments

Interest income is recognised by applying effective interest rate to the gross carrying amount except for credit impaired financial assets (see note 2.13 (i)) where effective interest rate is applied to the amortised cost.

(viii) Derecognition of financial instruments

A financial asset is derecognised when the rights to receive cash flows from the asset have expired or, the Group and the Company have transferred their rights to receive cash flows from the asset or have assumed an obligation to pay the received cash flows in full without material delay to a third party under a “pass-through” arrangement without retaining control of the asset or substantially all the risks and rewards of the asset.

On derecognition of a financial asset, the difference between the carrying amount and the sum of the consideration received (including any new asset obtained less any new liability assumed) and any cumulative gain or loss that had been recognised in equity is recognised in the profit or loss, except for equity investments at fair value through other comprehensive income where the gain or loss are recognised in other comprehensive income.

A financial liability is derecognised when the obligation under the liability is discharged or cancelled or expired. On derecognition of a financial liability, the difference between the carrying amount of the financial liabilities extinguished or transferred to another party and the consideration paid, including any non-cash assets transferred or liabilities assumed, is recognised in the profit or loss.

2.13 Impairment

(i) Financial assets, contract assets and finance lease receivables

The Group and the Company recognise loss allowances for expected credit losses on financial assets measured at amortised cost, debt investments measured at fair value through other comprehensive income, contract assets and finance lease receivables.

The Group and the Company measure loss allowances on debt securities and cash and cash equivalent at an amount equal to lifetime expected credit loss, except for debt securities that are determined to have low credit risk at the reporting date, other debt securities for which credit risk has not increased significantly since initial recognition and finance lease receivables, which are measured as 12-month expected credit loss.

Loss allowances for trade receivables and contract assets are always measured at an amount equal to lifetime expected credit loss.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.13 Impairment (continued)

(i) Financial assets, contract assets and finance lease receivables (continued)

When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating expected credit loss, the Group and the Company consider reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Group's historical experience and informed credit assessment and including forward-looking information, where available.

The Group and the Company assume that the credit risk on a financial asset has increased significantly if it is past due.

The Group considers a financial asset to be in default when the borrower is unlikely to pay its credit obligations to the Group in full, without recourse by the Group to actions such as realising security.

Lifetime expected credit losses are the expected credit losses that result from all possible default events over the expected life of a financial instrument, while 12-month expected credit losses are the portion of expected credit losses that result from default events that are possible within the 12-month after the reporting date.

The maximum period considered when estimating expected credit losses is the maximum contractual period over which the Group is exposed to credit risk.

An impairment loss in respect of financial assets measured at amortised cost is recognised in profit or loss and the carrying amount of the asset is reduced through the use of an allowance account.

An impairment loss in respect of debt investments measured at fair value through other comprehensive income is recognised in profit or loss and the allowance account is recognised in other comprehensive income.

All financial assets, except for those measured at fair value through profit or loss and equity investments measured at fair value through other comprehensive income, contract assets and finance lease receivables are subject to impairment (see note 2.12 (i)).

(ii) Other assets

The carrying amounts of other assets, other than inventories, deferred tax assets and non-current assets or disposal groups classified as held for sale, are reviewed at each reporting date to determine whether there is any indication of impairment.

If any such indication exists, the asset's recoverable amount is estimated. An impairment loss is recognised if the carrying amount of an asset or the cash-generating unit to which it belongs exceeds its recoverable amount. Impairment losses are recognised in the profit or loss.

A cash-generating unit is the smallest identifiable asset group that generates cash flows from continuing use that are largely independent from other assets and groups. An impairment loss recognised in respect of a cash-generating unit is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to reduce the carrying amount of the other assets in the unit on a pro-rata basis.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.13 Impairment (continued)

(ii) Other assets (continued)

The recoverable amount is the greater of the asset's fair value less cost to sell and its value-in-use. In assessing value-in-use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate largely independent cash inflows, the recoverable amount is determined for the cash-generating unit to which the asset belongs.

For goodwill and intangible assets that have indefinite useful lives or that are not yet available for use, the recoverable amount is estimated each period at the same time.

An impairment loss in respect of goodwill is not reversed in the subsequent period. In respect of other assets, impairment losses are reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

Reversals of impairment losses are credited to the profit or loss in the year in which the reversals are recognised.

2.14 Cash and cash equivalents

Cash and cash equivalents consist of cash on hand and bank balances, deposits with licensed financial institutions and highly liquid investments which have an insignificant risk of changes in fair value and are used by the Company in the management of their short-term commitments. For the purpose of the statements of cash flows, cash and cash equivalents are presented net of bank overdrafts and deposits restricted, if any.

2.15 Contract assets and contract liabilities

Contract assets represent the Group and the Company's right to consideration in exchange for goods or services that the entity has transferred to a customer when that right is conditioned on something other than the passage of time. Contract assets are subjected to impairment in accordance to MFRS 9 *Financial Instruments* (see note 2.13 (i)).

Contract liabilities represent the Group and the Company's obligation to transfer goods or services to a customer for which the Group and the Company have received consideration, or the amount is due from the customer.

2.16 Inventories

Inventories are stated at the lower of cost and net realisable value. Net realisable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and the estimated costs necessary to make the sale.

Cost of crude oil and condensates includes costs of bringing the inventories to their present location and condition and is determined on a weighted average basis.

Cost of petroleum products includes crude oil costs, export duty, transportation charges and processing costs and is determined on a weighted average basis.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.16 Inventories (continued)

Cost of liquefied natural gas ("LNG") and petrochemical products includes raw gas costs and production overheads and is determined on a weighted average basis.

Cost of material stores and spares consists of the invoiced value from suppliers and import duty charges and is determined on a weighted average basis.

Cost of developed properties held for sale and properties under development consists of costs associated with the acquisition of land, all costs that are directly attributable to development activities, appropriate proportions of common costs attributable to developing the properties, and interest expenses incurred during the period of active development.

Lifting of offtake arrangements for crude oil and condensate produced in jointly-owned operations are such that it is not practicable for each participant to receive or sell its precise share of the overall production during the period. At each reporting date, the extent of underlift is recognised as an asset at the lower of the cost and net realisable value, while overlift is recognised as a liability. The net movement in underlift and overlift is recognised in the statement of comprehensive income in cost of revenue.

2.17 Provisions

A provision is recognised if, as a result of a past event, the Group and the Company have a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future net cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. Where discounting is used, the accretion in the provision due to the passage of time is recognised as finance cost.

The amount recognised as a provision is the best estimate of the net expenditure required to settle the present obligation at the reporting date. Provisions are reviewed at each reporting date and adjusted to reflect the current best estimate.

Possible obligations whose existence will only be confirmed by the occurrence or non-occurrence of one or more future events not wholly within the control of the Group, are not recognised in the financial statements but are disclosed as contingent liabilities unless the possibility of an outflow of economic resources is considered remote.

In particular, information about provisions that have the most significant effect on the amount recognised in the financial statements is described in note 24.

2.18 Employee benefits

Short term benefits

Wages and salaries, bonuses and social security contributions are recognised as an expense in the year in which the associated services are rendered by employees of the Group and the Company.

Defined contribution plans

As required by law, companies in Malaysia make contributions to the state pension scheme, the Employees Provident Fund ("EPF").

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.18 Employee benefits (continued)

Defined contribution plans (continued)

Some of the Group's foreign subsidiaries make contributions to their respective countries' statutory pension schemes and certain other independently-administered funds which are defined contribution plans.

Such contributions are recognised as an expense in the profit or loss as incurred.

2.19 Taxation

Tax on the profit or loss for the year comprises current and deferred tax. Income tax is recognised in the profit or loss except to the extent it relates to a business combination or items recognised directly in equity, in which case it is recognised in equity or other comprehensive income.

Current tax

Current tax expense is the expected tax payable on the taxable income for the year, using the statutory tax rates at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax

Deferred tax is provided for, using the liability method, on temporary differences at the reporting date between the tax bases of assets and liabilities and their carrying amounts in the financial statements. In principle, deferred tax liabilities are recognised for all taxable temporary differences and deferred tax assets are recognised for all deductible temporary differences, unabsorbed capital allowances, unused reinvestment allowances, unused investment tax allowances, unused tax losses and other unused tax credits to the extent that it is probable that future taxable profit will be available against which the deductible temporary differences, unabsorbed capital allowances, unused reinvestment allowances, unused investment tax allowances, unused tax losses and other unused tax credits can be utilised.

Deferred tax is not recognised for the following temporary differences: the initial recognition of goodwill and the initial recognition of an asset or liability in a transaction which is not a business combination and that affects neither accounting nor taxable profit or loss.

Deferred tax is measured at the tax rates that are expected to apply in the period when the asset is realised or the liability is settled, based on the laws that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different tax entities where they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realised simultaneously.

Deferred tax asset is reviewed at each reporting date and is reduced to the extent that it is no longer probable that the future taxable profit will be available against which the related tax benefit can be realised.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.20 Foreign currency transactions

In preparing the financial statements of individual entities in the Group, transactions in currencies other than the entity's functional currency (foreign currencies) are translated to the functional currencies at rates of exchange ruling on the transaction dates.

Monetary assets and liabilities denominated in foreign currencies at the reporting date have been retranslated to the functional currency at rates ruling on the reporting date.

Non-monetary assets and liabilities denominated in foreign currencies, which are measured at fair value, are retranslated to the functional currency at the foreign exchange rates ruling at the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in foreign currency are not retranslated.

Gains and losses on exchange arising from retranslation are recognised in the profit or loss, except for differences arising on retranslation of equity instruments at FVOCI, which are recognised in equity and are never reclassified to profit or loss.

On consolidation, the assets and liabilities of subsidiaries with functional currencies other than Ringgit Malaysia, are translated into Ringgit Malaysia at the exchange rates ruling at reporting date, except for goodwill and fair value adjustments arising from business combinations before 1 April 2011 which are treated as assets and liabilities of the acquirer company pursuant to the adoption of MFRS framework.

The income and expenses are translated at the exchange rates at the date of the transactions or an average rate that approximates those rates. All resulting exchange differences are taken to the foreign currency translation reserve within equity.

In the consolidated financial statements, when settlement of a monetary item receivable from or payable to the Group's foreign operation is neither planned nor likely in the foreseeable future, foreign exchange gains and losses arising from such a monetary item are considered to form part of the net investment in a foreign operation and are reclassified to other comprehensive income and accumulated under foreign currency translation reserve in equity. Upon disposal of the investment, the cumulative exchange differences previously recorded in equity are reclassified to the consolidated profit or loss.

2.21 Borrowing costs and foreign currency exchange differences relating to projects-in-progress

Borrowing costs which are directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to be prepared for their intended use or sale, are capitalised as part of the cost of those assets.

The capitalisation of borrowing costs as part of the cost of a qualifying asset commences when expenditure for the asset is being incurred, borrowing costs are being incurred and activities that are necessary to prepare the asset for its intended use or sale are in progress. Capitalisation of borrowing costs ceases when all activities necessary to prepare the qualifying asset for its intended use or sale are completed.

Exchange differences arising from foreign currency borrowings, although regarded as an adjustment to borrowing costs, are not capitalised but instead recognised in the profit or loss in the period in which they arise.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.21 Borrowing costs and foreign currency exchange differences relating to projects-in-progress (continued)

Current financial year

The capitalisation rate used to determine the amount of borrowing costs eligible for capitalisation is the weighted average of borrowings that are outstanding during the year, other than borrowings made specifically for the purpose of financing a specific qualifying asset, in which the actual borrowing cost incurred on that borrowing less any investment income on the temporary investment of that borrowings, will be capitalised. Borrowings costs incurred subsequent to the completion of a specific qualifying asset are included in the determination of the capitalisation rate.

Previous financial year

In previous years, borrowing costs incurred subsequent to the completion of a specific qualifying asset were expensed off to profit or loss.

2.22 Revenue

Revenue from contract with customers is measured based on the consideration specified in a contract with a customer and excludes amounts collected on behalf of third parties. The Group or the Company recognises revenue when or as it transfers control over a product or service to customer. An asset is transferred when (or as) the customer obtains control of the asset.

An entity transfers control of a good or service over time and, therefore, satisfies a performance obligation and recognises revenue over time, if one of the following criteria is met:

(a) the customer simultaneously receives and consumes the benefits provided by the entity's performance as the entity performs;
(b) the entity's performance creates or enhances an asset (for example, work-in-progress) that the customer controls as the asset is created or enhanced; or
(c) the entity's performance does not create an asset with an alternative use to the entity and the entity has an enforceable right to payment for performance completed to date.

If a performance obligation is not satisfied over time in accordance with the above criteria, an entity satisfies the performance obligation and recognises revenue at a point in time.

Revenue arising from shipping activities is mainly from freight income and charter income. Freight income and the relevant discharged costs of cargoes loaded onto vessels up to the reporting date are accrued for in the profit or loss based on percentage of completion method. Charter income is accrued on time accrual basis.

Revenue arising from rental income of investment properties is recognised on a straight-line basis over the term of the lease under the lease arrangement per note 2.7.

Revenue arising from gas trading activities, where forward and future sale and purchase contracts for gas have been determined to be for trading purposes, the associated sales and purchases are reported net within sales.

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.22 Revenue (continued)

Revenue arising from investments yielding dividend is recognised when the shareholders' right to receive payment is established.

Revenue arising from assets yielding interest is recognised on a time proportion basis that takes into account the effective yield on the assets.

2.23 Financing costs

Financing costs comprise interest payable on borrowings and profit sharing margin on Islamic Financing Facilities, as well as accretion in provision due to the passage of time.

All interest and other costs incurred in connection with borrowings are expensed as incurred, other than that capitalised in accordance with the accounting policy stated in note 2.21. The interest component of finance lease payments is accounted for in accordance with the policy set out in note 2.7.

2.24 Operating segments

An operating segment is a component of the Group and the Company that engages in business activities from which it may earn revenues and incur expenses, including revenues and expenses that relate to transactions with any of the Group's and the Company's other components, and for which discrete financial information is available. An operating segment's operating results are reviewed regularly by the chief operating decision maker, which in this case is the PETRONAS Executive Leadership Team, to make decisions about resources to be allocated to the segment and to assess its performance.

2.25 Fair value measurements

Fair value of an asset or a liability, except for lease transactions, is determined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The measurement assumes that the transaction to sell the asset or transfer the liability takes place either in the principal market or in the absence of a principal market, in the most advantageous market.

(i) Financial instruments

The fair value of financial instruments that are actively traded in organised financial markets are determined by reference to quoted market prices at the close of business at the end of reporting date. For financial instruments where there is no active market, fair value is determined using valuation techniques. Such techniques may include using recent arm's length market transactions; reference to the current fair value of another instrument that is substantially the same; discounted cash flow analysis or other valuation models.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

2. SIGNIFICANT ACCOUNTING POLICIES (continued)

2.25 Fair value measurements (continued)

(ii) Non-financial assets

For non-financial assets, the fair value measurement takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

When measuring the fair value of an asset or a liability, the Group and the Company use observable market data as far as possible. Fair values are categorised into different levels in a fair value hierarchy based on the input used in the valuation technique as follows:

- Level 1 – Quoted prices (unadjusted) in active markets for identifiable assets or liabilities.
- Level 2 – Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
- Level 3 – Inputs for the asset or liability that are not based on observable market data (unobservable input).

The fair value of an asset to be transferred between levels is determined as of the date of the event or change in circumstances that caused the transfer.

The Group and the Company recognise transfers between levels of the fair value hierarchy as of the date of the event or change in circumstances that caused the transfers.

2.26 Government grants

Government grants related to assets, including non-monetary grants at fair value, are deducted against the construction cost of the assets. Subsequently, the grants are recognised in profit or loss on a systematic basis over the life of the asset as a reduced depreciation expense.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

3. PROPERTY, PLANT AND EQUIPMENT

Group 2019 *In RM Mil*	At 31.12.2018, as previously reported	Effect of adoption of MFRS 16	At 1.1.2019 as restated	Additions	Disposals/ write-offs
At cost:					
Own use					
Freehold land	**2,620**	**-**	**2,620**	**33**	**(4)**
Leasehold land	**7,307**	**(7,307)**	**-**	**-**	**-**
Lease properties	**1,256**	**(1,256)**	**-**	**-**	**-**
Oil and gas properties	**338,940**	**-**	**338,940**	**7,210**	**(3,285)**
Buildings	**19,542**	**-**	**19,542**	**128**	**(106)**
Plant and equipment	**155,365**	**(2,718)**	**152,647**	**1,020**	**(1,034)**
Office equipment, furniture and fittings	**3,615**	**-**	**3,615**	**80**	**(99)**
Computer software and hardware	**4,200**	**-**	**4,200**	**152**	**(68)**
Motor vehicles	**497**	**(29)**	**468**	**25**	**(47)**
Vessels	**43,839**	**(32,572)**	**11,267**	**16**	**-**
Projects-in-progress					
- oil and gas properties	**25,794**	**-**	**25,794**	**11,644**	**(458)**
- other projects	**43,848**	**(50)**	**43,798**	**19,322**	**(153)**
	646,823	**(43,932)**	**602,891**	**39,630**	**(5,254)**
Lease to others as operating lease					
Buildings	**-**	**-**	**-**	**25**	**-**
Vessels	**-**	**32,572**	**32,572**	**342**	**(455)**
Plant and equipment	**-**	**-**	**-**	**18**	**-**
	-	**32,572**	**32,572**	**385**	**(455)**
Right-of-use					
Leasehold land	**-**	**9,373**	**9,373**	**43**	**(23)**
Lease properties	**-**	**1,256**	**1,256**	**21**	**-**
Oil and gas properties	**-**	**3,757**	**3,757**	**850**	**-**
Buildings	**-**	**959**	**959**	**60**	**(9)**
Plant and equipment	**-**	**3,706**	**3,706**	**441**	**(2)**
Office equipment, furniture and fittings	**-**	**2**	**2**	**-**	**-**
Computer software and hardware	**-**	**8**	**8**	**11**	**-**
Motor vehicles	**-**	**76**	**76**	**59**	**(2)**
Vessels	**-**	**1,231**	**1,231**	**3,660**	**(134)**
	-	**20,368**	**20,368**	**5,145**	**(170)**
	646,823	**9,008**	**655,831**	**45,160**	**(5,879)**

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NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

3. PROPERTY, PLANT AND EQUIPMENT (continued)

Group 2019 *In RM Mil*	Acquisition/ (Disposal) of subsidiaries	Transfers/ reclass/ adjustments	Translation exchange difference	At 31.12.2019
At cost:				
Own use				
Freehold land	**-**	**47**	**(3)**	**2,693**
Leasehold land	**-**	**-**	**-**	**-**
Lease properties	**-**	**-**	**-**	**-**
Oil and gas properties	**-**	**10,020**	**(1,211)**	**351,674**
Buildings	**50**	**580**	**(19)**	**20,175**
Plant and equipment	**682**	**5,692**	**(910)**	**158,097**
Office equipment, furniture and fittings	**36**	**342**	**(5)**	**3,969**
Computer software and hardware	**3**	**241**	**27**	**4,555**
Motor vehicles	**-**	**27**	**1**	**474**
Vessels	**-**	**614**	**(306)**	**11,591**
Projects-in-progress				
- oil and gas properties	**-**	**(8,403)**	**(94)**	**28,483**
- other projects	**60**	**(9,942)**	**(638)**	**52,447**
	831	**(782)**	**(3,158)**	**634,158**
Lease to others as operating lease				
Buildings	**-**	**-**	**-**	**25**
Vessels	**-**	**(899)**	**(292)**	**31,268**
Plant and equipment	**-**	**-**	**-**	**18**
	-	**(899)**	**(292)**	**31,311**
Right-of-use				
Leasehold land	**85**	**(132)**	**(11)**	**9,335**
Lease properties	**-**	**3**	**(2)**	**1,278**
Oil and gas properties	**-**	**203**	**(210)**	**4,600**
Buildings	**(84)**	**-**	**4**	**930**
Plant and equipment	**-**	**-**	**(7)**	**4,138**
Office equipment, furniture and fittings	**-**	**-**	**-**	**2**
Computer software and hardware	**-**	**-**	**-**	**19**
Motor vehicles	**-**	**-**	**(1)**	**132**
Vessels	**-**	**-**	**(141)**	**4,616**
	1	**74**	**(368)**	**25,050**
	832	[a,b,c] **(1,607)**	**(3,818)**	**690,519**

continued from previous page

a Includes revision to future cost of decommissioning of oil and gas properties amounting to RM2,507 million.
b Includes net transfers out of RM4,079 million comprising transfers to assets held for sale of RM1,671 million, inventories of RM93 million, other receivables of RM2,846 million and transfer in from intangible assets of RM531 million.
c Includes reclassification of certain asset from cost to accumulated depreciation of RM35 million.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

3. PROPERTY, PLANT AND EQUIPMENT (continued)

Group 2019 *In RM Mil*	At 31.12.2018, as previously reported	Effect of adoption of MFRS 16	At 1.1.2019 as restated	Charge for the year	Disposals/ write-offs
Accumulated depreciation and impairment losses:					
Own use					
Freehold land	-	-	-	-	-
Leasehold land	897	(897)	-	-	-
Lease properties	567	(567)	-	-	-
Oil and gas properties	216,878	-	216,878	22,856	(3,481)
Buildings	7,472	(6)	7,466	521	(49)
Plant and equipment	82,089	(1,409)	80,680	6,723	(827)
Office equipment, furniture and fittings	2,577	-	2,577	310	(87)
Computer software and hardware	3,277	-	3,277	394	(59)
Motor vehicles	341	(8)	333	34	(41)
Vessels	19,797	(18,520)	1,277	-	-
Projects-in-progress					
- oil and gas properties	2,532	-	2,532	-	-
- other projects	11	-	11	13	-
	336,438	(21,407)	315,031	30,851	(4,544)
Lease to others as operating lease					
Vessels	-	18,520	18,520	1,979	(370)
Right-of-use					
Leasehold land	-	1,340	1,340	170	(15)
Lease properties	-	567	567	43	-
Oil and gas properties	-	217	217	1,213	-
Buildings	-	102	102	74	-
Plant and equipment	-	1,518	1,518	444	(2)
Office equipment, furniture and fittings	-	-	-	1	-
Computer software and hardware	-	-	-	7	-
Motor vehicles	-	17	17	31	(1)
Vessels	-	-	-	696	(55)
	-	3,761	3,761	2,679	(73)
	336,438	874	337,312	35,509	(4,987)

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NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

3. PROPERTY, PLANT AND EQUIPMENT (continued)

Group 2019 *In RM Mil*	Acquisition/ (Disposal) of subsidiaries	Impairment loss/ (write-back)	Transfers/ reclass/ adjustments	Translation exchange difference	At 31.12.2019
Accumulated depreciation and impairment losses:					
Own use					
Freehold land	-	-	-	-	-
Leasehold land	-	-	-	-	-
Lease properties	-	-	-	-	-
Oil and gas properties	-	4,731	89	(1,588)	239,485
Buildings	13	131	179	(9)	8,252
Plant and equipment	68	3,792	121	(405)	90,152
Office equipment, furniture and fittings	19	-	(17)	(4)	2,798
Computer software and hardware	2	6	(18)	17	3,619
Motor vehicles	(2)	1	4	1	330
Vessels	-	-	-	-	1,277
Projects-in-progress					
- oil and gas properties	-	(2,332)	(50)	(20)	130
- other projects	-	1	-	(7)	18
	100	6,330	308	(2,015)	346,061
Lease to others as operating lease					
Vessels	-	148	(1,151)	(340)	18,786
Right-of-use					
Leasehold land	3	-	(3)	(1)	1,494
Lease properties	1	-	(69)	(2)	540
Oil and gas properties	-	-	125	10	1,565
Buildings	1	-	-	(2)	175
Plant and equipment	-	-	-	(3)	1,957
Office equipment, furniture and fittings	-	-	-	-	1
Computer software and hardware	-	-	-	-	7
Motor vehicles	-	-	-	(1)	46
Vessels	-	61	-	(19)	683
	5	61	53	(18)	6,468
	105	6,539	[a,b] (790)	(2,373)	371,315

continued from previous page

a Includes reclassification of certain asset from cost to accumulated depreciation of RM35 million.
b Includes net transfers out of RM755 million comprising transfers to assets held for sale of RM760 million and other receivables of RM9 million and transfer in from intangible assets of RM14 million.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

3. PROPERTY, PLANT AND EQUIPMENT (continued)

Group 2018 *In RM Mil*	At 1.1.2018	Additions	Disposals/ write-offs	Disposal of subsidiaries
At cost:				
Freehold land	2,548	15	(1)	-
Leasehold land	7,374	5	(48)	-
Lease properties	1,295	-	(30)	-
Oil and gas properties	317,700	5,434	(626)	-
Buildings	18,563	231	(64)	-
Plant and equipment	148,222	930	(1,829)	-
Office equipment, furniture and fittings	3,544	86	(66)	-
Computer software and hardware	4,148	100	(142)	(1)
Motor vehicles	507	25	(25)	-
Vessels	40,369	457	(1,432)	-
Projects-in-progress				
- oil and gas properties	26,923	10,551	-	-
- other projects	67,316	21,958	(14)	(33,319)
	638,509	39,792	(4,277)	(33,320)

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Accumulated depreciation and impairment losses:	At 1.1.2018	Charge for the year	Disposals/ write-offs	Disposal of subsidiaries
Freehold land	-	-	-	-
Leasehold land	780	112	(1)	-
Lease properties	486	10	(30)	-
Oil and gas properties	198,633	20,895	(356)	-
Buildings	7,033	526	(43)	-
Plant and equipment	76,808	6,541	(1,780)	-
Office equipment, furniture and fittings	2,408	264	(65)	-
Computer software and hardware	3,056	416	(137)	-
Motor vehicles	326	45	(20)	-
Vessels	18,613	1,981	(1,251)	-
Projects-in-progress				
- oil and gas properties	2,881	-	(12)	-
- other projects	27	-	(1)	-
	311,051	30,790	(3,696)	-

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NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

3. PROPERTY, PLANT AND EQUIPMENT (continued)

Group 2018 *In RM Mil*	Transfers/ reclass/ adjustments	Translation exchange difference	At 31.12.2018
At cost:			
Freehold land	64	(6)	2,620
Leasehold land	(22)	(2)	7,307
Lease properties	(13)	4	1,256
Oil and gas properties	15,382	1,050	338,940
Buildings	997	(185)	19,542
Plant and equipment	7,710	332	155,365
Office equipment, furniture and fittings	64	(13)	3,615
Computer software and hardware	133	(38)	4,200
Motor vehicles	11	(21)	497
Vessels	3,587	858	43,839
Projects-in-progress			
- oil and gas properties	(11,751)	71	25,794
- other projects	(11,176)	(917)	43,848
	[a,b,c] 4,986	1,133	646,823

continued from previous page

Accumulated depreciation and impairment losses:	Impairment loss/ (write-back)	Transfers/ reclass/ adjustments	Translation exchange difference	At 31.12.2018
Freehold land	-	-	-	-
Leasehold land	8	(2)	-	897
Lease properties	-	103	(2)	567
Oil and gas properties	(3,730)	297	1,139	216,878
Buildings	23	(4)	(63)	7,472
Plant and equipment	77	100	343	82,089
Office equipment, furniture and fittings	1	(10)	(21)	2,577
Computer software and hardware	1	(13)	(46)	3,277
Motor vehicles	-	1	(11)	341
Vessels	97	23	334	19,797
Projects-in-progress				
- oil and gas properties	(24)	(418)	105	2,532
- other projects	15	-	(30)	11
	(3,532)	[d] 77	1,748	336,438

continued from previous page

a Includes revision to future cost of decommissioning of oil and gas properties amounting to RM3,246 million.
b Includes net transfers in of RM1,740 million comprising transfers from investment properties of RM950 million, intangible assets of RM608 million, inventories of RM401 million, other receivables of RM150 million and transfer to prepaid lease payments of RM95 million and assets held for sale of RM34 million.
c Includes government grants received by certain subsidiaries of RM240 million.
d Includes net transfers in of RM77 million comprising transfers to assets held for sale of RM21 million, other receivables of RM9 million, prepaid lease payments of RM1 million and transfer from investment properties of RM108 million.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

3. PROPERTY, PLANT AND EQUIPMENT (continued)

Company 2019 *In RM Mil*	At 31.12.2018, as previously reported	Effect of adoption of MFRS 16	At 1.1.2019 as restated	Additions	Disposals/ write-offs
At cost:					
Own use					
Leasehold land	**295**	**(295)**	**-**	**-**	**-**
Lease properties	**74**	**(74)**	**-**	**-**	**-**
Oil and gas properties	**28,119**	**-**	**28,119**	**40**	**-**
Buildings	**207**	**-**	**207**	**1**	**-**
Plant and equipment	**1,840**	**(1,836)**	**4**	**-**	**-**
Office equipment, furniture and fittings	**95**	**-**	**95**	**-**	**(8)**
Computer software and hardware	**397**	**-**	**397**	**-**	**(22)**
Motor vehicles	**18**	**-**	**18**	**1**	**(4)**
Projects-in-progress					
- oil and gas properties	**174**	**-**	**174**	**106**	**-**
- other projects	**778**	**-**	**778**	**833**	**-**
	31,997	**(2,205)**	**29,792**	**981**	**(34)**
Right-of-use					
Leasehold land	**-**	**299**	**299**	**29**	**(4)**
Lease properties	**-**	**2,855**	**2,855**	**107**	**-**
Plant and equipment	**-**	**1,485**	**1,485**	**-**	**-**
Vessels	**-**	**4,974**	**4,974**	**-**	**(4,974)**
	-	**9,613**	**9,613**	**136**	**(4,978)**
	31,997	**7,408**	**39,405**	**1,117**	**(5,012)**

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NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

3. PROPERTY, PLANT AND EQUIPMENT (continued)

Company 2019 *In RM Mil*	Transfers/ reclass/ adjustments	At 31.12.2019
At cost:		
Own use		
Leasehold land	**-**	**-**
Lease properties	**-**	**-**
Oil and gas properties	**1,062**	**29,221**
Buildings	**69**	**277**
Plant and equipment	**-**	**4**
Office equipment, furniture and fittings	**-**	**87**
Computer software and hardware	**64**	**439**
Motor vehicles	**-**	**15**
Projects-in-progress		
- oil and gas properties	**(15)**	**265**
- other projects	**(520)**	**1,091**
	660	**31,399**
Right-of-use		
Leasehold land	**(2)**	**322**
Lease properties	**-**	**2,962**
Plant and equipment	**-**	**1,485**
Vessels	**-**	**-**
	(2)	**4,769**
	[a] **658**	**36,168**

continued from previous page

a Includes revision to future cost of decommissioning of oil and gas properties amounting to RM787 million and transfer to subsidiaries of RM129 million.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

3. PROPERTY, PLANT AND EQUIPMENT (continued)

Company 2019 *In RM Mil*	At 31.12.2018, as previously reported	Effect of adoption of MFRS 16	At 1.1.2019 as restated	Charge for the year
Accumulated depreciation and impairment losses:				
Own use				
Leasehold land	**26**	**(26)**	**-**	**-**
Lease properties	**72**	**(72)**	**-**	**-**
Oil and gas properties	**14,562**	**-**	**14,562**	**2,176**
Buildings	**41**	**-**	**41**	**5**
Plant and equipment	**514**	**(510)**	**4**	**-**
Office equipment, furniture and fittings	**89**	**-**	**89**	**1**
Computer software and hardware	**324**	**-**	**324**	**40**
Motor vehicles	**16**	**-**	**16**	**1**
Projects-in-progress				
- oil and gas properties	**-**	**-**	**-**	**-**
- other projects	**-**	**-**	**-**	**-**
	15,644	**(608)**	**15,036**	**2,223**
Right-of-use				
Leasehold land	**-**	**26**	**26**	**5**
Lease properties	**-**	**72**	**72**	**356**
Plant and equipment	**-**	**510**	**510**	**219**
Vessels	**-**	**-**	**-**	**853**
	-	**608**	**608**	**1,433**
	15,644	**-**	**15,644**	**3,656**

