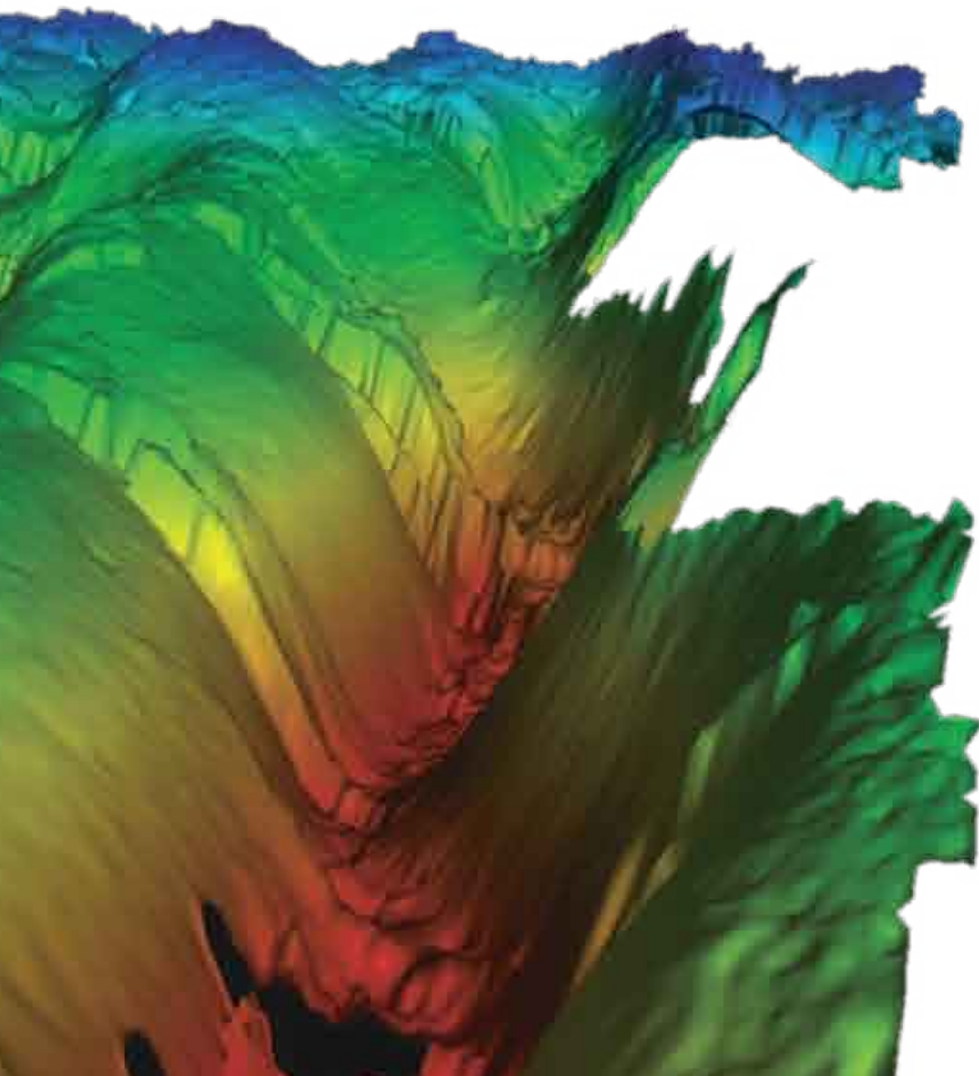
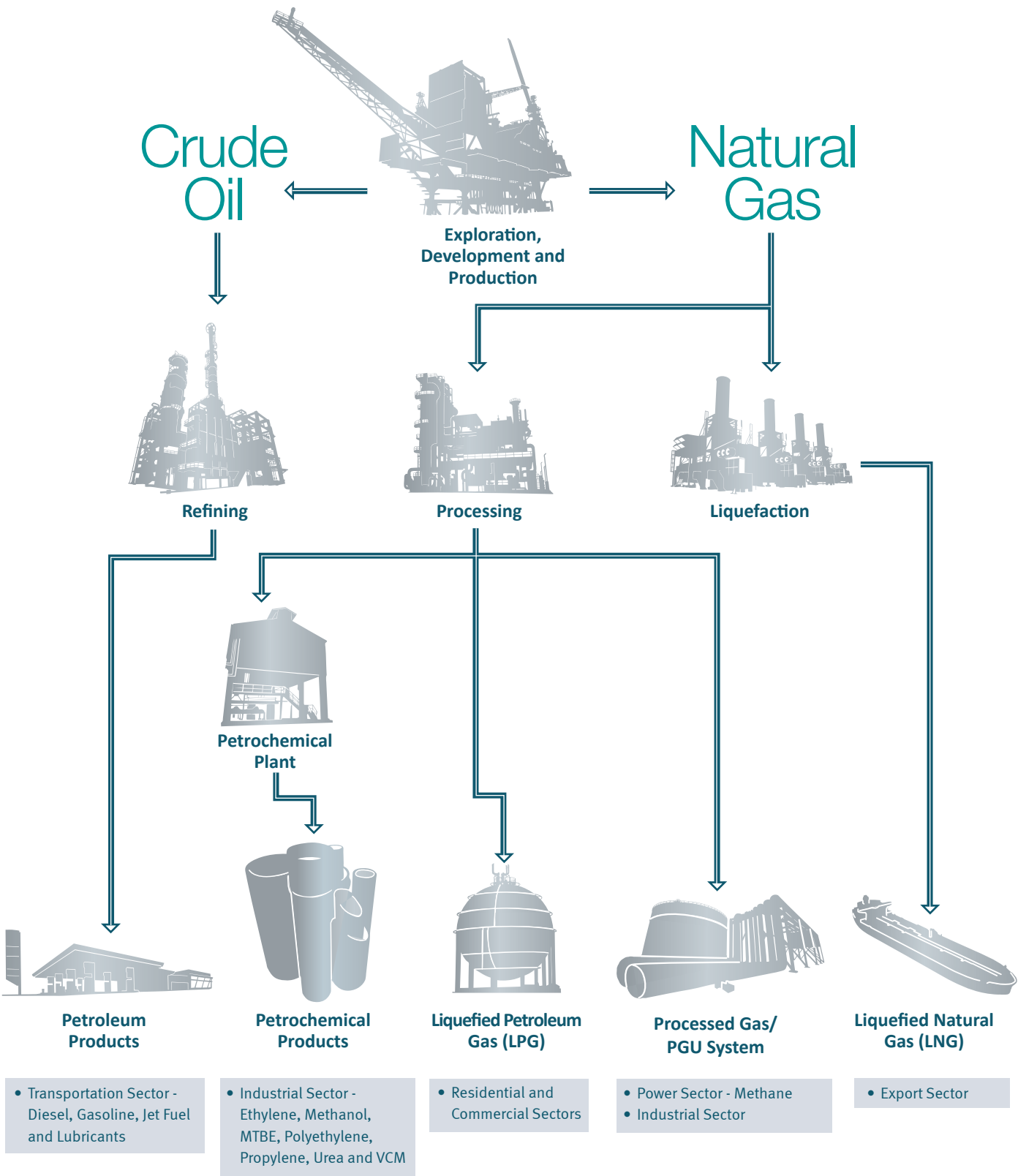


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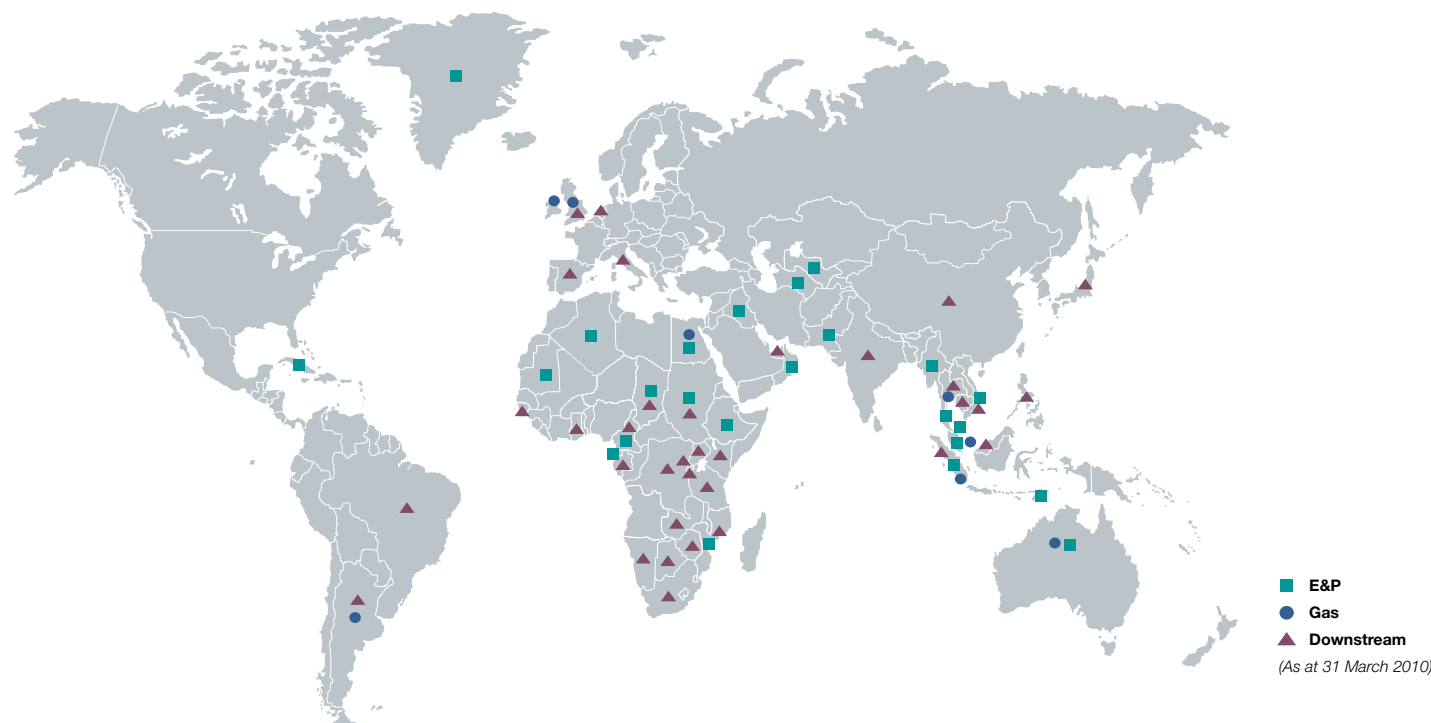


Our Business



■ Non-exhaustive

Our Presence



Exploration and Production (E&P)

Asia Pacific

- **Australia** – Exploration • **Indonesia** – Exploration, Development and Production • **Myanmar** – Exploration, Development and Production
- **Malaysia** – Exploration, Development and Production • **Malaysia-Thailand Joint Development Area** – Exploration, Development and Production
- **Timor Leste Joint Development Area** – Exploration • **Vietnam** – Exploration, Development and Production

Middle East

Africa

Central Asia

North America

Latin America

- **Iraq** – Development • **Oman** – Exploration
- **Algeria** – Development • **Chad** – Development and Production • **Cameroon** – Exploration and Development
- **Egypt** – Exploration, Development and Production • **Equatorial Guinea** – Exploration • **Ethiopia** – Exploration
- **Mauritania** – Exploration, Development and Production • **Mozambique** – Exploration • **Sudan** – Exploration, Development and Production
- **Pakistan** – Exploration, Development and Production • **Turkmenistan** – Exploration, Development and Production
- **Uzbekistan** – Exploration, Development and Production
- **Greenland** – Exploration
- **Cuba** – Exploration

Gas & Power

Asia Pacific

Africa

Europe

Latin America

- **Australia** – Coal Bed Methane-to-Liquefied Natural Gas (LNG) and Pipelines • **Indonesia** – Pipelines • **Thailand** – Gas Processing and Pipelines
- **Malaysia** – LNG, Gas Processing, Gas-to-Liquids, Utilities, Piped Gas, Pipelines, Power, Reticulation and Trading
- **Egypt** – LNG and Piped Gas
- **Ireland** – Gas Storage and Piped Gas • **United Kingdom** – Re-Gasification Terminal, Gas Storage, Trading and Power
- **Argentina** – Pipelines

Downstream*

Asia Pacific

Middle East

Africa

Europe

Latin America

- **China** – Oil and Petrochemical Businesses • **Cambodia** – Oil Business • **India** – Oil and Petrochemical Businesses
- **Indonesia** – Oil and Petrochemical Businesses • **Japan** – Oil and Petrochemical Businesses • **Malaysia** – Oil and Petrochemical Businesses
- **Philippines** – Oil and Petrochemical Businesses • **Thailand** – Oil and Petrochemical Businesses • **Vietnam** – Oil and Petrochemical Businesses
- **United Arab Emirates** – Oil and Petrochemical Businesses
- **Botswana** – Oil Business • **Burundi** – Oil Business • **Cameroon** – Oil Business • **Chad** – Oil Business
- **Democratic Republic of Congo** – Oil Business • **Gabon** – Oil Business • **Ghana** – Oil Business • **Guinea Bissau** – Oil Business
- **Kenya** – Oil Business • **Mozambique** – Oil Business • **Namibia** – Oil Business • **Rwanda** – Oil Business • **Sudan** – Oil Business
- **South Africa** – Oil Business • **Tanzania** – Oil Business • **Uganda** – Oil Business • **Zambia** – Oil Business • **Zimbabwe** – Oil Business
- **Italy** – Oil Business • **Netherlands** – Oil Business • **Spain** – Oil Business • **United Kingdom** – Oil Business
- **Argentina** – Oil Business • **Brazil** – Oil Business

*Includes Engen subsidiaries, and marketing and trading offices.

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Corporate Statements

VISION

To be a Leading Oil and Gas Multinational of Choice

MISSION

We are a business entity

Petroleum is our core business

Our primary responsibility is to develop and add value to this national resource

Our objective is to contribute to the well-being of the people and the nation

SHARED VALUES

Loyalty

Loyal to nation and corporation

Integrity

Honest and upright

Professionalism

Committed, innovative and proactive and always striving for excellence

Cohesiveness

United in purpose and fellowship

Corporate Profile

PETRONAS at a Glance

PETRONAS, the acronym for PetroliaM Nasional Berhad, was incorporated on 17 August 1974 under the Companies Act, 1965. It is wholly-owned by the Malaysian Government and is vested with the entire ownership and control of the petroleum resources in Malaysia through the Petroleum Development Act, 1974. Over the years, PETRONAS has grown to become a fully integrated oil and gas corporation and is ranked among the FORTUNE Global 500® largest corporations in the world.

Exploration & Production Business

As custodian of Malaysia's oil and gas resources, PETRONAS is entrusted with the responsibility to develop and add value to the nation's hydrocarbon resources. In the early years, we focused our efforts on managing the production sharing contractors who were exploring Malaysian acreages, but we soon saw the need to take on a bigger and more proactive role in augmenting the nation's oil and gas reserves.

Through our Exploration and Production (E&P) subsidiary, PETRONAS Carigali Sdn Bhd (PETRONAS Carigali), we have developed capability as a hands-on operator with a track record of successful oil and gas developments. PETRONAS Carigali works alongside a number of petroleum multinational corporations through Production Sharing Contracts (PSCs) to explore,

develop and produce oil and gas in Malaysia. Abroad, we continue to strengthen our position by securing new acreages while undertaking various development projects.

The Petroleum Management Unit (PMU) of PETRONAS acts as resource owner and manager of Malaysia's domestic oil and gas assets. It manages the optimal exploitation of hydrocarbon resources and enhances the prospectivity of domestic acreages to attract investment and protect the national interest. One of the key drivers of our business growth is deepwater E&P, with many positive prospects emerging in Malaysian acreages.

We continue to harness and develop new technologies to maximise opportunities and further strengthen our capabilities in our efforts to become a leading global E&P player.



