



PETRONAS

1st Half 2019 Sustainability Disclosure

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Letter from the Chairman, SD & HSSE Council



*Dzafrî Sham
Chairman, SD & HSSE
Council*

The world is changing. The megatrends are upon us, and 2040 will be a very different realm compared to the world we are living in today due to increasingly high global population and change of demography. With the world population expected to surpass 9 billion in 2040, the world will need 41% more water, 28% more land, 28% more food and 25% more energy. It is imperative for us to instil the right culture and mindset within the organization to grow our business responsibly, while benefiting the people and the environment.

PETRONAS has been on its sustainability journey for nearly two decades now. We have recently crafted our Statement of Purpose (SoP) to reflect the dynamic growth and innovation we are aspiring to, as well as direct us towards new ways of achieving distinctive business outcomes and anticipating the needs of customers. The SoP also dictates that the benefits we create can and must be sustained over the longer term, and measured in terms of stakeholder value creation, societal progress and environmental sustainability.

Taking inspiration from this, our Sustainability Agenda describes clearly four Lenses of Sustainability that embrace the importance of Environmental, Social and Governance (ESG) components. 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 also incorporates prudent ESG risk mitigations such as regulatory-related and reputation management. It is aligned with the seven Sustainable Development Goals that we believe we can make the greatest impact.

Moving forward, our aim is to minimize the impact of our own footprint, whilst 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. We do so because we care.

Thank you.

“Sustainability is increasingly taking a more prominent role in everything we do. Moving forward, we need to harness the spirit of care to propel us forward, enrich lives for a sustainable future.”

45 years of progress... It is a journey towards a new chapter...

Statement of Purpose

“A progressive energy and solutions partner, enriching lives for a sustainable future.”

PETRONAS has always been passionate about striving towards a better future, delivering progress to our nation, communities, organisations and helping individuals grow to their full potential.

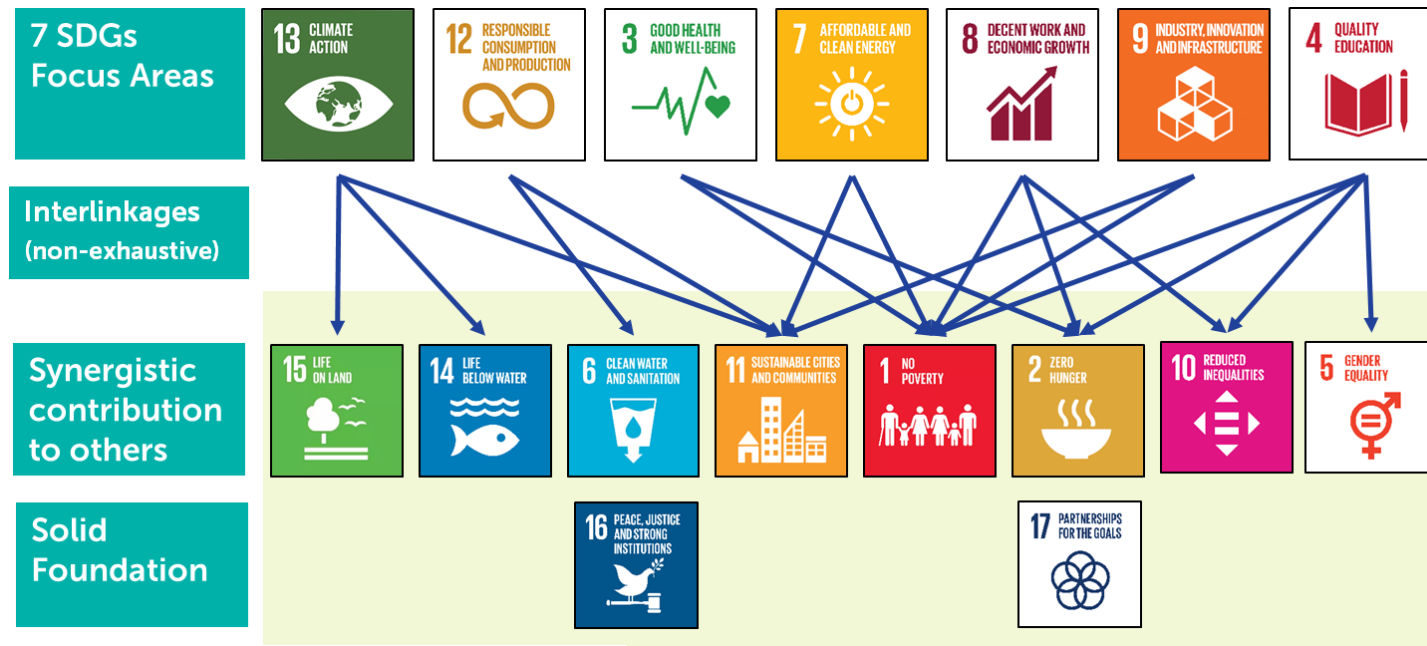
With the new Statement of Purpose introduced in March 2019, the sustainability element will be embedded into PETRONAS' business strategy in order to deliver a positive impact on the society and environment.