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NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

3. PROPERTY, PLANT AND EQUIPMENT (continued)

Company 2019 *In RM Mil*	Disposals/ write-offs	At 31.12.2019
Accumulated depreciation and impairment losses:		
Own use		
Leasehold land	**-**	**-**
Lease properties	**-**	**-**
Oil and gas properties	**-**	**16,738**
Buildings	**-**	**46**
Plant and equipment	**-**	**4**
Office equipment, furniture and fittings	**(8)**	**82**
Computer software and hardware	**(22)**	**342**
Motor vehicles	**(4)**	**13**
Projects-in-progress		
- oil and gas properties	**-**	**-**
- other projects	**-**	**-**
	(34)	**17,225**
Right-of-use		
Leasehold land	**(1)**	**30**
Lease properties	**-**	**428**
Plant and equipment	**-**	**729**
Vessels	**(853)**	**-**
	(854)	**1,187**
	(888)	**18,412**

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NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

3. PROPERTY, PLANT AND EQUIPMENT (continued)

Company 2018 *In RM Mil*	At 1.1.2018	Additions	Disposals/ write-offs
At cost:			
Leasehold land	217	107	(2)
Lease properties	74	-	-
Oil and gas properties	23,369	26	-
Buildings	206	1	-
Plant and equipment	1,840	-	-
Office equipment, furniture and fittings	91	4	-
Computer software and hardware	395	2	(1)
Motor vehicles	17	1	-
Projects-in-progress			
- oil and gas properties	12	141	-
- other projects	496	304	-
	26,717	586	(3)

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Accumulated depreciation and impairment losses:	At 1.1.2018	Charge for the year	Disposals/ write-offs
Leasehold land	21	6	(1)
Lease properties	70	2	-
Oil and gas properties	11,588	2,804	-
Buildings	37	4	-
Plant and equipment	433	81	-
Office equipment, furniture and fittings	88	1	-
Computer software and hardware	285	40	(1)
Motor vehicles	15	1	-
Projects-in-progress			
- oil and gas properties	-	-	-
- other projects	-	-	-
	12,537	2,939	(2)

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3. PROPERTY, PLANT AND EQUIPMENT (continued)

Company 2018 *In RM Mil*	Transfers/ reclass/ adjustments	At 31.12.2018
At cost:		
Leasehold land	(27)	295
Lease properties	-	74
Oil and gas properties	4,724	28,119
Buildings	-	207
Plant and equipment	-	1,840
Office equipment, furniture and fittings	-	95
Computer software and hardware	1	397
Motor vehicles	-	18
Projects-in-progress		
- oil and gas properties	21	174
- other projects	(22)	778
	[a] 4,697	31,997

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Accumulated depreciation and impairment losses:	Impairment write-back	Transfers/ reclass/ adjustments	At 31.12.2018
Leasehold land	-	-	26
Lease properties	-	-	72
Oil and gas properties	170	-	14,562
Buildings	-	-	41
Plant and equipment	-	-	514
Office equipment, furniture and fittings	-	-	89
Computer software and hardware	-	-	324
Motor vehicles	-	-	16
Projects-in-progress			
- oil and gas properties	-	-	-
- other projects	-	-	-
	170	-	15,644

continued from previous page

a Includes revision to future cost of decommissioning of oil and gas properties amounting to RM4,727 million. This was offset with reversal of accruals for leasehold land of RM27 million and oil and gas properties of RM3 million.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

3. PROPERTY, PLANT AND EQUIPMENT (continued)

In RM Mil	Group		Company	
Carrying amount	**2019**	**2018**	**2019**	**2018**
Own use				
Freehold land	**2,693**	2,620	**-**	-
Leasehold land	**-**	6,410	**-**	269
Lease properties	**-**	689	**-**	2
Oil and gas properties	**112,189**	122,062	**12,483**	13,557
Buildings	**11,923**	12,070	**231**	166
Plant and equipment	**67,945**	73,276	**-**	1,326
Office equipment, furniture and fittings	**1,171**	1,038	**5**	6
Computer software and hardware	**936**	923	**97**	73
Motor vehicles	**144**	156	**2**	2
Vessels	**10,314**	24,042	**-**	-
Projects-in-progress				
- oil and gas properties	**28,353**	23,262	**265**	174
- other projects	**52,429**	43,837	**1,091**	778
	288,097	310,385	**14,174**	16,353
Leased to others as operating lease				
Buildings	**25**	-	**-**	-
Vessels	**12,482**	-	**-**	-
Plant and equipment	**18**	-	**-**	-
	12,525	-	**-**	-
Right-of-use				
Leasehold land	**7,841**	-	**292**	-
Lease properties	**738**	-	**2,534**	-
Oil and gas properties	**3,035**	-	**-**	-
Buildings	**755**	-	**-**	-
Plant and equipment	**2,181**	-	**756**	-
Office equipment, furniture and fittings	**1**	-	**-**	-
Computer software and hardware	**12**	-	**-**	-
Motor vehicles	**86**	-	**-**	-
Vessels	**3,933**	-	**-**	-
	18,582	-	**3,582**	-
	319,204	310,385	**17,756**	16,353

3. PROPERTY, PLANT AND EQUIPMENT (continued)

3.1 As a lessee

Right-of-use assets

Depreciation of right-of-use assets

In RM Mil	Group 2019	Company 2019
Capitalised in property, plant and equipment	**202**	**-**
Total depreciation capitalised into other assets	**202**	**-**
Recognised in profit or loss	**2,477**	**1,433**
Total depreciation	**2,679**	**1,433**

Extension options

Some lease contracts contain extension options exercisable only by the Group and the Company before the end of the non-cancellable contract period. Where practicable, the Group and the Company include extension options in leases contracts to provide operational flexibility. The discounted potential future lease payments arising from exercisable extension options not included in the lease liabilities as the extension terms are uncertain due to the Group and the Company are currently finalising the extension terms as at reporting date.

Significant judgements and assumptions in relation to leases

The Group and the Company assess at lease commencement by applying significant judgement whether it is reasonably certain to exercise the extension options. The Group and the Company consider all facts and circumstances including their past practice and any cost that will be incurred to change the asset if an option to extend is not taken, to help them determine the lease term.

The Group and the Company also applied judgement and assumptions in determining the incremental borrowing rate of the respective leases. The Group and the Company first determine the closest available borrowing rates before using significant judgement to determine the adjustments required to reflect the term, security, value or economic environment of the respective leases.

3. PROPERTY, PLANT AND EQUIPMENT (continued)

3.2 As a lessor

Property, plant and equipment leased to others as operating lease

The Group leases out a number of vessels under operating leases. The leases typically run for a period range of 2 to 19 years.

The following are recognised in profit or loss:

In RM Mil	2019	Group 2018
Lease income	**3,074**	2,280

The operating lease payments to be received are as follows:

In RM Mil	2019	Group 2018
Less than one year	**1,756**	1,462
One to five years	**3,734**	3,943
More than five years	**4,387**	5,008
Total undiscounted lease payments	**9,877**	10,413

Security

Property, plant and equipment of certain subsidiaries costing RM7,577 million (2018: RM7,885 million) have been pledged as security for loan facilities as set out in note 22 and note 23 to the financial statements.

Projects-in-progress

Included in additions to projects-in-progress of the Group is borrowing costs capitalised during the year of RM1,514 million (2018: RM93 million) and capitalisation of depreciation charge for the year of right-of-use assets of RM202 million (2018: Nil). The interest rate on borrowings costs capitalised ranges from 4.3% - 7.0% (2018: 3.2% - 3.3%) per annum.

Restriction of land title

The titles to certain freehold and leasehold land are in the process of being registered in the subsidiaries' name. Certain long term leasehold land of the Group cannot be disposed of, charged or sub-leased without the prior consent of the relevant authority.

3. PROPERTY, PLANT AND EQUIPMENT (continued)

Change in estimates

During the year, the Group and the Company revised the estimated future cost of decommissioning of oil and gas properties. The revision was accounted for prospectively as a change in accounting estimates resulting in an increase in cost of oil and gas properties of the Group and of the Company by RM2,507 million (2018: RM3,246 million) and RM787 million (2018: RM4,727 million) respectively (refer note 24).

Estimation of oil and gas reserves

Oil and gas reserves are key elements in the Group's and the Company's investment decision-making process. Estimation of oil and gas reserves are normally conducted using industry recognised method.

The term "reserves" describes the recoverable quantity of oil and gas volumes that are commercially viable for development given the prevailing economic situation present at the time of estimation.

Reserves estimates are normally presented alongside the range of level of certainties namely P1 (high level of certainty for proved reserves), P2 (mean level of certainty for probable reserves) and P3 (low level of certainty for possible reserves). The level of certainties depends on the availability and understanding of the geological and reservoir data available at the time of estimation and is normally represented in the form of a probability distribution.

The reserves are further subdivided into developed and undeveloped categories. Developed reserves are reserves expected to be recovered through existing wells and facilities under the operating conditions that have been designed for. Undeveloped reserves are reserves to be recovered from approved and sanctioned projects and remain so until the wells are drilled, completed and production commences which would by then be classified as developed.

Estimations of reserves are reviewed annually. These estimates are inherently imprecise, require the application of judgements and are subject to regular revision, either upward or downward, based on new information available such as new geological information gathered from the drilling of additional wells, observation of long-term reservoir performance under producing conditions and changes in economic factors, including product prices, contract terms or development plans.

Such revisions will impact the Group's and the Company's reported financial position and results which include:

(i) carrying value of oil and gas properties and their corresponding amortisation charges;
(ii) carrying value of projects-in-progress;
(iii) provisions for decommissioning and restoration; and
(iv) carrying value of deferred tax assets/liabilities.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

3. PROPERTY, PLANT AND EQUIPMENT (continued)

Impairment review of property, plant and equipment

As at 31 December 2019, the Group recognised impairment losses on certain property, plant and equipment amounting to RM6,539 million (2018: impairment write-back of RM3,532 million). The impairment losses are primarily as a result of lower oil and gas price outlook.

As at 31 December 2019, the Company recognised net impairment losses on certain property, plant and equipment amounting to RM Nil (2018: RM170 million) in cost of revenue.

In arriving at the impairment loss amounts, the carrying amount of each impaired cash-generating unit is compared with the recoverable amount of the cash-generating unit. The impairment write-back is limited only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

The Group's and the Company's recoverable amount for the relevant impaired and previously impaired cash-generating units of RM41,193 million (2018: RM32,185 million) and RM Nil (2018: RM Nil) respectively were determined from the value in use calculations using cash flow projections and fair value less cost to sell.

The Group and the Company use a range of long term assumptions including prices, volumes, margins and costs based on past performance and management's expectations of market development. The projected cash flows were discounted using discount rates ranging between 7.5% and 17.4% (2018: 7.5% and 14.0%).

4. INVESTMENT PROPERTIES

Group 2019 *In RM Mil*	At 1.1.2019	Additions
At cost:		
Freehold land	**1,440**	**30**
Buildings	**13,599**	**42**
Projects-in-progress	**211**	**232**
	15,250	**304**

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Accumulated depreciation:	At 1.1.2019	Charge for the year
Buildings	**6,286**	**593**

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2018 *In RM Mil*	At 1.1.2018	Additions
At cost:		
Freehold land	1,508	-
Buildings	14,481	28
Projects-in-progress	63	161
	16,052	189

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NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

4. INVESTMENT PROPERTIES (continued)

Accumulated depreciation:	At 1.1.2018	Charge for the year
Buildings	5,865	534

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Group 2019 *In RM Mil*	Transfers/ reclass	Translation exchange difference	At 31.12.2019
At cost:			
Freehold land	**-**	**-**	**1,470**
Buildings	**-**	**1**	**13,642**
Projects-in-progress	**-**	**-**	**443**
	-	**1**	**15,555**

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Accumulated depreciation:	Transfers/ reclass	Translation exchange difference	At 31.12.2019
Buildings	**-**	**(38)**	**6,841**

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2018 *In RM Mil*	Transfers/ reclass	Translation exchange difference	At 31.12.2018
At cost:			
Freehold land	(68)	-	1,440
Buildings	(911)	1	13,599
Projects-in-progress	(13)	-	211
	[a](992)	1	15,250

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Accumulated depreciation:	Transfers/ reclass	Translation exchange difference	At 31.12.2018
Buildings	[b](121)	8	6,286

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a Includes net transfer out of RM992 million comprising transfers to property, plant and equipment of RM950 million and other receivables of RM42 million.
b Includes transfer out to other receivables of RM13 million and property, plant and equipment of RM108 million.

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4. INVESTMENT PROPERTIES (continued)

Group *In RM Mil*	2019	Carrying amount 2018
Freehold land	**1,470**	1,440
Buildings	**6,801**	7,313
Projects-in-progress	**443**	211
	8,714	8,964

Fair value information

The Directors have estimated the fair value of investment properties as at 31 December 2019 to be RM19,671 million (2018: RM 19,979 million).

The fair value of investment properties are categorised as follows:

Group *In RM Mil*	2019	Level 3 2018
Freehold land	**1,850**	1,773
Buildings	**17,821**	18,206
	19,671	19,979

The Group uses various valuation techniques in determining the fair value of its investment properties. Such techniques include discounted cash flows method, investment method and market comparable method.

Leases as lessor

The Group via its subsidiary has entered into non-cancellable operating lease agreements for Government Office Buildings ("GOB") in accordance with the Concession Agreement ("CA") with the Government of Malaysia. Under the CA, the Group will construct various parcels of GOB on land belonging to the Government. Upon completion of each parcel, the Government will execute a 25-year lease agreement over the land of the said parcel to the Group. Simultaneously, the Group will sub-lease over the same land and buildings to the Government for the same period in return for lease rentals based on predetermined rates per square foot per month. None of these leases include contingent rentals.

These leases have remaining period of non-cancellable lease terms between 7 and 24 years.

The future minimum lease receivable under non-cancellable operating leases contracted for as at the reporting date but not recognised as receivables are as follows:

In RM Mil	2019	Group 2018
Less than one year	**1,870**	1,733
Between one and five years	**6,250**	7,433
More than five years	**8,157**	7,715
	16,277	16,881

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5. LAND HELD FOR DEVELOPMENT

Included in land held for development is freehold land amounting to RM2,776 million (2018: RM2,787 million).

6. PREPAID LEASE PAYMENTS

Group 2018 *In RM Mil*	At 1.1.2018	Additions	Disposals
Leasehold land	470	-	(22)
Prepaid rental	783	-	(80)
	1,253	-	(102)

continue below

Group 2018 *In RM Mil*	Charge for the year	Transfers	Translation exchange difference	At 31.12.2018
Leasehold land	(15)	22	(1)	454
Prepaid rental	(46)	72	(10)	719
	(61)	[a]94	(11)	1,173

As at 1 January 2019, the prepaid lease payments balances of RM1,173 million is reclassified as right-of-use assets based on the respective underlying assets following the adoption of MFRS 16.

Restrictions of land title

The title to certain leasehold land is in the process of being registered in the subsidiary's name. Certain long term leasehold land of the Group cannot be disposed of, charged or sub-leased without the prior consent of the relevant authority.

7. INVESTMENTS IN SUBSIDIARIES

In RM Mil	2019	Company 2018
Investments at cost		
- quoted shares	**16,410**	17,064
- unquoted shares	**132,569**	128,711
Fair value adjustments on loans and advances and financial guarantee	**9,083**	8,976
	158,062	154,751
Less: Impairment losses		
- unquoted shares	**(4,833)**	(1,944)
	153,229	152,807
Market value of quoted shares	**93,800**	110,979

Details of key subsidiaries are stated in note 43 to the financial statements.

a Includes transfer in from property, plant and equipment of RM94 million.

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8. INVESTMENTS IN ASSOCIATES

In RM Mil	Group 2019	Group 2018	Company 2019	Company 2018
Investments at cost				
- quoted shares	**263**	263	**302**	302
- unquoted shares	**6,440**	7,772	**-**	-
Share of post-acquisition profits and reserves	**2,261**	1,182	**-**	-
	8,964	9,217	**302**	302
Less: Impairment losses				
- unquoted shares	**(2,218)**	(2,220)	**-**	-
	6,746	6,997	**302**	302
Market value of quoted shares	**1,110**	1,128	**584**	590
Share of associates' contingent liabilities:				
Guarantees extended to third parties	**-**	(15)	**-**	-

The Group's share of the current year profit and cumulative loss of certain associates amounting to RM201 million (2018: RM26 million) and RM100 million (2018: RM301 million) respectively has not been recognised in the Group's profit or loss as equity accounting has ceased when the Group's share of losses of these associates exceeded the carrying amount of its investment in these associates since the Group has no obligation in respect of these losses.

Summarised financial information has not been included as the associates are not individually material to the Group.

Details of key associates are stated in note 44 to the financial statements.

9. INVESTMENTS IN JOINT VENTURES

In RM Mil	Group 2019	Group 2018	Company 2019	Company 2018
Investments at cost				
- unquoted shares	**6,737**	6,033	**624**	624
Fair value adjustments on financial guarantee	**377**	377	**377**	377
Share of post-acquisition profits and reserves	**2,131**	2,230	**-**	-
	9,245	8,640	**1,001**	1,001
Less: Impairment losses	**(89)**	(89)	**(9)**	(9)
	9,156	8,551	**992**	992
Share of joint ventures' contingent liabilities:				
Claims filed by/disputes with various parties	**(13)**	(96)	**(13)**	(13)

The Group's share of the current year and cumulative losses of certain joint ventures amounting to RM57 million (2018: RM109 million) and RM511 million (2018: RM454 million) respectively has not been recognised in the Group's profit or loss as equity accounting has ceased when the Group's share of losses of these joint ventures exceeded the carrying amount of its investment in these joint ventures since the Group has no obligation in respect of these losses. The investments in these joint ventures have been fully impaired in the respective companies' financial statements.

The shares of a joint venture are pledged as a security for a borrowing taken by joint arrangements.

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9. INVESTMENTS IN JOINT VENTURES (continued)

Included in 2018 is claims filed by an energy company against a joint venture. Both parties have agreed to amicably resolve all outstanding disputes by entering into a Global Settlement Agreement in February 2020 and mutually withdrawing from the arbitration proceedings.

Summarised financial information has not been included as the joint ventures are not individually material to the Group.

Details of key joint ventures are stated in note 45 to the financial statements.

10. INTANGIBLE ASSETS

Group 2019 *In RM Mil*	At 1.1.2019	Additions	Disposals/ write-offs
At cost:			
Goodwill	**5,691**	**-**	**-**
Exploration expenditure	**24,426**	**1,985**	**(996)**
Other intangible assets	**31,017**	**5,048**	**(14)**
	61,134	**7,033**	**(1,010)**

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Accumulated amortisation and impairment losses:	At 1.1.2019	Charge for the year	Disposals/ write-offs
Goodwill	**561**	**-**	**-**
Exploration expenditure	**11,828**	**-**	**-**
Other intangible assets	**26,232**	**2,778**	**(8)**
	38,621	**2,778**	**(8)**

continue to next page

2018 *In RM Mil*	At 1.1.2018	Additions	Disposals/ write-offs
At cost:			
Goodwill	5,690	-	-
Exploration expenditure	25,355	1,206	(799)
Other intangible assets	26,378	3,994	-
	57,423	5,200	(799)

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Accumulated amortisation and impairment losses:	At 1.1.2018	Charge for the year	Disposals/ write-offs
Goodwill	576	-	-
Exploration expenditure	11,949	-	-
Other intangible assets	22,819	2,942	-
	35,344	2,942	-

continue to next page

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

10. INTANGIBLE ASSETS (continued)

Group 2019 In RM Mil	Acquisition of subsidiaries	Transfers	Translation exchange difference	At 31.12.2019
At cost:				
Goodwill	**1,129**	**36**	**(23)**	**6,833**
Exploration expenditure	**-**	**(540)**	**126**	**25,001**
Other intangible assets	**294**	**26**	**(381)**	**35,990**
	1,423	**[a,b](478)**	**(278)**	**67,824**

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Accumulated amortisation and impairment losses:	Impairment loss	Acquisition of subsidiaries	Transfers	Translation exchange difference	At 31.12.2019
Goodwill	**-**	**-**	**-**	**(9)**	**552**
Exploration expenditure	**328**	**-**	**-**	**(27)**	**12,129**
Other intangible assets	**154**	**12**	**21**	**(306)**	**28,883**
	482	**12**	**[b,c] 21**	**(342)**	**41,564**

continued from previous page

2018 In RM Mil	Transfers	Translation exchange difference	At 31.12.2018
At cost:			
Goodwill	-	1	5,691
Exploration expenditure	(625)	(711)	24,426
Other intangible assets	92	553	31,017
	[d](533)	(157)	61,134

continued from previous page

Accumulated amortisation and impairment losses:	Impairment loss	Transfers	Translation exchange difference	At 31.12.2018
Goodwill	-	-	(15)	561
Exploration expenditure	66	-	(187)	11,828
Other intangible assets	20	-	451	26,232
	86	-	249	38,621

continued from previous page

[a] Includes net transfer out to property, plant and equipment of RM531 million and transfer in from assets held for sale of RM18 million.
[b] Includes reclassification of certain assets from cost to accumulated depreciation of RM35 million.
[c] Includes transfer out to property, plant and equipment of RM14 million.
[d] Includes net transfer out to property, plant and equipment of RM608 million and transfer in from assets held for sale of RM75 million.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

10. INTANGIBLE ASSETS (continued)

Group In RM Mil	Carrying amount 2019	2018
Goodwill	**6,281**	5,130
Exploration expenditure	**12,872**	12,598
Other intangible assets	**7,107**	4,785
	26,260	22,513

Impairment review of goodwill

For the purpose of impairment testing, goodwill is allocated to groups of cash-generating units which represent the lowest level within the Group and at which the goodwill is monitored for internal management purposes.

In assessing whether goodwill has been impaired, the carrying amount of the cash-generating unit (including goodwill) is compared with the recoverable amount of the cash-generating unit. The recoverable amount is the higher of fair value less costs to sell and value in use. In the absence of any information about the fair value of a cash-generating unit, the value in use is deemed to be the recoverable amount.

Included in goodwill is an amount of RM3,987 million (2018: RM3,987 million) arising from the acquisition of PETRONAS Lubricants Italy S.p.A Group ("PLI Group"). The recoverable amount of PLI Group unit was based on its value in use and was determined with the assistance of an independent valuer. The value in use was determined by using the discounted cash flow method based on management's business plan cash flow projections for 5 financial years from 2020 to 2024, adjusted with an estimated terminal value. The cash flow assumes a long term growth rate of Nil (2018: Nil) and is discounted to present value using discount rate of between 5.9% and 7.2% (2018: 7.2% and 7.4%).

Based on the above, the recoverable amount of the unit was determined to be higher than its carrying amount and therefore, no impairment loss was recognised.

The above estimates are sensitive in the following areas:

(i) A decrease of 0.5 percentage point in long term growth rate used would have reduced the recoverable amount by approximately RM341 million.

(ii) An increase of 0.5 percentage point in discount rate used would have reduced the recoverable amount by approximately RM441 million.

The value in use of other remaining goodwill is derived from the respective cash-generating units' business plan cash flow projections, adjusted with an estimated terminal value. The cash flows assumes a long term average growth rate of the respective industries those units are engaged in and are discounted to present value using discount rate of 6.9% (2018: 7.6%).

Based on the above, the recoverable amount of other goodwill of certain units were determined to be higher than their carrying amount, thus no impairment loss was recognised during the year.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

10. INTANGIBLE ASSETS (continued)

Impairment review of exploration expenditure

As at 31 December 2019, the Group recognised net impairment losses on certain exploration expenditure in cost of revenue amounting to RM328 million (2018: RM66 million) related to an oil and gas exploration cash-generating unit and certain wells no longer capable of commercial development. The impairment on well costs will be subsequently written off in accordance with the policy set out in note 2.10.

11. LONG TERM RECEIVABLES

			Group		Company
In RM Mil	Note	2019	2018	2019	2018
Term loans and advances:					
Loans and advances due from subsidiaries	11.1	**-**	-	**93,649**	94,209
Loans and advances due from associates and joint ventures	11.2	**6,225**	2,905	**5,061**	1,558
		6,225	2,905	**98,710**	95,767
Contract assets	11.3	**8**	2,313	**-**	-
Net investment in lease	11.4	**9,331**	10,272	**-**	-
Other receivables and prepayments	11.5	**5,869**	2,402	**23,284**	20,365
Derivative assets	13	**12**	44	**-**	-
		21,445	17,936	**121,994**	116,132
Less: Allowance for impairment losses					
- Term loans and advances		**(919)**	(873)	**(163)**	(173)
- Other receivables and prepayments		**(143)**	(268)	**-**	-
		20,383	16,795	**121,831**	115,959

11.1 Included in the Company's loans and advances due from subsidiaries is an amount of RM92,320 million (2018: RM92,099 million), which bears interest at rates ranging from 2.00% to 5.40% (2018: 2.00% to 5.40%) per annum.

11.2 Included in the Group's and the Company's loans and advances due from associates and joint ventures is an amount of RM6,225 million (2018: RM2,905 million) and RM5,061 million (2018: RM1,558 million), which bears interest at rates ranging from 3.91% to 10.00% (2018: 4.50% to 10.00%) and 3.91% (2018: 4.81%) per annum respectively.

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11. LONG TERM RECEIVABLES (continued)

11.3 Contract assets represent revenue attributable to a concession arrangement entered into by a subsidiary of the Group with the Government of Malaysia to construct government buildings on a Build-Lease-Maintain-Transfer basis. The concession period is 28 years and 6 months commencing from the construction date.

The Group recognises the incremental costs of obtaining contracts as an expense when incurred if the amortisation period of the assets is more than one year.

11.4 Net investment in lease

Net investment in lease represent lease rental and interest receivable due from customers in relation to the lease of offshore floating assets and office buildings, both entered by subsidiaries of the Group.

In RM Mil	Group 2019
At 1 January	**10,272**
Addition	**150**
Interest income	**7**
Lease payments received	**(1,341)**
Others	**243**
At 31 December	**9,331**

		Group
In RM Mil	2019	2018
Minimum lease receivables:		
Not later than 1 year	**1,754**	1,687
Later than 1 year and not later than 2 years	**1,658**	1,665
Later than 2 years and not later than 5 years	**4,309**	3,892
Later than 5 years	**6,366**	8,471
	14,087	15,715
Less: Future finance income	**(3,669)**	(4,383)
Less: Allowance for impairment losses	**(10)**	(70)
Present value of finance lease assets	**10,408**	11,262
Present value of finance lease assets:		
Not later than 1 year	**1,077**	990
Later than 1 year and not later than 2 years	**1,115**	1,053
Later than 2 years and not later than 5 years	**3,061**	2,421
Later than 5 years	**5,165**	6,868
	10,418	11,332
Less: Allowance for impairment losses	**(10)**	(70)
	10,408	11,262
Analysed as:		
Due within 12 months (note 16)	**1,077**	990
Due after 12 months	**9,331**	10,272
	10,408	11,262

NOTES TO THE FINANCIAL STATEMENTS
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11. LONG TERM RECEIVABLES (continued)

11.4 Net investment in lease (continued)

The following table sets out a maturity analysis of lease receivables, showing undiscounted lease payments to be received after the reporting date.

In RM Mil	Group 2019
Less than one year	**1,842**
One to two years	**1,658**
Two to three years	**1,456**
Three to four years	**1,462**
Four to five years	**2,063**
More than five years	**7,042**
Total undiscounted lease payments	**15,523**
Unearned interest income	**(3,672)**
Net investment in lease	**11,851**

The effective interest rate of the Group's lease receivables is between 4.10% to 7.60% (2018: 4.10% to 7.60%). Included in minimum lease receivables are the estimated unguaranteed residual values of the leased assets of RM17 million (2018: RM89 million).

11.5 Included in the Company's other receivables and prepayments is abandonment cess contribution to Abandonment Cess Fund ("ACF"), which is reimbursable to the Company upon execution of the abandonment of the oil and gas properties in accordance with the terms of the production sharing contracts ("PSCs") as described in note 39. The amount of cess payable to the PSC Contractors is disclosed in note 24.

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12. FUND AND OTHER INVESTMENTS

	Group		Company	
In RM Mil	**2019**	**2018**	**2019**	**2018**
Non-current				
Fair value through profit or loss				
Unquoted shares	**65**	74	**-**	-
Quoted securities	**48**	48	**-**	-
Other unquoted securities	**57**	14	**-**	-
	170	136	**-**	-
Fair value through other comprehensive income				
Quoted shares	**418**	-	**-**	-
Unquoted shares	**178**	164	**73**	73
	596	164	**73**	73
Amortised cost				
Long term deposits	**1,163**	2,000	**977**	1,000
Total non-current investments	**1,929**	2,300	**1,050**	1,073

	Group		Company	
In RM Mil	**2019**	**2018**	**2019**	**2018**
Current				
Fair value through profit or loss				
Quoted securities	**135**	123	**-**	-
Quoted shares	**739**	743	**7**	7
Corporate Bonds and Sukuk	**7,198**	4,209	**3,467**	1,645
Malaysian Government Securities	**610**	44	**518**	38
	8,682	5,119	**3,992**	1,690
Fair value through other comprehensive income				
Quoted shares	**28**	28	**-**	-
Total current investments	**8,710**	5,147	**3,992**	1,690
Total fund and other investments	**10,639**	7,447	**5,042**	2,763
Representing items:				
At amortised cost	**1,163**	2,000	**1,050**	1,073
At fair value	**9,476**	5,447	**3,992**	1,690
	10,639	7,447	**5,042**	2,763

Included in fund and other investments of the Group is an amount of RM2,122 million (2018: RM2,395 million) which are held for the purpose of future decommissioning activities of oil and gas properties.

Included in Corporate Bonds and Sukuk of the Company are securities issued by subsidiaries and a joint venture amounting to RM355 million (2018: RM625 million).

NOTES TO THE FINANCIAL STATEMENTS
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13. DERIVATIVE ASSETS/(LIABILITIES)

		Group		Company	
In RM Mil	Note	2019	2018	2019	2018
Derivative assets					
Non-current					
Interest rate swap		**12**	44	**-**	-
Current					
Commodity swaps		**2**	2	**-**	-
Forward gas contracts		**585**	306	**-**	-
Forward foreign exchange contracts		**58**	28	**10**	4
Forward oil/gas price swaps		**142**	24	**-**	-
		787	360	**10**	4
Included within:					
Long term receivables	11	**12**	44	**-**	-
Trade and other receivables	16	**787**	360	**10**	4
		799	404	**10**	4
Derivative liabilities					
Non-current					
Forward foreign exchange contracts		**(186)**	(90)	**-**	-
Current					
Commodity swaps		**(27)**	(19)	**-**	-
Forward oil/gas price swaps		**(14)**	(8)	**-**	-
Forward foreign exchange contracts		**(55)**	(49)	**(18)**	(20)
Forward gas contracts		**(359)**	(286)	**-**	-
		(455)	(362)	**(18)**	(20)
Included within:					
Other long term liabilities and provisions	24	**(186)**	(90)	**-**	-
Trade and other payables	25	**(455)**	(362)	**(18)**	(20)
		(641)	(452)	**(18)**	(20)

In the normal course of business, the Group and the Company enter into derivative financial instruments to manage their normal business exposures in relation to commodity prices, foreign currency exchange rates and interest rates, including management of the balance between floating rate and fixed rate debt, consistent with risk management policies and objectives.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

13. DERIVATIVE ASSETS/(LIABILITIES) (continued)

Certain subsidiaries of the Group adopt hedge accounting whereby hedges meeting the criteria for hedge accounting are classified as cash flow hedges. The effective portion of the gain or loss on the hedging instruments is recognised directly in equity until the hedged transaction occurs, while the ineffective portion is recognised in the profit or loss. As at 31 December 2019, the balance recognised under capital reserves in equity amounts to RM73 million (2018: RM15 million). As these amounts are not significant to the Group, no further disclosure of hedge accounting is presented in the Group's financial statements.