Gas & Power Business

PETRONAS focuses its Gas and Power Business on downstream operations, which include the liquefaction, sale, transportation, regasification and trading of liquefied natural gas (LNG); the processing, sale and transmission of natural gas; and other gas-related businesses. PETRONAS believes that Malaysia's offshore gas reserves provide an opportunity for it to play an important role in satisfying the growing energy and petrochemical demand of Malaysia and other Asian countries. PETRONAS' strategy is to add value to these natural gas reserves by promoting their use as feedstock for production of natural gas products and petrochemicals, as well as for export sale.

PETRONAS operates one of the world's largest LNG production facilities at a single location in Bintulu, Sarawak, Malaysia. The facilities consist of three plants, MLNG, MLNG Dua and MLNG

Tiga, which have exported a substantial portion of their production to Japan, Korea, Taiwan and China through long-term supply contracts. PETRONAS has a 90% interest in MLNG and a 60% interest in each of MLNG Dua and MLNG Tiga. PETRONAS has also expanded its natural gas liquefaction operations internationally through joint venture projects, primarily in Egypt and Australia, and entered the regasification and LNG trading businesses.

PETRONAS has also ventured into unconventional gas with a joint venture to develop and operate a coal-bed-methane-to-LNG project in Gladstone, Australia.

PETRONAS, through its majority-owned subsidiary, PETRONAS Gas Berhad, operates the Peninsular Gas Utilisation (PGU) system involving six processing plants and approximately 2,505 kilometers of pipelines to process and transmit gas to end-users in the power, industrial and commercial sectors in Peninsular Malaysia and Singapore. The PGU system is the principal catalyst for the development of Peninsular Malaysia's offshore gas fields, the use of natural gas products for power generation and utilities, and the expansion of Malaysia's petrochemical industry through the use of gas derivative products, such as ethane, propane, butane and condensate.

PETRONAS has also invested in pipeline operations in certain overseas locations, including Argentina, Australia, Indonesia and the Malaysia-Thailand Joint Development Area (MTJDA).

Downstream Business

PETRONAS' Downstream Business plays a strategic role in adding further value to petroleum resources through its integrated

operations in refining and trading, marketing, and petrochemicals.

Refining and Trading. PETRONAS owns and operates three refineries in Malaysia, two in Melaka (collectively, the Melaka Refinery Complex) and the other in Kertih (the Kertih Refinery). The first refinery in Melaka is 100% owned by PETRONAS and the second refinery is 53% owned by PETRONAS. The Company also operates a Group III base oil refining (MG3) plant in the Melaka Refinery Complex.

PETRONAS has an oil refining presence in Africa through its 80% owned subsidiary, Engen Petroleum Limited (Engen), a leading South African refining and marketing company that owns and operates a refinery in Durban, South Africa.

In addition, apart from eight liquefied petroleum gas (LPG) bottling plants in Malaysia, PETRONAS operates an LPG extraction facility in Bintulu, Sarawak, located in the vicinity of the Group's LNG plants. The facility is operated by MLNG and is designed to extract LPG from the LNG production process.

PETRONAS also has LPG facilities in selected Asian countries. In India, PETRONAS' 50%-owned subsidiary, Indian Oil PETRONAS Private Limited, operates an LPG facility in Haldia, West Bengal. In the Philippines, the Group's LPG terminals are located in Iligan and Davao, and are operated by PETRONAS Energy Philippines Inc, a company in which PETRONAS holds 80% interest indirectly. In Vietnam, the Group owns and operates an LPG terminal and bottling facility in Hai Phong, through Thang Long LPG Company, in which PETRONAS has a 71.2% interest. Also, the Group operates an LPG facility in Dong Nai Province, Vietnam through

wholly-owned subsidiary PETRONAS Vietnam Co Ltd.

For trading in crude oil and petroleum products in the Malaysian and international markets (including Asia, Africa and the Indian sub-continent), PETRONAS formed wholly-owned subsidiary PETCO. The company also trades in crude oil and petroleum products produced by affiliates and third parties, and has trading operations in London and Dubai via its wholly-owned subsidiaries PETCO Trading UK Limited and PETCO Trading DMCC, respectively.

PETRONAS Dagangan Berhad (PETRONAS Dagangan), a majority-owned subsidiary, has a 40% interest in Malaysia's Multi-Product Pipeline and the Klang Valley Distribution Terminal (KVDT), which is located south of Kuala Lumpur. The pipeline is used to transport gasoline, jet fuel and diesel oil from PETRONAS' Melaka Refinery Complex and Shell's and ExxonMobil's refineries in Port Dickson to the KVDT. PETRONAS Dagangan also indirectly owns a 65% interest in a joint venture that operates jet fuel storage facility and hydrant line system at the Kuala Lumpur International Airport, Sepang.

Downstream Marketing. PETRONAS is engaged in domestic marketing and retailing activities in Malaysia through PETRONAS Dagangan, a majority-owned subsidiary, which markets a wide range of petroleum products, including gasoline, LPG, jet fuel, kerosene, diesel, fuel oil, asphalt and lubricants. In addition, PETRONAS actively markets and promotes the use of natural gas as a cleaner fuel for vehicles through its wholly-owned subsidiary, PETRONAS NGV Sdn Bhd.

PETRONAS also has retail operations in certain overseas markets. For instance, in the Asian region, PETRONAS' wholly-owned subsidiary, PETRONAS Marketing China Company Ltd, primarily sells lubricant products in target markets in Southern China. In India, PETRONAS formed PETRONAS Marketing India Private Ltd (PMIPL) to market lubricant products in the Indian market. PMIPL has also entered into supply, technical, collaborative and commercial agreements with Fiat, TATA, New Holland and Piaggio for the exclusive supply of lubricants in India. In Indonesia, wholly-owned subsidiary PT PETRONAS Niaga Indonesia operates retail stations as well as markets petroleum products to industrial and commercial customers, and manages a network of local distributors for PETRONAS lubricants. In Myanmar, wholly-owned subsidiary PETRONAS Myanmar Ltd, supplies petroleum products to Myanmar Petroleum Enterprise under a yearly contract. In Thailand, 74%-owned PETRONAS Retail (Thailand) Co Ltd owns and operates a network of retail stations, and markets lubricant products. The company also supplies jet fuel at the Don Muang International Airport and the Suvarnabhumi International Airport, Bangkok.

In the African region, Engen has the largest retail network of service stations in South Africa and, through its international business development unit, Engen also owns service stations in other African countries, including Namibia, Botswana, Burundi, Kenya, Mozambique, Lesotho and Swaziland. In Sudan, PETRONAS' wholly-owned subsidiary, PETRONAS Marketing Sudan Limited is engaged in the marketing and retailing of petroleum products and lubricants, as well as owns and operates retail stations. Also, the company provides into-plane service at Khartoum International Airport and at El-Obeid International Airport, which is the main base for

the UN World Food Programme's operations in Sudan. In addition, the company supplies fuel to the UN-African Union Mission peacekeeping force in Darfur and it operates refueling stations and depots across the region.

In the European region, PETRONAS Lubricants International Sdn Bhd (PLISB), a wholly-owned subsidiary of PETRONAS, has established a manufacturing base and distribution channel to sell its lubricants in the European market, by virtue of acquiring FL Selenia Group (renamed PL Italy Group). It offers lubricants, transmission, anti-freeze and functional fluids for automobiles, trucks, agricultural tractors and earth moving machinery as well as for other industrial equipment. Leveraging on PL Italy Group's strong OEM relationships and world-class research and development capabilities, PLISB currently has a long-term supply, technical, collaborative and commercial agreement expiring in 2020 for the exclusive right to supply lubricants to Fiat Italy through PL Italy Group.

Also in the lubricants marketing sector, PETRONAS Base Oil (M) Sdn Bhd (PBOM), a wholly-owned subsidiary of PETRONAS, has been established to undertake the marketing of MG3 base oil produced by PETRONAS Penapisan (Melaka) Sdn Bhd in Malaysia and the Asia Pacific region. PBOM has also established a marketing arm in the Netherlands, PETRONAS Marketing Netherlands BV (PMN), to undertake the marketing of MG3 base oil in Europe. PETRONAS markets its base oil products under the brand ETRO.

PETRONAS Aviation Sdn Bhd, a wholly-owned subsidiary of PETRONAS, markets PETRONAS' aviation fuel in the global market, including to Malaysian Airline System Berhad, as well

as to Shell, Ceylon Petroleum Corporation and Repsol YPF for locations in Hong Kong, Colombo and Buenos Aires.

Petrochemical Business. PETRONAS has expanded its petrochemical business by utilising its supply of gas as petrochemical feedstock, which is consistent with PETRONAS' strategy to further utilise and add value to gas resources. While the production of certain basic petrochemicals has been phased out in since the mid-1980s, in more recent years, PETRONAS has embarked on several large-scale petrochemical projects with multinational joint venture partners. PETRONAS' joint venture partners have included The Dow Chemical Company, BASF Netherlands BV, BP Chemicals, Idemitsu Petrochemical Co Ltd, Mitsubishi Corporation, and Sasol Polymers International Investments (Pty) Ltd.

In addition, through joint ventures with multinational petrochemical companies, PETRONAS has developed two Integrated Petrochemical Complexes (IPCs) at Kertih and Gebeng, along the eastern corridor of Peninsular Malaysia. The concept underlying the IPCs is to achieve a competitive edge through the integration of petrochemical projects using common or related feedstock and common facilities within a self-contained complex.

The Kertih IPC consists principally of ethylene-based petrochemical projects, which include two ethylene crackers, a polyethylene plant, an ethylene oxide/ethylene glycol plant, a multi-unit derivatives plant, vinyl chloride monomer (VCM) and polyvinyl chloride (PVC) plants, ammonia/synthesis gas plants, an acetic acid plant, an aromatics complex and a low-density polyethylene plant. The petrochemical projects

are fully integrated with the surrounding infrastructure facilities and other process plants in Kertih, including PETRONAS Gas Berhad's six gas processing plants (GPPs) and the Kertih Refinery, which are located within the IPC. A joint venture among PETRONAS (40%), Dialog Equity Group Sdn Bhd (30%) and Vopak Terminals Penjuru Pte Ltd (30%) owns and operates the storage and distribution terminal, which has a throughput of approximately 2.7 mmtpa. The Kertih marine facilities include six berths that can accommodate chemical tankers up to 40,000 dead-weight tonnes.

The Gebeng IPC principally contains propylene-based petrochemical projects. The anchor project at the Gebeng IPC is a joint venture between PETRONAS and BASF, which owns and operates an acrylic acid/acrylic esters plant, an oxo-alcohols complex and a butanediol plant. PETRONAS, through its wholly-owned subsidiaries, owns and operates an MTBE/propylene plant, a propane dehydrogenation plant and a polypropylene plant. The Gebeng IPC is also host to a number of multinational chemical companies, such as BP Chemicals, which owns and operates a purified terephthalic acid plant, and Eastman Chemicals, which owns and operates a copolyester plastic resin plant.

The plants in both of the IPCs are supported by PETRONAS' centralised infrastructure facilities at each of the two complexes, including Centralised Utility Facilities and chemical storage and distribution terminals.

The Kertih and Gebeng IPCs are a major step towards establishing Malaysia as a regional petrochemical production hub. The integrated development of Malaysia's petrochemical industry is expected to promote

the development of the country's industrial base, especially the plastics and chemical-based component manufacturing industries. PETRONAS' long-term strategy is to promote and participate in downstream development and to support the industrial development of Malaysia. As such, PETRONAS is a major producer of methanol, ammonia and urea, as well as ethylbenzene and styrene monomer.

The Group is expanding its operations internationally through select partnerships. For instance, in Vietnam, PETRONAS has a 93.1% interest in Phu My Plastics and Chemicals Co Ltd, a joint venture with Vung Tau Shipyard Co, which owns and operates a PVC plant in Vung Tau, Vietnam. With a capacity of 100,000 tpa, the PVC plant sources its feedstock from PETRONAS' VCM plant located in the Kertih IPC.

While some plants within PETRONAS' petrochemical business sell their products directly to customers, PETRONAS markets petrochemical products through its marketing arm Malaysia International Trading Corporation Sdn Bhd (MITCO) and its marketing entities in Labuan and India. As the main marketing arm for PETRONAS' petrochemical products, MITCO has emerged as a leading marketer of chemicals, fertilisers and polymer products in the Southeast Asia region.

MITCO has been established principally to market products manufactured by PETRONAS' petrochemical plants. It leverages on the synergistic advantages of the strategic development of the two IPCs along the east coast of Peninsular Malaysia and the consistent production of large volumes of petrochemicals from these plants.

MITCO Labuan Co Ltd (MLCL) is a wholly-owned subsidiary of PETRONAS. It is involved principally in the trading of chemicals, fertilisers, polymers and general commodities, so as to complement MITCO's global business ventures.

MITCO Labuan India Pvt Limited has been set up as a wholly-owned subsidiary of MITCO Labuan Co Ltd to support its trading and related activities in India.

Logistics & Maritime Business

Led by subsidiary MISC Berhad (MISC), PETRONAS' Logistics and Maritime Business' focus is primarily on energy transportation and logistics, and other energy-related businesses. MISC serves as PETRONAS' primary LNG transportation provider and its principal logistics solutions provider. MISC's energy-related shipping is complemented by its offshore business and its heavy engineering business. MISC's offshore business provides Floating Production, Storage and Offloading (FPSO) and Floating Storage and Offloading (FSO) systems to support oil and gas companies operating offshore in the production, storage and evacuation of oil and gas to an onshore terminal facility. MISC engages in the heavy engineering business to provide ship maintenance and repair services, to convert ships into FPSOs and FSOs, and the construction of oil and gas facilities and related services.

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Key Sustainability Indicators

Total Energy Savings - Domestic Downstream Plants



Refer to page 29

Percentage of Women Employees



Refer to page 56

Lost Time Injury Frequency



Refer to page 39

Fatal Accident Rate



Refer to page 39

PETRONAS Domestic GHG Emissions



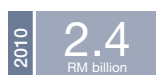
Refer to page 28

Loss of Primary Containment (LOPC)



Refer to page 41

PETRONAS Education Sponsorship since 1975



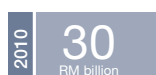
Refer to page 64

Average Training Days per Year per Employee



Refer to page 57

Dividend Payment to the Malaysian Government



Refer to page 64

Five-Year Group Financial Highlights

RM billion

	FY2010	+/-	FY2009 (restated)	FY2008	FY2007	FY2006
Revenue	216.4	(18.1%)	264.2	223.1	184.1	167.4
EBITDA	85.3	(22.2%)	109.6	109.9	88.7	80.9
Profit Before Taxation (PBT)	67.3	(24.5%)	89.1	95.5	76.3	69.4
Net Profit after Minority Interests	40.3	(23.2%)	52.5	61.0	46.4	43.1
Total Assets	410.9	5.4%	389.8	339.3	294.6	273.0
Shareholder's Funds	242.9	4.7%	232.1	201.7	171.7	147.0
	FY2010		FY2009	FY2008	FY2007	FY2006
Return on Revenue (PBT/Revenue)	31.1%		33.7%	42.8%	41.4%	41.5%
Return on Total Assets (PBT/Total Assets)	16.4%		23.0%	28.1%	25.9%	25.4%
Return on Average Capital Employed	25.0%		36.8%	45.4%	40.8%	41.6%
Debt/Assets Ratio	0.13x		0.11x	0.11x	0.12x	0.16x
Debt/Equity Ratio	17.6%		15.9%	15.8%	17.4%	23.0%
Dividend Payout Ratio	74.4%		57.1%	39.3%	38.8%	39.4%
Reserves Replacement Ratio	1.1x		1.8x	0.9x	1.8x	1.7x

Message from the President & CEO and Acting Chairman

The year under review has been a challenging one for PETRONAS, as the slowdown experienced by the world economy eroded oil demand, resulting in weaker prices and lower profits for the Group. The PETRONAS Group's revenue for the financial year ended 31 March 2010 stood at RM216.4 billion, 18.1% lower than the previous year. Profit before taxation declined by 24.5%. PETRONAS' peers in the oil and gas industry were also similarly impacted during the period. Although the challenges in the economic and industry environment tested our resilience, we remained focused on conducting our business in an ethically, socially and environmentally responsible manner.