PETRONAS is evolving on how it manages sustainability to better meet the challenges and stakeholder expectations of the new market reality

PETRONAS prioritises seven (7) Sustainable Development Goals

These seven Goals will create substantial contributions and provide positive externalities across multiple Goals.



Our sustainability commitment is not a mere branding exercise; it is a conscious pledge to the protection of our people and the planet.

Earlier this year, PETRONAS Executive Leadership Team (“ELT”) endorsed the group-wide implementation of SDGs. Efforts are immediately channelled in strengthening sustainability communication and stepping-up current environmental & social-related initiatives.



Structured and focused governance is imperative to steer SDGs' group-wide implementation

Establishment of PETRONAS' Sustainable Development (SD) & HSSE Council

The advisory body to steer the development and implementation of SD and HSSE related strategies group-wide.

The Council is made up of senior management members, representing our integrated business value chain and is responsible for overseeing the Group wide implementation of PETRONAS' SD strategies. In addition to the advisory role, the Council serves as a governance body that drives the progress of SD; and solidifies SD and HSSE excellence in PETRONAS.



Inspired by the Statement of Purpose, we have crafted our Sustainability Agenda, aimed at providing focus and to better orchestrate the implementation of SD elements in the business practices

Endorsement of PETRONAS Sustainability Agenda

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. It is also aligned with the seven Sustainable Development Goals that we can make the greatest impact.



Four Lenses of Sustainability



Continued Value Creation



Safeguard the Environment



Positive Social Impact



Responsible Governance



PETRONAS Corporate Integrity Advocacy Programme (CIAP)

Communications on the culture of integrity is significant to PETRONAS' continuous commitment in upholding high standards of governance and in combating any form of corruption within the organization.

Themed “**Corporate Liability – A Change in Corporate Liability Landscape**”, the PETRONAS Corporate Integrity Advocacy Programme (CIAP) for its top managements addresses the changing landscape following the introduction of corporate liability clause in the Malaysian Anti-Corruption Commission (Amendment) Act 2018.

To strengthen its stance towards becoming a graft-free organization, the culture of integrity would instil a sense of *Amanah*, which is the concept of being in a position of trust, amongst our employees. This sense of *Amanah* inculcates good governance and establishes greater resilience against the threat of corruption.

Sustainability
Lenses



Responsible
Governance



Continuous commitment in
PETRONAS' zero tolerance
to bribery and corruption.

UN
SDGs








A New Synergy for the Future of Energy

As part of PETRONAS' three-pronged strategy for growth, we had also announced our plan to venture into new business areas to future-proof our organisation in the face of a rapidly changing external environment.

Stepping-out into renewable energy through Amplus acquisition is a reflection of PETRONAS' aspiration to contribute towards the Malaysian government's target of 20% Renewables in the country's energy mix by 2025.

Over 500MW of developing cumulative capacity with distributed energy assets across India, Middle East and South East Asia, Amplus offers PETRONAS with customer-centric energy solutions which are dynamic to meet end-to-end customers' needs and guaranteed savings.

Sustainability Lenses	 Safeguard the Environment	✓ Transitioning to lower carbon solutions.	UN SDGs		
	 Continued Value Creation	✓ Capitalizing on the global shift towards renewable energy.	 7 AFFORDABLE AND CLEAN ENERGY	 9 INDUSTRY INNOVATION AND INFRASTRUCTURE	 13 CLIMATE ACTION

Read more: <https://www.nst.com.my/business/2019/04/479636/petronas-acquires-singapore-based-solar-power-company-amplus-energy>





Towards Protection of Imbak Canyon



The Imbak Canyon Conservation Area (ICCA) located in the heart of Borneo, is a Class 1 Forest Reserve and home to a wide variety of flora and unique endangered wildlife conserved primarily for environmental protection and biodiversity conservation.