14. DEFERRED TAX

Recognised deferred tax assets/(liabilities)

Deferred tax assets and liabilities are attributable to the following:

	Assets		Liabilities		Net	
In RM Mil	2019	2018	2019	2018	2019	2018
Group						
Property, plant and equipment	**1,577**	660	**(12,963)**	(14,669)	**(11,386)**	(14,009)
Lease liabilities	**455**	-	**-**	-	**455**	-
Unused tax losses	**7,532**	7,736	**-**	-	**7,532**	7,736
Unabsorbed capital allowances	**2,466**	2,459	**-**	-	**2,466**	2,459
Unused reinvestment allowances	**210**	218	**-**	-	**210**	218
Unused investment tax allowances	**4,044**	3,413	**-**	-	**4,044**	3,413
Provision for decommissioning of oil and gas properties	**4,543**	4,397	**-**	-	**4,543**	4,397
Others	**546**	648	**(435)**	(603)	**111**	45
Tax assets/(liabilities)	**21,373**	19,531	**(13,398)**	(15,272)	**7,975**	4,259
Set off tax	**(800)**	(5,286)	**800**	5,286	**-**	-
Net tax assets/(liabilities)	**20,573**	14,245	**(12,598)**	(9,986)	**7,975**	4,259
Company						
Property, plant and equipment	**224**	-	**(1,000)**	(1,041)	**(776)**	(1,041)
Unused tax losses	**6,303**	6,005	**-**	-	**6,303**	6,005
Unabsorbed capital allowances	**55**	79	**-**	-	**55**	79
Provision for decommissioning of oil and gas properties	**4,164**	4,019	**-**	-	**4,164**	4,019
Others	**181**	288	**-**	-	**181**	288
Tax assets/(liabilities)	**10,927**	10,391	**(1,000)**	(1,041)	**9,927**	9,350
Set off tax	**(1,000)**	(1,041)	**1,000**	1,041	**-**	-
Net tax assets/(liabilities)	**9,927**	9,350	**-**	-	**9,927**	9,350

NOTES TO THE FINANCIAL STATEMENTS
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14. DEFERRED TAX (continued)

Unrecognised deferred tax assets

Deferred tax assets have not been recognised in respect of the following items (stated at gross):

In RM Mil	Group 2019	Group 2018	Company 2019	Company 2018
Deductible temporary differences	**431**	3,994	**-**	-
Unabsorbed capital allowances	**1,013**	604	**-**	-
Unused tax losses	**36,119**	35,186	**781**	-
Unused investment tax allowances	**267**	53	**-**	-
	37,830	39,837	**781**	-

In accordance with the provision of Malaysian Finance Act 2018 requirement, the unused tax losses are available for utilisation in the next seven years, for which, any excess at the end of the seventh year will be disregarded. Deferred tax assets have not been recognised in respect of these items because it is not probable that future taxable profit will be available against which the subsidiaries can utilise the benefits.

Unabsorbed capital allowances and unused investment tax allowances do not expire under current tax legislation.

The Group and the Company have unused tax losses carried forward of approximately RM67,502 million (2018: RM67,420 million) and RM27,044 million (2018: RM25,020 million) respectively, which give rise to the recognised and unrecognised deferred tax assets as above.

The Group also has unabsorbed capital allowances, unused investment tax allowances and unused reinvestment allowances of approximately RM11,288 million (2018: RM10,850 million), RM17,117 million (2018: RM14,274 million) and RM875 million (2018: RM908 million) respectively, which give rise to the recognised and unrecognised deferred tax assets as above.

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14. DEFERRED TAX (continued)

Unrecognised deferred tax assets (continued)

The components and movements of deferred tax liabilities and assets during the year prior to offsetting are as follows:

Group 2019 In RM Mil	At 31.12.2018, as previously reported	Effect of adoption of MFRS 16	At 1.1.2019 as restated	Charged/ (credited) to profit or loss	Equity	Translation exchange difference	At 31.12.2019
Deferred tax liabilities							
Property, plant and equipment	**14,669**	**104**	**14,773**	**(2,139)**	**386**	**(57)**	**12,963**
Others	**603**	**-**	**603**	**(18)**	**(163)**	**13**	**435**
	15,272	**104**	**15,376**	**(2,157)**	**223**	**(44)**	**13,398**
Deferred tax assets							
Property, plant and equipment	**(660)**	**-**	**(660)**	**(902)**	**(19)**	**4**	**(1,577)**
Lease liabilities	**-**	**(114)**	**(114)**	**(345)**	**-**	**4**	**(455)**
Unused tax losses	**(7,736)**	**-**	**(7,736)**	**202**	**-**	**2**	**(7,532)**
Unabsorbed capital allowances	**(2,459)**	**-**	**(2,459)**	**362**	**(373)**	**4**	**(2,466)**
Unused reinvestment allowances	**(218)**	**-**	**(218)**	**8**	**-**	**-**	**(210)**
Unused investment tax allowances	**(3,413)**	**-**	**(3,413)**	**(678)**	**47**	**-**	**(4,044)**
Provision for decommissioning of oil and gas properties	**(4,397)**	**-**	**(4,397)**	**(145)**	**-**	**(1)**	**(4,543)**
Others	**(648)**	**-**	**(648)**	**71**	**18**	**13**	**(546)**
	(19,531)	**(114)**	**(19,645)**	**(1,427)**	**(327)**	**26**	**(21,373)**

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14. DEFERRED TAX (continued)

Group 2018 *In RM Mil*	At 1.1.2018	Charged/ (credited) to profit or loss	Disposal of subsidiaries	Equity	Translation exchange difference	At 31.12.2018
Deferred tax liabilities						
Property, plant and equipment	14,101	431	-	190	(53)	14,669
Others	536	50	-	-	17	603
	14,637	481	-	190	(36)	15,272
Deferred tax assets						
Property, plant and equipment	(1,212)	563	-	-	(11)	(660)
Unused tax losses	(8,010)	332	-	-	(58)	(7,736)
Unabsorbed capital allowances	(2,606)	170	-	-	(23)	(2,459)
Unused reinvestment allowances	(222)	4	-	-	-	(218)
Unused investment tax allowances	(3,166)	(247)	-	-	-	(3,413)
Provision for decommissioning of oil and gas properties	-	(4,397)	-	-	-	(4,397)
Others	(954)	213	42	-	51	(648)
	(16,170)	(3,362)	42	-	(41)	(19,531)

Company 2019 *In RM Mil*	At 1.1.2019	(Credited)/ charged to profit or loss	At 31.12.2019
Deferred tax assets			
Property, plant and equipment	**1,041**	**(265)**	**776**
Unused tax losses	**(6,005)**	**(298)**	**(6,303)**
Unabsorbed capital allowances	**(79)**	**24**	**(55)**
Provision for decommissioning of oil and gas properties	**(4,019)**	**(145)**	**(4,164)**
Others	**(288)**	**107**	**(181)**
	(9,350)	**(577)**	**(9,927)**

Company 2018 *In RM Mil*	At 1.1.2018	Charged/ (credited) to profit or loss	At 31.12.2018
Deferred tax assets			
Property, plant and equipment	617	424	1,041
Unused tax losses	(6,015)	10	(6,005)
Unabsorbed capital allowances	(62)	(17)	(79)
Provision for decommissioning of oil and gas properties	-	(4,019)	(4,019)
Others	(218)	(70)	(288)
	(5,678)	(3,672)	(9,350)

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15. TRADE AND OTHER INVENTORIES

In RM Mil	Group 2019	Group 2018	Company 2019	Company 2018
Crude oil and condensates	**2,723**	3,096	**22**	29
Petroleum products	**4,838**	4,527	**-**	15
Petrochemical products	**854**	689	**-**	-
LNG and natural gas	**1,541**	1,616	**150**	56
Stores, spares and others	**2,415**	2,577	**1**	-
Developed properties held for sale	**547**	425	**-**	-
Properties under development	**1,529**	1,573	**-**	-
	14,447	14,503	**173**	100

16. TRADE AND OTHER RECEIVABLES

In RM Mil	Group 2019	Group 2018	Company 2019	Company 2018
Trade receivables	**28,703**	30,409	**3,695**	5,095
Other receivables, deposits and prepayments	**12,059**	16,748	**1,872**	3,367
Amount due from:				
- subsidiaries	**-**	-	**14,195**	15,854
- associates and joint ventures	**2,542**	2,096	**17**	75
Contract assets	**457**	702	**-**	-
Tax recoverable	**428**	567	**-**	-
Net investment in lease (note 11)	**1,077**	990	**-**	-
Derivative assets (note 13)	**787**	360	**10**	4
	46,053	51,872	**19,789**	24,395
Less: Allowance for impairment losses				
- Trade receivables (note 40)	**(2,589)**	(3,376)	**(376)**	(763)
- Amount due from subsidiaries	**-**	-	**(167)**	(158)
- Other receivables, deposits and prepayments	**(2,179)**	(2,291)	**(15)**	(12)
	41,285	46,205	**19,231**	23,462

Amount due from subsidiaries, associates and joint ventures arose in the normal course of business.

Contract assets are mainly in relation to sale of property development whereby they represent the timing differences in revenue recognition and the milestone billings. The milestone billings are either governed by the relevant regulations or structured and/or negotiated with customers and stated in the contracts.

Tax recoverable is subject to the agreement with the relevant tax authorities.

NOTES TO THE FINANCIAL STATEMENTS
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17. ASSETS CLASSIFIED AS HELD FOR SALE

		Group
In RM Mil	**2019**	**2018**
Vessels	**125**	-
Land and buildings	**229**	-
Plant and equipment and other net assets	**44**	1,361
Investment in a joint venture and associates	**-**	495
Intangible assets	**-**	147
	398	2,003

The above amount represents carrying values of net assets owned by the Group with the intention of disposal in the immediate future.

Fair value information

In accordance with MFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*, assets classified as held for sale were written down to their fair value less costs to sell.

The fair value of assets classified as held for sale are categorised as level 3.

The assets classified as held for sale are stated at fair value, and are determined based on the following:

Vessels

The fair value of vessels has been determined based on market comparable approach including the sale price offered by potential buyer.

Land and buildings

The fair value of land and buildings has been generally derived using sales comparison approach. Sales price of comparable properties in close proximity are adjusted for differences in key attributes such as property size. The most significant input into this valuation approach is price per square foot of comparable properties.

Plant and equipment, intangible assets, oil and gas properties and other net assets

The fair value of plant and equipment, intangible assets, oil and gas properties and other assets are determined based on the contracted price agreed with potential purchaser.

NOTES TO THE FINANCIAL STATEMENTS
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18. CASH AND CASH EQUIVALENTS

		Group		Company
In RM Mil	**2019**	**2018**	**2019**	**2018**
Cash and bank balances	**12,721**	10,101	**3,359**	2,333
Deposits placed	**128,901**	163,475	**103,342**	139,571
	141,622	173,576	**106,701**	141,904
Less: Subsidiaries' cash with PETRONAS Integrated Financial Shared Service Centre	**-**	-	**(50,740)**	(50,082)
	141,622	173,576	**55,961**	91,822

The Company manages the cash and cash equivalents on behalf of certain subsidiaries through its Integrated Financial Shared Service Centre in order to allow for more efficient management of cash. The cash and cash equivalents reported in the Company's financial statements do not include the amounts managed on behalf of the subsidiaries.

Included in cash and bank balances of the Group and the Company are interest-bearing balances amounting to RM10,779 million (2018: RM8,299 million) and RM3,359 million (2018: RM2,333 million) respectively.

Included in deposits with banks of the Group is an amount of RM18,063 million (2018: RM14,909 million) which is held for the purpose of future decommissioning activities of oil and gas properties.

Included in deposits placed with banks of the Group is an amount of RM2 million (2018: RM472 million) being deposits held under designated accounts for redemption of Islamic Financing Facilities.

Included in cash and bank balances of the Group is the retention account of RM1,290 million (2018: RM147 million) which is restricted for use because it is pledged to the bank for the purpose of acquisition of vessels.

Included in deposits placed with banks of the Group is an amount of RM70 million (2018: RM44 million) which is restricted for certain payments under the requirements of the borrowing facilities agreement.

Included in cash and bank balances of the Group are amounts of RM15 million (2018: RM57 million) held pursuant to the requirement of the Housing Development (Control and Licensing) Regulations 2002 and are therefore restricted from use in other operations.

19. SHARE CAPITAL

		Company
In RM Mil	**2019**	**2018**
Issued and fully paid shares with no par value classified as equity instrument:		
100,000 ordinary shares of RM1,000 each	**100**	100

Ordinary shares

The holders of ordinary shares are entitled to receive dividends as declared from time to time, and are entitled to one vote per share at meetings of the Company. Ordinary share has no par value.

NOTES TO THE FINANCIAL STATEMENTS
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31 December 2019

20. RESERVES

The Company has sufficient retained profits to distribute the following dividends:

i) Dividends paid out of income derived from petroleum operations which are not chargeable to tax pursuant to the Petroleum (Income Tax) Act, 1967.

ii) Single tier dividends paid out of income derived from other operations other than petroleum which are exempt in the hands of shareholder pursuant to Paragraph 12B, Schedule 6 of the Income Tax Act, 1967.

iii) Exempt dividends paid out of income which are exempt pursuant to Section 12 of Income Tax (Amendment) Act, 1999, Paragraph 28, Schedule 6 and Schedule 7A of the Income Tax Act, 1967.

Capital reserves

Capital reserves represent primarily reserves created upon issuance of bonus shares and redemption of preference shares by subsidiaries and the Group's share of its associate companies' reserves.

Foreign currency translation reserve

The foreign currency translation reserve comprises all foreign currency differences arising from the translation of the financial statements of subsidiaries whose functional currencies are different from that of the Company's functional currency as well as foreign currency differences arising from the translation of monetary items that are considered to form part of a net investment in a foreign operation.

Fair value through other comprehensive income reserve

This reserve records the changes in fair value of equity securities designated at fair value through other comprehensive income. On disposal or impairment of equity securities, the cumulative changes in fair value are transferred to the retained profits.

General reserve

General reserve represents appropriation of retained profits for general purposes rather than for a specific item of future loss or expense. In effect, it is a reserve for unspecified possible events.

21. NON-CONTROLLING INTERESTS

This consists of the non-controlling interests' proportion of share capital and reserves of partly-owned subsidiaries.

22. BORROWINGS

	Group		Company	
In RM Mil	2019	2018	2019	2018
Non-current				
Secured				
Term loans	**9,749**	6,917	**-**	-
Islamic financing facilities	**1,750**	1,588	**-**	-
Lease liabilities	**12,603**	-	**4,417**	-
Total non-current secured borrowings	**24,102**	8,505	**4,417**	-
Unsecured				
Term loans	**4,812**	6,094	**-**	-
Notes and Bonds	**21,371**	21,598	**21,371**	21,598
Islamic financing facilities	**3,137**	8,814	**-**	5,175
Total non-current unsecured borrowings	**29,320**	36,506	**21,371**	26,773
Total non-current borrowings	**53,422**	45,011	**25,788**	26,773
Current				
Secured				
Term loans	**3,699**	411	**-**	-
Islamic financing facilities	**644**	708	**-**	-
Lease liabilities	**1,063**	-	**344**	-
Total current secured borrowings	**5,406**	1,119	**344**	-
Unsecured				
Term loans	**2,051**	6,936	**-**	-
Notes and Bonds	**-**	12,424	**-**	12,424
Islamic financing facilities	**5,654**	552	**5,121**	-
Revolving credits	**1,347**	2,075	**-**	-
Bankers' acceptances	**449**	-	**-**	-
Bank overdrafts	**409**	455	**-**	-
Total current unsecured borrowings	**9,910**	22,442	**5,121**	12,424
Total current borrowings	**15,316**	23,561	**5,465**	12,424
Total borrowings	**68,738**	68,572	**31,253**	39,197

NOTES TO THE FINANCIAL STATEMENTS

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22. BORROWINGS (continued)

Terms and debt repayment schedule

Group *In RM Mil*	Total	Under 1 year	1-2 years	2-5 years	Over 5 years
Secured					
Term loans	13,448	3,699	985	3,221	5,543
Islamic financing facilities	2,394	644	205	664	881
Lease liabilities	13,666	1,063	2,305	5,013	5,285
	29,508	5,406	3,495	8,898	11,709
Unsecured					
Term loans	6,863	2,051	2,136	2,482	194
Notes and Bonds	21,371	-	-	7,162	14,209
Islamic financing facilities	8,791	5,654	655	1,542	940
Revolving credits	1,347	1,347	-	-	-
Bankers' acceptances	449	449	-	-	-
Bank overdrafts	409	409	-	-	-
	39,230	9,910	2,791	11,186	15,343
	68,738	15,316	6,286	20,084	27,052
Company					
Secured					
Lease liabilities	4,761	344	593	1,832	1,992
Unsecured					
Notes and Bonds	21,371	-	-	7,162	14,209
Islamic financing facilities	5,121	5,121	-	-	-
	26,492	5,121	-	7,162	14,209
	31,253	5,465	593	8,994	16,201

Islamic financing facilities

Details of Islamic financing facilities are included in note 23.

22. BORROWINGS (continued)

Secured term loans

The secured term loans obtained by the subsidiaries primarily comprise:

In Mil	Securities	2019	2018
USD Term loans	Secured by way of a charge over certain vessels, property, plant and equipment, together with charter agreements and insurance of the relevant assets of certain subsidiaries, as well as ordinary shares and land lease rights of joint arrangement entities.	**US$2,364**	US$1,880
RM Term loans	Secured by way of a charge over certain property, plant and equipment and investment properties and insurance of the relevant property, plant and equipment of certain subsidiaries.	**RM477**	RM579

The secured term loans bear interest at rates ranging from 1.10% to 4.49% (2018: 1.10% to 4.80%) per annum and are fully repayable at their various due dates from 2020 to 2034.

Unsecured term loans

The unsecured term loans obtained by the subsidiaries primarily comprise:

In Mil	2019	2018
USD Term loans	**US$3,490**	US$4,006
EURO Term loans	**€436**	€437

These unsecured term loans bear interest at rates ranging from 0.39% to 6.50% (2018: 0.39% to 6.50%) per annum and are fully repayable at their various due dates from 2020 to 2028.

Unsecured Notes and Bonds

The unsecured Notes and Bonds comprise:

In Mil	2019	2018
USD Notes and Bonds:		
5 1/4% Guaranteed Notes due 2019^	**-**	US$3,000
7 7/8% Notes due 2022^	**US$1,000**	US$1,000
3 1/8% Guaranteed Notes due 2022^	**US$750**	US$750
3 1/2% Guaranteed Notes due 2025^	**US$1,500**	US$1,500
7 5/8% Bonds due 2026 #	**US$500**	US$500
4 1/2% Guaranteed Notes due 2045^	**US$1,500**	US$1,500

\# Obtained by the Company.
^ Obtained by the Company via a subsidiary.

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22. BORROWINGS (continued)

Unsecured revolving credits and bank overdrafts

The unsecured revolving credits and bank overdrafts are obtained by the subsidiaries and primarily bear interest at rates ranging from 1.00% to 7.60% (2018: 1.00% to 5.00%) per annum.

In connection with the long term borrowing facility agreements, the Group and the Company have agreed on the following significant covenants with the bondholders:

(i) not to allow any material indebtedness (the minimum aggregate amount exceeding US$30,000,000 or its equivalent in any other currency) for borrowed money of the Company to become due or capable of being declared due before its stated maturity, any guarantee of the Company for material indebtedness of any other person is not discharged at maturity or when validly called or the Company goes into default;

(ii) the Company (not including any of its subsidiaries) not to create, incur or have outstanding any mortgage, pledge, lien, charge, encumbrance or any other lien upon the whole or any part of its property or assets, present or future indebtedness of itself or any other person, unless the aggregate outstanding principal amount of all such secured indebtedness (other than indebtedness secured by the liens already in existence) plus attributable debt of the Company in respect of sales and leaseback transactions would not exceed 10% of the consolidated net tangible assets;

(iii) the Company (not including any of its subsidiaries) not to enter into any sale and leaseback transaction, unless the attributable debt in respect of such sale and leaseback transaction and all other sale and leaseback transaction plus the aggregate outstanding principal amount of indebtedness for borrowed money secured by security interests (other than permitted security interests) then outstanding which have not equally and rateably secured the total outstanding would not exceed 10% of the Company's consolidated net tangible assets provided that, within 12 months after such sale and leaseback transaction, it applies to the retirement of indebtedness for borrowed money the repayment obligations hereunder and which are not secured by any security interest, an amount to the greater of:

- the net proceeds of the sale or transfer of the property or other assets which are the subject of such sale and leaseback transaction as determined by the Company; or

- the fair market value of the property or other assets so leased as determined by the Company;

(iv) neither the Company nor PETRONAS Capital Limited ("PCL"), without consent of a majority bondholders may consolidate with, or merge into, or sell, transfer, lease or convey substantially all of its assets to any corporation unless any successor corporation expressly assumes the obligations of the Company or PCL, as the case may be under the Notes and Bonds.

23. ISLAMIC FINANCING FACILITIES

Secured Islamic financing facilities

The secured Islamic financing facilities obtained by the subsidiaries comprise:

In RM Mil	2019	2018
Al Bai'bithaman Ajil Facilities	**300**	300
Bai' Al-Dayn Note Issuance Facilities	**206**	206
Murabahah Medium Term Notes	**1,510**	1,510

The secured Islamic financing facilities bear a yield payable ranging from 4.15% to 7.25% (2018: 4.00% to 7.25%) per annum and are fully repayable at their various due dates from 2020 to 2026.

The Islamic financing facilities are secured by way of a charge over certain property, plant and equipment and investment properties.

Unsecured Islamic financing facilities

The unsecured Islamic financing facilities obtained by the subsidiaries comprise:

In Mil	2019	2018
Murabahah Note Issuance Facilities	**RM5**	RM9
Murabahah Note Issuance Facilities	**CNY216**	CNY216
Sukuk Musyarakah	**RM3,982**	RM3,982
Bai' Al-Dayn Note Issuance Facilities	**RM25**	RM40
Trust Certificates^	**US$1,250**	US$1,250

^ Obtained by the Company via a subsidiary.

The unsecured Islamic financing facilities bear a yield payable ranging from 2.71% to 6.17% (2018: 2.71% to 6.17%) per annum and are fully repayable at their various due dates from 2020 to 2026.

24. OTHER LONG TERM LIABILITIES AND PROVISIONS

	Group		Company	
In RM Mil	2019	2018	2019	2018
Provision for decommissioning of:				
- oil and gas properties	**36,663**	35,286	**15,740**	16,451
- other property, plant and equipment	**407**	355	**-**	-
Financial guarantees	**-**	-	**16**	7
Derivative liabilities (note 13)	**186**	90	**-**	-
Contract liabilities	**1,585**	3,014	**8,792**	9,664
Others	**5,645**	5,390	**9,761**	8,653
	44,486	44,135	**34,309**	34,775

24. OTHER LONG TERM LIABILITIES AND PROVISIONS (continued)

Provision for decommissioning of oil and gas properties and other property, plant and equipment is recognised when there is an obligation to abandon a facility or an item of property, plant and equipment and to restore the site on which it is located, and when a reasonable estimate of that liability can be made. In the case of provision for decommissioning of oil and gas properties, the obligation is stipulated in production sharing contract ("PSC") as described in note 39.

Included in other long term liabilities of the Group and the Company are amount of abandonment cess payable to the PSC Contractors of RM3,143 million and RM9,743 million (2018: RM2,400 million and RM7,077 million) respectively as described in note 39.

The provision recognised is the present value of the Group's and the Company's obligations of the estimated future costs determined in accordance with current conditions and requirements.

A corresponding asset of an amount equivalent to the provision is also created. This asset is depreciated in accordance with the policy set out in note 2.4. The increase in the present value of the provision for the expected costs due to the passage of time is included within finance costs.

Most of these removal events are many years in the future and the precise requirements that will have to be met when the removal events actually occur are uncertain. Because actual timing and net cash outflows can differ from estimates due to changes in laws, regulations, public expectations, technology, prices and conditions, the carrying amounts of provisions, together with the interest rate used in discounting the cash flows and inflation rate, are regularly reviewed and adjusted to take account of such changes. The interest rate and inflation rate used to determine the obligation as at 31 December 2019 ranges from 0.41% to 8.00% (2018: 0.78% to 8.08%) and 1.15% to 4.67% (2018: 1.40% to 3.54%) respectively. Changes in the expected future costs are reflected in both the provision and the asset.

The movements of provision for decommissioning during the financial year are as follows:

In RM Mil	Group	Company
At 1 January 2019	**35,641**	**16,451**
Net changes in provision	**1,112**	**(1,262)**
Transfer to current liabilities	**(373)**	**-**
Provision utilised	**(617)**	**-**
Unwinding of discount	**1,307**	**551**
At 31 December 2019	**37,070**	**15,740**

Net changes in provision include foreign exchange gains or losses arising from retranslation of the provision and are adjusted against the carrying amount of the corresponding asset accordingly.

During the year, the Group and the Company refined the provision for decommissioning of oil and gas properties resulting from changes in estimated cash flows. The adjustment was accounted for prospectively as a change in accounting estimates resulting in the following:

In RM Mil	Group	Company
Increase/(decrease) in provision for decommissioning	1,112	(1,262)
Increase in cost of property, plant and equipment	2,507	787
Increase in profits	1,395	2,049

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31 December 2019

25. TRADE AND OTHER PAYABLES

		Group		Company
In RM Mil	2019	2018	2019	2018
Trade payables	**16,884**	14,618	**1,843**	2,224
Other payables	**35,511**	38,886	**9,700**	12,948
Contract liabilities	**2**	26	**-**	-
Amount due to:				
- subsidiaries	**-**	-	**5,844**	8,983
- associates and joint ventures	**1,116**	679	**11**	14
Derivative liabilities (note 13)	**455**	362	**18**	20
	53,968	54,571	**17,416**	24,189

Included in other payables of the Group are security deposits of RM85 million (2018: RM81 million) mainly held in respect of tenancies of a shopping centre and office buildings. These deposits are refundable upon termination of the respective lease agreements.

Also included in trade payables of the Group are retention sums on construction contracts amounting to RM60 million (2018: RM206 million).

Amount due to subsidiaries, associates and joint ventures arose in the normal course of business.

26. REVENUE

		Group		Company
In RM Mil	2019	2018	2019	2018
Revenue from contracts with customers	**226,439**	238,635	**85,109**	90,898
Other revenue				
- shipping and shipping related services	**2,780**	2,137	**-**	-
- rental of properties	**2,372**	2,297	**-**	-
- rendering of services	**1,105**	781	**1,275**	1,090
- others	**1,266**	1,498	**2,877**	3,291
	7,523	6,713	**4,152**	4,381
- dividend income				
Quoted				
- subsidiaries	**-**	-	**3,754**	3,883
- associates	**-**	-	**24**	24
- investments	**23**	37	**1**	1
Unquoted				
- subsidiaries	**-**	-	**24,910**	28,181
- investments	**19**	9	**19**	9
- associate and joint ventures	**521**	95	**142**	128
	563	141	**28,850**	32,226
- interest income	**5,738**	5,487	**3,091**	3,315
Total revenue	**240,263**	250,976	**121,202**	130,820

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26. REVENUE (continued)

Disaggregation of revenue from contracts with customers

In the following table, revenue is disaggregated by primary geographical markets and major products/services lines.

Group 2019 *In RM Mil*	**Upstream**	**Gas and New Energy**	**Downstream**	**Corporate and others**	**Total**
Primary geographical markets					
- Asia	**15,139**	**27,461**	**27,511**	**-**	**70,111**
- Malaysia	**5,465**	**20,644**	**43,185**	**5,276**	**74,570**
- Japan	**525**	**18,871**	**1,319**	**-**	**20,715**
- South Africa	**-**	**-**	**21,922**	**-**	**21,922**
- Rest of the world	**13,877**	**5,605**	**19,639**	**-**	**39,121**
	35,006	**72,581**	**113,576**	**5,276**	**226,439**
Major products/services lines					
- Petroleum products	**313**	**-**	**85,249**	**-**	**85,562**
- Crude oil and condensates	**25,480**	**147**	**10,165**	**-**	**35,792**
- Liquefied natural gas	**-**	**51,298**	**-**	**-**	**51,298**
- Natural and processed gas	**8,511**	**20,453**	**118**	**-**	**29,082**
- Petrochemicals	**-**	**-**	**16,022**	**-**	**16,022**
- Construction contracts	**-**	**-**	**-**	**738**	**738**
- Sales of properties	**-**	**-**	**-**	**232**	**232**
- Others	**702**	**683**	**2,022**	**4,306**	**7,713**
	35,006	**72,581**	**113,576**	**5,276**	**226,439**
Revenue from contracts with customers	**35,006**	**72,581**	**113,576**	**5,276**	**226,439**
Other revenue	**2,760**	**2,085**	**581**	**8,398**	**13,824**
Total revenue	**37,766**	**74,666**	**114,157**	**13,674**	**240,263**

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26. REVENUE (continued)

Disaggregation of revenue from contracts with customers (continued)

Group 2018 Restated *In RM Mil*	**Upstream**	**Gas and New Energy**	**Downstream**	**Corporate and others**	**Total**
Primary geographical markets					
- Asia	16,007	32,792	34,949	-	83,748
- Malaysia	10,999	9,626	41,368	6,276	68,269
- Japan	533	23,629	1,753	-	25,915
- South Africa	49	54	23,874	-	23,977
- Rest of the world	9,033	8,108	19,585	-	36,726
	36,621	74,209	121,529	6,276	238,635
Major products/services lines					
- Petroleum products	380	-	88,778	-	89,158
- Crude oil and condensates	27,677	242	12,500	-	40,419
- Liquefied natural gas	-	53,937	-	-	53,937
- Natural and processed gas	8,156	19,558	143	-	27,857
- Petrochemicals	-	-	19,071	-	19,071
- Construction contracts	-	-	-	1,482	1,482
- Sales of properties	-	-	-	272	272
- Others	408	472	1,037	4,522	6,439
	36,621	74,209	121,529	6,276	238,635
Revenue from contracts with customers	36,621	74,209	121,529	6,276	238,635
Other revenue	2,680	1,071	611	7,979	12,341
Total revenue	39,301	75,280	122,140	14,255	250,976

NOTES TO THE FINANCIAL STATEMENTS
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26. REVENUE (continued)

Disaggregation of revenue from contracts with customers (continued)

Company *In RM Mil*	**2019**	**2018**
Primary geographical markets		
- Asia	**10,608**	16,633
- Malaysia	**70,225**	69,263
- Japan	**606**	1,002
- South Africa	**362**	103
- Rest of the world	**3,308**	3,897
	85,109	90,898
Major products/services lines		
- Crude oil and condensates	**39,402**	44,649
- Liquefied natural gas	**4,146**	1,804
- Natural and processed gas	**41,561**	44,445
	85,109	90,898
Revenue from contracts with customers	**85,109**	90,898
Other revenue	**36,093**	39,922
Total revenue	**121,202**	130,820

NOTES TO THE FINANCIAL STATEMENTS
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26. REVENUE (continued)

Nature of goods and services

Sales of oil and gas products

Revenue from sales of oil and gas products namely petroleum products, crude oil and condensates, liquefied natural gas, natural gas, processed gas and petrochemicals is recognised when control of the goods has transferred to the customers. Depending on the terms of the contract with the customer, controls transfer either upon delivery of the goods to a location specified by the customers or upon delivery of the goods on board vessels or tankers for onward delivery to the customers. There is no significant financing element present as the Group's and the Company's sales of oil and gas products are made either on cash or credit terms as per the industry practices.