Corporate Enhancement

In order to deliver a sustainable energy future for all our stakeholders, the Group has embarked on an important Corporate Enhancement programme to allow us to emerge as a dynamic and agile oil and gas player, and a preferred business partner.

The Corporate Enhancement programme allows PETRONAS to institute better corporate governance practices, including greater transparency that is expected by our constituents and stakeholders. Furthermore, by streamlining our operations to support our core oil and gas business, we hope to increase efficiency, free up resources to build our business and realise better returns from our investments. Overall, the Corporate Enhancement programme will place PETRONAS in a good position to weather future economic cycles while contributing to the people and to nations where we operate.

DATO' SHAMSUL AZHAR ABBAS



Commitment to Sustainability

As a business entity, PETRONAS' primary responsibility remains focused on sustaining profitability through value creation and the efficient utilisation of resources and capital. Nevertheless, this is underpinned by our philosophy of carrying out our business in a socially responsible and holistic manner, to ensure continued growth and success for both current and future generations.

PETRONAS remains committed to carrying out our operations sustainably, which is exhibited in a number of critical initiatives undertaken Group-wide in the year under review. These efforts reflect PETRONAS' resolve to provide value across the economic, social and environmental spheres.

To better integrate sustainable development into our business strategy, we have reviewed the Seven Result Areas of our Sustainability Framework. This will help us grow our business in a balanced and sustainable manner.

As we operate in an industry that faces immense challenges and scrutiny on the environmental front, we are mindful of the concerns of global stakeholders, who have called for greater transparency and better enforcement of health, safety and environment (HSE) standards among oil and gas corporations. The recent Gulf of Mexico oil spill is an important reminder for us to be constantly vigilant in observing HSE standards and best practices. The key lessons from such incidents are systematically disseminated Group-wide to ensure that our people understand the catastrophic impact to business as well as reputation and address key HSE concerns by taking preventive and precautionary measures at all levels of our operations.

At the same time, we continue on our journey to ensure our operations are governed by environmental standards that are based on industry best practices. The implementation of our Minimum Environmental Management Standards (MEMS), which PETRONAS enforces over and above existing environmental regulations, has progressed to Phase 2 in our domestic operations. MEMS has also undergone Phase 1 implementation at our international operating units starting in 2010.

We have enhanced our HSE Management System (HSEMS), which facilitates Group-wide implementation of policies for

managing, health, safety and environmental risks across our operations. We have developed guidelines on Human Factors Engineering (HFE) for the Group, to further protect our people, partners, contractors and assets at the workplace. PETRONAS has also developed the Zero Tolerance (ZeTo) Rules, which refer to 10 mandatory safety rules and corresponding checklists that must be adhered to when performing identified high risk work.

These enhancements reflect our commitment to putting the safety of people and the environment first across all our lines of business. In terms of health, we have enhanced PETRONAS' Personal Health Management (PHM) Programme and conducted health campaigns across the Group. We have also identified health hazards and issues in the Group through the implementation of a Health Risk Assessment (HRA).

Parallel to the implementation of these critical HSE initiatives, PETRONAS also recorded several noteworthy accomplishments

in the period under review. Our exploration and production subsidiary, PETRONAS Carigali Sdn Bhd (PETRONAS Carigali), recorded a Total Reportable Case Frequency (TRCF) of 0.49 despite an increase in man-hours. This is a 10.9% improvement from the previous year. PETRONAS Carigali's achievement is far superior to the industry average of

2.08, as benchmarked by the International Association of Oil & Gas Producers (OGP).

To reduce greenhouse gas (GHG) emissions from our operations, our new upstream facilities are designed to have zero operational venting and to minimise flaring. This initiative is driven by PETRONAS' "Towards Zero Flaring and Venting" commitment. We have made further progress in GHG inventorisation across the Group to better manage and reduce emissions throughout our operations.

Notwithstanding these achievements, we are determined to work harder to improve in areas where we did not meet our expectations. We are saddened by the 13 fatalities that occurred in the year under review. Although our Fatal Accident Rate (FAR) has been improving over the last five years despite an increase in manpower strength, we will continue to be relentless in our efforts to achieve our zero fatalities target. We have reviewed and revised our guidelines and practices to address the causes of these fatalities.

We have developed Guidelines on Human Factors Engineering (HFE) for the Group, to further protect our people, partners, contractors and assets at the workplace.

PETRONAS is also working hard to improve our Oil Spill Response Preparedness by reviewing and enhancing the PETRONAS Technical Standard for Oil Spill Contingency Planning. The volume of spills increased during the period under review due to two incidents, one in Italy and the other in the United States. We are also raising the capability of our staff to handle such incidents through the development of relevant training modules and an Oil Spill Response Capability Assessment (OSRCA) checklist.

Building Capability

Our achievements are a testimony to the capability of our people. Human capital development is a key component in our quest to remain sustainable and we continue to invest in several long-term programmes to develop our staff. In this Report, we feature several ongoing capability development initiatives including the Accelerated Capability Development (ACD) that contribute towards the continued growth of individuals, the Corporation and the industry as a whole.

Our commitment and belief in capability-building extends to our community investments in places where we operate globally. PETRONAS supports institutions of learning to groom a pipeline of professionals who will contribute to the future growth of the industry and the nation. Our community programmes also help enrich the lives of participants with knowledge and skills that empower them. Our involvement in the Yetagun Socioeconomic Development Programme in Myanmar and support of Scope, a leading charity for individuals with cerebral palsy in the UK, has enabled countless individuals to benefit from well-designed community-based initiatives that help them lead more productive lives.

From an economic standpoint, PETRONAS is determined to remain resilient and play its part in contributing to growth, development and the economic well-being of the people and nations where we operate. We also aim to continue enhancing our support for local dealers and vendors to create economic spin-offs that will benefit the larger community.

Moving Forward in Sustainability

PETRONAS has grown tremendously since its formation in 1974 to become among the FORTUNE Global 500® largest corporations in the world. As we move forward in our sustainability journey, we continue to be guided by our imperative of striking a delicate balance between our commercial objectives and our responsibility towards socioeconomic development and the environment.

Even as the oil and gas industry faces a challenging growth outlook, we continue to uphold the trust bestowed upon us to manage and add value to Malaysia's petroleum resources, while contributing to the well-being of the people and the nation.

In line with our commitment to sustainability, PETRONAS has established a Sustainability Council headed by one of our Vice Presidents to oversee our sustainability initiatives and focus areas over the medium and long terms. The setting up of this Sustainability Council will ensure that the momentum achieved in sustainability will continue to gather strength in the coming years.

Furthermore, we are embarking on critical sustainable development initiatives to better manage our water and energy use, as well as reduce GHG emissions in a more sustainable and efficient manner. These initiatives are expected to have a positive, long-term impact in making our operations more environmentally-friendly and improve our cost efficiency as well as optimise resource utilisation.

As we venture into new frontiers, I am confident that the resilience and robustness of PETRONAS' people will propel us in our journey towards greater sustainability. Our focus on improving business performance will be unwavering, and PETRONAS is committed to meeting the present and future energy needs of our stakeholders and constituents everywhere in a sustainable manner.



DATO' SHAMSUL AZHAR ABBAS

President & CEO and Acting Chairman

About This Report

PETRONAS' Group Sustainability Report 2010 provides description, data and perspective on our economic, social and environmental performance for the Financial Year ended 31 March 2010. The report reflects our efforts in conducting our business in a safe, responsible and ethical manner.

The contents shaped by the seven result areas of our Corporate Sustainability Framework were selected because of their significance to our business objectives and values, and their importance to our stakeholders. Our ongoing engagements with employees, business partners, customers, investors, non-governmental organisations and communities helped define the issues and priorities for this report.

This report covers PETRONAS' wholly-owned and operated units, and those that we have operational control over. The data covers our operations in Malaysia with as much reference as possible to our global operations. Moving forward, we aim to include our global operations more extensively as we continue to enhance our data inventories for tracking and reporting of our sustainability performance.

We aim to follow best practices on sustainability reporting. Our sustainability report is aligned with the approach and indicators of the Global Reporting Initiative (GRI G3) and the International Petroleum Industry Environmental Conservation Association (IPIECA). The printed copy of our Group Sustainability Report 2010 is supplemented by additional information on our corporate website at www.petronas.com and this report is also available in PDF format at our website.

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Sustainability & PETRONAS

Sustainability for PETRONAS means carrying out business in a socially responsible and holistic manner to ensure continued growth and success for the benefit of both the present and future generations. We aim to continuously improve our performance and practices throughout the company. We comply with local and international laws, support human rights, do our part to protect the environment and bring benefit to the communities where we operate.

In PETRONAS, sustainability is a corporate function that is centrally driven by the Group Sustainable Development Department within the Group Health, Safety and Environment (GHSE) Division. It is responsible for establishing policies, guidelines and strategies for adherence by the business units and operating units (OPUs). This approach provides a better dissemination of guidance and alignment of action among the PETRONAS Group of Companies to ensure consistency and synergy of action. GHSE Division reports directly to the President & CEO of PETRONAS.

The Corporate Sustainability Council is the main deliberative body on related issues in PETRONAS and it was established in March 2010. The recommendations from the Council are reviewed and approved by management. Members of the Corporate Sustainability Council are executive managers from the various businesses in PETRONAS. The Council is responsible for and oversees PETRONAS' sustainable development strategies and policies, particularly in areas of global concern such as climate change and natural resource use. It is tasked with steering and driving the implementation of sustainability in PETRONAS and advising PETRONAS' management on related matters. The council monitors the Company's related activities and projects, assesses performance, and proposes actions for alignment and integration.

The work of the Council is supported by multi-disciplined working groups established to identify, evaluate and monitor social, environmental and the broader sustainable development trends, issues and concerns that could affect PETRONAS' business activities and performance.

The Seven Result Areas of the PETRONAS Corporate Sustainability Framework

Shareholder Value

Sustaining the Company's profitability through value creation, efficient extraction and manufacturing processes.

Natural Resource Use

Efficient use of energy and water, and supporting the use of renewable energy.

Climate Change

Limiting emissions of greenhouse gases into the atmosphere.

Biodiversity

Responsible management of biodiversity in our areas of operations, and undertake selective conservation as a means of carbon management.

Health, Safety & Environment

Preventing and eliminating injuries, health hazards and damage to property and conserving the environment.

Product Stewardship

Ensuring quality products and services, have minimal impacts to health, safety and the environment throughout the products' lifecycle.

Societal Needs

Safeguarding human rights within our sphere of influence, contributing to community needs, ensuring fair employment practices, developing talents and conducting our business in a transparent manner.

Shareholder Value

Highlights

28 inventions. **21** patents

In the year under review, 28 PETRONAS inventions were assessed for protection and 21 patents were processed for filing.

1st

PETRONAS' first full field Water Alternating Gas (WAG) injection is currently being pursued in Dulang.

98.9%

Percentage of overall reliability rate for domestic refineries.

96.2%

Percentage of overall reliability rate for petrochemical plants.

Approach

Sustainability is an integral part of PETRONAS' growth philosophy. We strive to continue growing our business in an ethically, socially and environmentally responsible manner in the face of increasing geographical, technical and environmental challenges across the business. We are committed to addressing these challenges through initiatives for more efficient extraction, building capability in niche areas, increasing operational improvements and creating a positive economic impact in communities to continue delivering value where we operate.

PETRONAS' focus remains in maintaining business resilience, driven by sustainable development across the triple bottom line.

Efficient Extraction

Domestic production is sustained through prudent use of innovation and technology. We continue to pursue more efficient extraction methods for the protection of shareholder value in the longer term. These include identifying and searching for Enhanced Oil Recovery (EOR) opportunities, new play types and enhancing our capability in deepwater.

Enhanced Oil Recovery (EOR)

PETRONAS remains committed to playing its role in developing solutions to improve recovery through EOR. Currently, Water Alternating Gas (WAG) features prominently in PETRONAS' EOR plan.

The Dulang WAG pilot project and Angsi chemical EOR (CEOR) pilot project have been successfully completed with very

encouraging results. The Dulang project started in 2002 and it was designed as a producing pilot project. Based on the pilot results, a full field scale WAG implementation (Dulang WAG Phase 1-Waterflood reservoir) is currently being pursued in Dulang. PETRONAS is also expanding the WAG implementation in Dulang to include non-waterflood reservoir. For the Dulang WAG project, PETRONAS will reinject produced gas from the Dulang reservoir, which has more than 60% CO₂. Apart from utilising produced gas, the reinjection will also help reduce GHG emissions.

The Angsi Chemical EOR (CEOR) pilot project yielded positive results and PETRONAS is currently pursuing a full field implementation. The project is currently at field development plan (FDP) stage. Results from Angsi are also being used to evaluate CEOR opportunities in other fields in Malaysia.

There are three WAG projects that are expected to produce sizeable, incremental reserves that are set to be at the forefront of Malaysia's offshore WAG implementation. The three fields are Dulang, Bokor and Tapis, which collectively will contribute quite significantly to Malaysia's recoverable reserves. This will contribute towards security of supply and the protection of stakeholder value in the longer term. In addition, PETRONAS is initiating a Simultaneous Water and Gas injection (SWaG) project at Samarang.

PETRONAS is also embarking on a joint study to develop an Area Development Plan for EOR implementation in the Baram Delta and North Sabah areas. The outcome from the joint study should further reveal the EOR opportunities in Malaysia and will be used as the basis to pursue monetisation of these reserves. Once in operation, it will enhance PETRONAS' reputation as a leading EOR player in the world.



PETRONAS is initiating a Simultaneous Water and Gas injection project at Samarang

PETRONAS is also working in partnership to undertake EOR activities. In the year under review, PETRONAS signed a Production Sharing Contract agreement with PETRONAS Carigali Sdn Bhd (PETRONAS Carigali) and ExxonMobil Exploration and Production Inc (EMEPMI) for further development of seven oil fields offshore Peninsular Malaysia.

EOR requires a specifically-skilled workforce and ensuring a steady supply of staff capable in this area is one of PETRONAS' main challenges. PETRONAS has put in place several measures to continually develop the capabilities of our employees. These include providing the opportunities to learn from PSCs and participation in in-house EOR studies under guidance from more experienced employees.

New Play Types

New play types are significant as they are typically associated with sizeable volume but multiple, high-risk prospects. Finding and testing new plays include certain risks and uncertainties, but can add significantly to shareholder value if proven successful. PETRONAS (including collaborative efforts with partners) has successfully tested unconventional new play types in the past. Examples include the Turbidites Play and the Deep-seated Pinnacle Reef Play, both in Central Luconia in the Sarawak Basin. Moving forward, in order to significantly increase the nation's reserves, PETRONAS' exploration activities are driven towards finding and testing newer plays. These include Deepwater Hydrodynamic Play in the northwest of the Sabah Basin and high pressure high temperature (HPHT) play in the Baram Delta, Sarawak Basin.

Internationally, PETRONAS is exploring basement play in Melut Basin (Ruman, Mishmish and Elsaab areas) in Sudan and Song Hong Basin (Ham Rong) in Vietnam. With a high potential of new metasediment basement play in Sudan, the challenge is to understand the geology of the areas, and to have the right

mindset for engaging new technologies and the right techniques in unconventional drilling into basement rock. Ham Rong, which is located in Song Hong Basin, Vietnam, is explored to test the hydrocarbon potential of the pre-tertiary fractured and karstified carbonate basement as well as the Miocene channelised clastics reservoir.

The Malaysian basins have been explored since the 1960s and finding newer plays is a challenge. PETRONAS is exploring the required new technologies such as HPHT drilling and building the necessary technical capabilities and basin knowledge to continue to explore new play types.

Deepwater Capability

PETRONAS has been growing its expertise in deepwater exploration, development and production since the signing of its first deepwater PSC in 1993. PETRONAS aspires to be a competitive deepwater player in the global arena, and there are several programmes for skills development, systems and processes, structure, leadership, mindset change and network-building in place to achieve that aspiration.