With rich biodiversity of over 600 species recorded to date, the Imbak Canyon Studies Centre (ICSC) becomes the perfect research hub for scientists and researchers around the globe.

Since 2010, PETRONAS committed a total of RM83 million towards the conservation of Imbak Canyon. The first and biggest partnership with Yayasan Sabah Group aims to conserve a gazetted forest protection area in the state. Moving forward, Yayasan PETRONAS plans to introduce an environment research grant to steer research related to biodiversity, carbon sink and possibly new energy.

Sustainability Lenses	Safeguard the Environment	Commitment in conservation of gazetted forest protection.	UN SDGs 13 CLIMATE ACTION 15 LIFE ON LAND
	Continued Value Creation	Host to world-class biodiversity and environmental research.	



PETRONAS Twin Towers won Top 10 Green Buildings of the Decade Award

The Green Building Index (GBI) is Malaysia's industry-recognized green rating tool for evaluating the environmental design and performance of Malaysian buildings based on six main criteria of Energy Efficiency, Indoor Environment Quality, Sustainable Site Planning & Management, Materials & Resources, Water Efficiency and Innovation.

This prestigious accolade was presented to PETRONAS; signifies a testament of the foresight and the unrelenting collaborative efforts in sustainable development.

Collaborative greening efforts started back in 2013 between PETRONAS and KLCC Property Holdings Berhad (KLCCP), resulting in an energy saving of 2,184,798 kWh per year, also equivalent to:

- 1,494.4 tonne CO₂ reduced
- 26,218 mature trees saved

Sustainability Lenses	Safeguard the Environment	Increase in the efficiency of resource use – energy, water and materials.	UN SDGs	9 INDUSTRY INNOVATION AND INFRASTRUCTURE	11 SUSTAINABLE CITIES AND COMMUNITIES
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1st Half 2019 Success Stories



Yayasan PETRONAS Sentuhan Ilmu Programmes

Yayasan PETRONAS has been investing in a series of Sentuhan Ilmu Programmes to better the opportunities for underprivileged students; particularly in Science, Technology, Engineering and Mathematics (STEM).

The investment of RM5 millions in Asrama Harian Luar Bandar (AHLB) - two Rural Daily Hostels in Pulau Balambangan, Sabah and Paloh, Sarawak now house more than 100 students. AHLB has contributed significantly in removing education barriers, alleviating socio-economic pressures and tackling student dropouts.

Since 2015, PETRONAS has also contributed over RM1.3 million towards Transforming English in Terengganu (TRENGLISH). This initiative enhances English communication skill amongst local students with an outreach of 40 secondary and 10 primary schools throughout the state.

Sustainability
Lenses



Positive Social Impact



Improve the standards of living
for underprivileged communities.

UN
SDGs



Read more: <https://www.yayasanpetronas.com.my/focus-area/education/>

1st Half 2019 Sustainability Performance Data

Key Performance Indicators	2014	2015	2016	2017	2018	1 st Half 2019
Total Greenhouse Gas Emissions (millions tCO_{2e})	48.89	50.45	52.34	56.50	49.30	28.31
Upstream – Domestic	28.36	28.31	31.74	34.82	28.38	15.54
Upstream – International	2.35	2.29	1.52	1.27	0.59	2.47
Downstream – Domestic	13.59	14.41	13.55	15.33	15.29	7.66
Downstream – International	0.01	0.99	0.97	0.99	0.88	0.54
MISC	4.58	4.45	4.56	4.09	4.16	2.10
Total Freshwater Withdrawal (million cubic metres per year)	50.47	52.26	56.50	56.00	59.18	29.80
Upstream	2.93	3.71	3.10	2.72	3.47	0.19
Downstream	47.54	48.55	50.80	50.97	53.45	28.49
MISC and others	-	-	2.58	2.31	2.26	1.12
Total Amount of Energy Generated from Solar PV Installations in Malaysia (megawatt-hours)	15,050	15,201	14,449	13,627	14,039	7,155
Number of Hydrocarbons Spills to the Environment Over One Barrel (BBL)	25	25	27	18	7	3
Total Sulphur Oxides Emissions (metric tonnes)	61,698	86,814	72,134	87,917	116,974	27,879*
Total Nitrogen Oxides Emissions (metric tonnes)	100,915	154,128	168,954	159,498	151,519	74,436*
Discharges to Water (metric tonnes of hydrocarbon)	992	680	534	591	715	138*
Total Hazardous Waste Disposed (metric tonnes)	26,974	29,280	32,355	19,755	34,688	13,758*