Construction contracts

Revenue from construction contracts is recognised progressively based on percentage of completion method determined by reference to the completion of the physical proportion of contract work to date. The amount receivable from the customers is based on agreed milestones as per the terms of the contract.

Sales of properties

Revenue from sales of properties is recognised when control of the properties has been transferred to the buyer. There is no significant financing element present as the Group's sales of properties are made on credit terms as per the industry practices.

Transaction price allocated to remaining performance obligations

The Group and the Company entered into long term contracts for the sales of various oil and gas products with remaining tenures ranging between 2 to 20 years. The future revenue of the Group and of the Company is dependent on the prevailing market price, exchange rate on the transaction date as well as production volume, which is based on contractual requirements.

In addition to the above, the Group and the Company entered into spot and short term contracts for the sales of various oil and gas products with remaining tenures less than 1 year.

The Group also entered into long term construction contracts. As at 31 December 2019, total outstanding performance obligations is not significant to the Group. Hence, no further disclosure is presented in the Group's financial statements.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

27. OPERATING PROFIT

In RM Mil	Group 2019	Group 2018	Company 2019	Company 2018
Included in operating profit are the following charges:				
Audit fees	**38**	35	**2**	2
Amortisation of:				
- intangible assets	**2,778**	2,942	**-**	-
- prepaid lease payments	**-**	61	**-**	-
Bad debts written off:				
- trade and other receivables	**18**	16	**7**	1
Contribution to Tabung Amanah Negara	**600**	500	**600**	500
Depreciation of property, plant and equipment and investment properties	**35,900**	31,324	**3,656**	2,939
Expenses relating to short-term leases (note (a))	**226**	-	**-**	-
Expenses relating to leases of low-value assets	**18**	-	**-**	-
Expenses relating to variable lease payments not included in the measurement of lease liabilities	**2**	-	**271**	-
Net impairment losses on:				
- property, plant and equipment	**6,539**	-	**-**	170
- intangible assets	**204**	20	**-**	-
- investment in an associate	**230**	65	**-**	-
- trade receivables and contract assets arising from contracts with customers	**69**	-	**-**	172
- loan and advances to an associate and a joint venture	**62**	101	**-**	-
- investments in subsidiaries	**-**	-	**2,889**	105
- other investments	**251**	4	**-**	-
Net impairment/write-off on well costs	**1,248**	653	**-**	-
Net inventories written down to net realisable value	**35**	108	**-**	-
Loss on disposal of:				
- property, plant and equipment	**69**	53	**-**	-
- intangible assets	**-**	378	**-**	-
Rental of facilities and equipments	**296**	2,192	**52**	2,304
Property, plant and equipment written off	**136**	95	**-**	1
Research and development expenditure	**132**	103	**11**	6
Staff costs:				
- wages, salaries and others	**11,488**	10,291	**2,523**	2,269
- contributions to pension fund	**1,145**	1,062	**331**	308
Net loss on foreign exchange	**235**	1,105	**458**	184

27. OPERATING PROFIT (continued)

In RM Mil	Group 2019	Group 2018	Company 2019	Company 2018
and credits:				
Gain on disposal/partial disposal of:				
- other investments	**19**	742	**-**	28
- property, plant and equipment	**61**	6	**430**	-
- joint venture	**100**	-	**-**	-
- subsidiaries	**282**	1,170	**5,403**	84
Interest income - others	**1,151**	1,022	**3,648**	3,745
Rental income on land and buildings	**236**	410	**214**	355
Net write-back of impairment losses on:				
- property, plant and equipment	**-**	3,331	**-**	-
- receivables	**-**	1,592	**93**	-
- loan and advances to subsidiaries	**-**	-	**10**	38
Net change in fair value of cess receivables	**-**	-	**666**	3,019
Net change in contract liabilities	**422**	89	**1,691**	444

(a) The Group leases vessels and office equipments, furniture and fittings with contract terms of less than one year. These leases are short term and/or leases of low-value assets. The Group has elected not to recognise right-of-use assets and lease liabilities for these leases.

28. FINANCING COSTS

In RM Mil	Group 2019	Group 2018	Company 2019	Company 2018
Recognised in profit or loss:				
Interest expense of financial liabilities that are at amortised cost	**2,624**	2,742	**1,696**	1,835
Interest expense on lease liabilities	**596**	-	**511**	-
Other finance costs	**514**	1,965	**2,242**	1,183
	3,734	4,707	**4,449**	3,018
Capitalised into qualifying assets:				
- Term borrowings	**1,213**	93	**-**	-
- Lease liabilities	**301**	-	**-**	-
	1,514	93	**-**	-
Total financing cost	**5,248**	4,800	**4,449**	3,018

NOTES TO THE FINANCIAL STATEMENTS
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29. TAX EXPENSE

In RM Mil	Group 2019	Group 2018	Company 2019	Company 2018
Current tax expenses				
Malaysia				
Current year	**18,435**	21,165	**7,421**	8,789
Prior year	**438**	2,232	**1,014**	929
Overseas				
Current year	**1,222**	922	**-**	-
Prior year	**(13)**	(18)	**-**	-
Total current tax expenses	**20,082**	24,301	**8,435**	9,718
Deferred tax expenses				
Origination and reversal of temporary differences	**(2,991)**	(2,932)	**(1,349)**	(4,557)
(Over)/under provision in prior year	**(593)**	51	**772**	885
Total deferred tax expenses	**(3,584)**	(2,881)	**(577)**	(3,672)
Total tax expenses	**16,498**	21,420	**7,858**	6,046

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

29. TAX EXPENSE (continued)

A reconciliation of income tax expense applicable to profit before taxation at the statutory income tax rate to income tax expense at the effective income tax rate of the Group and of the Company is as follows:

In RM Mil	%	2019	%	2018
Group				
Profit before taxation		**56,970**		76,730
Taxation at Malaysian statutory tax rate	**24**	**13,673**	24	18,415
Effect of different tax rates in foreign jurisdictions	**(1)**	**(766)**	-	(9)
Effect of different tax rates between corporate income tax and petroleum income tax	**4**	**2,530**	7	5,708
Effect of changes in tax rates	**-**	**(84)**	-	-
Non deductible expenses, net of non assessable income	**6**	**3,137**	3	2,204
Tax exempt income	**(2)**	**(922)**	(3)	(2,481)
Tax incentives	**(1)**	**(464)**	(1)	(953)
Effect of deferred tax benefits not recognised	**-**	**-**	-	279
Effect of deferred tax benefits previously not recognised	**(1)**	**(481)**	(5)	(4,146)
Foreign exchange translation difference	**-**	**43**	-	138
	29	**16,666**	25	19,155
(Over)/under provision in prior years		**(168)**		2,265
Tax expense		**16,498**		21,420
Company				
Profit before taxation		**49,452**		57,044
Taxation at Malaysian statutory tax rate	**24**	**11,868**	24	13,691
Effect of different tax rates between corporate income tax and petroleum income tax	**6**	**2,985**	6	3,356
Non assessable income, net of non deductible expense	**(3)**	**(1,303)**	(2)	(1,062)
Effect of deferred tax benefits not recognised	**-**	**188**	-	-
Effect of deferred tax benefits previously not recognised	**-**	**-**	(7)	(4,019)
Tax exempt income	**(16)**	**(7,666)**	(14)	(7,734)
	11	**6,072**	7	4,232
Under provision in prior years		**1,786**		1,814
Tax expense		**7,858**		6,046

In measuring the provision for taxation and deferred taxation at reporting date, the management applied judgements and estimates in relation to certain interpretation of tax legislation in arriving at the Company's tax position. Judgements and estimates are based on the current tax legislation and best available information as at the reporting date. The management continuously reassesses its judgements and estimates whenever there is a change in circumstances.

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30. DIVIDENDS

In RM Mil	Company 2019	2018
Ordinary:		
Final:		
Tax exempt dividend of RM240,000 (2018: RM160,000) per ordinary share in respect of financial year 31 December 2018 (2018: 31 December 2017)	**24,000**	16,000
Interim:		
First interim tax exempt dividend of RM Nil (2018: RM30,000) per ordinary share in respect of financial year 31 December 2019 (2018: 31 December 2018)	**-**	3,000
Second interim tax exempt dividend of RM Nil (2018: RM20,000) per ordinary share in respect of financial year 31 December 2019 (2018: 31 December 2018)	**-**	2,000
Special Dividend:		
A special tax exempt dividend of RM Nil (2018: RM30,000) per ordinary share in respect of financial year 31 December 2019 (2018: 31 December 2018)	**-**	3,000
An additional special tax exempt dividend of RM Nil (2018: RM20,000) per ordinary share in respect of financial year 31 December 2019 (2018: 31 December 2018)	**-**	2,000
An additional special tax exempt dividend of RM Nil (2018: RM300,000) per ordinary share in respect of financial year 31 December 2019 (2018: 31 December 2018)	**-**	30,000
	24,000	56,000
Proposed:		
Final:		
Tax exempt dividend of RM240,000 (2018: RM240,000) per ordinary share in respect of financial year 31 December 2019 (2018: 31 December 2018)	**24,000**	24,000

The proposed tax exempt final dividend of RM240,000 per ordinary share amounting to RM24 billion in respect of the financial year ended 31 December 2019, has not been accounted for in the financial statements.

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31. NET CASH (USED IN)/GENERATED FROM INVESTING ACTIVITIES

The cash (used in)/generated from investing activities comprise:

In RM Mil	Group 2019	2018	Company 2019	2018
Acquisition of:				
- subsidiaries, net of cash acquired (note 33)	**(1,763)**	-	**-**	-
- additional shares in subsidiaries	**-**	-	**(5,193)**	(24,176)
Dividends received	**1,666**	1,120	**28,850**	32,226
Investment in:				
- associates, joint ventures and unquoted companies	**(807)**	(125)	**-**	-
- securities and other investments	**(5,269)**	(4,222)	**(3,124)**	(1,478)
Long term receivables and advances (to)/repaid from:				
- subsidiaries	**-**	-	**(2,934)**	23,145
- a joint venture	**(3,547)**	(1,648)	**(3,547)**	(1,558)
Proceeds from disposal/partial disposal of:				
- investment in subsidiaries, net of cash disposed (note 34)	**187**	4,044	**6,227**	434
- investment in a joint venture	**687**	-	**-**	-
- property, plant and equipment	**617**	445	**-**	-
- securities and other investments	**1,295**	5,594	**889**	184
Proceeds from redemption of preference shares in joint ventures	**-**	221	**-**	-
Purchase of property, plant and equipment, investment properties, intangible assets and land held for development	**(45,243)**	(46,798)	**(936)**	(427)
Proceeds from government grant	**-**	240	**-**	-
Redemption of preference shares in subsidiaries	**-**	-	**1,335**	7,936
	(52,177)	(41,129)	**21,567**	36,286

NOTES TO THE FINANCIAL STATEMENTS
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32. NET CASH USED IN FINANCING ACTIVITIES

The cash used in financing activities comprise:

In RM Mil	Group 2019	Group 2018	Company 2019	Company 2018
Dividends paid	**(54,000)**	(26,000)	**(54,000)**	(26,000)
Dividends paid to non-controlling interests	**(5,638)**	(5,998)	**-**	-
Drawdown of:				
- Islamic financing facilities	**275**	711	**-**	-
- term loans	**9,270**	35,070	**-**	-
- bankers' acceptances	**447**	-	**-**	-
- revolving credits	**210**	1,882	**-**	-
Payment of lease liabilities (note (a))	**(2,921)**	-	**(1,851)**	-
Repayment of:				
- Islamic financing facilities	**(691)**	(870)	**-**	-
- term loans	**(9,479)**	(4,869)	**-**	-
- Notes and Bonds	**(12,569)**	-	**(12,569)**	-
- revolving credits	**(938)**	(1,910)	**-**	-
Payment to non-controlling interests on redemption of redeemable preference shares	**(73)**	-	**-**	-
Payment to a non-controlling interest on additional equity interest	**-**	(634)	**-**	-
Proceeds from partial disposal of equity interest to non-controlling interests	**6,227**	435	**-**	-
Proceeds from shares issued to a non-controlling interest	**-**	21	**-**	-
	(69,880)	(2,162)	**(68,420)**	(26,000)

(a) Payment of lease liabilities comprises mainly of principal and interest paid in relation to lease liabilities.

NOTES TO THE FINANCIAL STATEMENTS
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32. NET CASH USED IN FINANCING ACTIVITIES (continued)

Reconciliation of movement of liabilities to cash flows arising from financing activities:

2019 In RM Mil	Group Borrowings	Group Dividends	Company Borrowings	Company Dividends
Balance at 1 January 2019	**68,572**	**30,000**	**39,197**	**30,000**
Effect of adoption of MFRS 16	**10,771**	**-**	**10,537**	**-**
Balance at 1 January 2019, restated	**79,343**	**30,000**	**49,734**	**30,000**
Changes from financing cash flows				
(Repayment)/Drawdown of:				
Term loans	**(209)**	**-**	**-**	**-**
Islamic financing facilities	**(416)**	**-**	**-**	**-**
Revolving credits	**(728)**	**-**	**-**	**-**
Notes and Bonds	**(12,569)**	**-**	**(12,569)**	**-**
Bankers' acceptances	**447**	**-**	**-**	**-**
Lease liabilities	**(2,324)**	**-**	**(1,851)**	**-**
Bank overdrafts	**(85)**	**-**	**-**	**-**
Dividends paid	**-**	**(54,000)**	**-**	**(54,000)**
Total changes from financing cash flows	**(15,884)**	**(54,000)**	**(14,420)**	**(54,000)**
Changes arising from obtaining or losing control of subsidiaries or other business				
Term loans	**536**	**-**	**-**	**-**
Lease liabilities	**82**	**-**	**-**	**-**
Bank overdrafts	**34**	**-**	**-**	**-**
	652	**-**	**-**	**-**
The effect of changes in foreign exchange rates				
Islamic financing facilities	**(56)**	**-**	**78**	**-**
Term loans	**(255)**	**-**	**-**	**-**
Lease liabilities	**(440)**	**-**	**117**	**-**
Bankers' acceptances	**2**	**-**	**-**	**-**
Bank overdrafts	**3**	**-**	**-**	**-**
Notes and Bonds	**(239)**	**-**	**(233)**	**-**
	(985)	**-**	**(38)**	**-**
Liability-related other changes				
Dividend declared	**-**	**24,000**	**-**	**24,000**
Acquisition of new leases	**4,754**	**-**	**-**	**-**
Termination of lease	**(2)**	**-**	**(4,553)**	**-**
Financing costs	**860**	**-**	**530**	**-**
Total liability-related other changes	**5,612**	**24,000**	**(4,023)**	**24,000**
Balance at 31 December 2019	**68,738**	**-**	**31,253**	**-**

32. NET CASH USED IN FINANCING ACTIVITIES (continued)

2018 *In RM Mil*	Group Borrowings	 Dividends	Company Borrowings	 Dividends
Balance at 1 January 2018	64,149	-	38,360	-
Changes from financing cash flows				
Drawdown/(Repayment) of:				
Term loans	30,201	-	-	-
Islamic financing facilities	(159)	-	-	-
Revolving credits	(28)	-	-	-
Bank overdrafts	466	-	-	-
Dividend paid	-	(26,000)	-	(26,000)
Total changes from financing cash flows	30,480	(26,000)	-	(26,000)
Changes arising from losing control of subsidiaries				
Term loans	(27,074)	-	-	-
The effect of changes in foreign exchange rates				
Islamic financing facilities	96	-	110	-
Term loans	240	-	-	-
Revolving credits	(21)	-	-	-
Bank overdrafts	(32)	-	-	-
Notes and Bonds	698	-	691	-
	981	-	801	-
Liability-related other changes				
Dividend declared	-	56,000	-	56,000
Financing costs	36	-	36	-
Total liability-related other changes	36	56,000	36	56,000
Balance at 31 December 2018	68,572	30,000	39,197	30,000

NOTES TO THE FINANCIAL STATEMENTS
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33. ACQUISITION OF SUBSIDIARIES/BUSINESS

Acquisition of Subsidiaries

On 23 April 2019, PETRONAS via its wholly-owned subsidiary, PETRONAS International Power Corporation B.V.("PIPC BV"), has fulfilled all the conditions of its Share Purchase Agreement signed with ISQ Asia Aggregator Pte. Ltd., a wholly-owned entity of ISQ Asia Aggregator Ltd. for acquisition of 100% equity interest in Amplus Energy Solutions Pte Ltd (M+). M+ caters for commercial and industrial customers, specialising in end-to-end solutions for rooftop and ground-mounted solar power projects across India and the Middle East. Following this acquisition, M+ has become a wholly-owned subsidiary of PIPC BV.

On 12 September 2019, PETRONAS through its subsidiary, PETRONAS Chemicals Group Berhad ("PCG") has fulfilled all the conditions of its Sale and Purchase Agreement entered on 15 May 2019 to acquire 100% of the shares in Da Vinci Group B.V. ("Da Vinci") from its shareholders including, among others, funds managed by Bencis Capital Partners. Following this acquisition, Da Vinci has become a wholly-owned subsidiary of PCG.

The net profit contributed by these subsidiaries from the date of acquisition is not material in relation to the consolidated net profit of the Group for the year.

The effect of acquisitions on the cash flows and fair values of assets and liabilities acquired are as follows:

In RM Mil	At fair value
Non-current assets	1,026
Non-current liabilities	(600)
Current assets	606
Current liabilities	(380)
Net identifiable assets and liabilities	652
Less: Non-controlling interest	(6)
Add: Goodwill on acquisition	1,129
Purchase consideration	1,775
Add: Settlement of existing loans	231
Less: Deferred consideration	(81)
Less: Cash and cash equivalents of acquired subsidiaries	(162)
Cash flow on acquisition, net of cash acquired	1,763

Acquisition of Business

On 27 December 2019, PETRONAS through its wholly-owned subsidiary PETRONAS Petróleo Brasil Ltda. ("PPBL") completed its transaction to acquire 50% participating interest in the Tartaruga Verde producing field (BM-C-36 concession) and Module III of the Espadarte field (Espadarte Concession), both located in deep water of the Campos Basin, offshore Brazil.

NOTES TO THE FINANCIAL STATEMENTS
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34. DISPOSAL OF SUBSIDIARIES AND EQUITY INTEREST

Divestment of Engen International Holdings (Mauritius) Limited ("EIHL") to Vivo Energy Investments B.V.

On 1 March 2019, Engen Holdings (Pty) Ltd, a subsidiary of PETRONAS has completed a share sale transaction to dispose its 100% equity interest in Engen International Holdings (Mauritius) Limited ("EIHL") to Vivo Energy plc's subsidiary, Vivo Energy Investments B.V. for a consideration amount of USD203.9 million comprising of 63.2 million new shares in Vivo Energy plc and USD62.1 million in cash.

The net profit contributed by these subsidiaries from 1 January 2019 to the date of divestment is not material in relation to the consolidated net profit of the Group for the year.

The net effect of the above disposal of subsidiaries on the cash flows and carrying amount of net assets and liabilities disposed are as follows:

In RM Mil	**Carrying amount at disposal date**
Property, plant and equipment	558
Other assets	435
Borrowings	(4)
Other liabilities	(301)
Realisation of foreign currency translation upon disposal	(260)
	428
Gain on disposal of subsidiaries	282
Purchase consideration	710
Less: Non cash consideration	(429)
Less: Cash and cash equivalents of subsidiaries disposed	(94)
Cash flow on disposal of subsidiaries, net of cash disposed (note 31)	187

Partial Disposal of Equity Interest in PETRONAS LNG 9 Sdn. Bhd.

On 31 May 2019, PETRONAS disposed 5% of its equity interest in PETRONAS LNG 9 Sdn. Bhd. ("PL9SB") to Sabah International Petroleum Sdn. Bhd.. With the completion of this transaction, the Company now holds 65% interest in PL9SB.

Partial Disposal of Equity Interest in MISC Berhad ("MISC"), PETRONAS Dagangan Berhad ("PDB") and PETRONAS Gas Berhad ("PGB")

On 9 December 2019, PETRONAS has partially disposed its equity interest in MISC Berhad ("MISC"), PETRONAS Dagangan Berhad ("PDB") and PETRONAS Gas Berhad ("PGB") of 5.07%, 5.96%, and 9.63% respectively. With the completion of this transaction, the Company now holds 57.6%, 63.9% and 51.0% interest in MISC, PDB and PGB respectively.

NOTES TO THE FINANCIAL STATEMENTS
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35. COMMITMENTS

Outstanding commitments in respect of capital expenditure at the end of the reporting year not provided for in the financial statements are:

	Group		**Company**	
In RM Mil	**2019**	**2018**	**2019**	**2018**
Property, plant and equipment				
Approved and contracted for				
Less than one year	**18,244**	20,114	**176**	190
Between one and five years	**28,485**	30,280	**2,744**	2,991
	46,729	50,394	**2,920**	3,181
Approved but not contracted for				
Less than one year	**20,723**	12,901	**1**	5
Between one and five years	**57,085**	41,382	**4**	1,785
	77,808	54,283	**5**	1,790
	124,537	104,677	**2,925**	4,971
Share of capital expenditure of joint venture				
Approved and contracted for				
Less than one year	**3,565**	7,450	**-**	-
Between one and five years	**19,192**	3,137	**-**	-
More than five years	**2,117**	2,006	**-**	-
	24,874	12,593	**-**	-
Approved but not contracted for				
Less than one year	**1,947**	6,084	**-**	-
Between one and five years	**23,310**	26,810	**-**	-
More than five years	**188**	179	**-**	-
	25,445	33,073	**-**	-
	50,319	45,666	**-**	-
	174,856	150,343	**2,925**	4,971

NOTES TO THE FINANCIAL STATEMENTS
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36. CONTINGENT LIABILITIES

In RM Mil	Group 2019	Group 2018
Unsecured		
Guarantees extended to third parties	**426**	209
Claims filed by/disputes with various parties	**-**	13
Contingent payments	**46**	133
	472	355

Material litigation

(i) The legal suit brought against the Company by the Kelantan State Government in 2010 in respect of payment of petroleum proceeds under the terms of the agreement dated 9 May 1975 entered into between the Kelantan State Government and PETRONAS has been withdrawn by the Kelantan State Government without liberty to file afresh.

(ii) In 2019, the State of Sarawak brought a legal suit against PETRONAS in the Kuching High Court, alleging that PETRONAS has failed to make payments of RM1,345 million for the state sales tax imposed on petroleum products including interests and penalties under the Sarawak Sales Tax Ordinance 1998 (as amended in 2018). In response, PETRONAS has filed a judicial review to challenge the jurisdiction of the State of Sarawak over the imposition of sales tax for petroleum products. At the same time, PETRONAS had filed a defence against the civil suit and a stay of proceedings of the civil suit pending the disposal of the judicial review and determination of certain points of law to the Federal Court. Pending the above, the two cases are proceeding in parallel and PETRONAS has been advised by its solicitors that PETRONAS has a meritorious defence to the claim.

Financial guarantee

The Group and the Company provide financial guarantees to banks in respect of banking facilities granted to certain subsidiaries, joint ventures and associates ("Group entities"). The Group and the Company monitor on an ongoing basis, the results of the Group entities and repayments made by the Group entities.

Details of financial guarantees are included in note 40.

Other guarantees

Other than those disclosed elsewhere in the financial statements, the Group and the Company had entered into agreements which may include agreements to provide guarantees to third parties for the benefit of subsidiaries, associates and joint ventures ("Guaranteed Entities"). Such unsecured guarantees are normally provided in support of the Guaranteed Entities' normal and on-going business requirements, consistent with generally acceptable and recognised industry practices. The liability of the Group and the Company is therefore contingent and would only trigger upon the default of the Guaranteed Entities' obligation under the guarantee.

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37. RELATED PARTY DISCLOSURES

For the purpose of these financial statements, parties are considered to be related to the Company if the Company has the ability, directly or indirectly, to control or jointly control the party or exercise significant influence over the party in making financial and operating decisions, or vice versa, or where the Group or the Company and the party are subject to common control. Related parties may be individuals or other entities.

Related parties also include key management personnel defined as those persons having authority and responsibility for planning, directing and controlling the activities of the Group either directly or indirectly and an entity that provides key management personnel services to the Group. The key management personnel include all the Directors of the Company.

The Company's related parties include key management personnel, subsidiaries, associates, joint ventures as well as the Government of Malaysia and its related entities as the Company is wholly-owned by the Government of Malaysia.

Key management personnel compensation

In RM Mil	Group and Company 2019	Group and Company 2018
Directors fees, emoluments and remuneration	**19**	30

The estimated monetary value of Directors' benefits-in-kind is RM100,000 (2018: RM78,000).

Significant transactions with related parties

In addition to the transactions detailed elsewhere in the financial statements, the Group and the Company had the following transactions with related parties during the financial year:

Group *In RM Mil*	2019	2018
Federal and State Governments of Malaysia:		
Petroleum proceeds	**(9,826)**	(11,459)
Lease income	**1,420**	1,446
Sales of petroleum products	**307**	322
Government of Malaysia's related entities:		
Sales of petroleum products and processed gas	**11,369**	7,962
Associate companies:		
Sales of petrochemical products and processed gas	**8,546**	7,945
Gas distribution fee	**(206)**	(13)
Other income	**14**	18
Joint ventures:		
Sales of industrial utilities	**37**	39
Interest income from joint ventures	**90**	89
Gas processing fee	**(79)**	(37)
Other expenses	**(170)**	(211)
Other income	**5**	6

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37. RELATED PARTY DISCLOSURES (continued)

Significant transactions with related parties (continued)

Company *In RM Mil*	**2019**	**2018**
Federal and State Governments of Malaysia:		
Petroleum proceeds	**(9,826)**	(11,459)
Government of Malaysia's related entities:		
Sales of processed gas	**33**	2,784
Subsidiaries:		
Sales of crude oil, petroleum products, processed gas and natural gas	**68,688**	55,774
Interest income from subsidiaries	**3,598**	3,676
Purchase of crude oil, natural gas and liquefied natural gas ("LNG")	**(41,377)**	(38,485)
Gas processing and transportation fee payable	**(2,355)**	(4,597)
LNG cancellation fee	**(379)**	(379)
Charter hire fee	**-**	(1,371)
Centralised head office services charges	**1,224**	1,153
Research cess	**184**	173
Supplemental payments and signature bonus	**1,362**	1,571
Contribution to fund	**(390)**	(288)
Abandonment cess		
- paid	**(2,852)**	(3,978)
- received	**3,826**	2,588
Associate companies:		
Sales of processed gas	**-**	5,246
Gas distribution fee	**(206)**	(13)
Joint ventures:		
Gas processing fee	**(39)**	(37)

Information regarding outstanding balances arising from related party transactions as at 31 December 2019 are disclosed in note 11, note 16 and note 25.

Information regarding impairment losses on receivables and bad debts written off during the financial year are disclosed in note 27.

The Directors of the Company are of the opinion that the above transactions have been entered into in the normal course of business and have been established on a commercial basis. The above has been stated at contracted amount.

NOTES TO THE FINANCIAL STATEMENTS

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38. OPERATING SEGMENTS, PRODUCTS AND SERVICES AND GEOGRAPHICAL INFORMATION

During the financial year, the Group has undertaken reorganisation resulting in the change in the way of certain activities are managed. The Group's reportable operating segments now comprise Upstream, Gas and New Energy, and Downstream. Accordingly, the Group has restated the operating segment information for the prior period.

The following summary describes the operations in each of the Group's reportable segments:

- Upstream - activities include oil and natural gas exploration, development and production, together with related pipeline and transportation activities.
- Gas and New Energy - activities include purchase of natural gas from Upstream, liquefaction and processing of natural gas, marketing and trading of liquefied natural gas ("LNG") and sales gas as well as power and new energy business.
- Downstream - activities include the supply and trading, refining, manufacturing, marketing and transportation of crude oil, petroleum and petrochemical products.

Corporate and others comprise primarily logistic and maritime segment, property segment and central treasury and project delivery and technology function.

For each of the reportable segment, the Group chief operating decision maker, which in this case is the PETRONAS Executive Leadership Team, reviews internal management reports at least on a quarterly basis.

There are varying levels of integration between Upstream segment, Gas and New Energy segment, Downstream segment and others. This integration includes transfers of products and services between segments.

Inter-segment pricing is established on a commercial basis.

Inter-segment revenues include sales of crude oil and condensates, petroleum products, sales gas and shipping services between business segments. These transactions are eliminated on consolidation.

Performance is measured based on segment profit after tax ("PAT"), as included in the internal management reports. Segment PAT is used to measure performance as the Executive Leadership Team believes that such information is the most relevant in evaluating the results of the segments.

Segment assets are measured based on total assets (including goodwill) of a segment, as included in the internal management reports and are used to measure the return of assets of each segment.

Segment liabilities information is neither included in the internal management reports nor provided regularly to the Executive Leadership Team. Hence, no disclosure is made on segment liability.

Segment capital expenditure is the total cost incurred during the financial year to acquire non-current assets other than financial instruments and deferred tax assets.

NOTES TO THE FINANCIAL STATEMENTS

31 December 2019

38. OPERATING SEGMENTS, PRODUCTS AND SERVICES AND GEOGRAPHICAL INFORMATION (continued)

Group 2019 *In RM Mil*	Upstream	Gas and New Energy	Downstream	Corporate and others	Consolidation adjustments and eliminations	Total
Revenue						
Third parties	**37,766**	**74,666**	**114,157**	**13,674**	**-**	**240,263**
Inter-segment	**64,826**	**8,652**	**1,328**	**4,211**	**(79,017)**	**-**
Total revenue	**102,592**	**83,318**	**115,485**	**17,885**	**(79,017)**	**240,263**
Reportable segment profit	**22,199**	**9,780**	**5,166**	**4,675**	**(1,348)**	**40,472**
Included in the measure of segment profit are:						
Depreciation and amortisation	**(26,320)**	**(4,824)**	**(3,799)**	**(3,735)**	**-**	**(38,678)**
Impairment losses on assets and write-off on well costs	**(2,366)**	**(5,780)**	**(216)**	**(241)**	**-**	**(8,603)**
Interest income	**2,128**	**516**	**725**	**7,379**	**(3,859)**	**6,889**
Interest expense	**(4,526)**	**(2,254)**	**(294)**	**(2,453)**	**5,793**	**(3,734)**
Share of profit after tax and non-controlling interests of equity accounted associates and joint ventures	**330**	**368**	**42**	**279**	**-**	**1,019**
Tax expense	**(11,947)**	**(3,971)**	**(302)**	**(495)**	**217**	**(16,498)**
Segment assets	**258,218**	**120,580**	**131,014**	**171,035**	**(58,426)**	**622,421**
Included in the measure of segment assets are:						
Investments in associates and joint ventures	**5,355**	**841**	**7,492**	**2,214**	**-**	**15,902**
Additions to non-current assets other than financial instruments and deferred tax assets	**23,984**	**8,416**	**11,005**	**4,408**	**-**	**47,813**

NOTES TO THE FINANCIAL STATEMENTS

31 December 2019

38. OPERATING SEGMENTS, PRODUCTS AND SERVICES AND GEOGRAPHICAL INFORMATION (continued)

Group 2018 *In RM Mil*	Upstream	Gas and New Energy	Downstream	Corporate and others	Consolidation adjustments and eliminations	Total
Restated						
Revenue						
Third parties	39,301	75,280	122,140	14,255	-	250,976
Inter-segment	69,190	8,037	1,231	4,491	(82,949)	-
Total revenue	108,491	83,317	123,371	18,746	(82,949)	250,976
Reportable segment profit	26,146	17,196	6,814	7,171	(2,017)	55,310
Included in the measure of segment profit are:						
Depreciation and amortisation	(22,961)	(4,343)	(3,659)	(3,364)	-	(34,327)
Net write-back/(losses) of impairment on assets and write-off on well costs	2,195	2,268	(150)	(233)	-	4,080
Interest income	2,119	435	675	7,558	(4,278)	6,509
Interest expense	(4,524)	(1,492)	(151)	(2,483)	3,943	(4,707)
Share of profit after tax and non-controlling interests of equity accounted associates and joint ventures	225	16	186	257	-	684
Tax expense	(13,988)	(4,962)	(1,451)	(994)	(25)	(21,420)
Segment assets	237,313	110,691	121,930	218,431	(52,051)	636,314
Included in the measure of segment assets are:						
Investments in associates and joint ventures	5,323	874	7,782	1,569	-	15,548
Additions to non-current assets other than financial instruments and deferred tax assets	20,554	7,843	14,145	4,381	-	46,923

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

38. OPERATING SEGMENTS, PRODUCTS AND SERVICES AND GEOGRAPHICAL INFORMATION (continued)

Products and services information

The following are revenue from external customers by products and services:

Group *In RM Mil*	2019	2018
Petroleum products	**85,562**	89,158
Crude oil and condensates	**35,792**	40,419
Liquefied natural gas	**51,298**	53,937
Natural and processed gas	**29,082**	27,857
Petrochemicals	**16,022**	19,071
Shipping services	**2,780**	2,137
Investment income	**5,738**	5,487
Others	**13,989**	12,910
	240,263	250,976

Geographical information

Geographical revenue is determined based on location of customers. The amounts presented in non-current assets are based on the geographical location of the assets and do not include financial instruments (including investments in associates and joint ventures) nor deferred tax assets.