With the assistance and support from several key service providers, execution of deepwater projects can be further realised with the promotion of Malaysia as a Regional Deepwater Centre. PETRONAS Carigali, PETRONAS' exploration and production subsidiary, has also been making great strides in advancing its deepwater capabilities overseas. Its foray into deepwater in Africa began with the drilling of an ultra deepwater exploration well offshore Morocco. PETRONAS Carigali then embarked on a fast-track exploration, development and intervention campaign by acquiring deepwater concessions offshore Mauritania. The campaign successfully arrested the Chinguetti field's fast declining production rates to increase production by 70% to 17,000 barrels per day (bpd). This was achieved through the enhancement of the flow assurance management, prudent Reservoir Management Planning and employing best practices in 4D seismic interpretation. PETRONAS Carigali also firmed up the reserves of the Banda Gas field for future development. Apart from its activities in Morocco and Mauritania, PETRONAS Carigali is actively pursuing overseas deepwater ventures either on its own or with its partners in Cuba, Egypt, Indonesia, Mozambique and Myanmar.



Operational Excellence (OE)

PETRONAS defines OE as delivering sustainable best-in-class performance. To ensure efficiency in the extraction and manufacturing processes, OE is tracked and benchmarked across the Group through the OE framework and integrated Plant Operations Capability System (iPOCS).

PETRONAS has an OE framework consisting HSE; Asset Reliability and Integrity; Technical Capability; and Production and Cost as key premises. PETRONAS' OE performance is tracked by iPOCS which was launched in August 2009.

iPOCS covers technical governance and optimisation and is the key to delivering sustainable OE. The system provides a comprehensive framework of capabilities necessary to achieve OE, with standardised, institutional knowledge that can be applied to PETRONAS' operations globally. iPOCS is a common language and methodology for sustaining high performance which is a vital aspect in delivering sustainable OE. PETRONAS is committed to attaining OE and aims to be competitive in plant operations capability by the end of 2012. To achieve this aspiration, the company is continually reviewing and enhancing its internal processes and systems to maintain a culture of superior performance.

Our OE initiatives in downstream facilities is evident in the refinery utilisation performance of PETRONAS Penapisan Terengganu Sdn Bhd (PP(T)SB) and PETRONAS Penapisan Melaka Sdn Bhd (PP(M)SB) which remained in the 1st quartile of the Solomon benchmarking in the Asia Pacific region. Overall

reliability rate for domestic refineries showed an improvement to 98.9% in 2010. Overall reliability rate for petrochemical plants stood at 96.2%.

In upstream operations, Total Deferment showed an improvement to 9.1% in 2010 from 14.4% as a result of lower unplanned deferment. Internal and external benchmarking was conducted to gauge the performance of our upstream facilities. Special Work Action Teams (SWAT) were formed to develop solutions focusing on capability building and sustainability in processes and operations, rotating equipment and instrumentation.

Among the supporting elements of PETRONAS' OE is our Operational Performance Improvement (OPI) methodology. In the year under review, OPI was extended to non-plant facilities, such as PETRONAS Dagangan Bhd, KLCC Urusharta (KLCCUH), PETRONAS Management Training Sdn Bhd (PERMATA) and PETRONAS Maritime Services Sdn Bhd. This was done to share the OPI aspects of leadership development, capability building, and mindset and behaviour change to sustain performance improvements beyond the plant environment. The focus outside the plant environment is on processes to improve efficiency. PETRONAS' production sharing contractors have also begun to show interest in OPI.

Accelerating staff capability

Talent development to support our business expansion continues to be our focus. Talent shortage is a challenge as PETRONAS' operations grow and expand. To increase the capability of our workforce who have fewer than five years experience, the Accelerated Capability Development (ACD) programme has been implemented. ACD provides the relevant training and guidance necessary to equip junior employees with the skills to accelerate their capabilities. PETRONAS is constantly looking to enhance the effectiveness of the ACD programme to meet growing business needs. (Please refer to the Societal Needs section on page 58 for more information on ACD).

Building R&D Capability

A culture of innovation builds capability and creates value for business. Through the Technology and Engineering (T&E) Division, PETRONAS pursues a good blend of research ideas and engineering expertise that aim to achieve sustainability through technology. We strive to promote strategic development and application of technology for better competitive advantage within the oil and gas industry.

To support this mission, the T&E Division is involved in technology commercialisation management, which protects PETRONAS' intellectual assets and creates business value. In the year under review, 28 inventions were assessed for protection and 21 patents were processed for filing, double the amount from 2009. PETRONAS is among the top 20 Malaysian patent filers.

Research and development, technical solutions, project management and delivery, and project procurement services are the other areas under the T&E Division's purview.

Dealer development programmes

PETRONAS contributes towards capability-building in the industry. We play an active role in developing retail entrepreneurs through our dealer development programme in Malaysia, which has been replicated in Indonesia, Thailand and Sudan. Engen, PETRONAS' subsidiary in South Africa, which focuses on the downstream refined petroleum products market and related businesses, plays an equally prominent role in this regard. PETRONAS' dealer development programmes create employment opportunities in locations where we operate.

In Malaysia, PETRONAS Dagangan Berhad (PETRONAS Dagangan), the domestic retail arm of PETRONAS, has run its dealer development programme since 1982. Over the last two years, the programme has trained 1,220 dealers from across Malaysia. In the year under review, PETRONAS Dagangan operated 925 service stations, 13 more than in the previous year. It also opened 23 new Mesra Convenience Stores (C-Stores) in the year under review. There are now 597 Mesra C-Stores, including five standalone Mesra Shoppe C-Stores.



Retail stations are mostly PETRONAS-owned and dealer operated, and we support dealers with regular training and meetings. We also secure retail partners such as those who provide automated teller machines and fast food to provide services to further support dealers. The company is also working towards enabling retailers to serve customers better by offering services based on the Kad Mesra loyalty card programme.

The dealer development programme in Indonesia began in 2006 and PT PETRONAS Niaga Indonesia (PTPNI) has been supporting local dealers through various means, including regular training and coaching, and an incentive programme. There are 17 dealers in the dealer development programme in Indonesia.

PETRONAS Marketing Sudan Ltd's (PMSL) dealer development programme began in 2007 and there were 63 dealers in the year under review compared to 59 in the previous year. PMSL has supported the dealers with training in several areas, such as customer service and bookkeeping. PMSL also sent the top five dealers to Kuala Lumpur in 2009 to learn from the operations at PETRONAS service stations in Malaysia.

In Thailand, a new dealer remuneration package and policy was introduced and implemented in May 2009. PETRONAS, through PETRONAS Retail Thailand Co Ltd (PRTCL) had 99 company-owned, dealer operated retail stations in the year under review, compared to 39 in the previous year. The dealer remuneration package and policy were reviewed, reformulated, and clearly communicated to ensure dealers continued to do well. In the year under review, PRTCL participated in a service station competition conducted by Thailand's Department of Energy Business, Ministry of Energy. Thirteen PETRONAS stations were awarded the title "Golden Station".

Focus

Engen – Retail development

With Engen's retail dealership profile transformation strategy the company has increased the proportion of historically disadvantaged South African (HDSA)-owned retail dealerships to 40 per cent in 2009 from 38 per cent in 2007. Engen aims to facilitate 45 per cent Black Economic Empowerment (BEE) involvement by 2016 through an initiative launched in 2009 in partnership with the National Empowerment Fund (NEF) management. This pioneering oil industry deal aims to put 10 service stations under BEE involvement during the course of the next two years. The NEF has plans to provide R50 million in affordable loans and Engen will provide business and financial support to promote the sustained success of new Black entrants in the retail service station network.



Local Sourcing

PETRONAS works with local vendors where possible as part of our objective to contribute to the growth of the oil and gas industry in countries where we operate.

One of the ways PETRONAS supports local capability development is through the Vendor Development Programme (VDP) in Malaysia. The VDP provides opportunities for capable, local companies to provide products and services.

Companies under the VDP are regularly monitored, assessed and evaluated. The vendors are managed through a Performance Management System consisting of Key Performance Indicators

and consequence management. This is to ensure that the vendors are committed to their appointment terms and will carry out the development plans required. For fabricators, regular assessment of yard capacity and capability are done to ensure that these fabricators can cater to the needs of the oil and gas industry in Malaysia.

PETRONAS has also formed partnerships with Original Equipment Manufacturers (OEMs) such as Rolls Royce, Solar and General Electric for supply of gas turbines. To spur the growth of the local oil and gas industry and build capability, these companies have established local facilities, such as service and overhaul centres, apart from training local engineers.

The OEMs' relationship with their local representatives has evolved from being agencies to forming joint venture companies. With the local set up, it will further spur the usage of local products and services and manpower to support these services and overhaul centres. The OEMs have also offered internships to Universiti Teknologi PETRONAS (UTP) students.

Focus

Supporting Local Vendors in Vietnam

PETRONAS also continues to support, where possible, local capability development through partnerships with local vendors in countries where we operate. In Vietnam, the Topaz development and Floating Production, Storage and Offloading (FPSO) Ruby II projects were awarded to local companies for construction and commissioning.

The fabrication installation of the platform and pipelines were done by local companies. The platform is being fabricated at PTSC yard in Vung Tau, Vietnam. Topaz is the fourth locally fabricated platform, and it will be tied to the new FPSO Ruby II.

The FPSO Ruby II is a new FPSO to replace the existing and ageing FPSO Ruby Princess. The projects represent the strengthening of the relationship PETRONAS has with local vendors who have demonstrated their capabilities in projects with PETRONAS and other PSC operators.

Natural Resource Use

Highlights

18 facilities

The number of facilities where water inventory has been conducted.

9 plants

Number of plants assessed for waste water management.

Approach

Water is an essential resource in PETRONAS' operations and we recognise the need for clear principles and tools for sustainable water management, as they are critical in ensuring responsible handling of this natural resource. Water conservation has been included as one of PETRONAS' key sustainable development elements.

Establishment of Domestic Water Inventory

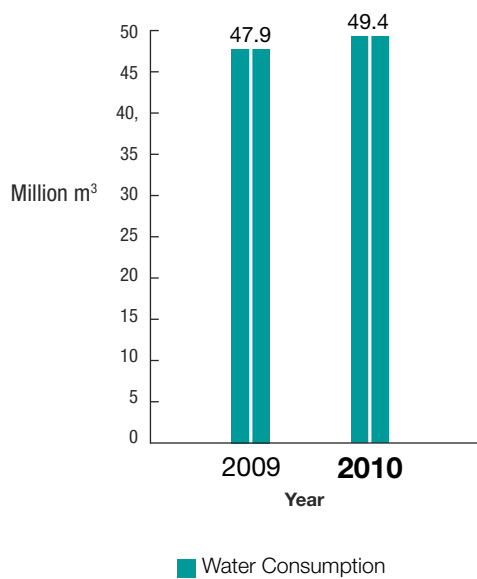
PETRONAS' Water Resource Conservation Task Force comprising technical experts, has completed the water inventorisation and usage pattern for domestic operations in the year under review. The water inventory was conducted at 18 petrochemical, refinery, gas and utilities, and crude oil terminal facilities. The water inventory is used to track, analyse, monitor and govern the efficient usage of freshwater in our operations. A number of water optimisation opportunities have been identified through the water inventory verification exercises, such as minimising leakages and loss, direct reuse of good quality wastewater and wastewater recycling options.

PETRONAS' operations used 49.4 million m³ of water in 2010, a 1.5 million m³ increase from 2009. The increase in consumption was due to a higher number of turnaround events carried out by our domestic operating units.

We will continue to track and report water consumption data and extend the data to our international operations. We will also continue to develop means to optimise water usage at our facilities.

Where water requirement in the processing plant is known to be substantial, we diversify our sources of water. For example, we channel-in seawater for cooling water systems at our refinery and gas processing plants, and we collect rainwater at our crude oil terminals as part of our efforts to diversify water sources there.

Water Consumption



Assessment of Wastewater Management

PETRONAS continually assesses the effectiveness of waste water management and technologies at all our domestic downstream operations. This is to ensure compliance with Malaysian environmental regulations and for the identification of upgrading needs for effective wastewater management.

We have completed the assessment of nine plants at Kertih and Gebeng, and other plants in Sabah and Sarawak will be assessed in the future. With this, our operations are also more prepared for more stringent requirements on industrial effluent enforced by local authorities.

Focus

Management of Water Withdrawal by Bekalan Air KIPC (BAKIPC)

PETRONAS acquires water supply for its operations in the Kertih Integrated Petrochemical Complex (KIPC) from the Bekalan Air Kertih Integrated Petrochemical Complex (BAKIPC) water treatment plants, and not from public sources. BAKIPC provides water supplies of up to 230 million litres per day to the plants that are in the 'Distribution Area' within an agreed period of 20 years and serves as a water supply backup to the plants that are outside the 'Distribution Area' during supply shortages.

The water treatment plant is located at Bukit Bauk Forest Reserve. The construction of the reservoir was carefully designed with minimum impact to flora and fauna. Engagement with the Forestry Department for a reforestation project at the impacted area was carried out upon the completion of the plant's construction. In addition, fruit and herbal trees were also planted for the benefit of local communities.

BAKIPC supplies water to local communities and small industries in Dungun and Paka.

The BAKIPC Water Treatment Plant has won the MSOSH Grand Award 2008. It has the following certifications: ISO9001:2000 in 2002, OHSAS 18001:2007 in 2004 and EMS 14001:2004 in 2006.

The Draw-off Tower near the off-river storage area at BAKIPC



Managing Produced Water through Bioremediation in Sudan

The Greater Nile Petroleum Operating Company (GNPOC) and White Nile Petroleum Operating Company (WNPOC) utilise bioremediation systems to effectively remove all dissolved and free phase hydrocarbons from produced water. The GNPOC and WNPOC systems can treat a combined total of up to 481,000 barrels per day (bpd) of produced water.

At GNPOC, the bioremediation systems at the Heglig oil field are also very effective in increasing the dissolved oxygen content of the produced water. Water enters the systems with very little dissolved oxygen content, typically leaving at 70% to 80% saturation level.

Soil and plant samples are collected from set locations around the bioremediation systems on a quarterly basis. These tests have shown that, for the majority of heavy metals/trace elements, the levels detected in the Heglig soils are well within international guidelines, and levels detected in plants were within the normal ranges. However slightly elevated levels of iron and vanadium have been detected in the Heglig soil samples and the roots of the reeds.

Nevertheless, comparisons with undisturbed soil in the area and the fact that produced water does not contain significant levels of these elements suggest that these metals were already present naturally within the soil. Furthermore, the reeds do not show any signs of nutrient deficiencies or heavy metal toxicities.

Dissolved salt concentrations of the treated produced water at Heglig were compared to the Food and Agriculture Organization (FAO) guidelines for water quality. Electrical Conductivity and Total Dissolved Solids within the treated water fall within the range rated "Very Satisfactory" for livestock use. Also, analysis of the treated water showed that dissolved salt concentrations placed no restrictions

on the use of the water for irrigation, according to FAO guidelines. Toxicology studies of outlet water, soil, plant and fish tissue samples have not revealed any potentially harmful bioaccumulation of heavy metals or trace elements in three and a half years of monitoring.

The year under review has also seen the installation of a weather station at Heglig. This has enabled the recording of detailed site specific weather data, which in turn can be used to derive a more accurate picture of the climatic influences on the bioremediation systems.

The bioremediation project has provided a wetland habitat for a wide variety of species. A new study showed that four of the bird species are on the IUCN red list of threatened species.

At WNPOC, the produced water entering the bioremediation system contains oil-in-water content of about five parts per million (ppm) which is reduced to approximately 0.5 ppm by the bioremediation system.

The treated water is subsequently used for irrigation, creating a sanctuary for birds, reptiles, mammals and plants.



Climate Change

Highlights

19.7 million mmBtu

Realised energy savings in domestic refining, gas and petrochemical operations.