*data for PLI & PPMSB is estimated.

1st Half 2019 Sustainability Performance Data

Key Performance Indicators	2014	2015	2016	2017	2018	1 st Half 2019
Number of Fatalities	10	4	13	4	6	1
Employees	3	0	2	0	0	0
Contractors	7	4	11	4	6	1
Fatal Accident Rate Reportable fatalities per 100 million man-hours	3.03	1.02	3.53	0.93	1.29	0.57
Lost Time Injury Frequency (LTIF) Number of cases per one million man-hours	0.19	0.20	0.26	0.17	0.09	0.07
Total Reportable Case Frequency (TRCF) Number of cases per one million man-hours	0.64	0.63	0.57	0.53	0.38	0.34
Number of Tier 1 Process Safety Events	7	15	12	12	8	3
Total Recordable Occupational Illness Frequency Illness per million working hours - employees	0.07	0.33	0.32	0.08	0.22	0.01

1st Half 2019 Sustainability Performance Data

Key Performance Indicators	2014	2015	2016	2017	2018	1 st Half 2019
Total Number of Employees	50,949	53,149	51,034	49,911	48,001	48,225
Breakdown of Employees (%)						
Malaysian	79	80	80	80	80	80
Non-Malaysian	21	20	20	20	50	20
Breakdown of Employees by Region (%)						
Africa	-	-	-	8.2	8.1	7.7
Asia	-	-	-	85.1	84.3	84.9
Australia and New Zealand	-	-	-	0.1	0.1	0.1
Commonwealth of Independent State	-	-	-	1.3	1.4	1.5
Europe	-	-	-	2.3	2.5	2.6
Middle East	-	-	-	1.8	2.2	1.8
North and South America	-	-	-	1.2	1.4	1.4
Employment Type (%)						
Permanent	85	83	85	85	87	89
Contract	15	17	15	15	13	11
Gender Distribution (%)						
Male	72	72	72	72	73	73
Female	28	28	28	28	27	27
Number of Groupwide Technical Expertise						
Technical Authorities (TA)	276	499	325	499	577	304
Technical Professionals (TP)	736	825	815	860	941	989
Technical Trade Specialists (TTS)	144	297	198	206	225	238

1st Half 2019 Sustainability Performance Data

Key Performance Indicators	2014	2015	2016	2017	2018	1 st Half 2019
Employees above & below age of 35 (%)						
Above 35	46	47	46	46	49	49
Below 35	54	53	54	54	51	51
Total Number of New Hires (Core Business in Malaysia)	3,541	4,078	2,932	2,409	2,512	1,731
Malaysian	3,198	3,781	2,667	1,982	2,098	1,449
Other Nationals	343	297	265	427	414	282
Women in Technical Positions (%)	14	14	12	14	13	14
Attrition Rate (%)	5.7	5.9	7.3	5.8	6.5	2.2
Male	5.3	5.5	7.1	5.4	6.2	2.1
Female	6.7	7	8	6.8	7.3	2.3
Number of PETRONAS Scholars Recruited	250	351	365	337	262	56
Recruited by PETRONAS (%)	47	51	50	48	63	96
Recruited by Others (%)	53	49	50	52	37	4
Number of Scholarships Awarded to Malaysians	337	326	375	387	329	400
International Universities (%)	44	42	38	45	49	185
Malaysian Universities (%)	56	58	62	55	51	215
Number of Sponsored Non-Malaysians UTP, Malaysia	257	191	147	118	88	59
Number of Unionised Employees	8,954	9,651	8,616	8,796	9,949	8,553*

*as of March 2019

Thank you for your passion!



PETRONAS