Group *In RM Mil*	Revenue 2019	 2018
Asia	**70,113**	83,812
Malaysia	**79,433**	75,066
Japan	**20,760**	25,941
South Africa	**23,993**	24,009
Rest of the world	**45,964**	42,148
	240,263	250,976

Group *In RM Mil*	Non-current assets 2019	 2018
Malaysia	**248,619**	244,807
Rest of the world	**108,553**	101,185
	357,172	345,992

Major customers

As at 31 December 2019 and 31 December 2018, there are no major customers with revenue that contribute to more than 10 percent of the Group's revenue.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

39. PETROLEUM ARRANGEMENTS

The Petroleum Development Act, 1974 vests the entire ownership, rights, powers, liberties and privileges of exploiting petroleum resources on land and offshore Malaysia in PETRONAS. In addition, the Group via its subsidiaries participated in various petroleum arrangements outside Malaysia as contractors.

Production sharing contracts ("PSC")

Malaysia

The monetisation of petroleum resources is carried out primarily by means of PSCs between PETRONAS, its subsidiaries and other oil and gas companies ("PSC Contractors"). Under the terms of the various PSCs, the PSC Contractors shall bear all the costs and may recover their costs in barrels of crude oil or gas equivalent in accordance with the terms of their respective PSCs.

Certain terms of the PSCs are:

(i) Research cess, supplemental payments and crude oil or gas entitlement

The determination of research cess, supplemental payments, and PETRONAS' and the PSC Contractors' entitlements to crude oil or gas produced subsequent to 31 December 1992 have been based on the returns submitted by PSC Contractors and is dependent on agreement being reached on the method of valuation of crude oil or gas and the quantum of costs incurred and claimed by contractors subject to the maximum rate provided under the respective PSCs for the year. PETRONAS' entitlements to crude oil and natural gas are taken up as income on the basis of liftings and sales respectively made by the Company.

(ii) Property, plant and equipment and intangible assets

Title to all equipment and other assets purchased or acquired by PSC Contractors exclusively for the purpose of petroleum operations, and which costs are recoverable in barrels of cost oil or gas equivalent, is vested with PETRONAS. However, the values of these assets are not taken up in the financial statements of PETRONAS other than:

- the property, plant and equipment of a subsidiary which is also a contractor to PETRONAS under certain PSCs; and
- the estimated costs of decommissioning and removing the assets and restoring the site on which they are located where there is an obligation to do so.

(iii) Inventories

Title to all crude oil held in inventories by the PSC Contractors lies with PETRONAS and title to the contractors' entitlement passes only upon delivery at point of export.

(iv) Abandonment

The PSCs stipulate the rights and obligation of PETRONAS and the PSC Contractors ("PSC Parties") in relation to the abandonment of the oil and gas properties. The PSC Contractors have the obligation to undertake abandonment activities during the PSC period except for certain PSCs or facilities where the abandonment obligation lies with PETRONAS.

In addition, the PSC Contractors are also required to make abandonment cess contribution to Abandonment Cess Fund via PETRONAS in accordance with the terms of the PSCs. The PSC Contractors have the rights to request PETRONAS to reimburse the abandonment cess up to the cumulative amount paid upon the execution of the abandonment activities.

39. PETROLEUM ARRANGEMENTS (continued)

Production sharing contracts ("PSC") (continued)

Outside Malaysia

In the international PSC arrangements, where the Group acts as a contractor, has largely similar arrangements as per Malaysia PSCs subject to the relevant laws and regulations in the respective countries. In respect of abandonment for most of the countries, the Group makes contribution into escrow accounts.

Service contracts

Risk Service Contract ("RSC") Malaysia

The monetisation of petroleum resources is also carried out by means of RSCs. Under the terms of the RSCs, RSC Contractors provide services for the development and production of oil and gas resources on behalf of PETRONAS.

Certain terms of the RSCs are:

(i) Cost reimbursement and remuneration fees

RSC Contractors incur all upfront costs and will be reimbursed upon first commercial production. Under the terms of the RSCs, PETRONAS owns the title to all equipment and other assets purchased or acquired by the RSC Contractors for the purpose of petroleum operations. The values of these assets are taken up in the financial statements of PETRONAS upon incurrence, together with the estimated costs of decommissioning the assets where there is an obligation to do so.

The RSC Contractors are also entitled to remuneration fees which commensurate with their performance under the contract. All payments of remuneration fees are recognised as expenditures in PETRONAS' financial statements.

(ii) Production

All barrels of crude oil and gas produced belongs to PETRONAS and inventories, if any, are taken up in the financial statements of PETRONAS.

Development and Production Service Contracts ("DPSCs")

Under the terms of DPSC, the subsidiaries of the Group act as contractors provide services for development and production of oil and gas resources on behalf of host authority.

Certain terms of DPSCs are:

(i) Crude oil and gas entitlement

DPSC contractors shall incur all upfront costs during the initial period of investment and will be reimbursed once the contractual obligation upon production of crude oil and gas is met. Under the terms of DPSCs, the host authority own the title to all equipment and other assets acquired by the contractors during the contractual period of the DPSCs.

Contractors are entitled to recover their expenditure incurred in relation to the petroleum operations of the DPSCs, based on the provisions stipulated in the DPSCs.

Contractors are also entitled to remuneration fees which commensurate with their performance as stipulated in the provision of the DPSCs.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

39. PETROLEUM ARRANGEMENTS (continued)

Development and Production Service Contracts ("DPSCs") (continued)

(i) Crude oil and gas entitlement (continued)

All barrels of crude oil and gas produced belong to the host authority. The Group's entitlements to oil and gas are recognised as revenue based on two elements, costs reimbursement and remuneration fees.

(ii) Intangible assets and other financial assets

Title to all equipment and other assets constructed belong to the host authority and contractually, the contractors acquire the right to use these assets for the duration specified under the DPSCs. The right to use these assets is recognised in the financial statements of the Group as intangible assets, as per accounting policies set out in note 2.9.

In circumstances where the contractors have the right to receive cash or other financial assets for their services from or at the discretion of the host authority, these assets are recognised as trade receivables.

Concession Agreement

Under the terms of Concession Agreements, the subsidiaries of the Group participate in Consortium Agreements for the rights to carry out exploration and exploitation activities. The Consortium bears all costs as outlined in the Annual Work Program and Budget. Title to all equipment and other assets purchased and acquired by the consortium for the purpose of petroleum operations will remain with the consortium for the duration of the Concession Agreements and the equity value of the assets is recognised in the financial statements of the relevant subsidiaries of the Group as property, plant and equipment as per accounting policies set out in note 2.4.

Upon production, the title to the crude oil produced to which the consortium is entitled to, shall pass to the consortium at the point of production at the wellhead. Each member of the consortium shall own and may separately take or dispose of its own share of the crude oil.

The consortium shall pay the host authority a royalty on the consortium's total production of the crude oil for each calendar month in-kind or in-cash. By virtue of its petroleum operations, the consortium is subject to direct tax on profits, where each member of the consortium shall separately calculate its taxable income and shall remain responsible for its own corporate income tax return.

40. FINANCIAL INSTRUMENTS

Categories of financial instruments

The table below provides an analysis of financial instruments categorised as follows:

(i) Fair value through profit or loss ("FVTPL")

- Mandatorily required by MFRS 9
- Designated upon initial recognition ("DUIR")

(ii) Fair value through other comprehensive income ("FVOCI")

- Debt instrument ("DI")
- Equity instrument designated upon initial recognition ("EIDUIR")

(iii) Amortised cost ("AC")

40. FINANCIAL INSTRUMENTS (continued)

Categories of financial instruments (continued)

Group 2019 *In RM Mil*	Note	FVTPL - mandatorily at FVTPL	FVOCI - DI	FVOCI - EIDUIR	Amortised cost	Total carrying amount
Financial assets						
Long term receivables	*	**12**	**-**	**-**	**20,115**	**20,127**
Fund and other investments	12	**8,852**	**28**	**596**	**1,163**	**10,639**
Trade and other receivables	*	**787**	**-**	**-**	**38,510**	**39,297**
Cash and cash equivalents	18	**-**	**-**	**-**	**141,622**	**141,622**
		9,651	**28**	**596**	**201,410**	**211,685**
Financial liabilities						
Borrowings	*	**-**	**-**	**-**	**(55,072)**	**(55,072)**
Other long term liabilities	*	**(186)**	**-**	**-**	**(3,143)**	**(3,329)**
Trade and other payables	*	**(455)**	**-**	**-**	**(45,573)**	**(46,028)**
		(641)	**-**	**-**	**(103,788)**	**(104,429)**

2018	Note	FVTPL - mandatorily at FVTPL	FVOCI - DI	FVOCI - EIDUIR	Amortised cost	Total carrying amount
Financial assets						
Long term receivables	*	44	-	-	14,164	14,208
Fund and other investments	12	5,255	28	164	2,000	7,447
Trade and other receivables	*	360	-	-	41,386	41,746
Cash and cash equivalents	18	-	-	-	173,576	173,576
		5,659	28	164	231,126	236,977
Financial liabilities						
Borrowings	*	-	-	-	(68,572)	(68,572)
Other long term liabilities	*	(90)	-	-	(3,860)	(3,950)
Trade and other payables	*	(362)	-	-	(46,800)	(47,162)
		(452)	-	-	(119,232)	(119,684)

* These balances exclude non-financial instruments balances.

Certain fund and other investments have been designated at fair value through profit or loss upon initial recognition as management internally monitors these investments on fair value basis.

40. FINANCIAL INSTRUMENTS (continued)

Categories of financial instruments (continued)

Company 2019 *In RM Mil*	Note	FVTPL - mandatorily at FVTPL	FVOCI - EIDUIR	Amortised cost	Total carrying amount
Financial assets					
Long term receivables	*	**22,653**	**-**	**98,547**	**121,200**
Fund and other investments	12	**3,992**	**73**	**977**	**5,042**
Trade and other receivables	*	**10**	**-**	**17,702**	**17,712**
Cash and cash equivalents	18	**-**	**-**	**55,961**	**55,961**
		26,655	**73**	**173,187**	**199,915**
Financial liabilities					
Borrowings	*	**-**	**-**	**(26,492)**	**(26,492)**
Other long term liabilities	*	**-**	**-**	**(9,759)**	**(9,759)**
Trade and other payables	*	**(18)**	**-**	**(16,793)**	**(16,811)**
		(18)	**-**	**(53,044)**	**(53,062)**

2018	Note	FVTPL - mandatorily at FVTPL	FVOCI - EIDUIR	Amortised cost	Total carrying amount
Financial assets					
Long term receivables	*	19,734	-	95,594	115,328
Fund and other investments	12	1,690	73	1,000	2,763
Trade and other receivables	*	4	-	21,956	21,960
Cash and cash equivalents	18	-	-	91,822	91,822
		21,428	73	210,372	231,873
Financial liabilities					
Borrowings	*	-	-	(39,197)	(39,197)
Other long term liabilities	*	-	-	(8,570)	(8,570)
Trade and other payables	*	(20)	-	(22,843)	(22,863)
		(20)	-	(70,610)	(70,630)

* These balances exclude non-financial instruments balances.

Certain fund and other investments have been designated at fair value through profit or loss upon initial recognition as management internally monitors these investments on fair value basis.

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31 December 2019

40. FINANCIAL INSTRUMENTS (continued)

Financial risk management

As an integrated oil and gas company, the Group and the Company are exposed to various risks that are particular to its core business of Upstream and Downstream operations. These risks, which arise in the normal course of the Group's and of the Company's business, comprise credit risk, liquidity risk and market risk relating to interest rates, foreign currency exchange rates, equity prices and commodity prices.

The Group has policies and guidelines in place that sets the foundation for a consistent approach towards establishing an effective financial risk management across the PETRONAS Group.

Risk taking activities are undertaken within acceptable level of risk or risk appetite, whereby the risk appetite level reflects business considerations and capacity to assume such risks. The risk appetite is established at Board level, where relevant, based on defined methodology and translated into operational thresholds.

The Group's and the Company's goal in risk management are to ensure that the management understands, measures and monitors the various risks that arise in connection with their operations. Policies and guidelines have been developed to identify, analyse, appraise and monitor the dynamic risks facing the Group and the Company. Based on this assessment, each business unit adopts appropriate measures to mitigate these risks in accordance with the business unit's view of the balance between risk and reward.

Credit risk

Credit risk is the potential exposure of the Group and of the Company to losses in the event of non-performance by counterparties. The Group's and the Company's exposures to credit risk arise principally from their receivables from customers, fund and other investments and financial guarantees given to financial institutions for credit facilities granted to subsidiaries, joint ventures and associates. Credit risks are controlled by individual subsidiaries in line with PETRONAS' policies and guidelines.

Receivables and contract assets

Risk management objectives, policies and processes for managing the risk

The Group and the Company minimise credit risk by ensuring that all potential third party counterparties are assessed prior to registration and entering into new contracts. Existing third party counterparties are also subject to regular reviews, including re-appraisal and approval of granted limits. The creditworthiness of counterparties is assessed based on an analysis of all available quantitative and qualitative data regarding business risks and financial standing, together with the review of any relevant third party and market information. Reports are prepared and presented to the management that cover the Group's overall credit exposure against limits and securities, exposure by segment and overall quality of the portfolio.

Depending on the types of transactions and counterparty creditworthiness, the Group and the Company further mitigate and limit risks related to credit by requiring collateral or other credit enhancements such as cash deposits, letter of credit and bank guarantees.

Management has taken reasonable steps to ensure that receivables that are neither past due nor impaired are stated at their realisable values.

At each reporting date, the Group and the Company assess whether any of the trade receivables and contract assets are credit impaired.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

40. FINANCIAL INSTRUMENTS (continued)

Receivables and contract assets (continued)

Risk management objectives, policies and processes for managing the risk (continued)

The gross carrying amounts of credit impaired trade receivables and contract assets are written off (either partially or full) when there is no realistic prospect of recovery. This is generally the case when the Group or the Company determines that the debtor does not have assets or sources of income that could generate sufficient cash flows to repay the amounts subject to the write-off. Nevertheless, trade receivables and contract assets that are written off could still be subject to enforcement activities.

Exposure to credit risk, credit quality and collateral

As at the end of the reporting period, the maximum exposure to credit risk arising from trade receivables and contract assets are represented by the carrying amounts in the statement of financial position.

At each reporting date, the Group assesses whether financial assets carried at amortised cost and debt securities at FVOCI are credit-impaired. A financial asset is 'credit-impaired' when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

Evidence that a financial asset is credit-impaired includes the following observable data:

(i) significant financial difficulty of the customer;
(ii) a breach of contract such as a default; or
(iii) it is probable that the customer will enter bankruptcy or other financial reorganisation.

Exposure to losses increases with concentrations of credit risk which may exist when a number of counterparties are involved in similar activities or operate in the same industry sector or geographical area, which may result in their ability to meet contractual obligations being impacted by changes in economic, political or other conditions. The Group's principal customers with which it conducts business are located globally and there is no significant concentration of credit risk at reporting date.

Recognition and measurement of impairment loss

In managing credit risk of trade receivables and contract assets, the Group manages its debtors and takes appropriate actions (including but not limited to legal actions) to recover long overdue balances.

The Group performs credit rating assessment of all its counterparties in order to measure Expected Credit Loss ("ECL") of trade receivables for all segments using the PETRONAS Credit Risk Rating system. This credit rating assessment considers quantitative assessment using the counterparties' financial statements or a qualitative assessment of the counterparties which includes but is not limited to their reputation, competitive position, industry and geopolitical outlook.

In determining the ECL, the probability of default assigned to each counterparty is based on their individual credit rating. This probability of default is derived by benchmarking against available third party and market information, which also incorporates forward looking information.

Loss given default is the assumption of the proportion of financial asset that cannot be recovered by conversion of collateral to cash or by legal process, and is assessed based on the Group's and the Company's historical experience.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

40. FINANCIAL INSTRUMENTS (continued)

Receivables and contract assets (continued)

Recognition and measurement of impairment loss (continued)

The following table provides information about the exposure to credit risk and ECLs for trade receivables and contract assets as at the reporting date which are grouped together as they are expected to have similar risk nature.

Group 2019 *In RM Mil*	Note	Gross carrying amount	Allowance for impairment losses	Net balance
Credit Risk Rating				
Sovereign		**607**	**(12)**	**595**
Good		**23,734**	**(1,229)**	**22,505**
Fair		**4,055**	**(586)**	**3,469**
		28,396	**(1,827)**	**26,569**
Credit impaired				
More than 90 days past due		**10**	**(8)**	**2**
Individually impaired		**754**	**(754)**	**-**
		29,160	**(2,589)**	**26,571**
Representing				
Trade receivables	16	**28,703**	**(2,589)**	**26,114**
Contract assets	16	**457**	**-**	**457**
		29,160	**(2,589)**	**26,571**

Group 2018 *In RM Mil*	Note	Gross carrying amount	Allowance for impairment losses	Net balance
Credit Risk Rating				
Sovereign		674	(32)	642
Good		23,530	(1,735)	21,795
Fair		5,885	(587)	5,298
		30,089	(2,354)	27,735
Credit impaired				
More than 90 days past due		28	(28)	-
Individually impaired		994	(994)	-
		31,111	(3,376)	27,735
Representing				
Trade receivables	16	30,409	(3,376)	27,033
Contract assets	16	702	-	702
		31,111	(3,376)	27,735

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

40. FINANCIAL INSTRUMENTS (continued)

Receivables and contract assets (continued)

Recognition and measurement of impairment loss (continued)

Company 2019 *In RM Mil*	Note	Gross carrying amount	Allowance for impairment losses	Net balance
Credit Risk Rating				
Good		**3,063**	**(3)**	**3,060**
Fair		**261**	**(2)**	**259**
		3,324	**(5)**	**3,319**
Credit impaired				
Individually impaired		**371**	**(371)**	**-**
		3,695	**(376)**	**3,319**
Representing				
Trade receivables	16	**3,695**	**(376)**	**3,319**

Company 2018 *In RM Mil*	Note	Gross carrying amount	Allowance for impairment losses	Net balance
Credit Risk Rating				
Good		4,325	(7)	4,318
Fair		16	(2)	14
		4,341	(9)	4,332
Credit impaired				
Individually impaired		754	(754)	-
		5,095	(763)	4,332
Representing				
Trade receivables	16	5,095	(763)	4,332

As at the end of the reporting period, the maximum exposure to credit risk arising from receivables is equal to the carrying amount.

40. FINANCIAL INSTRUMENTS (continued)

Receivables and contract assets (continued)

Recognition and measurement of impairment loss (continued)

The ageing of trade receivables net of impairment amount as at the end of the reporting period is analysed below:

		Group		Company
In RM Mil	**2019**	**2018**	**2019**	**2018**
At net				
Current	**23,850**	23,083	**3,012**	3,556
Past due 1 to 30 days	**973**	943	**64**	355
Past due 31 to 60 days	**146**	498	**-**	30
Past due 61 to 90 days	**105**	100	**2**	3
Past due more than 90 days	**1,040**	2,409	**241**	388
	26,114	27,033	**3,319**	4,332

The Group and the Company have not recognised any loss allowance for trade receivables that are secured by collateral and/or other credit enhancements such as cash deposits, letter of credit and bank guarantees.

The movements in the allowance for impairment losses of trade receivables during the year are as follows:

		Group		Company
In RM Mil	**2019**	**2018**	**2019**	**2018**
Opening balance under MFRS 139	**3,376**	4,497	**763**	571
Adjustment on initial application of MFRS 9	**-**	181	**-**	8
Opening balance under MFRS 9	**3,376**	4,678	**763**	579
Impairment (write-back)/losses recognised	**(760)**	(1,453)	**(104)**	184
Impairment written-off/reversal	**(4)**	-	**(283)**	-
Translation exchange difference	**(23)**	151	**-**	-
Closing balance	**2,589**	3,376	**376**	763

Fund and other investments

The Group and the Company are also exposed to counterparty credit risk from financial institutions, government and corporate counterparties through fund and other investment activities comprising primarily money market placement and investments in bonds and equities. These exposures are managed in accordance with existing policies and guidelines that define the parameters within which the investment activities shall be undertaken in order to achieve the Group's investment objective of preserving capital and generating optimal returns above appropriate benchmarks within allowable risk parameters.

Investments are only made with approved counterparties who met the appropriate rating and other relevant criteria, and within approved credit limits, as stipulated in the policies and guidelines. The treasury function is governed by a counterparty credit risk management framework.

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31 December 2019

40. FINANCIAL INSTRUMENTS (continued)

Fund and other investments (continued)

The maximum exposure to credit risk is represented by the carrying amounts in the statement of financial position.

The credit risk on a financial instrument is considered low, if the financial instrument has a low risk of default, the borrower has a strong capacity to meet its contractual cash flow obligations in the near term and adverse changes in economic and business conditions in the longer term may, but will not necessarily, reduce the ability of the borrower to fulfil its contractual cash flow obligations. The Company assumes that there is a significant increase in credit risk when it is past due.

As at the reporting date, the Group and the Company have invested 99% (2018: 99%) and 100% (2018: 100%) of the investments in domestic securities respectively.

The fund and other investments are unsecured, however, in view of the sound credit rating of counterparties, management does not expect any counterparty to fail to meet its obligation.

Financial guarantees

The Group and the Company provide financial guarantees to banks in respect of banking facilities granted to certain subsidiaries, joint ventures and associates ("Group entities"). The Group and the Company monitor on an ongoing basis, the results of the Group entities and repayments made by the Group entities.

During the financial year, the Group's joint arrangement entities, Pengerang Refining Company Sdn. Bhd. and Pengerang Petrochemical Company Sdn. Bhd. (both referred to as "the Borrowers"), have undertaken project financing facilities, under an integrated borrowing structure for the repayment of bridge loan facilities and other expenditures. Under the integrated borrowing structure, the Borrowers provide cross guarantee to the project financing lenders on each other's loan. Upon failure to pay by a Borrower, the project financing lenders would have primary recourse to that Borrower as well as to the other Borrower under the cross-guarantee.

The Group's share of maximum exposure to credit risk relating to the cross-guarantee provided by the joint operation company to the joint venture amounts to RM16,897 million which represents the outstanding loans of the joint venture as at financial year end. Similarly, the cross-guarantee provided by the joint venture to the Group's joint operation company as at financial year end is RM1,875 million, being the Group's share in the joint operation company. The Group's share of maximum exposure to credit risk in the previous financial year amounted to RM16,578 million which represents the outstanding banking facility of the joint venture company.

The maximum exposure to credit risk for the Company amounted to RM2,314 million (2018: RM18,642 million), which represents the outstanding banking facilities of the Group entities as at reporting date. As at reporting date, there was no indication that any entities would default on repayment. The fair value of the financial guarantee recognised is disclosed in note 24.

Liquidity risk

Liquidity risk is the risk that the Group and the Company will not be able to meet its financial obligations as they fall due. The Group's and the Company's exposure to liquidity risk arises principally from its trade and other payables, and borrowings. In managing its liquidity risk, the Group and the Company maintains sufficient cash and liquid marketable assets. The Company's current credit rating enables it to access banking facilities in excess of current and immediate future requirements of the Group and of the Company. The Group's and the Company's borrowing power is not limited by its Articles of Association. However, certain covenants included in agreements impose limited restrictions on some of the debt level of PETRONAS' subsidiaries.

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31 December 2019

40. FINANCIAL INSTRUMENTS (continued)

Liquidity risk (continued)

Maturity analysis

The table below summarises the maturity profile of the Group's and of the Company's financial liabilities as at the reporting date based on undiscounted contractual payments:

Group 2019 *In RM Mil*	Carrying amount	Contractual interest/ profit rates per annum %	Contractual cash flows	Within 1 year
Amortised cost				
Lease liabilities	13,666	0.42 - 13.80	16,274	1,675
Secured term loans				
USD floating rate loans	11,874	1.49	12,194	3,456
USD fixed rate loans	514	2.33	514	48
RM floating rate loans	387	4.39	387	18
Other fixed rate loans	8	12.50	8	2
Other floating rate loans	665	5.97	664	197
Unsecured term loans				
USD floating rate loans	3,489	2.87	3,643	1,258
USD fixed rate loans	518	6.18	525	82
EURO floating rate loans	1,994	0.40	2,013	8
Other fixed rate loans	862	5.56	868	816
Unsecured Notes and Bonds				
USD Notes	4,100	7.88	4,907	323
USD Guaranteed Notes	15,221	3.83	22,944	588
USD Bonds	2,050	7.63	3,111	156
Unsecured revolving credits				
USD revolving credits	808	2.53	808	808
GBP revolving credits	263	1.14	263	263
RM revolving credits	242	4.55	247	247
Other revolving credits	34	7.14	34	34
Unsecured bankers' acceptances				
CAD bankers' acceptances	399	2.01	399	399
Other bankers' acceptances	50	3.92	51	51

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

40. FINANCIAL INSTRUMENTS (continued)

Liquidity risk (continued)

Maturity analysis (continued)

Group 2019 *In RM Mil*	Carrying amount	Contractual interest/ profit rates per annum %	Contractual cash flows	Within 1 year
Amortised cost (continued)				
Unsecured bank overdrafts				
ZAR bank overdrafts	393	7.63	393	393
Other bank overdrafts	16	6.25	17	17
Secured Islamic financing facilities				
RM Islamic financing facilities	2,394	4.52	3,262	830
Unsecured Islamic financing facilities				
USD Islamic financing facilities	5,121	2.71	5,151	5,151
RM Islamic financing facilities	3,543	3.79	4,143	725
CNY Islamic financing facilities	127	6.30	156	8
Other long term liabilities	3,143	-	4,728	-
Financial guarantee	-	-	16,897	16,897
Trade and other payables	45,573	-	45,573	45,573
Fair value through profit or loss				
Derivative liabilities	641	-	641	455
	118,095		150,815	80,478

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NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

40. FINANCIAL INSTRUMENTS (continued)

Liquidity risk (continued)

Maturity analysis (continued)

Group 2019 *In RM Mil*	1-2 years	2-5 years	More than 5 years
Amortised cost			
Lease liabilities	**2,638**	**5,591**	**6,370**
Secured term loans			
USD floating rate loans	**816**	**2,755**	**5,167**
USD fixed rate loans	**48**	**156**	**262**
RM floating rate loans	**14**	**30**	**325**
Other fixed rate loans	**2**	**4**	**-**
Other floating rate loans	**122**	**342**	**3**
Unsecured term loans			
USD floating rate loans	**71**	**2,314**	**-**
USD fixed rate loans	**92**	**165**	**186**
EURO floating rate loans	**2,005**	**-**	**-**
Other fixed rate loans	**46**	**6**	**-**
Unsecured Notes and Bonds			
USD Notes	**323**	**4,261**	**-**
USD Guaranteed Notes	**588**	**4,598**	**17,170**
USD Bonds	**156**	**469**	**2,330**
Unsecured revolving credits			
USD revolving credits	**-**	**-**	**-**
GBP revolving credits	**-**	**-**	**-**
RM revolving credits	**-**	**-**	**-**
Other revolving credits	**-**	**-**	**-**
Unsecured bankers' acceptances			
CAD bankers' acceptances	**-**	**-**	**-**
Other bankers' acceptances	**-**	**-**	**-**
Unsecured bank overdrafts			
ZAR bank overdrafts	**-**	**-**	**-**
Other bank overdrafts	**-**	**-**	**-**

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

40. FINANCIAL INSTRUMENTS (continued)

Liquidity risk (continued)

Maturity analysis (continued)

Group 2019 *In RM Mil*	1-2 years	2-5 years	More than 5 years
Amortised cost (continued)			
Secured Islamic financing facilities			
RM Islamic financing facilities	**353**	**1,028**	**1,051**
Unsecured Islamic financing facilities			
USD Islamic financing facilities	**-**	**-**	**-**
RM Islamic financing facilities	**786**	**1,653**	**979**
CNY Islamic financing facilities	**8**	**140**	**-**
Other long term liabilities	**-**	**147**	**4,581**
Financial guarantee	**-**	**-**	**-**
Trade and other payables	**-**	**-**	**-**
Fair value through profit or loss			
Derivative liabilities	**186**	**-**	**-**
	8,254	**23,659**	**38,424**

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31 December 2019

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

40. FINANCIAL INSTRUMENTS (continued)

Liquidity risk (continued)

Maturity analysis (continued)

Group 2018 *In RM Mil*	Carrying amount	Contractual interest/ profit rates per annum %	Contractual cash flows	Within 1 year
Amortised cost				
Secured term loans				
USD floating rate loans	6,346	1.76	13,620	343
USD fixed rate loans	567	2.25	567	47
RM floating rate loans	404	4.71	512	38
Other fixed rate loans	11	10.68	11	2
Unsecured term loans				
USD floating rate loans	8,160	2.52	14,120	10,513
USD fixed rate loans	2,603	3.88	2,769	2,233
GBP floating rate loans	34	1.85	34	34
EURO floating rate loans	2,058	2.39	2,079	7
EURO fixed rate loans	2	3.27	2	1
Other fixed rate loans	173	4.87	183	115
Unsecured Notes and Bonds				
USD Notes	4,145	7.88	5,286	326
USD Guaranteed Notes	27,805	4.46	37,796	13,681
USD Bonds	2,072	7.63	5,376	158
Unsecured revolving credits				
USD revolving credits	788	4.96	788	788
GBP revolving credits	815	1.00	815	815
RM revolving credits	437	5.00	447	447
Other revolving credits	35	7.15	35	35
Unsecured bank overdrafts				
USD bank overdrafts	449	3.52	449	449
Other bank overdrafts	6	-	6	6

40. FINANCIAL INSTRUMENTS (continued)

Liquidity risk (continued)

Maturity analysis (continued)