89,134 tonnes

Fuel saved by MISC Berhad through its “i Save Fuel” programme.

10,500 bscf

Cumulative hydrocarbon emissions avoided through increased utilisation of associated gas.

33.2 million tonnes of CO₂-equivalent

Total GHG emissions for 2010.

Approach

The world is in transition towards a long-term vision of a low carbon future. Mapping a route and navigating the pathway to reach an affordable energy-secure low-carbon future is a challenge for governments, businesses and consumers alike. As PETRONAS expands operations to meet the energy needs of a growing world population, our emissions will likely increase. Finding solutions that balance supplying the demand for energy and managing climate change is one of the defining challenges for the oil and gas industry. To meet the demand for energy whilst reducing the impact to the environment, PETRONAS is minimising its GHG emissions through energy efficiency, reduction of flaring and venting of associated gases, and utilising power from cogeneration systems.

Capability building in energy management continues to be implemented through skills training, sharing of learning experiences, mentoring and periodic assessments to build sufficient competency in the workforce across various disciplines.

During the year under review, a verification of the accounting and reporting process was undertaken by an internal team at significant operational sites in Malaysia to improve GHG data quality and accuracy. PETRONAS is committed to consistent and comprehensive reporting of GHG emissions. We have publicly reported our emissions from our Malaysian operations since 2008. In the coming years, all significant emissions from PETRONAS-operated facilities will be reported.

PETRONAS will continue to identify and carry out projects that reduce GHG emissions. We have formed an Emissions Reduction and Energy Optimisation Working Group comprising technical experts from various disciplines from across PETRONAS to shape the direction, set standards and measure for effective carbon management.

Most initiatives to reduce PETRONAS' GHG emissions have the added benefit of enhancing our shareholder value. The challenge for us is to strike a balance between economic and environmental sustainability. We address this issue by focusing on initiatives that have both benefits, while evaluating methods to improve the viability of other emission reduction projects.

PETRONAS recognises that the finite resources of fossil fuels and their impact on the environment will make renewable energy an important part of the global energy business in the foreseeable future. We have taken proactive steps to venture into renewable energy, with solar power being identified as a promising renewable energy of the future. Through partnership, we are exploring various solar photovoltaic technologies as a platform to create a bigger presence in the solar power industry.



The Erb West platform located offshore Sabah

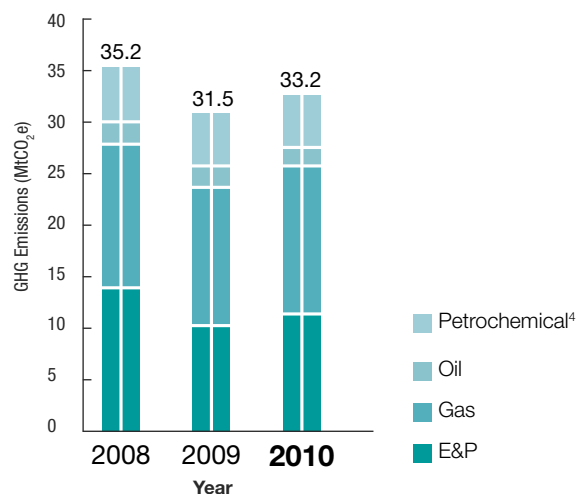
GHG Emissions

Total GHG emissions for PETRONAS' Malaysian operations¹ in the year under review was 33.2 million tonnes of CO₂-equivalent (MtCO₂e), an increase of 1.7 MtCO₂e from the previous year.

The majority of these emissions originated from the E&P² and Gas Businesses, with each contributing 36% and 43% of PETRONAS' emissions respectively.

As a result of increased production, GHG emissions from the

Total GHG Emissions by Business Activities³



¹ PETRONAS reports GHG emissions using the operational control approach. Under operational control, a company reports 100% of emissions from joint ventures over whose operations it has control over. In principal, the company has the authority to impose its requirements such as HSE policies, at the joint venture. The scope of GHG emissions reporting excludes the retail, property, maritime and logistics businesses.

² PETRONAS Carigali-operated blocks in Malaysia.

³ The 2009 GHG emissions figures have been revised as part of efforts to improve emissions data quality.

⁴ GHG emissions from the OPTIMAL Group of companies have been incorporated into PETRONAS' GHG inventory.

Gas Business sector increased marginally by 0.5 MtCO₂e during the year under review. Most emissions from this business sector are the result of fuel gas combustion (58%) and acid gas removal (30%) at our gas processing and liquefied natural gas plants. Ongoing initiatives, such as Energy Loss Management (ELM), Advance Process Control (APC) and Value Improvement Programme (VIP) are being carried out to reduce GHG emissions and improve plant efficiency.

GHG emissions from the E&P Business Sector increased by 1.4 MtCO₂e which is the result of higher production in PETRONAS' Sarawak operations in the year under review. Going forward, new upstream facilities are currently designed to have zero operational venting and minimised flaring. This initiative is driven by PETRONAS' "Towards Zero Flaring and Venting" commitment.

Emissions from the Oil and Petrochemical businesses comprise about 21% of PETRONAS' GHG emissions. The Oil Business' GHG emissions showed a reduction of 0.4 MtCO₂e from the previous year. GHG emissions from the Petrochemical Business increased by 0.3 MtCO₂e from the previous year, which is in line with the increased business productivity.

Venting & Flaring Reduction

PETRONAS is working to reduce venting and flaring of associated gas at our upstream operations. Guided by our "Towards Zero Flaring and Venting" commitment for upstream operations, reduction is achieved through efficient front-end design of new facilities, increasing gas handling capacity of existing facilities, process improvements, management of high gas-to-oil ratio (GOR) wells and through ELM programmes (refer to ELM in Upstream section).

Our efforts in capturing flared and vented gas began in 1978. The captured gas is mainly utilised as sales gas and for well reinjection. Through the various methods of gas capturing over the last three decades, the utilisation of associated gas has jumped to 80% from 5%, avoiding a cumulative hydrocarbon emissions of 10,500 bscf.

PETRONAS will continue to implement procedures and projects to improve operations reliability and efficiency, and, thereby, reduce venting and flaring in our operations.

Energy Efficiency

Through our ELM and Value Improvement Programme (VIP), we have identified opportunities to improve energy efficiency at our upstream and downstream operations with tangible results in cost-saving and reduction in flared and vented gas, as well as reduction in material losses and wastage. The programmes provide a standardised methodology and tools to measure, benchmark, identify performance gaps, implement gap closure, track and sustain progress for continuous improvements. The overall objective is to foster a strong culture of energy efficiency in the company. Energy efficiency leaders have been established in our businesses and Operating Units (OPUs), and the OPUs have started to actively identify energy efficiency opportunities, especially in downstream plants. Reducing energy consumed in manufacturing of products makes both business and environmental sense.

Energy use is a significant operating cost. Hence, PETRONAS is continually looking at ways to reduce fuel consumption and associated emissions. Through ELM and VIP, OPUs continue to make a broad array of operational changes to realise energy efficiency through:

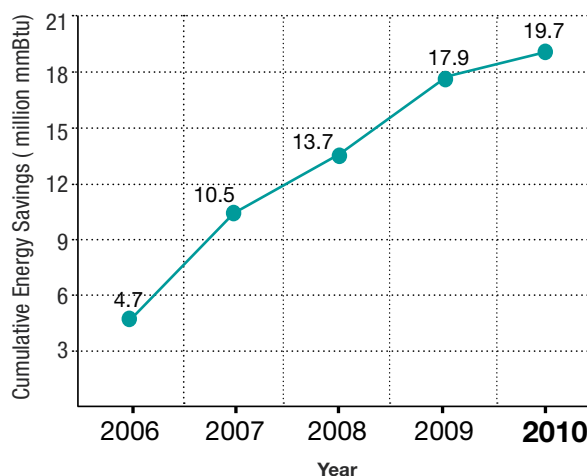
- Process improvement;
- Leak reduction;
- Cogeneration unit optimisation;
- Steam system optimisation;
- Waste heat recovery; and
- Recovery of flared and vented gas.

The core priorities of our strategy are cutting our energy bill, lowering energy consumption, reducing GHG emissions, as well as exploring alternative solutions that will open up new opportunities.

ELM in Domestic Downstream Operations

During the year under review, PETRONAS realised energy savings of 1.77 million mmBtu at downstream plants. In the year under review, we have realised a cumulative energy savings of 19.7 million mmBtu from the refining, gas and petrochemical operations, with a further potential energy savings of 24.6 million mmBtu identified.

ELM in Domestic Downstream Operations



Focus

Flare Reduction at PETRONAS Ammonia

PETRONAS Ammonia Sdn Bhd (PETRONAS Ammonia) successfully reduced flaring at its ammonia production facility by 88%, achieved through an ELM initiative to divert flared gas into the plant's fuel system. This initiative reduced the facility's GHG emissions by more than 15,000 tonnes of CO₂e per year. PETRONAS Ammonia is currently evaluating potential solutions to reduce the remaining quantity of gases that are still flared at its facility.

ELM in Malaysia's Upstream Operations

PETRONAS' upstream operations in Malaysia have incorporated the ELM programme as a long-term focus to improve energy management and reduce GHG emissions. ELM is integrated into the common objective of operational excellence.

Guided by the ELM standards and system, PETRONAS Carigali operational sites in Peninsular Malaysia, Sabah and Sarawak have developed a site-specific manual to guide the ELM implementation in its onshore and offshore surface facilities. This manual complements ISO14001 and ISO14301, and is guided by the PETRONAS commitment "Towards Zero Flaring and Venting".

Major facilities identified for improvements in energy efficiency include:

- Gas compression system;
- Electricity generation system;
- Fuel gas system; and
- Dehydration system.

Implementation of ELM brings with it a mindset change, from seeing flaring of associated gas as a by-product of the oil extraction process to recognising the gas as an important product that warrants conservation.

ELM programmes in the year under review at four offshore fields have resulted in a reduction of gas flared by 7,687 mmscf per year. The programme has identified opportunities to further reduce the amount of flaring by 22,788.1 mmscf per year.

Cogeneration Facilities

Cogeneration is an efficient means to simultaneously produce electricity and thermal energy. The conventional method of generating electricity from fossil fuel combustion will generate excess waste heat, which is not utilised. Cogeneration systems produce electricity and utilise the waste heat to generate steam for plant operations. Its wide use will have a positive impact on the economy, environment and security of electricity supply.

PETRONAS operates three cogeneration facilities in Malaysia, with a combined power generation capacity of 474 MW and steam production capacity of 1,700 tonnes per hour. All the

cogeneration units run on clean-burning natural gas. On average, PETRONAS' cogeneration systems have an overall energy efficiency of 72%. This is approximately 50% higher than the efficiency of conventional electricity and steam generation systems. Improved energy efficiency also results in lower GHG emissions. It is estimated that by using energy supplied by the cogeneration facilities, PETRONAS operations avoided emitting 682,000 tonnes of CO₂e in the year under review.

As a result of the many benefits of this system, a fourth cogeneration facility will be operational at PETRONAS' fertiliser plant in Gurun, Malaysia this year. It will have a total installed capacity of 18 MW and steam production of 40 tonnes per hour.

Focus

Cogeneration Optimisation at PP(M)SB

As part of its optimum operational philosophy, PETRONAS Penapisan (Melaka) Sdn Bhd (PP(M)SB) conducts annual situational assessments on its cogeneration unit commissioned in 2008.

The most recent assessment was done in 2009 to look at ways to reduce natural gas and water consumption and GHG emissions through:

- Increasing the efficiency of the cogeneration unit; and
- Process optimisation for the cooling water system and auxiliary boilers.

Through this optimisation effort, the overall cogeneration plant efficiency has increased by 10%. The improved efficiency and the reduction in purchased electricity for standby power supply resulted in a reduction of 19,263 tonnes of CO₂e in the year under review.

A cogeneration unit located at PP(M)SB



Focus

Fuel Efficiency in Shipping Vessels

MISC Berhad (MISC), a subsidiary of PETRONAS, continues to promote the efficient use of natural resources through its fuel efficiency programme – “i Save Fuel”. The programme recorded savings of approximately 89,134 tonnes of fuel for the year under review compared to 56,142 tonnes in the previous year. The 17.9% savings are based on the baseline total fuel oil required for combustion for ship propulsion and electrical power.

Additionally, MISC's LNG double-hulled ships are specifically designed to limit GHG emissions from the release of boil-off gas and bunker fuel consumption. The ships are insulated to reduce the boil-off or evaporation of LNG, and also have systems in place to capture any gas that does boil-off. The captured gas can be used as alternative fuel for the ship, thus reducing its bunker fuel consumption. Since the boil-off gas is a cleaner fuel compared to bunker fuel, its use will reduce CO₂, NOx and SOx emissions from the ships' engines.

Emission savings (in MT) in the year under review as a result of lower bunker fuel consumption is presented in the table below:

SOx	6,989.6
NOx	5,224.7
CO	708.4
Partics	301.1
CH ₄	44.3
CO ₂	277,174.0
CO ₂ (including CO ₂ /CH ₄ equivalents)	278,104.0

The fuel efficiency programme has successfully improved operational cost and contributed towards better environment management.

Focus

Energy Savings at PETRONAS' Non-Process Buildings

The management of PETRONAS Twin Towers has continued with its ongoing energy saving initiatives, which include optimising the buildings' escalators, lighting and power systems. In the year under review, the energy initiatives resulted in a reduction of 9% in electricity consumption compared to when the initiatives were not yet implemented.

The Kuala Lumpur Convention Centre continues to perform better than the Green Globe Best Practice levels for energy consumption. In 2007-2008 (1 November 2007 – 31 October 2008), the Kuala Lumpur Convention Centre consumed 501.9 MJ per Area Under Roof (m²), 43.3% better than the best practice level. The consumption was also lower than in the previous year, where the Kuala Lumpur Convention Centre used 31.1% less energy compared to 2006-2007. (Note that the Green Globe Best Practice period lags by a year)

Focus

Earth Hour

PETRONAS participated in Earth Hour 2010 on 27 March in support of international calls for countries around the world to address global warming and climate change. We switched off, for one hour, non-essential lights at our facilities, including the PETRONAS Twin Towers, the Suria KLCC shopping mall, petrol stations and our other premises around the world. The lights at the premises in Malaysia were turned off from 8.30 pm to 9.30 pm.

The switching off of non-essential lights at the PETRONAS Twin Towers



Biodiversity

Highlights

420,739 acres

Size of PETRONAS' green lung and buffer zone acreage.

2 studies

Number of studies completed to assess operational impact on biodiversity.

206 volunteers

Number of volunteers from the local community and OPTIMAL for ecoCare™ conservation programmes.

Approach

PETRONAS recognises the importance of protecting and promoting biodiversity in areas of our operations, particularly in biodiversity-sensitive areas. We continue to work in partnership with government agencies, environmental NGOs and research institutions to address knowledge gaps and assess the impact of our operations on the ecosystem.

The risks of our activities to biodiversity are integrated in the Environmental Impact Assessments performed during the project planning stage, where mitigation measures are developed to minimise the impact on the ecosystem.

To assess the impact of our operations, PETRONAS has completed two studies this year, starting with Malaysian operational sites at the downstream petroleum complex in Kertih, Terengganu and along the coastline of our upstream activities.

PETRONAS also promotes public awareness of biodiversity through programmes with our science discovery centre Petrosains and other OPUs.

Moving forward, we aim to develop a long-term risk-based monitoring of biodiversity surrounding our operating plants, especially near ecologically-vulnerable locations, conduct awareness programmes among employees to build better understanding of ecosystem services and map our global operations against biodiversity-sensitive areas.

PETRONAS Green Lung and Buffer Zone Acreages

Location	Estimated acreage
Universiti Teknologi PETRONAS (UTP), Tronoh, Perak, Malaysia	500
Kuala Lumpur City Centre Park, Malaysia	50
Buffer zone, Kertih, Malaysia	50
Buffer zone, Melaka, Malaysia	20
PETRONAS Research Centre, Bangi, Malaysia	23
PETRONAS Training Centre (PERMATA), Bangi, Malaysia	26
Taninthayi Forest, Myanmar	420,070
TOTAL	420,739

PETRONAS has green lung areas within our operations, such as the forest reserve at the Myanmar operations, forested areas at UTP, and the buffer zones for refineries and petrochemical plants. Conserving these green areas provide many environmental benefits, such as reducing heat effects and bio-filtering of air pollution and noise. Other beneficial opportunities such as forest carbon sequestration can also be explored.

Biodiversity Studies

For the year under review, PETRONAS conducted a biodiversity study at the PETRONAS Petroleum Industry Complex (PPIC) in Kertih, Terengganu and an Environmental Sensitivity Index (ESI) along the East Coast of Peninsular Malaysia, and Sabah and Sarawak's coastlines.

PPIC is surrounded by a variety of natural habitats, such as a river system, freshwater swamp, mangrove and forests. In collaboration with an environmental non-governmental organisation (NGO), the Malaysian Nature Society (MNS), PETRONAS recently completed a biodiversity study at PPIC. The study covered a two-kilometre radius surrounding PPIC and was conducted over a period of seven months.

The study provided invaluable national data on endangered and threatened plant, mammal, bird and reptile species, and identified threats to the area.

Resulting from the study, a biodiversity action plan will be proposed to address the critical issues for biodiversity conservation and ecosystem rehabilitation based on an ecosystem services approach.

The ESI's objective was to provide PETRONAS and Production Sharing Contractors with current information concerning the sensitivity of the coastlines and surrounding areas.

Focus

Remediation of Lutong River in Sarawak

PETRONAS Carigali Sdn Bhd (PETRONAS Carigali) and Shell Sdn Bhd (Shell) have continued to work together to rehabilitate the Lutong River through the Lutong River CARE Project.

The CARE project began in 2000 and was undertaken with the objective of improving the water quality of the Lutong River through remediation and re-greening of the river banks. The third phase of the project has now been completed at a total estimated cost of RM26 million. The cost is shared equally between PETRONAS Carigali and Shell.

Through dredging, the river's flow and water quality have improved, enabling local communities to rely on the river for food source.

As much as 36,715 m³ sediments from the Lutong River were treated, 25,947 trees were planted and 3,241 m² of grass was planted.

The re-greening programme involved planting several mangrove species, such as *Avicennia* sp, *Terminalia catappa*, *Nypa fruticans* and *Excoecaria agallocha*.

An aerial view of the PPIC at Kertih, Terengganu



Focus

Biodiversity Education at Petrosains

Petrosains - The Discovery Centre held a campaign themed “Biodiversity and You” in March 2010. It was aimed at creating public awareness of the importance of conserving nature and protecting the environment.

The campaign featured mini-exhibitions by several partners, including PETRONAS’ Group HSE Division, which showcased mangrove saplings and scientific equipment utilised for biodiversity monitoring efforts. Other partners that provided valuable information to visitors included Stormwater Management and Road Tunnel (SMART), where officials spoke about floods and mitigation solutions, as well as the Forest Reserve Institute of Malaysia (FRIM) and EDUTREE, which helped visitors delve into the world of insects and frogs.

A PETRONAS employee addressing participants at the ‘Biodiversity and You’ campaign held at Petrosains



Mangrove saplings along the Kertih River

ecoCare™ Mangrove Conservation in Kertih

Since 2005, PETRONAS’ subsidiary OPTIMAL Group has partnered with the Malaysian Nature Society (MNS) to conserve river mangroves under the ecoCare™ project in Kertih, Terengganu. The rehabilitation project is crucial, as the mangroves are the natural breeding ground for fish, prawns, crabs and other crustaceans, supporting the livelihood of the local fishermen. The mangroves are also natural windbreakers that protect the coastline and help with water retention for farming activities.

The project’s aim of getting the local community involved in mangrove conservation along the Kertih River continues to be successful. There were 206 volunteers from the local community and OPTIMAL employees, who came together to replant mangrove saplings along the Kertih River.

The replanting sites have shown good saplings growth, as the saplings have formed stilt roots, a reliable indication that the replanting has been a success. Ongoing tracking and monitoring of all replanting sites show an average survival rate of 70%.

The ecoCare™ Environmental Education Centre is being constructed with facilities to raise awareness and understanding of environmental conservation. The Centre will feature exhibits on the Kertih River’s ecosystem and coastal terrain.

Health, Safety and Environment

Highlights

4.86

Fatal Accident Rate (FAR) has improved despite an increase in manpower.

0.31

Loss Time Injury Frequency (LTIF) has improved from 0.44 in the previous year.

172

Number of Loss of Primary Containment cases reported in 2010.

Approach

PETRONAS is committed to excellence in health, safety and environmental (HSE) performance. HSE is part of PETRONAS' Operational Excellence Framework to deliver sustainable best-in-class performance. By conducting operations in ways that safeguard our workforce and the surrounding public from unacceptable risk, we strengthen the economic and social benefits to communities.

Effective HSE leadership behaviours are essential in fostering a culture of zero tolerance to incidents. Leadership commitment and ownership are core elements in the PETRONAS HSE Management System (HSEMS). PETRONAS continues to improve standards and practices, risk management, and emergency preparedness to ensure safe operations, a healthy workforce and environmental protection. Employee participation in preventive health and wellness programmes is encouraged in order to improve health and maintain productivity. Our objectives and actions to protect the environment and minimise the impact of our operations are underpinned by a commitment to continue to strengthen our environmental management system, managing environmental risks, lowering emissions, effectively managing water resources, remediating soil and minimising waste.

Trainings are systematically conducted for HSE personnel to ensure a high level of competency to achieve HSE excellence.

HSE Governance

In compliance with Occupational Safety and Health (Safety and Health Committee) Regulations 1996, HSE committees comprising personnel from various functions within an Operation Unit (OPU) meet at least once every three months for discussion.

At the Group level, the Group HSE Committee meeting is chaired by the Vice President of Technology & Engineering Division and is attended by Managing Directors and Chief Executive Officers of OPUs, with the Group HSE Division as the secretariat. The Committee establishes and reviews PETRONAS policies, standards and guidelines on the management of HSE. It also reviews the Group's HSE performance and recommends appropriate actions for continuous improvement. The Committee reviews major incident investigation reports, recommends preventive measures for implementation by OPUs, and reviews as well as endorses the Group HSE Division's strategies and plans.

A HSE Committee is established at every OPU to look into the implementation of HSE Management System (HSEMS), policy, regulations, audits, incident investigations, lessons learnt as well as strategy and initiatives. In addition, larger OPUs have various HSE sub-committees to address specific operational issues.

HSE matters are covered under the collective agreements of the employee Unions in Malaysia which include:

- Sick leave;
- Industrial accident leave;
- Special medical examination;
- Tool and working equipment (Personal Protective Equipment, appropriate tools and equipment); and
- Uniform.

HSE Information System

The Group's first standardised HSE information management system, iHSE, was rolled out to 25 OPU's in Malaysia and at the Engen Refinery in South Africa in the year under review. The enterprise-wide system is a tool to track, implement and monitor HSE action items to prevent recurrences of incidents. It also aims to enhance collective intelligence on HSE and promote the seamless sharing of HSE knowledge, best practices and lessons learnt Group-wide. Users are able to utilise five critical modules through iHSE: Incident Notification and Investigation; HSE Assurance; HSE Performance Management; Risk Management; and Action Tracking.

Emergency Preparedness & Crisis Management

The management of crisis in PETRONAS is governed by the Group Contingency Planning Standard (GCPS), which provides a set of guiding principles and standards for PETRONAS to respond to any emergency or crisis. It delineates roles and responsibilities at all levels in the Group to effectively respond and manage emergency situations. The GCPS framework follows a tiered response linked to a host government's national emergency response plan.

GCPS is an umbrella document that also governs the PETRONAS Emergency Response Plan, Group Crisis Management Plan, Country Support Plan, Business Continuity Plan, Oil Spill Contingency Planning Standard and Health Pandemic Plans, such as Avian Influenza and Influenza A (H1N1).

GCPS requires OPU's to conduct different levels of emergency exercises periodically, from the desk-top to a full-scale exercise, in order to determine gaps and levels of preparedness. Training programmes for the relevant personnel are also stipulated in GCPS for building competency and leadership.

Assurance exercises are conducted periodically on OPU's Emergency Response Plan. Training records at OPU's are tracked for compliance with GCPS. Findings from the emergency exercises and assurance assessments are highlighted to the respective OPU's management and to the PETRONAS Board Audit Committee.

Oil Spill Management

The management of oil spills is directed by the Oil Spill Contingency Planning Standard, which is a sub-plan of the GCPS. It follows the tiered response and differs with the crisis management plan in the linkage with government agencies, where they are prompted much earlier as a prudent practice to ensure a quicker and better-integrated response. The Environmental Sensitivity Index (ESI) Database for Sabah, Sarawak and Peninsular Malaysia was established to better inventorise the distribution of resources in these areas, as well as provide recommendations for defence strategies which are essential information in any oil spill contingency.

Country Support Plan

In the year under review, Country Support Plans were established for operations in Egypt, Ethiopia, Sudan, Turkmenistan and Vietnam. The plans were developed based on feedback gathered from the respective international operations and from industry best practices. Relationships and links with host government authorities were established during joint exercises to test the effectiveness of the Plan.

Safety Building a Culture of Zero Tolerance to Incidents

PETRONAS has conducted a comprehensive assessment to identify the root and immediate causes of incidents, learn practical lessons from them and disseminate the findings in our effort to drive continuous improvement in safety. The findings show a similar trend in the last five years on the causes of fatalities, mainly due to road accidents, falls from height and hits by object.

PETRONAS strives to build a workplace culture of zero tolerance to high risk conducts and incidents. To achieve this goal, all employees and contractors must accept responsibility and accountability for safety performance on the job. PETRONAS is building on our track record of maintaining a safe working environment. For example, despite the increase in man-hours, PETRONAS Carigali Sdn Bhd (PETRONAS Carigali) made further improvements in its HSE performance, recording a Total Reportable Case Frequency (TRCF) of 0.49, the best in the company's history, and came in second in the International Association of Oil and Gas Producers (OGP) list. This is a 10.9%

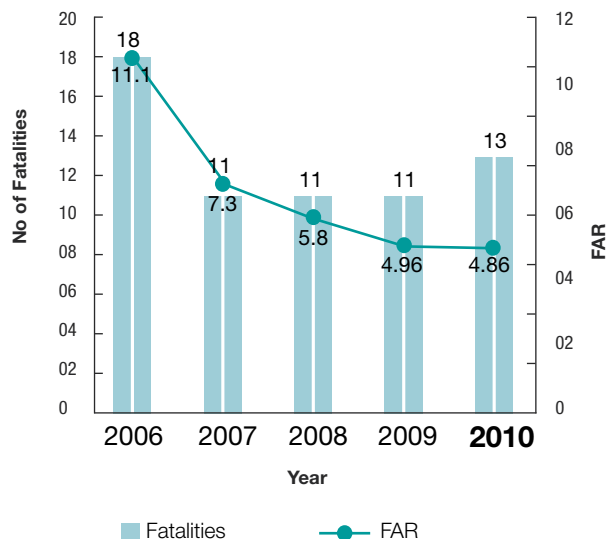
improvement from the previous year and far superior to the industry average of 2.08 (for 2008) as benchmarked by OGP. (Note that OGP's benchmark lags by a year)

Regrettably we recorded 13 fatalities, 12 of which involved a contractor and third party. PETRONAS' challenge is to learn from every incident so that we can take appropriate measures to achieve our goal of zero tolerance to high risk conducts and incidents.

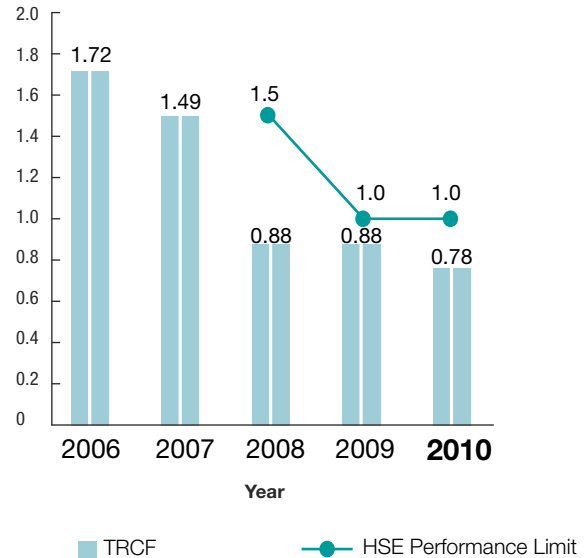
Our efforts to enhance our safety performance include:

- Developing new and revising existing PETRONAS Technical Standards (PTS) to enforce best practices in critical activities, such as working at height, fire risk assessment, abseiling, ergonomics, volatile organic compounds emissions, health impact assessment, and medical surveillance;
- Enhancing HSEMS, particularly through improvements in process safety and human factors' elements, and alignment with ISO 14001 and OSHAS 18001;
- Enforcing governance by conducting HSE assurance at OPU's and on contractors to track and drive gap closure from the assurance findings;
- Reinforcing the implementation of behavioural safety culture by implementing safety programmes; and
- Addressing road accident concerns by improving the effectiveness of land transport management, updating of route hazard mapping, implementing low speed zone areas using a Global Positioning System (GPS) and updating of the Land Transport Safety PTS.

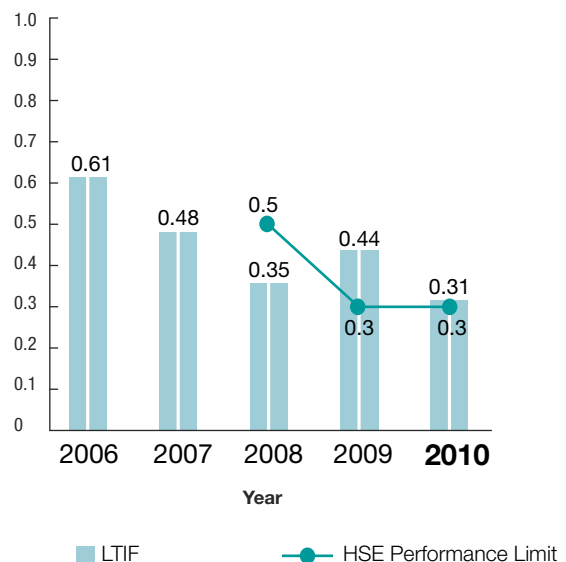
5-Year Fatalities and FAR Trends for the Group



5-Year TRCF Trend for the Group



5-Year LTIF Trend for the Group



Focus

ZeTo Rules

ZeTo Rules are mandatory safety rules to help reduce the number of major fatalities and accidents. 'ZeTo' means Zero Tolerance of non-compliance. The rules are applicable to employees, contractors and sub-contractors when carrying out PETRONAS' business activities, working on our premises, using vehicles and when travelling on business. The 10 ZeTo Rules are highlighted based on the root-cause analysis of recurring trends in the causes of fatalities in the last five years.