Group 2018 *In RM Mil*	Carrying amount	Contractual interest/ profit rates per annum %	Contractual cash flows	Within 1 year
Amortised cost (continued)				
Secured Islamic financing facilities				
RM Islamic financing facilities	2,296	4.34	3,017	872
Unsecured Islamic financing facilities				
USD Islamic financing facilities	5,174	2.71	10,520	140
RM Islamic financing facilities	4,062	4.32	4,819	735
CNY Islamic financing facilities	130	6.17	160	8
Other long term liabilities	3,860	-	4,643	-
Financial guarantee	-	-	16,578	16,578
Trade and other payables	46,800	-	46,800	46,800
Fair value through profit or loss				
Derivative liabilities	452	-	452	362
	119,684		171,884	95,533

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NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

40. FINANCIAL INSTRUMENTS (continued)

Liquidity risk (continued)

Maturity analysis (continued)

Group 2018 *In RM Mil*	**1-2 years**	**2-5 years**	**More than 5 years**
Amortised cost			
Secured term loans			
USD floating rate loans	6,402	3,493	3,382
USD fixed rate loans	48	153	319
RM floating rate loans	34	86	354
Other fixed rate loans	3	6	-
Unsecured term loans			
USD floating rate loans	601	2,807	199
USD fixed rate loans	83	239	214
GBP floating rate loans	-	-	-
EURO floating rate loans	7	2,065	-
EURO fixed rate loans	-	1	-
Other fixed rate loans	14	17	37
Unsecured Notes and Bonds			
USD Notes	326	4,634	-
USD Guaranteed Notes	594	4,746	18,775
USD Bonds	158	474	4,586
Unsecured revolving credits			
USD revolving credits	-	-	-
GBP revolving credits	-	-	-
RM revolving credits	-	-	-
Other revolving credits	-	-	-
Unsecured bank overdrafts			
USD bank overdrafts	-	-	-
Other bank overdrafts	-	-	-

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

40. FINANCIAL INSTRUMENTS (continued)

Liquidity risk (continued)

Maturity analysis (continued)

Group 2018 *In RM Mil*	**1-2 years**	**2-5 years**	**More than 5 years**
Amortised cost (continued)			
Secured Islamic financing facilities			
RM Islamic financing facilities	226	572	1,347
Unsecured Islamic financing facilities			
USD Islamic financing facilities	5,206	5,174	-
RM Islamic financing facilities	664	2,010	1,410
CNY Islamic financing facilities	8	144	-
Other long term liabilities	272	2,877	1,494
Financial guarantee	-	-	-
Trade and other payables	-	-	-
Fair value through profit or loss			
Derivative liabilities	90	-	-
	14,736	29,498	32,117

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NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

40. FINANCIAL INSTRUMENTS (continued)

Liquidity risk (continued)

Maturity analysis (continued)

Company 2019 *In RM Mil*	Carrying amount	Contractual interest/ profit rates per annum %	Contractual cash flows	Within 1 year
Amortised cost				
Lease liabilities	**4,761**	**5.65**	**5,865**	**802**
Unsecured Notes and Bonds				
USD Notes	**4,100**	**7.88**	**4,907**	**323**
USD Guaranteed Notes	**15,221**	**3.83**	**22,944**	**588**
USD Bonds	**2,050**	**7.63**	**3,111**	**156**
Unsecured Islamic financing facilities				
USD Islamic financing facilities	**5,121**	**2.71**	**5,151**	**5,151**
Other long term liabilities	**9,759**	**-**	**14,941**	**14**
Financial guarantee	**-**	**-**	**2,314**	**2,314**
Trade and other payables	**16,793**	**-**	**16,793**	**16,793**
Fair value through profit or loss				
Derivative liabilities	**18**	**-**	**18**	**18**
	57,823		**76,044**	**26,159**

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NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

40. FINANCIAL INSTRUMENTS (continued)

Liquidity risk (continued)

Maturity analysis (continued)

Company 2019 *In RM Mil*	1-2 years	2-5 years	More than 5 years
Amortised cost			
Lease liabilities	**819**	**2,464**	**1,780**
Unsecured Notes and Bonds			
USD Notes	**323**	**4,261**	**-**
USD Guaranteed Notes	**588**	**4,598**	**17,170**
USD Bonds	**156**	**469**	**2,330**
Unsecured Islamic financing facilities			
USD Islamic financing facilities	**-**	**-**	**-**
Other long term liabilities	**470**	**498**	**13,959**
Financial guarantee	**-**	**-**	**-**
Trade and other payables	**-**	**-**	**-**
Fair value through profit or loss			
Derivative liabilities	**-**	**-**	**-**
	2,356	**12,290**	**35,239**

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NOTES TO THE FINANCIAL STATEMENTS

31 December 2019

40. FINANCIAL INSTRUMENTS (continued)

Liquidity risk (continued)

Maturity analysis (continued)

Company 2018 *In RM Mil*	**Carrying amount**	**Contractual interest/ profit rates per annum %**	**Contractual cash flows**	**Within 1 year**
Amortised cost				
Unsecured Notes and Bonds				
USD Notes	4,145	7.88	5,286	326
USD Guaranteed Notes	27,805	4.46	37,437	13,681
USD Bonds	2,072	7.63	3,303	158
Unsecured Islamic financing facilities				
USD Islamic financing facilities	5,175	2.71	5,346	140
Other long term liabilities	8,570	-	9,353	-
Financial guarantees	-	-	18,642	18,642
Trade and other payables	22,843	-	22,843	22,843
Fair value through profit or loss				
Derivative liabilities	20	-	20	20
	70,630		102,230	55,810

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NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

40. FINANCIAL INSTRUMENTS (continued)

Liquidity risk (continued)

Maturity analysis (continued)

Company 2018 *In RM Mil*	**1-2 years**	**2-5 years**	**More than 5 years**
Amortised cost			
Unsecured Notes and Bonds			
USD Notes	326	4,634	-
USD Guaranteed Notes	594	4,746	18,416
USD Bonds	158	474	2,513
Unsecured Islamic financing facilities			
USD Islamic financing facilities	5,206	-	-
Other long term liabilities	368	2,961	6,024
Financial guarantee	-	-	-
Trade and other payables	-	-	-
Fair value through profit or loss			
Derivative liabilities	-	-	-
	6,652	12,815	26,953

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40. FINANCIAL INSTRUMENTS (continued)

Market risk

Market risk is the risk or uncertainty arising from change in market prices and their impact on the performance of the business. The market price changes that the Group and the Company are exposed to include interest rates, foreign currency exchange rates, commodity prices, equity prices and other indices that could affect the value of the Group's and the Company's financial assets, liabilities or expected future cash flows.

Interest rate risk

The Group's and the Company's investments in fixed rate debt securities and fixed rate borrowings are exposed to a risk of change in their fair values due to changes in interest rates. The Group's variable rate borrowings are exposed to a risk of change in cash flows due to changes in interest rates. Investments in equity securities and short term receivables and payables are not significantly exposed to interest rate risk.

All interest rate exposures are monitored and managed proactively in line with PETRONAS' policies and guidelines. The Group enters into hedging transactions with respect to interest rate on certain long term borrowings and other debts where necessary and appropriate, in accordance with policies and guidelines.

The interest rate profile of the Group's and the Company's interest-bearing financial instruments based on carrying amount as at reporting date is as follows:

		Group		Company
In RM Mil	**2019**	**2018**	**2019**	**2018**
Fixed rate instruments				
Financial assets	**152,655**	178,508	**109,601**	155,109
Financial liabilities	**(45,430)**	(47,807)	**(35,806)**	(40,683)
	107,225	130,701	**73,795**	114,426
Floating rate instruments				
Financial assets	**2,404**	2,547	**48,710**	31,503
Financial liabilities	**(23,308)**	(20,765)	**-**	-
	(20,904)	(18,218)	**48,710**	31,503

Since most of the Group's and the Company's financial assets and liabilities are fixed rate instruments measured at amortised cost, a change in interest rate is not expected to have material impact on the Group's and the Company's profit or loss.

The Group has entered into an interest rate swaps to hedge the cash flow risk in relation to the floating interest rate of the USD term loan of USD322 million. The interest rate swaps have the same nominal value of USD322 million and is settled every quarter, consistent with the interest repayment schedule of the term loan. During the year, a loss of RM27 million (2018: a gain of RM11 million) was recognised in equity and no ineffective portion was recognised in the profit or loss that arises from cash flow hedge amounts.

Foreign exchange risk

The Group and the Company are exposed to varying levels of foreign exchange risk when they enter into transactions that are not denominated in the respective companies' functional currencies and when foreign currency monetary assets and liabilities are translated at the reporting date. The main underlying economic currencies of the Group's cash flows are Ringgit Malaysia and US dollar.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

40. FINANCIAL INSTRUMENTS (continued)

Market risk (continued)

Foreign exchange risk (continued)

The Group's and the Company's foreign exchange management policy are to minimise economic and significant transactional exposures arising from currency movements. The Group coordinates the handling of foreign exchange risks centrally typically by matching receipts and payments for the same currency. For major capital projects, the Group performs assessment of potential foreign exchange risk exposure at the investment decision phase to determine the appropriate foreign exchange risk management strategy. Residual net positions are actively managed and monitored against prescribed policies and control procedures. When deemed necessary and appropriate, the Group will enter into derivative financial instruments to hedge and minimise its exposures to the foreign currency movements.

The Group's and the Company's significant exposure to foreign currency risk, based on carrying amounts as at the reporting date is as follows:

Group *In RM Mil*	**2019**	**2018**
Denominated in USD		
Financial assets		
Loan and advances to subsidiaries	**73,206**	66,608
Cash and cash equivalents	**1,629**	9,412
Trade and other receivables	**7,211**	4,784
Fund and other investments	**297**	315
Other financial assets	**67**	54
Long term receivables	**175**	-
	82,585	81,173
Financial liabilities		
Loan and advances from holding company	**(1,472)**	(1,023)
Borrowings	**(32,968)**	(39,269)
Trade and other payables	**(5,688)**	(10,554)
Other financial liabilities	**(2,633)**	(1,516)
	(42,761)	(52,362)
Net exposure	**39,824**	28,811
Denominated in RM		
Financial assets		
Cash and cash equivalents	**1,220**	451
Trade and other receivables	**2,938**	4,526
Long term receivables	**10**	-
	4,168	4,977
Financial liabilities		
Borrowings	**(276)**	-
Trade and other payables	**(5,213)**	(8,038)
	(5,489)	(8,038)
Net exposure	**(1,321)**	(3,061)

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

40. FINANCIAL INSTRUMENTS (continued)

Market risk (continued)

Foreign exchange risk (continued)

Company *In RM Mil*	2019	2018
Denominated in USD		
Financial assets		
Loan and advances to subsidiaries	**70,427**	67,118
Cash and cash equivalents	**28,613**	36,767
Trade and other receivables	**5,489**	2,584
	104,529	106,469
Financial liabilities		
Cash and cash equivalents - subsidiaries' cash with PETRONAS Integrated Financial Shared Service Centre	**(27,817)**	(28,221)
Borrowings	**(31,253)**	(39,197)
Trade and other payables	**(1,562)**	(6,069)
Other financial liabilities	**(1,336)**	(1,486)
	(61,968)	(74,973)
Net exposure	**42,561**	31,496

Sensitivity analysis for a given market variable provided in this note, discloses the effect on profit or loss and equity as at 31 December 2019 assuming that a reasonably possible change in the relevant market variable had occurred at 31 December 2019 and been applied to the risk exposures in existence at that date to show the effects of reasonably possible changes in price on profit or loss and equity to the next annual reporting date. Reasonably possible changes in market variables used in the sensitivity analysis are based on implied volatilities, where available, or historical data for equity and commodity prices and foreign exchange rates. Reasonably possible changes in interest rates are based on management judgment and historical experience.

The sensitivity analysis is hypothetical and should not be considered to be predictive of future performance because the Group's actual exposure to market prices is constantly changing with changes in the Group's portfolio of among others, commodity, debt and foreign currency contracts. Changes in fair values or cash flows based on a variation in a market variable cannot be extrapolated because the relationship between the change in market variable and the change in fair value or cash flows may not be linear. In addition, the effect of a change in a given market variable is calculated independently of any change in another assumption and mitigating actions that would be taken by the Group. In reality, changes in one factor may contribute to changes in another, which may magnify or counteract the sensitivities.

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40. FINANCIAL INSTRUMENTS (continued)

Market risk (continued)

Foreign exchange risk (continued)

The following table demonstrates the indicative pre-tax effects on the profit or loss and equity of applying reasonably foreseeable market movements in the following currency exchange rates:

2019 *In RM Mil*	Appreciation in foreign currency rate %	Group Equity	Group Profit or loss	Company Equity	Company Profit or loss
USD	**10**	**3,300**	**535**	**-**	**4,256**
MYR	**10**	**-**	**(132)**	**-**	**-**
2018					
USD	10	3,389	149	-	3,150
MYR	10	-	(306)	-	-

A depreciation in foreign currency rate above would have had equal but opposite effect, on the basis that all other variables remain constant.

Equity price risk

Equity price risk arises from the Group's and the Company's investments in equity securities. Exposures to equity price risk are managed in accordance with the Group's existing policies and guidelines. The Group and the Company monitor the equity investments on a portfolio basis and a performance benchmark is established for each investment portfolio giving consideration to portfolio objectives and return expectation. All buy and sell decisions are monitored by the Group Treasury Division.

The Group and the Company also hold equity investments that were previously classified as available-for-sale financial assets and these equity investments have been reclassified to FVTPL and FVOCI. Reports on the equity portfolio performance are submitted to the Group's and the Company's senior management on a regular basis.

The Group's and the Company's exposure to equity price risk based on carrying amounts as at the reporting date is as follows:

In RM Mil	Group 2019	Group 2018	Company 2019	Company 2018
Local equities	**543**	514	**7**	7
Foreign equities	**224**	305	**-**	-
	767	819	**7**	7

NOTES TO THE FINANCIAL STATEMENTS
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40. FINANCIAL INSTRUMENTS (continued)

Market risk (continued)

Equity price risk (continued)

The following table demonstrates the indicative pre-tax effects on the profit or loss and equity of applying reasonably foreseeable market movements in the following equities:

2019 *In RM Mil*	Increase in price based on average change in index rate %	Group Equity	Group Profit or loss	Company Equity	Company Profit or loss
Local equities	**10**	**1**	**151**	**-**	**1**
Foreign equities	**15 to 20**	**20**	**-**	**-**	**-**
2018					
Local equities	10	6	147	-	1
Foreign equities	15 to 20	43	-	-	-

A decrease in price based on average change in index rate above would have had equal but opposite effect, on the basis that all other variables remain constant.

Commodity price risk

The Group is exposed to changes in crude oil, gas and petroleum products prices which may affect the value of the Group's assets, liabilities or expected future cash flows. To mitigate these exposures from a business perspective, the Group enters into various financial instruments. In effecting these transactions, the Group operates within policies, guidelines and procedures designed to ensure that risks are minimised. All financial instruments positions are marked-to-market by independent risk management department and reported to management for performance monitoring and risk management purposes on a daily basis.

Since the Group undertakes hedging using commodity derivatives for the majority of its transactions, a change in commodity price is not likely to result in a significant impact on the Group's profit or loss and equity.

Fair value information

The carrying amounts of cash and cash equivalents, short term receivables and payables and short term borrowings, reasonably approximate their fair values due to the relatively short term nature of these financial instruments.

It was not practicable to estimate the fair value of the Group's investment in unquoted shares due to the lack of comparable quoted prices in an active market and the fair value cannot be reliably measured.

The following table analyses financial instruments carried at fair value and those not carried at fair value for which fair value is disclosed, together with their fair values and carrying amounts shown in the statement of financial position.

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40. FINANCIAL INSTRUMENTS (continued)

Fair value information (continued)

Group 2019 *In RM Mil*	Fair value of financial instruments carried at fair value Level 1	Level 2	Total
Financial assets			
Quoted shares	**780**	**35**	**815**
Quoted securities	**135**	**-**	**135**
Commodity swaps	**-**	**2**	**2**
Malaysian Government Securities	**-**	**610**	**610**
Corporate Bonds and Sukuk	**-**	**7,198**	**7,198**
Forward foreign exchange contracts	**-**	**58**	**58**
Forward gas contracts	**427**	**158**	**585**
Forward oil/gas price swaps	**142**	**-**	**142**
Interest rate swaps	**-**	**2**	**2**
	1,484	**8,063**	**9,547**
Financial liabilities			
Commodity swaps	**-**	**(27)**	**(27)**
Forward foreign exchange contracts	**-**	**(74)**	**(74)**
Forward gas contracts	**(352)**	**(7)**	**(359)**
Forward oil/gas price swaps	**(14)**	**-**	**(14)**
Interest rate swaps	**-**	**(160)**	**(160)**
	(366)	**(268)**	**(634)**

Group 2019 *In RM Mil*	Fair value of financial instruments not carried at fair value Level 2	Level 3	Total	Carrying amount
Financial assets				
Unquoted shares	**-**	**292**	**292**	**292**
Malaysian Government Securities	**-**	**610**	**610**	**610**
Long term receivables	**-**	**11,897**	**11,897**	**11,897**
Finance lease receivables	**-**	**8,525**	**8,525**	**8,525**
	-	**21,324**	**21,324**	**21,324**
Financial liabilities				
Notes and Bonds	**(24,074)**	**-**	**(24,074)**	**(21,371)**
Term loans	**-**	**(20,297)**	**(20,297)**	**(20,311)**
Islamic financing facilities	**(5,141)**	**(11,432)**	**(16,573)**	**(11,185)**
Other long term liabilities	**-**	**(3,143)**	**(3,143)**	**(3,143)**
	(29,215)	**(34,872)**	**(64,087)**	**(56,010)**

NOTES TO THE FINANCIAL STATEMENTS
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40. FINANCIAL INSTRUMENTS (continued)

Fair value information (continued)

Group 2018 *In RM Mil*	Fair value of financial instruments carried at fair value Level 1	Level 2	Total
Financial assets			
Quoted shares	790	28	818
Quoted securities	123	-	123
Commodity swaps	-	2	2
Malaysian Government Securities	-	44	44
Corporate Bonds and Sukuk	-	4,209	4,209
Forward foreign exchange contracts	-	28	28
Forward gas contracts	223	83	306
Forward oil/gas price swaps	24	-	24
Interest rate swaps	-	63	63
	1,160	4,457	5,617
Financial liabilities			
Commodity swaps	-	(19)	(19)
Forward foreign exchange contracts	-	(158)	(158)
Forward gas contracts	(281)	(5)	(286)
Forward oil/gas price swaps	(8)	-	(8)
	(289)	(182)	(471)

Group 2018 *In RM Mil*	Fair value of financial instruments not carried at fair value Level 2	Level 3	Total	Carrying amount
Financial assets				
Unquoted shares	-	238	238	238
Malaysian Government Securities	-	44	44	44
Long term receivables	-	5,511	5,511	5,511
Finance lease receivables	-	9,599	9,599	9,599
	-	15,392	15,392	15,392
Financial liabilities				
Notes and Bonds	(35,233)	-	(35,233)	(34,022)
Term loans	-	(20,349)	(20,349)	(20,358)
Islamic financing facilities	(5,138)	(7,845)	(12,983)	(11,662)
Other long term liabilities	-	(1,992)	(1,992)	(1,889)
	(40,371)	(30,186)	(70,557)	(67,931)

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40. FINANCIAL INSTRUMENTS (continued)

Fair value information (continued)

Company 2019 *In RM Mil*	Fair value of financial instruments carried at fair value Level 1	Level 2	Level 3	Total
Financial assets				
Quoted shares	**7**	**-**	**-**	**7**
Malaysian Government Securities	**-**	**518**	**-**	**518**
Corporate Bonds and Sukuk	**-**	**3,467**	**-**	**3,467**
Forward foreign exchange contracts	**-**	**10**	**-**	**10**
Long term receivables	**-**	**-**	**22,653**	**22,653**
	7	**3,995**	**22,653**	**26,655**
Financial liabilities				
Forward foreign exchange contracts	**-**	**(18)**	**-**	**(18)**

Company 2019 *In RM Mil*	Fair value of financial instruments not carried at fair value Level 2	Level 3	Total	Carrying amount
Financial assets				
Unquoted shares	**-**	**73**	**73**	**73**
Long term receivables	**-**	**101,961**	**101,961**	**98,547**
Deposits with licensed bank	**977**	**-**	**977**	**977**
	977	**102,034**	**103,011**	**99,597**
Financial liabilities				
Notes and Bonds	**(24,074)**	**-**	**(24,074)**	**(21,371)**
Islamic financing facilities	**(5,125)**	**-**	**(5,125)**	**(5,121)**
Other long term liabilities	**-**	**(9,795)**	**(9,795)**	**(9,759)**
	(29,199)	**(9,795)**	**(38,994)**	**(36,251)**

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31 December 2019

40. FINANCIAL INSTRUMENTS (continued)

Fair value information (continued)

Company 2018 *In RM Mil*	Fair value of financial instruments carried at fair value Level 1	Level 2	Level 3	Total
Financial assets				
Quoted shares	7	-	-	7
Malaysian Government Securities	-	38	-	38
Corporate Bonds and Sukuk	-	1,645	-	1,645
Forward foreign exchange contracts	-	4	-	4
Long term receivables	-	-	19,734	19,734
	7	1,687	19,734	21,428
Financial liabilities				
Forward foreign exchange contracts	-	(20)	-	(20)

Company 2018 *In RM Mil*	Fair value of financial instruments not carried at fair value Level 2	Level 3	Total	Carrying amount
Financial assets				
Unquoted shares	-	73	73	73
Long term receivables	-	96,030	96,030	95,594
Deposits with licensed bank	1,000	-	1,000	1,000
	1,000	96,103	97,103	96,667
Financial liabilities				
Notes and Bonds	(35,239)	-	(35,239)	(34,022)
Islamic financing facilities	(5,141)	-	(5,141)	(5,175)
Other long term liabilities	-	(8,603)	(8,603)	(8,570)
	(40,380)	(8,603)	(48,983)	(47,767)

Derivatives

The calculation of fair value for derivative financial instruments depends on the type of instruments. The fair value of interest rate swap agreements are estimated by discounting expected future cash flows using current market interest rates and yield curve over the remaining term of the instrument. The fair value of forward foreign currency exchange contracts is based on the fair value difference between forward exchange rates and the contracted rate. The fair value of commodity swap and commodity forward contracts is based on the fair value difference between market price at the date of measurement and the contracted price.

Non-derivative financial instruments

Fair value, which is determined for disclosure purposes, is calculated based on the present value of future principal and interest cash flows, discounted at the market rate of interest at the end of the reporting period. In respect of the liability component of convertible notes, the market rate of interest is determined by reference to similar liabilities that do not have a conversion option. For other borrowings, the market rate of interest is determined by reference to similar borrowing arrangements.

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40. FINANCIAL INSTRUMENTS (continued)

Income/(expense), net gains and losses arising from financial instruments

Group 2019 *In RM Mil*	Interest income	Interest expense	Impairment loss	Others	Total
Financial assets at fair value through profit or loss:					
- mandatorily required by MFRS 9	**334**	**-**	**-**	**158**	**492**
Financial assets at fair value through OCI:					
- recognised in equity	**-**	**-**	**-**	**40**	**40**
Financial assets at amortised cost					
- recognised in profit or loss	**6,555**	**-**	**28**	**(233)**	**6,350**
- recognised in equity	**-**	**-**	**-**	**(38)**	**(38)**
Financial liabilities at amortised cost	**-**	**(2,427)**	**-**	**195**	**(2,232)**
Total	**6,889**	**(2,427)**	**28**	**122**	**4,612**

Group 2018 *In RM Mil*	Interest income	Interest expense	Impairment loss	Others	Total
Financial assets at fair value through profit or loss:					
- mandatorily required by MFRS 9	260	-	-	133	393
Financial assets at fair value through OCI:					
- recognised in equity	-	-	-	(140)	(140)
Financial assets at amortised cost:					
- recognised in profit or loss	6,249	-	1,491	(320)	7,420
- recognised in equity	-	-	-	(158)	(158)
Financial liabilities at amortised cost	-	(2,855)	-	(783)	(3,638)
Total	6,509	(2,855)	1,491	(1,268)	3,877

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40. FINANCIAL INSTRUMENTS (continued)

Income/(expense), net gains and losses arising from financial instruments (continued)

Company 2019 *In RM Mil*	**Interest income**	**Interest expense**	**Impairment loss/ (writeback)**	**Others**	**Total**
Financial instruments at fair value through profit or loss:					
- mandatorily required by MFRS 9	**164**	**-**	**-**	**666**	**830**
Financial assets at amortised cost	**6,575**	**-**	**103**	**(653)**	**6,025**
Financial liabilities at amortised cost	**-**	**(3,387)**	**-**	**195**	**(3,192)**
Total	**6,739**	**(3,387)**	**103**	**208**	**3,663**

Company 2018 *In RM Mil*	**Interest income**	**Interest expense**	**Impairment loss/ (writeback)**	**Others**	**Total**
Financial instruments at fair value through profit or loss:					
- mandatorily required by MFRS 9	70	-	-	3,080	3,150
Financial assets at amortised cost	6,990	-	(134)	599	7,455
Financial liabilities at amortised cost	-	(2,512)	-	(783)	(3,295)
Total	7,060	(2,512)	(134)	2,896	7,310

Others relate to gains and losses arising from financial instruments other than interest income, interest expense and impairment loss such as realised and unrealised foreign exchange gains or losses, dividend income and fair value gains or losses.

41. CAPITAL MANAGEMENT

The Group, as an essential part of its capital management strategy, is committed to a policy of financial prudence as outlined in the PETRONAS Group Corporate Financial Policy. The Group's capital structure consists of consolidated equity plus debt, defined as the current and long term portions of the Group's debt.

The objective of the Group's capital management is to maintain an optimal capital structure and ensure availability of funds in order to meet financial obligations, support business growth and maximise shareholders' value. The Group monitors and maintains a prudent level of total debt to total assets ratio so as to enable compliance with all covenants.

There were no changes in the Group's approach to capital management during the year.

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42. AMENDMENTS TO MFRS AND PRONOUNCEMENTS ISSUED BY MASB

Adoption of new and revised pronouncements

As of 1 January 2019, the Group and the Company adopted the following pronouncements that have been issued by the MASB and are applicable as listed below:

Effective for annual periods beginning on or after 1 January 2019

MFRS 16 *Leases*
Amendments to MFRS 3 *Business Combinations (Annual Improvements 2015-2017 Cycle)*
Amendments to MFRS 11 *Joint Arrangements (Annual Improvements 2015-2017 Cycle)*
Amendments to MFRS 112 *Income Taxes (Annual Improvements 2015-2017 Cycle)*
Amendments to MFRS 123 *Borrowing Costs (Annual Improvements 2015-2017 Cycle)*
Amendments to MFRS 128 *Investment in Associates and Joint Ventures: Long-term Interests in Associates and Joint Ventures*
Amendments to MFRS 119 *Employee Benefits: Plan Amendment, Curtailment or Settlement*
IC Interpretation 23 *Uncertainty over Income Tax Treatments*

The principal changes in accounting policies and their effects are set out below:

i. MFRS 16 *Leases*

Definition of a lease

A contract is, or contains, a lease if the contract conveys a right to control the use of an identified asset for a period of time in exchange for a consideration. On transition to MFRS 16, the Group and the Company reassessed all contracts to determine whether each contract is, or contains a lease at the date of initial application.

As a lessee

MFRS 16 introduces a single, on balance sheet lease accounting for lessees. A lessee recognises a-right-of-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments.

Where the Group and the Company are a lessee, the Group and the Company applied the requirements of MFRS 16 retrospectively with the cumulative effect of initial application as an adjustment to the opening balance of retained earnings at 1 January 2019.

At 1 January 2019, for leases that were previously classified as operating lease under MFRS 117, lease liabilities were measured at the present value of the remaining lease payments, discounted at the Group entities' incremental borrowing rate as at 1 January 2019. The Group's and the Company's weighted-average rate applied is 4.55% and 4.65% respectively. Right-of-use assets are measured at their carrying amount as if MFRS 16 had been applied since the commencement date, discounted using the Group entities' incremental borrowing rate at 1 January 2019.

The Group entities used the following practical expedients when applying MFRS 16 to leases previously classified as operating lease under MFRS 117:

- applied the exemption not to recognise right-of-use assets and liabilities for leases with less than 12 months of lease term as at 1 January 2019;
- excluded initial direct costs from measuring the right-of-use asset at the date of initial application; and
- used hindsight when determining the lease term if the contract contains options to extend or terminate the lease.

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42. AMENDMENTS TO MFRS AND PRONOUNCEMENTS ISSUED BY MASB (continued)

Adoption of new and revised pronouncements (continued)

i. MFRS 16 *Leases* (continued)

For leases that were classified as finance lease under MFRS 117, the carrying amounts of the right-of-use asset and the lease liability at 1 January 2019 are determined to be the same as the carrying amount of the lease asset and lease liability under MFRS 117 immediately before that date.

As a lessor

An entity of the Group who is an intermediate lessor reassessed the classification of a sublease previously classified as an operating lease under MFRS 117 and concluded that the sublease is an operating lease under MFRS 16.

ii. Amendments to MFRS 123 *Borrowing Costs* (Annual Improvements 2015-2017 Cycle)

In previous years, borrowing costs relating to specific qualifying assets were capitalised into the cost of the asset. The capitalisation of borrowing costs ceased when substantially all activities necessary to prepare the qualifying asset for its intended use or sale were completed. Any borrowing costs incurred subsequently were expensed off to profit or loss.

Following the amendments, borrowing costs incurred after the completion of the specific qualifying asset are included in the pool of general borrowing costs available for capitalisation. Capitalisation rate is determined as the weighted-average of the borrowing costs applicable to all borrowings of the Group and the Company outstanding during the period.

The change in this accounting policies is applied prospectively.

The initial application of the above-mentioned pronouncements did not have any material impact to the financial statements of the Group and the Company except as disclosed in note 46.

Pronouncements yet in effect

The following pronouncements that have been issued by the MASB will become effective in future financial reporting periods and have not been adopted by the Group and the Company in these financial statements:

Effective for annual periods beginning on or after 1 January 2020

Amendments to MFRS 3 *Business Combinations (Definition of a Business)*
Amendments to MFRS 9 *Financial Instruments*, MFRS 139 *Financial Instruments: Recognition and Measurement* and MFRS 7 *Financial Instruments: Disclosures –Interest Rate Benchmark Reform*
Amendments to MFRS 101 *Presentation of Financial Statements (Definition of Material)*
Amendments to MFRS 108 *Accounting Policies, Changes in Accounting Estimates and Errors (Definition of Material)*

Effective for annual periods beginning on or after 1 January 2021

MFRS 17 *Insurance Contracts*

Effective for a date yet to be confirmed

Amendments to MFRS 10 *Consolidated Financial Statements: Sale or Contribution of Assets between an Investor and its Associate or Joint Venture*
Amendments to MFRS 128 *Investments in Associates and Joint Ventures: Sale or Contribution of Assets between an Investor and its Associate or Joint Venture*

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42. AMENDMENTS TO MFRS AND PRONOUNCEMENTS ISSUED BY MASB (continued)

Pronouncements yet in effect (continued)

The Group and the Company are expected to apply the abovementioned pronouncements beginning from the respective dates the pronouncements become effective. The initial application of the above-mentioned pronouncements are not expected to have any material impact to the financial statements of the Group and the Company.

43. KEY SUBSIDIARIES AND ACTIVITIES

The subsidiary undertakings of the Company at 31 December 2019 and 2018 and the Group percentage of share capital are set out below.