Work with valid permit (PTW) required by the job



Verify energy isolation before starting work



Obtain authorisation before overriding or disabling safety critical equipment



Obtain authorisation before entering a confined space



Protect yourself against a fall when working at height



Use the correct personal protective equipment (PPE) when handling hazardous chemicals



Obtain authorisation before excavating or entering a trench



Do not position yourself under a suspended load



Do not smoke outside designated areas or bring potential ignition sources into process areas without authorisation

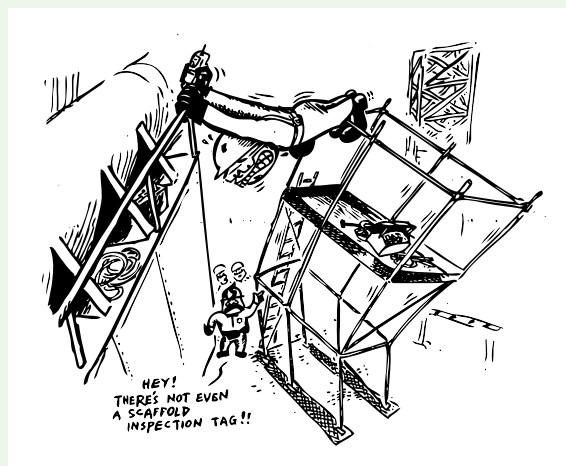


Do not use your mobile phone/walkie-talkie while driving, follow the speed limit and use your seat belt

Focus

Human Factors Engineering

PETRONAS believes in preventive action to safeguard the health and safety of our employees and contractors. We have begun to apply human factors considerations to reduce human errors, optimising both human and system performances. Training modules on human factors engineering were developed in 2009 and two pilot assessments were conducted at Ethylene Polyethylene (Malaysia) Sdn Bhd in Kertih, Terengganu and at a PETRONAS Carigali unit at its headquarters in Kuala Lumpur.



Environment

Our commitment to operate in an environmentally-responsible manner to reduce our environmental footprint is anchored in our HSE policy statement. Among the key drivers in environmental management are PETRONAS' Minimum Environmental Management Standards (MEMS) that is over and above regulatory requirements for environmental protection, conservation and impact minimisation.

MEMS has undergone Phase 1 and Phase 2 implementation for Operating Units (OPUs) overseas and in Malaysia, respectively. Phase 1 requirements include the setting up of a greenhouse gases (GHG) inventory and waste inventory. Phase 2

requirements include groundwater monitoring, GHG emissions reduction and waste minimisation programmes.

Our approach to environmental protection begins with a sound understanding of our surroundings and operating environment. As governed by MEMS, conducting an Environmental Impact Assessment (EIA) is compulsory before the development of any key project, even when there is no local regulatory requirement. The degree of assessment varies depending on the complexity and scale of projects.

Prevention & Control of Environmental Impact

The Integrated Environmental Site Management (IESM) and Environmental Incident Prevention and Control (EIPC) are internal guidelines to assist compliance by OPU's with MEMS. These two guidelines adopt industry best practices and provide a systematic approach to ensure that the risks of contamination at our operations are managed effectively.

Supporting the guidelines for prevention and minimisation of potential environmental impact from spills are the PETRONAS Environmental Site Risk Assessment and Environmental Hazard Review Register. The former is a tool that prioritises action plans for sites with potentially higher risks, while the latter enables the development and implementation of EIPC programmes.

The establishment of these guidelines is also part of our efforts to ensure compliance with the upcoming Department of Environment Contaminated Land Management Guidelines in Malaysia.

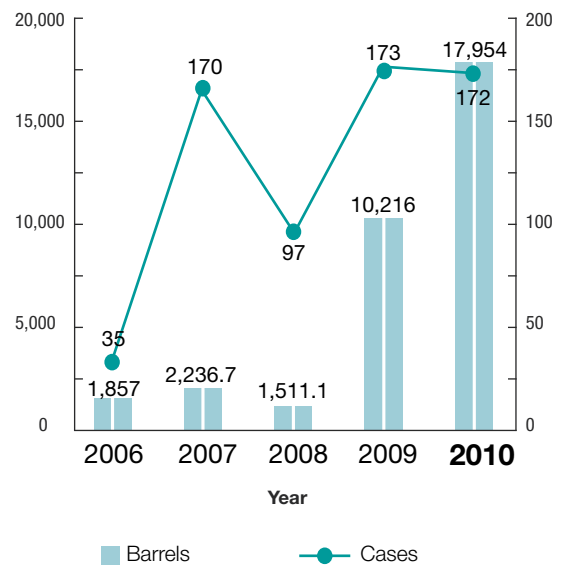
Loss of Primary Containment (LOPC)

Starting in the year under review, spill incidents are monitored through Loss of Primary Containment (LOPC), which includes data on unplanned releases of materials (chemicals or oil in gaseous, liquid or solid form) from their primary containment or area. We take LOPC incidents very seriously and have put in the necessary preventive measures. We also continue to do in-depth analysis of major incidents to determine root causes, communicate the lessons learnt and identify intervention plans.

The number of LOPC incidents across PETRONAS has been consistent in the last four years but the volume of spills has increased, due to two major incidents involving PETRONAS Lubricants Italy SpA at Selenia, Italy and MISC Berhad's American Eagle Tanker at Sabine River in Houston, Texas. These two incidents accounted for 90% of PETRONAS' total spill volume.

We are enforcing environmental management best practices through the implementation of MEMS at OPU's in Malaysia and overseas as one of our measures to prevent LOPC incidents.

Environmental Performance 5-year LOPC trend



Oil Spill Response Preparedness

In the year under review, the PTS for Oil Spill Contingency Planning was reviewed and enhanced to incorporate:

- The Incident Command System's philosophy;
- Amendments to the National Oil Response Contingency Plan; and
- Requirements for international operations and onshore oil spills.

Focus

Zero Discharge at Caspian Sea

In line with Turkmenistan's policy statement on zero discharge to the sea, PETRONAS Carigali (Turkmenistan) Sdn Bhd established the Oil Spill Response Plan for drilling and operations before commencing its drilling operations there in the 1990's. The plan governs a proactive approach to protect the Caspian Sea environment and fully prepares the company should an oil spill occur. Spill awareness, oil response training and exercises are conducted continually for the company's personnel and contractors.

An assessment to determine the oil spill risk was conducted before the lifting of first oil in 2006.

An operational oil spill response plan was established to deal with any oil spill occurrence from its Mobile Offshore Production Unit. A spill response company was engaged to ensure effective mitigation should a spill occur. Spill awareness, oil response training and exercises are conducted continually for its personnel and contractors.

To ensure spill-free operations during the transportation of crude oil, only double-hulled vessels certified with the International Oil Pollution Certificate (IOPC) are used.

PETRONAS' oil producing operations at Block 1, Turkmenistan



Emissions & Effluent Discharge

PETRONAS continues to improve on engineering controls to meet environmental regulations. During the year under review, there were no incidents of environmental non-compliance related to air emissions as well as effluent discharge.

Focus

Meeting Stringent Emissions Limit at Engen Refinery

Engen Refinery in Durban, South Africa achieved a remarkable turnaround in managing emissions of sulphur oxide gases (SOx) in just four years. In 2006, the refinery was unable to keep within the permitted limits, but in the year under review, it achieved zero SOx emission.

Although the refinery committed more than a decade in processes to continuously improve its performance, the journey only intensified in December 2004 when Engen became South Africa's first refinery to receive a five-year Scheduled Trade Permit effective 1 January 2005. Engen Refinery is situated in the South Durban Basin, an area hosting a conglomerate of industries intertwined with communities. The communities have been very vocal on the effect they believe the industry places on their health, resulting in the government enforcing a Multi Point Plan to manage air quality in the area.

Engen is required by law to adhere to a stringent standard of 35 limits per annum of 10 minutes SOx emission for both daily and ambient (ground-level) emissions. Since 2007, the refinery has successfully complied with the permitted SOx emission requirement of 35 and, in the year under review, there was no ground-level SOx emission at all.

Focus

Integrated Risk Assessment at Kertih Industrial Area, Terengganu

The Kertih Industrial Area (KIA) is one of the largest industrial sites in Malaysia with 24 main plants. A major part of the industrial site is occupied by the PETRONAS Petroleum Industry Complex (PPIC) comprising an oil refinery, gas processing plants, petrochemical plants, utilities plants, and receiving terminals for oil and gas. Adjacent to the PPIC are two separate power plants that generate electricity for the national power grid.

In the year under review, an integrated risk assessment was conducted by PETRONAS at KIA to assess the overall major hazards that could affect employees, assets, operations and the environment. Special considerations were given to the complexity of knock-on effects due to the size of KIA and the interdependency between the numerous plants for feedstocks and utilities.

The main findings of the assessment show that Malaysia's Department of Environment (DOE) criteria for managing risks to people, assets and environment have been met.

The risks to the general public and industrial workers are within the tolerance level set by the DOE. The residential area surrounding KIA is within a safe zone with a low chance (one in a million per year) of being at risk from a major accident taking place.

Locations identified as most at risk are at the processing area in a plant. The key recommendation for reducing risk to personnel is to focus on early isolation of leaks.

On-site procedures and facilities are in place to prevent major spills (exceeding 1,000 kg or 6.3 barrels).

Waste Minimisation Programme

One of the measures taken to achieve our vision of minimising our environmental footprint is through waste minimisation initiatives. Programmes for waste minimisation to reduce, reuse, recycle and recover have been implemented by OPUs based on the nature of their operations and specific needs. In the year under review, the Waste Management Initiative Working Group was formed to shape and share best practices across the Group.

Focus

Recovery of Spent Catalyst

PETRONAS Penapisan (Melaka) Sdn Bhd (PP(M)SB) has adopted an effective approach to reduce the cost of waste disposal. By sending its nickel-based spent catalyst to a recovery site, the refinery managed to save RM2 million in the year under review.

Overall, platinum recovery from spent-catalyst has contributed significant savings to PETRONAS OPUs. The Waste Management Initiative Working Group (WMIG) is supporting the effort by looking into opportunities for other types of spent catalyst recovery.

Nickel-based spent catalyst



Focus

Integrated Waste Management Plan at Engen Refinery

Engen Refinery in Durban established an integrated waste management plan to meet the new South African environmental regulation introduced in July 2009. Through this integrated waste management plan, efficiency of the refinery's waste management system is enhanced, waste hierarchy principle is applied, waste disposal alternatives identified and vendors' legal compliance is better ensured. The improvements resulted in a 47% reduction of waste disposal cost.

Recovery of spent catalysts, spent oil, scrap metal, empty drums, uncontaminated pallets, paper and cardboards have significantly improved. The waste minimisation initiatives since 2009 have contributed R10.9 million (RM4.6 million) to the Engen Refinery.

Engen Refinery in South Africa



Focus

Recovery of Spent Copper Slag

Copper grit is used at the Malaysia Marine and Heavy Engineering Sdn Bhd (MMHE) fabrication site for removal of paint, rust and marine deposits. Copper grit that has lost its abrasive property after being used is termed "spent copper slag" and classified as scheduled waste under environmental regulations. An average of 24,000 MT of spent copper slag is generated per year at the site. MMHE successfully created value out of its spent copper slag waste by identifying it as a suitable replacement for iron ore, a raw material used to produce clinker in cement manufacturing. By supplying the spent catalyst to a cement company, MMHE realised savings of about RM2.7 million from the cost of waste disposal. A corporate assurance exercise conducted jointly with Malaysia's DOE was carried out to ensure that spent copper slag is managed in compliance with all applicable legislative requirements and DOE approval conditions.

Waste Reduction Programmes at UTP

Universiti Teknologi PETRONAS (UTP) has initiated 3R (Reduce, Reuse and Recycle) and composting programmes on campus as part of its sustainability efforts.

The initiatives under the 3R programme include the banning of polystyrene food containers as well as no plastic bags at all cafeterias and shops on Saturdays, and recycling activities.

UTP's composting programme involves food waste collected from kitchens across campus. The compost is produced at UTP and is organic. It is used on campus, with the surplus sold to the public. The compost has been tested by the Malaysian Agricultural Research and Development Institute (MARDI), and the nitrogen content is comparable to other commercially available organic compost.

Health

PETRONAS takes health issues seriously, both work related and personal health, that impact our workforce. We identify health risks related to our operations to enable us to implement programmes to control such risks. We provide health and medical benefits and promote good personal healthcare. Assessments on health risks and healthcare facilities at the workplace provide a basis for the development of local plans concerning occupational health, health support and emergencies management.

In the year under review, the Group met the target of conducting health risk assessments for 80% of OPU's in Malaysia and 40% of OPU's overseas. Action plans have been established to address the health hazards identified. Target completion for health risk assessment at all OPU's in Malaysia is by the end of 2010 and by 2012 for all OPU's overseas.

Focus

Integrating Health Risk & Impact Assessment during SSGP Project Construction

PETRONAS subsidiary, PETRONAS Gas Bhd (PETRONAS Gas) is committed to protecting the health of its workforce and the community located along its Sabah-Sarawak Gas Pipeline (SSGP) project site.

PETRONAS Gas conducted an integrated health risk and impact assessment in the year under review during the construction stage in order to identify the health risks associated with the project when it was at its preliminary stages. The Strategic Health Management Plan was subsequently drawn up incorporating chemical monitoring, regular water source monitoring, ergonomics improvements, communicable diseases mitigation, stress management and management of psychosocial-related risks. A programme named SSGP Excellence was implemented to deal with site workers' motivation and stress management. Programmes with the local communities were conducted to foster closer relationships and communicate the risks associated with the pipeline project.

Subsequent activities also emphasised social sensitivity between the local communities and the project staff, comprising foreign nationals and Malaysians from Peninsular Malaysia. Addressing the issues arising from cultural differences helped to reduce social-related risks to project staff and the local communities.

Focus

Influenza A (H1N1) Preparedness & Action Plan

The Pandemic Preparedness Strategic Action Plan was established to mitigate the spread of Influenza A (H1N1). The action plan, among others, included the establishment of several task forces to manage preventive and emergency preparedness at the corporate and OPU levels. Antiviral medication supplies to Malaysian and overseas operations, including offshore platforms and MISC fleets, as well as additional stockpile of personal protective equipment (PPE) were accessible at all times for a minimum of 10% of the company's total employees. Provision of the Influenza A (H1N1) vaccine was made available to all employees and their dependents.

Focus

Assessment of Health Facilities in Sudan

An assessment of healthcare and medical emergency facilities was conducted in Khartoum, Sudan during the year under review. Three hospitals were identified as suitable for providing general and emergency medical management as well as occupational health services for approximately 400 employees. A similar assessment was conducted at the White Nile Petroleum Operating Company's (WNPOC) on-site clinic and medical facilities at Thar Jath Base Camp and given the appropriate recommendations. Based on the assessments at both locations, a medical procedure was established for our employees and their family members in Sudan to seek medical assistance.



Personal Health Management

Lifestyle diseases such as hypertension, heart disease, cancer and diabetes are increasing globally. These diseases are not only costly to treat but cause related illnesses, disabilities and premature deaths. Most of these diseases are preventable by adopting a healthy lifestyle, such as being physically active, avoiding tobacco use and adopting good eating habits.

The commitment towards promoting a healthy lifestyle within PETRONAS has consistently increased over the last few years. In the year under review, numerous successful programmes aimed at promoting the health and well-being of the employees were conducted.

A personal health management survey was conducted during the year under review on a sample of 513 employees of different age groups to gauge the general health status of PETRONAS employees in Malaysia. The data was analysed and used to formulate relevant Personal Health Management programmes.

Some of the activities in the employees wellness programmes were:

- Health screening;
- Physical exercises and fitness assessment;
- Weight management;
- Health talks and consultation by in-house occupational health doctors and external medical doctors as well as other health professionals; and
- Sports competitions.

Collaborating for a Better Future Oil & Gas Safety Passport (OGSP)

In April 2009, the Oil and Gas Safety Passport (OGSP) was launched through the joint effort of Malaysia's oil and gas industry leaders: PETRONAS, ExxonMobil, Shell and Titan Chemicals. PETRONAS led the collaboration with the National Institute of Occupational Safety and Health (NIOSH) in harmonising all the various safety passports to adopt a single safety passport scheme for the oil and gas industry in Malaysia.

The standard OGSP scheme requires seven hours of classroom training on the Legal Requirements on Occupational Safety and Health, Cause and Prevention of Occupational Accidents and Diseases, Hazards at the Workplace, as well as Preventive and Protective measures. Classroom training and assessment are conducted by NIOSH or NIOSH-approved trainers in Bahasa Malaysia and English.

Participants are then assessed and those successful will receive a three year validity safety card or safety passport for entry and work at PETRONAS, ExxonMobil, Shell, Titan Chemicals and their joint venture plants, as well as other major installations in Malaysia. However, plant-specific safety induction is still compulsory prior to entry. The scheme also provides insurance coverage of up to RM10,000 throughout the three-year validity period.