		Effective ownership interest and voting interest		Country of Incorporation	Principal Activities
		2019 %	2018 %		
*	PETRONAS Carigali Sdn. Bhd.	**100**	100	Malaysia	Petroleum exploration, development and production
	PC JDA Limited	**100**	100	Republic of Mauritius	Petroleum operations
	PETRONAS Carigali Overseas Sdn. Bhd.	**100**	100	Malaysia	Investment holding and petroleum operations
	E&P Malaysia Venture Sdn. Bhd.	**100**	100	Malaysia	Petroleum operations
ю*	PETRONAS International Corporation Ltd.	**100**	100	Malaysia	Investment holding
	PETRONAS Carigali Iraq Holding B.V.	**100**	100	Netherlands	Petroleum operations
	PETRONAS Carigali Chad Exploration & Production Inc.	**100**	100	Cayman Islands	Investment holding
	PETRONAS Carigali (Chad EP) Inc.	**100**	100	Cayman Islands	Petroleum operations
	PETRONAS Chad Marketing Inc.	**100**	100	Cayman Islands	Trading of petroleum products
	PETRONAS Australia Pty Limited	**100**	100	Australia	Investment holding
	PAPL (Upstream) Pty Limited	**100**	100	Australia	Exploration and production of coal seam gas
	PAPL (Downstream) Pty Limited	**100**	100	Australia	Production and transportation of liquefied natural gas for export
	PETRONAS Carigali (Jabung) Ltd.	**100**	100	Bahamas	Petroleum operations
	PETRONAS Carigali Nile Ltd.	**100**	100	Republic of Mauritius	Petroleum operations
	PETRONAS (E&P) Overseas Ventures Sdn. Bhd.	**100**	100	Malaysia	Investment holding
	Natuna 1 B.V.	**100**	100	Netherlands	Petroleum operations
	PETRONAS Carigali Canada B.V.	**100**	100	Netherlands	Investment holding
	PETRONAS Energy Canada Ltd.	**100**	100	Canada	Petroleum and gas exploration, development and production

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43. KEY SUBSIDIARIES AND ACTIVITIES (continued)

		Effective ownership interest and voting interest 2019 %	Effective ownership interest and voting interest 2018 %	Country of Incorporation	Principal Activities
	North Montney LNG Limited Partnership	**100**	100	Canada	Participation in LNG Canada construction and operations activities, liquefaction of natural gas as LNG, storage, marketing of LNG
	PETRONAS E&P Argentina S.A.	**100**	100	Argentina	Petroleum and gas exploration, development and production
	PETRONAS Azerbaijan Upstream Sdn. Bhd.	**100**	100	Malaysia	Investment holding
	PETRONAS South Caucasus S.à r.l.	**100**	100	Luxembourg	Investment holding
	PETRONAS Azerbaijan (Shah Deniz) S.à r.l.	**100**	100	Luxembourg	Petroleum operations
	PETRONAS Carigali (Turkmenistan) Sdn. Bhd.	**100**	100	Malaysia	Petroleum operations
ю	PICL (Egypt) Corporation Ltd.	**100**	100	Malaysia	Investment holding, exploration and production of oil and gas
	PC Oman Ventures Ltd.	**100**	100	Mauritius	Petroleum operations
	PETRONAS Petróleo Brasil Ltda.	**100**	-	Brazil	Petroleum operations
	PETRONAS Power Sdn. Bhd.	**100**	100	Malaysia	Investment holding
	PETRONAS LNG Sdn. Bhd.	**100**	100	Malaysia	Investment holding
ю	PETRONAS LNG Ltd.	**100**	100	Malaysia	Trading of natural gas and LNG
	PETRONAS Energy Trading Limited	**100**	100	United Kingdom	Trading of natural gas and LNG
*	Malaysia LNG Sdn. Bhd.	**90**	90	Malaysia	Liquefaction and sale of LNG
*	Malaysia LNG Dua Sdn. Bhd.	**80**	80	Malaysia	Liquefaction and sale of LNG
*	Malaysia LNG Tiga Sdn. Bhd.	**60**	60	Malaysia	Liquefaction and sale of LNG
*	PETRONAS LNG 9 Sdn. Bhd.	**65**	70	Malaysia	Purchase and liquefaction of natural gas and marketing of LNG
ю*	PETRONAS Floating LNG 1 (L) Ltd.	**100**	100	Malaysia	Developing, constructing, owning, operating and maintaining an integrated floating natural gas liquefaction, storage and off loading facility
ю*	PETRONAS Floating LNG 2 (L) Ltd.	**100**	100	Malaysia	Developing, constructing, owning, operating and maintaining an integrated floating natural gas liquefaction, storage and off loading facility

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43. KEY SUBSIDIARIES AND ACTIVITIES (continued)

		Effective ownership interest and voting interest 2019 %	Effective ownership interest and voting interest 2018 %	Country of Incorporation	Principal Activities
*	PETRONAS Energy & Gas Trading Sdn. Bhd.	**100**	100	Malaysia	Export and import of liquefied petroleum gas sale of gas to the user through mains export and import of other solid, liquid and gaseous fuels and related products
*	PETRONAS International Power Corporation (Mauritius) Ltd.	**100**	100	Mauritius	Investment holding
*	PETRONAS International Power Corporation B.V.	**100**	100	Netherlands	Investment holding
	Amplus Energy Solutions Pte. Ltd. (Singapore)	**100**	-	Singapore	Electricity, gas stream and air-condition supply
*	PETRONAS Marketing International Sdn. Bhd.	**100**	100	Malaysia	Investment holding
	Engen Limited	**74**	74	South Africa	Refining of crude oil and marketing of refined petroleum products
@*	PETRONAS Dagangan Berhad	**63.9**	69.9	Malaysia	Domestic marketing of petroleum products
@*	PETRONAS Gas Berhad	**51**	60.6	Malaysia	Processing and transmission of natural gas
	Regas Terminal (Sg. Udang) Sdn. Bhd.	**51**	60.6	Malaysia	Manage and operate LNG regasification terminal
	Pengerang LNG (TWO) Sdn. Bhd.	**33.2**	39.4	Malaysia	Manage and operate LNG regasification terminal
*	PETRONAS Refinery & Petrochemical Corporation Sdn. Bhd.	**100**	100	Malaysia	Development and ownership of Refinery and Petrochemical Integrated Complex
	PRPC Utilities & Facilities Sdn. Bhd.	**100**	100	Malaysia	Supply and service of utilities and common facilities and infrastructures
	Pengerang Power Sdn. Bhd.	**100**	100	Malaysia	Developing and operating a power generation plant and distribution of electricity and steam
*	PETRONAS Penapisan (Melaka) Sdn. Bhd.	**100**	100	Malaysia	Refining and condensation of crude oil
*	Malaysian Refining Company Sdn. Bhd.	**100**	100	Malaysia	Refining and condensation of crude oil

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43. KEY SUBSIDIARIES AND ACTIVITIES (continued)

	Effective ownership interest and voting interest 2019 %	2018 %	Country of Incorporation	Principal Activities
* PETRONAS Penapisan (Terengganu) Sdn. Bhd.	**100**	100	Malaysia	Refining and condensation of crude oil
* PETRONAS Trading Corporation Sdn. Bhd.	**100**	100	Malaysia	Marketing of crude oil and trading in crude oil and petroleum products and investment holding
ю PETCO Trading Labuan Company Ltd.	**100**	100	Malaysia	Marketing of crude oil and trading in crude oil and petroleum products
PETCO Trading (UK) Limited	**100**	100	United Kingdom	Marketing of crude oil and trading in crude oil and petroleum products
PETCO Trading DMCC	**100**	100	United Arab Emirates	Trading of petroleum products
@* PETRONAS Chemicals Group Berhad	**64.3**	64.3	Malaysia	Investment holding
PETRONAS Chemicals Aromatics Sdn. Bhd.	**45**	45	Malaysia	Production and sale of aromatics products
PETRONAS Chemicals Ammonia Sdn. Bhd.	**64.3**	64.3	Malaysia	Production and sale of ammonia, syngas and carbon monoxide
ю PETRONAS Chemicals Marketing (Labuan) Ltd.	**64.3**	64.3	Malaysia	Marketing of petrochemical products
PETRONAS Chemicals Fertiliser Kedah Sdn. Bhd.	**64.3**	64.3	Malaysia	Production and sale of urea, ammonia and methanol
PETRONAS Chemicals Glycols Sdn. Bhd.	**64.3**	64.3	Malaysia	Production and sale of ethylene oxide, ethylene glycol and other related by-products
PETRONAS Chemicals Marketing Sdn. Bhd.	**64.3**	64.3	Malaysia	Marketing of petrochemical products
PETRONAS Chemicals Methanol Sdn. Bhd.	**64.3**	64.3	Malaysia	Production and sale of methanol
PETRONAS Chemicals MTBE Sdn. Bhd.	**64.3**	64.3	Malaysia	Production and sale of methyl tertiary butyl ether and propylene
PETRONAS Chemicals Olefins Sdn. Bhd.	**64.3**	64.3	Malaysia	Production and sale of ethylene, propylene and other hydrocarbon by-products
Asean Bintulu Fertilizer Sdn. Bhd.	**40.8**	40.8	Malaysia	Processing of natural gas into urea and ammonia

43. KEY SUBSIDIARIES AND ACTIVITIES (continued)

	Effective ownership interest and voting interest 2019 %	2018 %	Country of Incorporation	Principal Activities
PETRONAS Chemicals Derivatives Sdn. Bhd.	**64.3**	64.3	Malaysia	Production and sale of ethylene oxide derivatives, propylene derivatives and related chemical products
PETRONAS Chemicals Polyethylene Sdn. Bhd.	**64.3**	64.3	Malaysia	Production and sale of polyethylene
PETRONAS Chemicals Ethylene Sdn. Bhd.	**56.3**	56.3	Malaysia	Production and sale of ethylene
PETRONAS Chemicals Fertiliser Sabah Sdn. Bhd.	**64.3**	64.3	Malaysia	Production and sale of ammonia and urea
PETRONAS Chemicals LDPE Sdn. Bhd.	**64.3**	64.3	Malaysia	Production and sale of low-density polyethylene pellets ("LDPE")
PETRONAS Chemicals International B.V.	**64.3**	-	Netherlands	Investment holding
Da Vinci Group B.V.	**64.3**	-	Netherlands	Development, production in and export and wholesale of silicones, lubricants, additives, chemicals and related technical products
* PrimeSourcing International Sdn. Bhd.	**100**	100	Malaysia	Marketing and trading of steel, mechanical and electrical instrumentation, chemical and catalyst
* PETRONAS Lubricants International Sdn. Bhd.	**100**	100	Malaysia	Investment holding, manufacturing and trading of lubricant products
PLI (Netherlands) B.V.	**100**	100	Netherlands	Investment holding
PETRONAS Lubricants Italy S.p.A	**100**	100	Italy	Manufacturing and marketing of lubricant products
PETRONAS Lubrificantes Brasil S.A.	**100**	100	Brazil	Manufacturing and marketing of lubricant products
@* MISC Berhad	**57.6**	62.6	Malaysia	Shipping and shipping related activities
AET Tanker Holdings Sdn. Bhd.	**57.6**	62.6	Malaysia	Investment holding
@ Malaysia Marine and Heavy Engineering Holdings Berhad	**38.3**	41.6	Malaysia	Investment holding
ю Gas Asia Terminal (L) Pte. Ltd.	**57.6**	62.6	Malaysia	Development and ownership of LNG floating storage units
ю MISC Capital (L) Ltd.	**57.6**	62.6	Malaysia	Special purpose vehicle for financing arrangement

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

43. KEY SUBSIDIARIES AND ACTIVITIES (continued)

	Effective ownership interest and voting interest 2019 %	2018 %	Country of Incorporation	Principal Activities
ю MISC Offshore Floating Terminals (L) Ltd.	**57.6**	62.6	Malaysia	Offshore floating terminals ownership
ю Gumusut-Kakap Semi-Floating Production System (L) Limited	**57.6**	62.6	Malaysia	Owning and leasing of semi-submersible floating production system
MISC Tankers Sdn. Bhd.	**57.6**	62.6	Malaysia	Investment holding and provision of management services
MISC Tanker Holdings Sdn. Bhd.	**57.6**	62.6	Malaysia	Investment holding
MISC Tanker Holdings (Bermuda) Limited	**57.6**	62.6	Bermuda	Investment holding
* KLCC (Holdings) Sdn. Bhd.	**100**	100	Malaysia	Investment holding, property development management and provision of management services
Kuala Lumpur Convention Centre Sdn. Bhd.	**100**	100	Malaysia	Property investment
Putrajaya Holdings Sdn. Bhd.	**64.4**	64.4	Malaysia	Property development and investment
@ KLCC Property Holdings Berhad	**75.5**	75.5	Malaysia	Investment holding, property investment and provision of management services
^@ KLCC Real Estate Investment Trust ("KLCC REIT")	**-**	-	Malaysia	To invest in a Shariah compliant portfolio of real estate assets and real estate related assets
Suria KLCC Sdn. Bhd.	**45.3**	45.3	Malaysia	Property investment
Putrajaya Homes Sdn. Bhd.	**64.4**	64.4	Malaysia	General construction and property development
Putrajaya Ventures Sdn. Bhd.	**64.4**	64.4	Malaysia	Property development
Putrajaya Bina Sdn. Bhd.	**64.4**	64.4	Malaysia	Leasing of building and property management
* Institute of Technology PETRONAS Sdn. Bhd.	**100**	100	Malaysia	Institute of higher learning
ю* Energas Insurance (L) Limited	**100**	100	Malaysia	Offshore captive insurance business
ю* PETRONAS Capital Limited	**100**	100	Malaysia	Investment holding
β ю PETRONAS Global Sukuk Limited	**-**	-	Malaysia	Investment holding

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

43. KEY SUBSIDIARIES AND ACTIVITIES (continued)

	Effective ownership interest and voting interest 2019 %	2018 %	Country of Incorporation	Principal Activities
β Petroleum Research Fund	**-**	-	Malaysia	Providing financial contributions to research activities relating to petroleum and other energy sources industry
β Abandonment Cess Fund	**-**	-	Malaysia	Manage, hold and utilise the trust fund to discharge obligations for the Abandonment of Petroleum Facilities in Malaysia
* PETRONAS Assets Sdn. Bhd.	**100**	100	Malaysia	Owning and leasing of assets
* PETRONAS Hartabina Sdn. Bhd.	**100**	100	Malaysia	Property holding
* PETRONAS Technical Training Sdn. Bhd.	**100**	100	Malaysia	Provision of training services
* PETRONAS Management Training Sdn. Bhd.	**100**	100	Malaysia	Provision of training services
* PETRONAS NGV Sdn. Bhd.	**100**	100	Malaysia	Promoting and retailing of natural gas for vehicles
* PETRONAS Research Sdn. Bhd.	**100**	100	Malaysia	Provision of research, advisory and technology development services
* PETRONAS Technical Services Sdn. Bhd.	**100**	100	Malaysia	Provision of technical and project management services
* Petrosains Sdn. Bhd.	**100**	100	Malaysia	Management of a petroleum discovery centre
* Sanzbury Stead Sdn. Bhd.	**100**	100	Malaysia	Property holding
* OGP Technical Services Sdn. Bhd.	**100**	100	Malaysia	Provision of technical and project management services
* Marmel Incorporated	**100**	100	Republic of Liberia	Investment holding
* PETRONAS e-Learning Solutions Sdn. Bhd.	**100**	100	Malaysia	Dormant

* Subsidiaries held directly by the Company.

ю Companies incorporated under the Labuan Companies Act 1990.

@ The shares of these subsidiaries are quoted on the Main Market of Bursa Malaysia Securities Berhad.

^ The Group does not hold any ownership interest in KLCC Real Estate Investment Trust ("KLCC REIT"). However, the Group exercises power by virtue of its control over KLCC REIT Management Sdn. Bhd., the manager of KLCC REIT. KLCC REIT units are stapled to the ordinary shares of KLCC Property Holdings Berhad ("KLCCP") such that the shareholders of KLCCP are exposed to variable returns from its involvement with KLCC REIT and the Group has the ability to affect those returns through its power over KLCC REIT. Consequently, KLCC REIT is regarded as a subsidiary of the Group.

β The Group does not hold any ownership interest in these funds/entities. However, the Group has the rights to appoint and remove members of Board of Trustees funds/Directors, which is the decision making body of the funds/entities and able to determine the manner in which balance of the funds, after fulfilment of certain obligation, should be distributed upon dissolution. Consequently, the funds/entities is regarded as subsidiaries of the Group.

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

NOTES TO THE FINANCIAL STATEMENTS
31 December 2019

44. KEY ASSOCIATES AND ACTIVITIES

		Effective ownership interest and voting interest 2019 %	2018 %	Country of Incorporation	Principal Activities
	BASF PETRONAS Chemicals Sdn. Bhd.	**25.7**	25.7	Malaysia	Purchases propylene and n-butane feedstock from the Group for production, marketing and sale of acrylic, oxo and butanediol products
	Bintulu Port Holdings Berhad	**28.5**	28.5	Malaysia	Port management
	Cameroon Oil Transportation Company - S.A.	**29.8**	29.8	Republic of Cameroon	Pipeline operations
	El Behera Natural Gas Liquefaction Company S.A.E.	**35.5**	35.5	Egypt	Manufacturing and production of LNG for the purpose of export
#	Gas Malaysia Berhad	**8.9**	9	Malaysia	Selling, marketing, distribution and promotion of natural gas
	IDKU Natural Gas Liquefaction Company S.A.E.	**38**	38	Egypt	Manufacturing and production of LNG for the purpose of export
**	Pacific NorthWest LNG Ltd.	**62**	62	Canada	Overall management and control of the business and affairs of LNG Partnership
	Pacific NorthWest LNG Limited Partnership	**62**	62	Canada	Evaluation, engineering and final investment decision and eventual construction and operation of planned LNG factory
	Pacificlight Power Pte. Ltd.	**30**	30	Singapore	Build, own and operate power generation plant
	Tchad Oil Transportation Company - S.A.	**30.2**	30.2	Republic of Chad	Pipeline operations
	The Egyptian LNG Company S.A.E.	**35.5**	35.5	Egypt	Owning, managing and developing the land and the common facilities related to the Egyptian LNG facility
#	South Caucasus Pipeline Holding Company	**15.2**	15.2	Cayman Islands	Investment holding
#	South Caucasus Pipeline Company	**15.5**	15.5	Cayman Islands	Pipeline operations
#	Azerbaijan Gas Supply Company Ltd.	**12.4**	12.4	Cayman Islands	Marketing and selling of natural gas

\# Although the Group has less than 20% of the ownership in the equity interest of these associates, the Group has determined that it has significant influence over the financial and operating policy of the associate through representation on the said associate's Board of Directors.

** Although the Group has 62% of the ownership in the equity interest of Pacific NorthWest LNG Ltd., the governing agreements and constitutive documents for this entity do not allow the Group to control this entity as voting requires unanimous approval of the shareholders or their representatives.

45. KEY JOINT VENTURES AND ACTIVITIES

		Effective ownership interest and voting interest 2019 %	2018 %	Country of Incorporation	Principal Activities
	BP PETRONAS Acetyls Sdn. Bhd.	**19.3**	19.3	Malaysia	Manufacture, sell and distribute acetic acid
	Dragon LNG Group Limited	**-**	50	United Kingdom	Operate LNG import and storage terminal
	Trans Thai-Malaysia (Thailand) Ltd.	**50**	50	Thailand	Gas pipeline transportation and gas separation services
	Trans Thai-Malaysia (Malaysia) Sdn. Bhd.	**50**	50	Malaysia	Transporting and delivering gas products
	Indianoil PETRONAS Private Limited	**50**	50	India	Manufacture and bottling services of Liquid Petroleum Gas ("LPG")
	Kimanis Power Sdn. Bhd.	**30.6**	36.4	Malaysia	Generation and sale of electricity
	Taninthayi Pipeline Co. LLC	**40.9**	40.9	Cayman Islands	Transportation of gas
ю	Malaysia Deepwater Floating Terminal (Kikeh) Ltd.	**29.4**	31.8	Malaysia	Floating production storage and off-loading ("FPSO") owner
	Guangxi Nanning Yuchai Lube Co., Ltd.	**50**	50	China	Manufacturing and marketing of lubricant products
	Guangxi Beihai Yuchai High Quality Lube Co., Ltd.	**50**	50	China	Manufacturing and marketing of lubricant products
	Pengerang Terminals (Two) Sdn. Bhd.	**40**	40	Malaysia	Undertake activities related to terminal storage facilities for petroleum and petrochemical products
	Pengerang Refining Company Sdn. Bhd.	**50**	50	Malaysia	Undertake blending, processing or cracking of crude, condensates, feedstock or intermediate feedstock

ю Company incorporated under the Labuan Companies Act 1990.

NOTES TO THE FINANCIAL STATEMENTS

31 December 2019

46. IMPACT OF THE ADOPTION OF PRONOUNCEMENTS

Since the Group and the Company applied the requirements of MFRS 16 retrospectively with the cumulative effect of initial application at 1 January 2019 and amendments to MFRS 123 prospectively, there are no adjustments made to the prior period presented.

a) Impact of the adoption of MFRS 16

The following table explains the difference between operating lease commitments disclosed applying MFRS 117 at 31 December 2018, and lease liabilities recognised in the statement of financial position at 1 January 2019.

In RM Mil	Group	Company
Operating lease commitments at 31 December 2018 as disclosed in the financial statements	3,013	14,786
Discounted using the incremental borrowing rate at 1 January 2019	2,777	8,696
Finance lease liabilities recognised as at 31 December 2018	1,864	1,836
Operating lease recognised	6,130	5
Lease liabilities recognised at 1 January 2019	10,771	10,537

	Adjustments at 1 January 2019	
In RM Mil	Group	Company
Increase in assets	7,193	7,408
Decrease in equity	1,714	1,293
Increase in liabilities	8,907	8,701

b) Impact of the adoption of Amendments to MFRS 123 (Annual Improvements 2015 – 2017 Cycle)

The initial application of MFRS 123 did not have a significant impact on the Group's and the Company's financial statements.

INDEPENDENT AUDITORS' REPORT

TO THE MEMBERS OF PETROLIAM NASIONAL BERHAD

REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS

Opinion

We have audited the financial statements of Petroliam Nasional Berhad, which comprise the statements of financial position as at 31 December 2019 of the Group and of the Company, and the statements of profit or loss and other comprehensive income, statements of changes in equity and statements of cash flows of the Group and of the Company for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, as set out on pages 166 to 318.

In our opinion, the accompanying financial statements give a true and fair view of the financial position of the Group and of the Company as at 31 December 2019, and of their financial performance and their cash flows for the year then ended in accordance with Malaysian Financial Reporting Standards, International Financial Reporting Standards and the requirements of the Companies Act 2016 in Malaysia.

Basis for Opinion

We conducted our audit in accordance with approved standards on auditing in Malaysia and International Standards on Auditing. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our auditors' report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence and Other Ethical Responsibilities

We are independent of the Group and of the Company in accordance with the By-Laws (on Professional Ethics, Conduct and Practice) of the Malaysian Institute of Accountants ("By-Laws") and the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants ("IESBA Code"), and we have fulfilled our other ethical responsibilities in accordance with the By-Laws and the IESBA Code.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the Group and of the Company for the current year. These matters were addressed in the context of our audit of the financial statements of the Group and of the Company as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

INDEPENDENT AUDITORS' REPORT
TO THE MEMBERS OF PETROLIAM NASIONAL BERHAD

Key Audit Matters (continued)

Impairment of property, plant and equipment ("PPE") and intangible assets ("IA")	
Refer to note 3 – Property, Plant and Equipment and note 10 – Intangible Assets.	
The key audit matter	**How the matter was addressed in our audit**
The Group operates in the oil and gas sector which has been affected by the continued fluctuation in the oil and gas prices. This gives rise to a risk that the carrying amount of the Group's property, plant and equipment and intangible assets consisting of goodwill, exploration expenditures and other intangible assets, especially in the Upstream operating segment might exceed their recoverable amount, and therefore the carrying amount needs to be impaired. The Group has estimated the recoverable amount for each cash generating unit ("CGU") by forecasting and discounting future cash flows relevant to the CGU. As a result, net impairment loss of RM6,539 million (2018: net impairment write-back of RM3,331 million) for PPE and net impairment loss of RM204 million (2018: RM20 million) for IA (refer note 27) were recognised in the current financial year. We have identified the evaluation of the carrying amount of the Group's PPE and IA of RM319,204 million (2018: RM310,385 million) (refer note 3) and RM26,260 million (2018: RM22,513 million) (refer note 10) respectively at 31 December 2019 as a key audit matter because: • it is material in the consolidated financial statements and represents 56% (2018: 52%) of Group's total assets; and • the estimation of recoverable amounts involves a significant degree of judgment exercised and assumptions made by the Group. Key judgmental aspects include assumptions of oil and gas prices, expenditures, production profile and the use of an appropriate discount rate.	We performed the following audit procedures, among others: i) Considered the appropriateness of Group's determination of CGUs based on our knowledge of the Group's business and its internal reporting. ii) Evaluated key assumptions used in the estimation of recoverable amount, among others: • production profile – assessed whether the production profile is within the field/reserve lives; • long term outlook of prices – compared to information published by external analysts; • expenditures – compared to information included in the Group's approved budget and actual historical information; and • discount rate – challenged the appropriateness of the discount rate used. iii) Performed stress test over the projected oil price. iv) Reviewed component auditor's testing on projected capital expenditure against actual incurred. v) Considered the adequacy of the Group's disclosures about those assumptions to which the outcome of the impairment assessment is most sensitive. Based on the above procedures, the carrying amount of the Group's PPE and IA is appropriate.

INDEPENDENT AUDITORS' REPORT
TO THE MEMBERS OF PETROLIAM NASIONAL BERHAD

Key Audit Matters (continued)

Measurement of provision for decommissioning, dismantling, removal and restoration ("DDRR")	
Refer to note 24 – Other Long Term Liabilities and Provisions.	
The key audit matter	**How the matter was addressed in our audit**
The provision outstanding for DDRR of the Group and the Company amounts to RM37,070 million (2018: RM35,641 million) and RM15,740 million (2018: RM16,451 million) (refer note 24) respectively as at the end of current financial year, which represents 33% (2018: 36%) and 26% (2018: 27%) of the Group's and Company's non - current liabilities. The estimation of DDRR provision, especially for assets under Upstream operating segment ("Upstream assets"), involves a high level of judgment, complex calculations and estimation uncertainty. Furthermore, DDRR activity of the Group and the Company especially on Upstream assets is rather preliminary, where majority of the assets are still in production stage. As such, there is limited historical precedent which the Group and the Company can benchmark against on the expected future costs to be incurred. These factors increase the degree of complexity in estimating the DDRR provision. The Group reviews the DDRR provision on an annual basis, of which key components in the computation include the interest rate, inflation rate and expected future costs.	We performed the following audit procedures, among others: i) Assessed the appropriateness of data used in the calculation of the DDRR provision to the originating source. ii) Evaluated key assumptions used in the DDRR provision calculation, among others: • interest and inflation rates – compared to information from external sources; and • expected future costs – compared to costs incurred on recent similar transactions. iii) Performed consistency testing on the application of key assumptions to respective oil fields. iv) Re-performed the calculation of the DDRR provision for mathematical accuracy. Based on the above procedures, the measurement of provision for DDRR of the Group and the Company are appropriate.

INDEPENDENT AUDITORS' REPORT
TO THE MEMBERS OF PETROLIAM NASIONAL BERHAD

Information Other than the Financial Statements and Auditors' Report Thereon

The Directors of the Company are responsible for the other information. The other information comprises the information included in the Directors' Report, but does not include the financial statements of the Group and of the Company and our auditors' report thereon.

Our opinion on the financial statements of the Group and of the Company does not cover the Directors' Report and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements of the Group and of the Company, our responsibility is to read the Directors' Report and, in doing so, consider whether the Directors' Report is materially inconsistent with the financial statements of the Group and of the Company or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of the Directors' Report, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Directors for the Financial Statements

The Directors of the Company are responsible for the preparation of financial statements of the Group and of the Company that give a true and fair view in accordance with Malaysian Financial Reporting Standards, International Financial Reporting Standards and the requirements of the Companies Act 2016 in Malaysia. The Directors are also responsible for such internal control as the Directors determine is necessary to enable the preparation of financial statements of the Group and of the Company that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements of the Group and of the Company, the Directors are responsible for assessing the ability of the Group and of the Company to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the Group or the Company or to cease operations, or have no realistic alternative but to do so.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements of the Group and of the Company as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with approved standards on auditing in Malaysia and International Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with approved standards on auditing in Malaysia and International Standards on Auditing, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements of the Group and of the Company, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control of the Group and of the Company.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Directors.

INDEPENDENT AUDITORS' REPORT
TO THE MEMBERS OF PETROLIAM NASIONAL BERHAD

Auditors' Responsibilities for the Audit of the Financial Statements (continued)

- Conclude on the appropriateness of the Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the ability of the Group or of the Company to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements of the Group and of the Company or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Group or the Company to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements of the Group and of the Company, including the disclosures, and whether the financial statements of the Group and of the Company represent the underlying transactions and events in a manner that gives a true and fair view.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the financial statements of the Group. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the Directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Report on Other Legal and Regulatory Requirements

In accordance with the requirements of the Companies Act 2016 in Malaysia, we report that the subsidiaries of which we have not acted as auditors are disclosed in Appendix I.

Other Matter

This report is made solely to the members of the Company, as a body, in accordance with Section 266 of the Companies Act 2016 in Malaysia and for no other purpose. We do not assume responsibility to any other person for the content of this report.

KPMG PLT
(LLP0010081-LCA & AF 0758)
Chartered Accountants

Abdullah Abu Samah
Approval Number: 02013/06/2020 J
Chartered Accountant

Petaling Jaya, Malaysia

Date: 26 February 2020

APPENDIX 1

SUBSIDIARIES AUDITED BY OTHER FIRMS OF ACCOUNTANTS

KLCC (Holdings) Sdn. Bhd. and its subsidiaries:

- Putrajaya Homes Sdn. Bhd.
- Convex Malaysia Sdn. Bhd.
- Gas District Cooling (M) Sdn. Bhd.
- Gilang Cendana Sdn. Bhd.
- Hasrat Intisari (M) Sdn. Bhd.
- Putrajaya Bina Sdn. Bhd.
- Midciti Sukuk Berhad
- Kenyalang Murni Sdn. Bhd.
- KLCC Projects Sdn. Bhd.
- Rantau Properties Sdn. Bhd.
- KLCC Projects Services Sdn. Bhd.
- Kuala Lumpur City Park Berhad
- Layar Intan Sdn. Bhd.
- KLCC Real Estate Investment Trust (@)
- Menara Putrajaya Sdn. Bhd.
- Purnama Sepi Sdn. Bhd.
- Putrajaya Development Sdn. Bhd.
- Putrajaya Group Sdn. Bhd.
- Putrajaya Projects Sdn. Bhd.
- Putrajaya Resources Sdn. Bhd.
- Senandung Asli Sdn. Bhd.
- Tapak Senja Sdn. Bhd.
- Gas District Cooling (KLIA) Sdn. Bhd.
- Arah Moden Sdn. Bhd.
- Quantum Panorama Sdn. Bhd.
- Arena Johan Sdn. Bhd.
- Asas Klasik Sdn. Bhd.
- KLCC Parking Management Sdn. Bhd.
- Kompleks Dayabumi Sdn. Bhd.
- Midciti Resources Sdn. Bhd.
- Rantau Land Sdn. Bhd.
- Gagasan Ria Sdn. Bhd.
- Gas District Cooling (Putrajaya) Sdn. Bhd.
- Heritage Lane Sdn. Bhd.
- Ilham Merpati Sdn. Bhd.
- Idaman Putrajaya Sdn. Bhd.
- Impian Moden Sdn. Bhd.
- Kelana Perkasa Sdn. Bhd.
- Rantau Recreation Sdn. Bhd.
- KLCC Properties Sdn. Bhd.
- Komponen Abadi Sdn. Bhd.
- Rantau Homes Sdn. Bhd.
- Kuala Lumpur Convention Centre Sdn. Bhd.
- KLCC REIT Management Sdn. Bhd.
- Lembah Putrajaya Sdn. Bhd.
- Metro Kemasik Sdn. Bhd.
- Pedoman Semarak Sdn. Bhd.
- Putrajaya Holdings Sdn. Bhd.
- Putrajaya Management Sdn. Bhd.
- Putrajaya Properties Sdn. Bhd.
- Putrajaya Ventures Sdn. Bhd.
- Serba Harapan (M) Sdn. Bhd.
- Gas District Cooling (Holdings) Sdn. Bhd.
- Gas District Cooling (UTP) Sdn. Bhd.
- Indah Putrajaya Sdn. Bhd.
- Suria KLCC Sdn. Bhd.
- Arena Merdu Sdn. Bhd.
- Impian Cemerlang Sdn. Bhd.
- KLCC Urusharta Sdn. Bhd.
- KLCC Property Holdings Bhd. (@)

Marmel Incorporated and its subsidiaries:

- Darton Ltd.
- GCB Associates, LLC
- Sparknight, LLC
- Paterson, LLC
- WG Parcel B, LLC
- PRPC SPJ Sdn Bhd (α)
- Darton U.S. Holdings, Inc.
- Grabhorn Properties, LLC
- World Gateway Investments, Inc.
- World Gateway Property Owners Association

SUBSIDIARIES AUDITED BY OTHER FIRMS OF ACCOUNTANTS (continued)

MISC Berhad and its subsidiaries:

- AET Agencies Inc.
- AET Inc. Limited
- AET Offshore Services Inc.
- Eaglestar Marine B.V.
- Eaglestar Shipmanagement (S) Pte. Ltd.
- AET Tanker Holdings Sdn. Bhd.
- Asia LNG Transport Sdn. Bhd.
- MISC Nigeria Ltd.
- Malaysian Maritime Academy Sdn. Bhd.
- AET STS Limited Inc.
- MISC Offshore Floating Terminals Dua (L) Ltd.
- Hendham Enterprises Ltd.
- Asia LNG Transport Dua Sdn. Bhd.
- MISC Agencies India Pvt. Ltd.
- MISC Berhad (UK) Ltd.
- MISC Capital (L) Ltd.
- AET Bermuda One Limited
- MISC Ferry Services Sdn. Bhd.
- MISC International (L) Ltd.
- MISC Offshore Holdings (Brazil) Sdn. Bhd.
- MISC Ship Management Sdn. Bhd.
- Seri Cemara (L) Private Limited
- Oldson Ventures Ltd.
- MISC Tanker Holdings (Bermuda) Limited
- MTTI Sdn. Bhd.
- Malaysia Marine and Heavy Engineering Holdings Berhad (@)
- Puteri Delima Satu (L) Pte. Ltd.
- Puteri Firus Satu (L) Pte. Ltd.
- Puteri Intan Satu (L) Pte. Ltd.
- Puteri Nilam Satu (L) Pte. Ltd.
- Puteri Zamrud Satu (L) Pte. Ltd.
- Puteri Zamrud Sdn. Bhd.
- AET Tankers Kazakhstan LLP
- AET Shipmanagement (USA) LLC
- AET Tankers (Suezmax) Pte. Ltd.
- AET Shuttle Tankers Sdn. Bhd.
- AET MCV Alpha L.L.C.
- AET MCV Gamma L.L.C.
- AET Lightering Services LLC
- AET Petroleum Tanker (M) Sdn. Bhd.
- AET Shipmanagement (Malaysia) Sdn. Bhd.
- AET Tankers India Pte. Ltd.
- AET UK Ltd.
- AET Tankers Pte. Ltd.
- FPSO Ventures Sdn. Bhd.
- Malaysia Marine and Heavy Engineering Sdn. Bhd.
- Atenea Services S.A.
- AET Azerbaijan Limited
- MISC Agencies Sdn. Bhd.
- MISC Enterprises Holdings Sdn. Bhd.
- Malaysia Offshore Mobile Production (Labuan) Ltd.
- MISC Offshore Floating Terminals (L) Ltd.
- MISC Tanker Holdings Sdn. Bhd.
- MMHE LNG Sdn. Bhd.
- AET Sea Shuttle AS
- Gas Asia Terminal (L) Pte. Ltd.
- MISC Tankers Sdn. Bhd.
- Puteri Delima Sdn. Bhd.
- MISC do Brasil Servicos de Energia Ltd.
- Puteri Firus Sdn. Bhd.
- Puteri Intan Sdn. Bhd.
- Puteri Mutiara Satu (L) Pte. Ltd.
- Puteri Nilam Sdn. Bhd.
- Techno Indah Sdn. Bhd.
- MISC PNG Shipping Ltd.
- AET MCV Delta Sdn. Bhd.
- AET MCV Beta L.L.C.
- AET Brasil Servicos STS Ltda.
- Paramount Tankers Corporation
- MISC Maritime Services Sdn. Bhd.
- Sungai Udang Port Sdn. Bhd.
- MISC Agencies (Netherlands) B.V.
- AET Singapore One Pte. Ltd.
- MISC Agencies (Netherlands) B.V.
- Zangwill Business Corp.
- Odley Worldwide Inc.

APPENDIX 1

SUBSIDIARIES AUDITED BY OTHER FIRMS OF ACCOUNTANTS (continued)

MISC Berhad and its subsidiaries: (continued)

- AET Brasil Servicos Maritamos Ltda.
- AET Holdings (L) Pte. Ltd.
- Seri Camellia (L) Private Limited
- Seri Cempaka (L) Private Limited
- Seri Cenderawasih (L) Private Limited
- Seri Camar (L) Private Limited
- MMHE International Sdn. Bhd.
- MMHE EPIC Marine & Services Sdn. Bhd.
- Eaglestar Marine Holdings (L) Pte. Ltd.
- Gumusut-Kakap Semi-Floating Production System (L) Limited
- AET Labuan One Pte. Ltd.
- Malaysia Marine and Heavy Engineering Saudi Limited
- Mekar Bergading Offshore Floating (L) Limited
- AET Labuan Pte. Ltd.
- AET Bermuda Holding Ltd
- AET Singapore Holding Pte Ltd
- AET Tanker Kazakhstan LLP
- AET Brasil Servicos STS Ltda
- Eaglestar Marine India Private Limited
- AET Azerbaijan Ltd.
- AET Sea Shuttle II AS
- Malaysia Marine & Heavy Engineering Sdn. Bhd.
- MISC Berhad (UK) Ltd
- Chord X Pte. Ltd.
- AMI Manning Services Private Limited
- AET Product Tankers Sdn. Bhd.
- Twyford International Business Corp.
- Eaglestar Shipmanagement (L) Pte. Ltd.
- Eaglestar Marine (S) Pte. Ltd.
- Portovenere and Lerici (Labuan) Pte. Ltd.
- Portovenere and Lerici (Singapore) Pte. Ltd.
- Malaysia Offshore Mobile Production Dua (Labuan) Ltd.
- AET Shutter Thankers II Pte Ltd.
- AET Shuttle Tankers Sdn. Bhd.
- AET Pte. Ltd
- AET Brasil Services Maritamos Ltda
- AET Shipmanagement (Malaysia) Sdn. Bhd.
- AET Tanker India Pte. Ltd.
- AET Product Tankers Sdn. Bhd.
- MMHE International Sdn. Bhd.
- MISC Agencies (India) Pte. Ltd.
- SOL-X Pte. Ltd.
- Spares CNX Pte. Ltd.

PETRONAS Carigali Sdn. Bhd. and its subsidiaries:

- E&P Venture Solutions Co. Sdn. Bhd.
- PC JDA Ltd.
- PC (SE Palung Aru) Ltd.
- PETRONAS Carigali (Australia) Pty. Ltd.
- PETRONAS Carigali (Oman) Ltd.
- PETRONAS Carigali (Ketapang) Ltd.
- PETRONAS Carigali (Surumana) Ltd.
- E&P O&M Services Sdn. Bhd.
- Vestigo Petroleum Sdn. Bhd.
- PC Algeria Ltd. (ψ)
- PETRONAS Carigali White Nile (5B) Ltd.
- E&P Malaysia Venture Sdn. Bhd.
- PC Lampung II Ltd.
- PC Randugunting Ltd.
- PC Mozambique (Rovuma Basin) Ltd.
- PETRONAS Carigali Overseas Sdn. Bhd.
- PETRONAS Carigali (Karapan) Ltd.
- PC Ketapang II Ltd.
- PETRONAS Carigali Nigeria Limited
- PETRONAS Carigali Mozambique E&P Ltd.
- PETRONAS Carigali (West Glagah Kambuna) Ltd.

APPENDIX 1

SUBSIDIARIES AUDITED BY OTHER FIRMS OF ACCOUNTANTS (continued)

PETRONAS Lubricants International Sdn. Bhd.'s subsidiaries:

- PETRONAS Lubricants Italy S.p.A (α)
- PETRONAS Lubricants Africa Ltd. (α)
- PETRONAS Lubrificantes Brasil S.A. (α)
- PETRONAS Lubricants France S.a.s. (α)
- PT PLI Indonesia
- PETRONAS Lubricants Netherlands B.V. (α)
- PETRONAS Lubricants Belgium N.V. (α)
- PLAL Egypt LLC
- PETRONAS Madeni Yaglar TIC Limited STI (α)
- PETRONAS Lubricants Spain S.L.U. (α)
- Arexons Srl. (α)
- PETRONAS Lubricants Portugal Lda (α)
- PLI (Netherlands) B.V.
- PETRONAS Lubricants China Company Limited (α)
- PLI Australia Pty. Limited (ψ)
- PETRONAS Madeni Yaglar TIC LTD STI (α)
- PETRONAS Lubricants Poland Sp. Zo.o (α)
- PETRONAS Lubricants Argentina S.A. (α)
- PETRONAS Lubricants Great Britain Limited (α)
- PETRONAS Lubricants Deutschland Gmbh (α)
- PETRONAS Marketing China Company Limited (α)
- PETRONAS Lubricants (India) Private Limited (ψ)
- PETRONAS Lubricants Shandong Company Limited (α)
- PLAL DMCC (α)
- PETRONAS Lubricants Africa Limited (α)
- PLAL Egypt LLC
- PLI (Netherlands) B.V
- PT PLI Indonesia
- PLAL Dubai Multi Commodities Centre (PLAL DMCC)
- PETRONAS Lubricants (India) Private Limited. (α)
- PETRONAS Lubricants China Co.,Ltd (α).
- PETRONAS Marketing (China) Co., Ltd. (α)

PETRONAS International Corporation Ltd. and its subsidiaries:

- PETRONAS Carigali Brunei Ltd.
- Labuan Energy Corporation Limited
- PETRONAS Suriname E&P B.V.
- PAPL (Upstream) Pty. Ltd.
- PC North Madura II Ltd.
- PC Muriah Ltd.
- PC Myanmar (Hong Kong) Limited
- PAPL Services Pty. Limited
- PAPL (Upstream II) Pty. Ltd.
- PSE Kinsale Energy Limited
- PETRONAS Energy Trading Limited
- PETRONAS Carigali Myanmar Inc.
- PETRONAS Carigali Nile Ltd.
- PC Carigali Mexico Oil and Gas Holding S.A. de C.V.
- PETRONAS Carigali (Chad EP) Inc.
- PETRONAS Carigali Myanmar III Inc.
- PETRONAS Philippines Inc. (α) (ψ)
- Doba Pipeline Investment Inc.
- North Montney LNG Ltd. Partnership
- Argentinean Pipeline Holding Company S.A.(α) (ψ)
- PETRONAS LNG Ltd.
- MITCO Labuan Co. Limited
- Myanmar PETRONAS Trading Co. Ltd.
- LEC Ireland Employment Ltd.
- Nada Properties Company Ltd.
- Natuna 1 B.V.
- PC Gabon Upstream S.A
- PETRONAS LNG (UK) Limited
- Parsi International Ltd.
- PC Madura Ltd.
- PAPL (Downstream) Pty. Ltd.
- PC (Myanmar) Holdings Limited (ψ)
- PC Vietnam Ltd.
- PETRONAS Angola E&P Ltd.
- PETRONAS Australia Pty. Ltd.
- PETRONAS Carigali (Jabung) Ltd.
- PETRONAS Carigali (Turkmenistan) Sdn. Bhd.
- PETRONAS (E&P) Overseas Ventures Sdn. Bhd.
- PC Kuala Kurun Ltd
- PETRONAS Brasil E&P Limitada

APPENDIX 1

SUBSIDIARIES AUDITED BY OTHER FIRMS OF ACCOUNTANTS (continued)

PETRONAS International Corporation Ltd. and its subsidiaries: (continued)

- PETRONAS Thailand Co. Ltd. (α)
- Japan Malaysia LNG Co. Ltd.
- PICL Siri Company Limited (α)
- PETRONAS LNG Sdn. Bhd.
- PETRONAS Carigali Canada B.V.
- PETRONAS Carigali International E&P B.V.
- PETRONAS Carigali Iraq (Badra) Ltd.
- PETRONAS Carigali Iraq (Majnoon) Ltd.
- PICL (Egypt) Corporation Ltd.
- PSE Seven Head Limited
- Humbly Grove Energy Ltd.
- PETRONAS Carigali Chad Exploration & Production Inc.
- PETRONAS Carigali Iraq Holding B.V.
- PETRONAS Carigali International Sdn.Bhd.
- PICL Marketing Thailand Ltd.
- PC Carigali Mexico Operations S.A. de C.V.
- PC Mauritania 1 Pty. Ltd. (α)
- PC Mauritania II B.Y. (α)
- PC Sakakemang Ltd.
- PETRONAS Energy Canada Ltd. (α)
- PETRONAS Myanmar Limited
- PETRONAS Azerbaijan Upstream Sdn. Bhd.
- PETRONAS South Caucasus S.a.r.l.
- PETRONAS Azerbaijan Shah Deniz S.a.r.l.
- Sirri International Ltd.
- PETRONAS Carigali Iraq (Halfaya) Ltd.
- LNG Investments Europe Limited
- PC Gabon Upstream S.A.
- PETRONAS West Papua IV Indonesia B.V.
- Petroliam Manpower Support Services Mexico S.A. de C.V.
- PETRONAS Carigali International E&P B.V.
- PETRONAS Gebang Indonesia B.V.
- PETRONAS Aru Indonesia B.V.
- PETRONAS International Marketing (Thailand) Co. Ltd.
- Labuan Energy Corporation Ltd.
- PCM (Thailand) Co. Ltd
- PETRONAS Chemicals Ammonia Sdn. Bhd.

PETRONAS Marketing International Sdn. Bhd. and its subsidiaries:

- Azania Petroleum (Pty.) Ltd.
- Citycat Properties (Pty.) Ltd.
- Chemico (Pty.) Ltd.
- Petroleum Investment Holding Ltd.
- Engen DRC SARL
- Engen Gabon S.A.
- Engen Group Funding Trust
- Engen Holdings (Ghana) Ltd.
- Engen International Holdings (Mauritius) Ltd.
- Engen Oil Zimbabwe (PVT) Ltd.
- Engen Lesotho (Pty.) Ltd.
- Engen Marketing Botswana (Pty.) Ltd.
- Engen (Nigeria) Ltd. (α)
- Valais Investments (Pty.) Ltd.
- Engen Swaziland (Pty.) Ltd.
- Engen Rwanda Ltd.
- Engen Petroleum Zimbabwe (PVT) Ltd.
- South African Oil Refinery (Pty.) Ltd.
- Engen Marketing Tanzania Ltd.
- Pakenzyl (Pty.) Ltd.
- Engen Company (Mauritius) Ltd.
- Engen Botswana Limited (β)
- Engen Ghana Ltd.
- Engen Holdings (Pty.) Ltd.
- Engen Holdings Zimbabwe (PVT) Ltd.
- Engen Kenya Ltd.
- Engen Limited
- Engen Marketing Ltd.
- Engen Namibia (Pty.) Ltd.
- Engen Producing (Nigeria) Ltd. (α)
- Engen Petroleum (DRC) Ltd.
- Renaissance Petroleum (Pty.) Ltd.
- Engen Petroleum Tanzania Ltd.
- Enpet Africa Insurance Ltd.

APPENDIX 1

SUBSIDIARIES AUDITED BY OTHER FIRMS OF ACCOUNTANTS (continued)

PETRONAS Marketing International Sdn. Bhd. and its subsidiaries: (continued)

- Engen Petroleum Zambia Ltd.
- Enpet Insurance Ltd.
- Imtrasel (Pty.) Ltd.
- Engen Reunion SA
- Engen Ltd. (Malawi)
- Trek Petroleum (Pty.) Ltd.
- Societe de Transport Mace SA
- Engen Oil Lesotho (Pty.) Ltd.
- Zenex Oil (Pty.) Ltd.
- Engen Oil Tanking Ltd.
- Engen Petroleum (Mauritius) Ltd.
- Kabuye Depot Holding Company Rwanda Ltd.
- Engen Petroelum (Mokambique) Ltd.
- Engen Petroleum Ltd.

PETRONAS Assets Sdn. Bhd. and its subsidiaries:

- PETRONAS ICT Sdn. Bhd.
- Virtus iP Sdn. Bhd.
- Petrofibre Network (M) Sdn. Bhd.

PETRONAS Trading Corporation Sdn. Bhd. and its subsidiaries:

- PETCO Trading (UK) Limited (α)
- PT PETRONAS Niaga Indonesia
- PETCO Trading DMCC (α)

PETRONAS Technical Services Sdn. Bhd. and its subsidiary:

- PTSSB DMCC

PETRONAS Chemicals Group Berhad and its subsidiaries:

- PCM (Thailand) Company Limited (ψ)
- PCM (China) Company Limited (α)
- Kertih Port Sdn. Bhd.
- Polypropylene Malaysia Sdn. Bhd.
- PETRONAS Chemicals Ammonia Sdn. Bhd.
- PETRONAS Chemicals Olefins Sdn. Bhd.
- PCM Chemical India Private Limited
- PT PCM Kimia Indonesia
- Vinyl Chloride (Malaysia) Sdn. Bhd
- PETRONAS Chemicals Derivatives Sdn. Bhd.
- PETRONAS Chemicals Glycols Sdn. Bhd.
- PETRONAS Chemicals LDPE Sdn. Bhd.

Da Vinci Group B.V. and its subsidiaries:

- BRB Central Eastern Europe Sp. z.o.o.
- BRB Invest B.V.
- BRB International B.V.
- BRB LAC Invest B.V.
- BRB LAC Singapore Pte. Ltd.
- BRB Lube Oil Additives & Chemicals B.V.
- BRB South America Representacao
- Karan B.V.
- BRB ST Kimyasal Sanayl ve Ticaret A.S.
- BRB Hong Kong Limited
- BRB North America Inc.
- Viscotech Asia Pte. Ltd.
- BRB Real Estate Canada Inc.
- BRB Silicones South Africa Pty. Ltd.
- BRB Singapore Pte. Ltd.
- BRB Malaysia Sdn. Bhd.
- Qingdao BRB Trading Co. Ltd.

APPENDIX 1

SUBSIDIARIES AUDITED BY OTHER FIRMS OF ACCOUNTANTS (continued)

PETRONAS International Power Corporation BV and its subsidiaries:

• Amplus Energy Solutions Pvt. Ltd (India)	• Amplus Power Solutions Pte Ltd
• Amplus Solar Power Pte Ltd	• Amplus KN Solar Pte Ltd
• Amplus Solar Solutions Pte Ltd	• Amplus KN One Power Pte Ltd
• Amplus Andhra Power Pte Ltd	• Amplus Management Svcs Pte Ltd
• Amplus Sun Solutions Pte Ltd	• Amplus Solar Power MH Pte Ltd
• Amplus Coastal Power Pte Ltd	• Amplus RJ Solar Pte Ltd
• Amplus Green Power Pte Ltd	• Amplus Power Supply Pte Ltd
• Solbridge Energy Pte Ltd	• Ananth Solar Power Maharashtra
• Amplus Jyotimangal Energy Pte Ltd	• Amplus Sunshine Pte Ltd
• Amplus Green One Power Pte Ltd	• Amplus Sunlight Pte Ltd
• Sunterrace Energy One Pte Ltd	• Amplus Superior Solar Pte Ltd
• Wednesday Solar Pte Ltd	• Wattvolt Energy Pte Ltd
• Fourvolt Solar Pte Ltd	• Sungaze Power Pte Ltd
• Amplus Energy Solutions FZE	• Amplus Energy Solutions (Thailand) Co. Ltd.

Institute of Technology PETRONAS Sdn. Bhd and its other subsidiary:

- UTP Futuretech Sdn Bhd

Subsidiaries held directly by the Company:

• Energas Insurance (L) Limited	• PETRONAS Capital Limited
• PETRONAS NGV Sdn. Bhd.	• PETRONAS Technical Training Sdn. Bhd.
• PETRONAS Hartabina Sdn. Bhd	• PETRONAS e-Learning Solutions Sdn. Bhd.
• PETRONAS Management Training Sdn. Bhd.	

α Audited by affiliates of KPMG.

@ The shares of this subsidiary are quoted on the Main Market of Bursa Malaysia Securities Berhad.

ψ Consolidated based on management financial statements.

β The shares of this subsidiary are quoted on the Botswana Stock Exchange.

GLOSSARY

A

Additives
Chemicals added in small quantities to fuel or lubricants to control engine deposits and improve lubricating performance.

B

Barrel (bbl)
A standard unit of measurement for oil production. One barrel contains 159 litres of oil.

Barrels of Oil Equivalent (boe)
A unit of measurement to quantify the amount of crude oil, condensates and natural gas. Natural gas volumes are converted to barrels on the basis of energy content.

Basin
A low-lying area beneath the Earth's surface filled with thick layers of sediment, often a source of valuable hydrocarbons.

Brent Price
The benchmark crude oil price in Europe, as traded on the International Petroleum Exchange in London. Brent crude refers to a particular grade of crude oil, which is slightly heavier than WTI crude. See WTI price.

C

Capital Expenditure (CAPEX)
An organisation's expenditure in acquiring or maintaining fixed assets, such as land, buildings, and equipment.

Carbon Capture, Utilisation and Sequestration (CCUS)
Technologies and methods used to remove CO_2 from the flue gas and from the atmosphere, followed by recycling the CO_2 for utilisation and determining safe and permanent storage options.

Carbon Dioxide (CO_2)
One of the primary greenhouse gases.

Cash Flow from Operations (CFFO)
Indicates the amount of money a company brings in from its ongoing, regular business activities in a certain period.

Center of Excellence (COE)
A team, a facility or an entity that provides leadership, best practices, research, support and/or training for a focus area.

Coal Bed Methane
A form of natural gas extracted from coal beds, as opposed to the conventional natural gas found in reservoirs.

C

Condensates
Liquid hydrocarbons produced with natural gas, separated by cooling and other means.

D

Deepwater
In Malaysia offshore exploration, deepwater is demarcated at water depths exceeding 200m. Unique methods are required to produce the oil and gas from the ocean bed at such depths.

Development
Drilling, construction and related activities following discovery that are necessary to begin production and transportation of crude oil and natural gas.

Dividend Payout Ratio
Dividend paid during the year as a percentage of previous year's net profit attributable to PETRONAS shareholders.

Downstream
All segments of a value chain that add value to the crude oil and natural gas produced, for example, oil refining, gas processing, gas liquefaction, petrochemical manufacturing, marketing of petroleum and petrochemical products, storage and transportation.

E

Earnings Before Interest, Tax, Depreciation and Amortisation (EBITDA)
Profit before taxation and non-controlling interests with the addition of amounts previously deducted for depreciation, amortisation and net impairment loss on property, plant and equipment and intangible assets and financing costs and the exclusion of interest income.

Enhanced Oil Recovery (EOR)
Any method(s) applied to productive reservoirs in order to increase production rates and to improve the overall recovery factor.

Exploration
The search for crude oil and/or natural gas by geological and topographical studies, geophysical and seismic surveys, and drilling of wells.

GLOSSARY

GLOSSARY

F

Fatal Accident Rate (FAR)
Rate of total number of recordable fatalities from all incidents per one hundred million man-hours.

Field
A geographical area overlying a hydrocarbon reservoir.

Final Investment Decision (FID)
The point at which companies owning and/or operating a project approve or sanction the project's future development.

Floating Liquefied Natural Gas (FLNG)
Either a ship or barge that can sail or be towed to offshore gas fields, extract gas, freeze it to Liquefied Natural Gas (LNG) and offload the LNG to carriers for shipping.

Free Cash Flow (FCF)
The cash a company generates after accounting for cash outflows to support operations and pay for its capital assets.

G

Gas Processing
An activity to turn streams of natural gas into commercial products, in addition to treating gas deposits.

Gearing Ratio
Total adjusted debt expressed as a percentage of adjusted debt and total equity. Total adjusted debt is the total debt including provision for decommissioning of assets.

Greenhouse Gases (GHG)
Gases that trap heat in the Earth's atmosphere, e.g. carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride.

I

Integrated Oil and Gas Company
A company that engages in all aspects of the oil and gas industry - exploring for and producing crude oil and natural gas (upstream); refining, marketing and transporting crude oil, natural gas and refined products (downstream); as well as manufacturing and distributing petrochemicals.

Ionic Liquids
Liquids that comprise entirely of positive and negatively charged ions. Ionic liquids are being explored for an array of applications, e.g. as environmentally friendly substitutes for volatile organic compounds in the oil and gas industry.

J

Joint-Venture
A partnership between two or more companies to undertake a specific project and share the resulting profit and loss.

L

Liquefied Natural Gas (LNG)
Natural gas that is liquefied under extremely cold temperatures of about minus 260 degrees Fahrenheit to facilitate storage or transportation in specially designed vessels.

Liquefied Petroleum Gas (LPG)
Light gases, such as butane and propane, that can be maintained as liquids while under pressure.

Loss of Primary Containment (LOPC)
An unplanned or uncontrolled release of any material from primary containment, including non-toxic and non-flammable materials (e.g., steam, hot water, nitrogen, compressed CO2 or compressed air).

Lost Time Injury (LTI)
This is defined as an occurrence that results in a fatality, permanent total disabilities, permanent partial disabilities or time lost from work including days off, off shift, weekends or public holidays.

Lost Time Injury Frequency (LTIF)
This refers to the total LTI cases per million exposure hours worked during the period.

Lubricant
A substance to reduce friction and wear among moving surfaces, resulting in improved efficiency. It contains about 90 per cent base oil and about 10 per cent additives.

M

Megawatt
A unit of electrical power equal to one million watts.

Megawatt Peak (MWp)
A solar power measure in photo-voltaic (PV) industry to describe a unit's nominal power.

Million British Thermal Units (MMBtu)
It measures the energy content in fuel and is used in the natural gas, power, steam generation, heating and air conditioning industries.

M

Million Standard Cubic Feet per Day (MMscfd)
It is a unit of measurement for natural gas. Liquefied Petroleum Gas (LPG), compressed natural gas and other gases that are extracted, processed or transported in high quantities.

Million Tonnes per Annum (mtpa)
It is a standard measurement of output for the year.

N

Natural Gas
A clean-burning, odourless, colourless, highly compressible mixture of hydrocarbons found occurring naturally in gaseous form. Natural gas is made up of methane but may also include ethane, propane and butane.

Naphtha
Usually an intermediate product between gasoline and benzene, naphtha is a colourless and volatile petroleum distillate used as a solvent or fuel.

New Energy
Alternative energy sources other than fossil fuels.

O

Olefins
A class of unsaturated open-chain hydrocarbons such as ethylene, having the general formula C_nH_{2n}; an alkene with only one carbon-carbon double bond.

Operating Expenditure (OPEX)
Expenses incurred by a business to run its normal day-to-day operations.

Overall Equipment Effectiveness (OEE)
A measure of the productivity of a manufacturing process.

P

Peninsular Gas Utilisation (PGU) System
The PGU system was developed to spearhead the use of natural gas in Malaysia. The natural gas produced from offshore Terengganu is processed in six Gas Processing Plants in Kertih and are then fed into a 2,505 km pipeline system that delivers natural gas to the power, industrial, petrochemical and other sectors throughout Peninsular Malaysia and Singapore.

P

Petrochemicals
Organic and inorganic compounds and mixtures derived from petroleum, used principally to manufacture chemicals, plastics and resins, synthetic fibres, detergents, adhesives and synthetic motor oils.

Plant Utilisation
The total production of a plant as a percentage of the highest possible output that it could produce.

Production Sharing Contract (PSC)
A contractual agreement between a company and a host government, whereby the company bears all exploration, development and production costs in return for an agreed upon share of production.

Profit After Tax (PAT) Margin
Profit after tax expressed as a percentage of total revenue.

R

Regasification Terminal (RGT)
RGT, also known as a receiving terminal, is usually a coastal plant that accepts deliveries of LNG and processes it back into gaseous form for injection into a pipeline system.

Refining
A purification process for natural resources which includes hydrocarbons, using distillation, cooling and/or compression.

Renewable Energy
Energy derived from natural sources that are replaceable.

Renewables Power Auction
Auctions for contracts to develop renewable energy-based power generation capacity issued by governments, which in recent years has emerged as an essential policy instrument to promote the transition to renewable energy sources and technologies. Project developers who participate in the auction submit a bid with a price per unit of electricity at which they can realise the project. The government evaluates the offers based on the price and other criteria prior to signing a power purchasing agreement with the successful bidder.

Reserves
Hydrocarbons which are anticipated to be recovered from known accumulations of hydrocarbons.

GLOSSARY

R

Reservoir
Any porous and permeable rock (usually sandstone or limestone/chalk and occasionally a normally impermeable rock which has been heavily fractured), thus providing interconnecting spaces through which oil/gas can flow.

Resources
Resources are defined as the total estimated quantities of petroleum at a specific date to be contained in, or that have been produced from known accumulations of hydrocarbon.

Return on Average Capital Employed (ROACE)
Adjusted profit after taxation expressed as a percentage of average total equity and long-term debt during the year.

Return on Total Assets (ROTA)
Earnings before interest expense, interest income and tax expressed as a percentage of total assets.

Risk Service Contract (RSC)
In the context of this report, RSC refers to a petroleum arrangement between PETRONAS and any other company for the appraisal, development and/or production of petroleum in a contract area on behalf of PETRONAS whereby the PA Contractors are remunerated based on achieved Key Performance Indicators consisting of the agreed Cost, Schedule and Production level.

S

Shale Gas
Natural gas found in shale rock derived from underground shale deposits that are broken up by hydraulic fracturing. The process is needed to produce gas in commercial quantities as shale has low matrix permeability.

T

Total Recordable Case (TRC)
The sum of injuries resulting in fatalities, permanent total disabilities, permanent partial disabilities, lost work day cases, restricted work cases and medical treatment cases, but excluding first aid cases.

Total Recordable Case Frequency (TRCF)
This refers to the number of total recordable cases per million exposure hours worked during the period.

U

Unconventional Oil and Gas
Oil and gas that cannot be produced or extracted using conventional methods.

Upstream
The segment of value chain pertaining to finding, developing and producing crude oil and natural gas. These include oil and gas exploration, development and production operations; also known as Exploration and Production (E&P).

W

WTI Price
Stands for West Texas Intermediate, the benchmark crude oil price in the US measured in USD per barrel, which refers to a type of high-quality light crude oil.

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PETRONAS

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