Development of Health Guidelines with OGP-IPIECA

PETRONAS is a member of the International Association of Oil and Gas Producers (OGP) and the International Petroleum Industry Environmental Conservation Association (IPIECA). Through close collaboration with other members of the OGP-IPIECA Health Committee Task Force, PETRONAS was involved in developing the Guideline on Substance Abuse in the Workplace and Guideline on Management of Tuberculosis. The former looks at aspects of substance abuse in the workplace, while the latter is relevant to some of the countries where PETRONAS operates.

Building National Capability in Industrial Hygiene

Through the active participation in the Malaysian Industrial Hygiene Association (MIHA), PETRONAS is helping to build the nation's capability in Industrial Hygiene through training and national-level conferences.

PETRONAS is also involved in the review of Malaysian standards and regulations on Industrial Hygiene through collaborations with the Department of Occupational Safety and Health (DOSH), Atomic Energy Licensing Board (AELB), National Institute of Occupational Safety and Health (NIOSH), Ministry of Health (MOH) and Social Security Organisation (SOCISO). Our active involvement in MIHA has enabled us to benchmark and strategise Industrial Hygiene programmes for PETRONAS.

PETRONAS, through MIHA, has conducted engagements with local and international universities to set up Industrial Hygiene postgraduate courses in promoting tertiary education and research for this discipline in the country. The first Master in Science course will be offered at a local university by 2011.

Oil Spill Response

PETRONAS works closely with Malaysia's DOE to review the National Oil Spill Contingency Plan by providing industry insights. Additionally, we participated in three National Oil Spill Exercises in Kota Kinabalu, Sabah and in Bintulu and Kuching, Sarawak to test the integration between Government and industry plans.

Capability Building

PETRONAS believes that the continual building of staff capability in HSE will contribute greatly towards sustainability. Through these efforts, PETRONAS is able to return value to our stakeholders in a safe manner, thus reducing risks to society and the environment.

Accelerated Capability Development (ACD) for HSE personnel continues to be implemented. It is now in its second phase (please refer to the Societal Needs section on page 58 for more information on ACD).

The establishment of an inventory of expertise and contact details of HSE specialists has been initiated at the corporate centre to enable fast reference, promoting collaboration among subject matter experts.

Among the most effective platforms to share HSE knowledge and best practices across the Group are the Communities of Practice (CoP). The Environment CoP, Industrial Hygiene CoP and Safety Management CoP are CoPs led by the HSE fraternity. Subject matter experts and technical personnel from across the Group meet regularly to share knowledge, lessons learnt and best practices for capability building.



HSE Awards

PETRONAS continues to be recognised in Malaysia and internationally for our HSE performance. In the year under review, the Group won several accolades in various HSE categories:



Malaysian Society for Occupational Safety and Health (MSOSH) Awards

Petroleum, Gas, Petrochemical and Allied Sectors

Grand

- PETRONAS Gas Berhad, Gas Processing Plant, Complex B
- Asean Bintulu Fertilizer Sdn Bhd

Gold Merit

- PETRONAS Ammonia Sdn Bhd
- PETRONAS Gas Berhad, Export Terminal
- PETLIN (Malaysia) Sdn Bhd
- PETRONAS Carigali Sdn Bhd, Sabah Operations
- PETRONAS Penapisan (Melaka) Sdn Bhd
- Kertih Terminal Sdn Bhd
- Technical & Facilities Development Division, PETRONAS Gas Berhad

Gold (Class 1)

- Polypropylene Malaysia Sdn Bhd
- PETRONAS Gas Berhad, Transmission Operation Division, Segamat Regional Operation
- PETRONAS Penapisan (Terengganu) Sdn Bhd
- MTBE Malaysia Sdn Bhd
- Aromatics Malaysia Sdn Bhd
- PETRONAS Gas Berhad, Kertih Regional Office
- BASF PETRONAS Chemicals Sdn Bhd
- PETRONAS Gas Berhad, Miri Regional Office

Gold (Class II)

- PETRONAS Gas Berhad, Shah Alam Regional Office
- Utilities Sectors

Gold Merit

- Centralised Utility Facilities (CUF) Gebeng, PETRONAS Gas Berhad

Gold (Class 1)

- Centralised Utility Facilities (CUF) Kertih, PETRONAS Gas Berhad



Royal Society for the Prevention of Accidents (RoSPA) Occupational Health and Safety Awards

Gold Awards

- PETRONAS Ammonia Sdn Bhd
- PETRONAS Penapisan (Melaka) Sdn Bhd

RoSPA Gold Award winners have achieved a very high level of performance, demonstrating well developed occupational health and safety management systems and culture, outstanding control of risk and very low levels of error, harm and loss.

Best New Entry Award

- PETRONAS Ammonia Sdn Bhd

This new award recognises the best entry from an organisation participating for the first time in the RoSPA Occupational Health and Safety Awards.



Prime Minister's Hibiscus Award

Exceptional Achievement Award

- PETRONAS Penapisan (Terengganu) Sdn Bhd

Notable Achievement Award

- Asean Bintulu Fertilizer Sdn Bhd
- BASF PETRONAS Chemicals Sdn Bhd
- Ethylene/Polyethylene Malaysia Sdn Bhd
- PETRONAS Carigali Sdn Bhd
- PETRONAS Penapisan (Melaka) Sdn Bhd

Trophies

- Melaka Award – PETRONAS Penapisan (Melaka) Sdn Bhd
- Special Project Award – PETRONAS Penapisan (Terengganu) Sdn Bhd



International Association of Oil & Gas Producers (OGP)

PETRONAS Carigali achieved the best TRCF result of 0.49 for company and contractors among the 37 E&P companies in OGP (average TRCF for OGP is 2.08).

PETRONAS Carigali also achieved an LTIF of 0.23, below OGP's average of 0.55.

Product Stewardship

Highlights

DataKimia

PETRONAS introduced an online chemical database for the Group.

3

Number of pilot assessments of product stewardship practices done at operating sites representing refining, petrochemical and retail activities.

7

Number of products identified for incorporation in the National Life Cycle Inventory (LCI).

Approach

PETRONAS applies the principles of responsible management of health, safety and environmental (HSE) protection to our products, to ensure that they are designed, manufactured, used and disposed off safely in compliance with legal requirements and industry best practices. They are assessed for compliance with product safety regulations in intended markets and for meeting our customers' requirements for their final applications.

Our products: LNG, lubricants, fuel products, fertilisers, chemical products and specialties are assessed prior to marketing for HSE aspects, compliance with product safety regulations in intended markets, and meeting our customers' specifications requirements for their final applications.

The embedded product stewardship principles in the company's management systems require supplying information to and working with relevant parties to foster safe use, handling, transportation, storage, recycling, reuse and disposal of its materials, products and waste. PETRONAS' HSE and quality

assurance activities are designed to consistently provide high-quality products to ensure personal safety and regulatory compliance.

PETRONAS will continue to strengthen its communication with customers and users and proactively align to the Globally Harmonised System (GHS) for chemical products labeling.

The Product Stewardship journey in PETRONAS is still at an early stage. A Product Stewardship Working Group comprising members from various disciplines was formed in March 2010. They are tasked with setting the strategy particularly for polymer and lubricant products.

Product Stewardship in PETRONAS

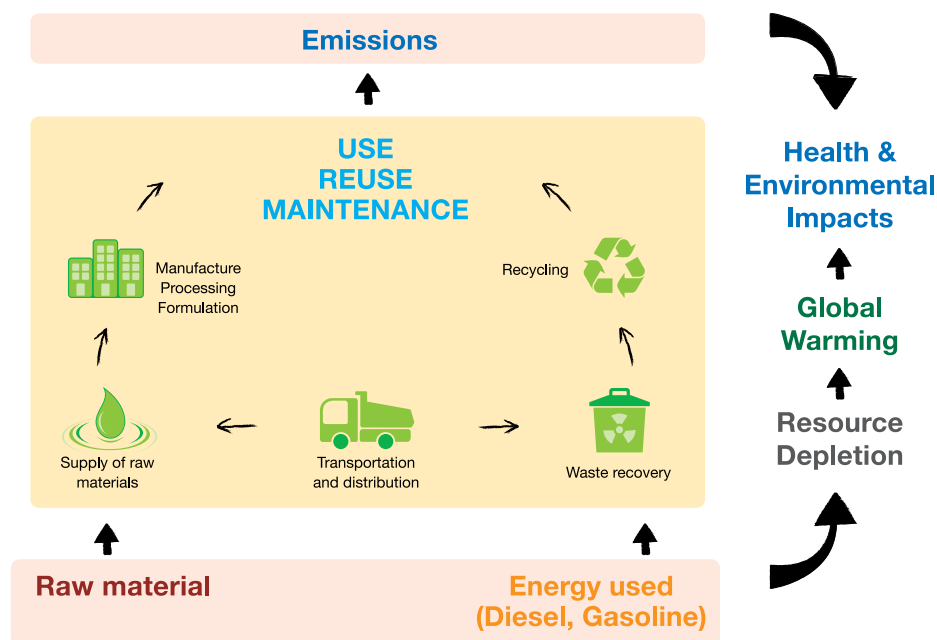
As a step for establishing a framework encompassing all the product stewardship elements into our business activities, a pilot assessment was conducted in 2009 at three Operating Units (OPUs) representing refining, petrochemical and retail activities. Elements of product stewardship assessed by the study team were leadership commitment, product risk assessment and planning, product stewardship implementation, performance measurement, corrective actions, and management review.

Findings from the study were presented to the management of each OPU to help them prioritise their respective product stewardship programmes. The assessments provided useful inputs for the Product Stewardship Working Group.

PETRONAS' high quality engine oil, Mach 5



Life Cycle Assessment



Product Information & Communication

PETRONAS has developed Material Safety Data Sheets (MSDS) on the health and safety aspects of our products. MSDS are available to parties dealing in or those who come in contact with our products. We provide all the information on material conformity with the specific product standards and final applications. The information is accessible through our respective sales units.

We continue to monitor and assess changing and emerging safety requirements to ensure that our products continue to be safe for use by the public. In countries where the product safety regulations are lower, we ensure that our standards are not compromised, albeit we tailor our product safety labeling to local regulations.

We continually strive to improve our products and carry out periodic brand surveys and customer satisfaction engagement sessions in Malaysia, South Africa and Sudan.

Meeting EU Chemicals Regulation

The European Union (EU) regulation on Registration, Evaluation and Authorisation of Chemicals (REACH), introduced in 2007, makes it mandatory to register and evaluate chemicals produced in or imported into the EU. The regulation aims to better protect health and the environment against the potential risks associated with chemicals. REACH requires chemical manufacturers to submit highly detailed technical dossiers (at product registration stage) describing potential hazards and the steps taken to manage the risks involved in all identified uses. REACH provides for a phase-in pre-registration period, during which the manufacturers can declare their intention to register and prepare registration dossiers while continuing to manufacture their products.

Currently, two chemicals, namely monoethylene glycol (MEG) and diethylene glycol (DEG) from OPTIMAL Chemicals Sdn Bhd, a subsidiary of PETRONAS, are in full registration phase. Other chemicals that have been pre-registered will be registered in phases in accordance with the REACH implementation time lines.

DataKimia

PETRONAS adopts ChemGold III or DataKimia for chemical inventory and management at all operations in Malaysia. DataKimia is an online chemical database with information on chemical hazards, first aid, emergency response, personal protective equipment (PPE), physical properties, toxicology and regulations. It is accessible throughout PETRONAS' global operations via the Internet and allows for real time updates. This enables PETRONAS Operating Units (OPUs) to take an effective role in managing hazardous chemicals at their specific operations in support of PETRONAS' Product Stewardship commitment.

DataKimia also incorporates the building blocks of the Globally Harmonised System (GHS), a common international classification and labeling for chemicals initiated by the United Nations. Malaysia is among 67 countries that have voluntarily adopted the system and PETRONAS is ready to adopt GHS.

DataKimia is being deployed at OPUs overseas.

Product Carbon Footprint

PETRONAS is collaborating with SIRIM Berhad to develop a National Life Cycle Inventory (LCI) for hydrocarbon products. Seven hydrocarbon products identified for incorporation into LCI are crude oil, diesel, ethane, ethylene, liquefied natural gas, methanol and urea. Internally, a project team with members from across PETRONAS, who represent the product value chain, have been established, and carbon print assessments are being conducted with an external consultant.

The National LCI project is expected to be completed in 2011. It will facilitate efforts by industries to develop a life cycle assessment (LCA) in their manufacturing process and production. In turn, this will facilitate the adoption of environmentally sound technologies and self-regulatory measures.

PETRONAS' participation in this national project is part of our commitment to contribute to a sustainable low carbon future.



Societal Needs

Highlights

40,992employees

Number of PETRONAS employees Group-wide.

14%

Percentage of women in higher management, in companies where they are employed under PETRONAS' terms and conditions.

RM2.4billion

Value of education sponsorship since 1975.

Approach

As a corporation with international presence, PETRONAS strives to uphold our Shared Values of Loyalty, Professionalism, Integrity and Cohesiveness throughout our global operations. This means conducting our business responsibly with respect for human rights within our sphere of influence; recognising and respecting different cultures and ways of life; contributing towards progress and national aspirations; and providing opportunities for people to participate in the growth and prosperity of their nations.

PETRONAS is privileged to be able to play a role in enriching the lives of communities where we operate through our development programmes. It is a key priority in PETRONAS' sustainability approach, as we are committed to contributing towards the development of talent for the oil and gas industry, and to the well-being of the people and nations where we operate.

We take a comprehensive, long-term approach to building the capabilities of our staff and of the larger community where we operate. Our programmes cover a wide range of human development to empower people with new skills and knowledge to meet current and future challenges. We continue to review our programmes so that they remain relevant in meeting the needs of society and nations where we operate.

Human Rights

PETRONAS understands the importance of addressing human rights issues and safeguarding human rights within our sphere of influence. To ensure that our personnel receive adequate training and education on human rights, the PETRONAS Human Rights Training Pack is being further developed. We aim to conduct Human Rights training for staff in all countries where PETRONAS has major operations.

Bribery & Corruption Policies

PETRONAS has various policies addressing bribery, corruption and money laundering, and these policies are incorporated into the PETRONAS Code of Conduct and Discipline (COCD). All staff are made aware of COCD as part of their induction training and are required to familiarise themselves with its contents and implications. PETRONAS' Corporate Security Division (CSD) investigates any complaints and allegations involving employees. Subsequently, disciplinary action will be taken against an employee found to have breached the COCD.

Integrity

We have incorporated ethics training through PETRONAS' Shared Values in various courses for every level of employees. All permanent employees are required to attend an induction programme, where they are briefed on PETRONAS' Shared Values and COCD. We also offer a specific course on the Value of Integrity (VOI) and this course is open to all employees.

In the year under review, PETRONAS ran 60 VOI sessions for executives and non-executives. So far, the programme has reached 1,044 PETRONAS employees or about 3% of the total population. VOI will be extended to our operations in Ethiopia, Indonesia, Mauritania and Sudan.

Business Transparency

PETRONAS recognises that business transparency is essential. Over the years, we have taken measures to ensure that best practices in corporate governance and transparency are applied at Board level, although PETRONAS is not a listed entity and is not obliged to do so. We believe an active Board provides necessary and valuable stewardship to management, to guide it in making major decisions for the Corporation moving forward. This year, we have taken steps to reconstitute the Board to meet these objectives (see Annual Report 2010 on “Corporate Enhancement to Elevate PETRONAS’ Robustness”).

PETRONAS People

PETRONAS’ Human Resources strategies are focused on people development and professional capabilities to support the Corporation. The implementation of smooth succession planning particularly for critical skill and leadership positions, Accelerated Capability Development (ACD), competency-based assessments, and leadership programmes are among the measures taken to support PETRONAS’ business.



PETRONAS staff engaging in discussions

We continue to engage our staff in regular sessions to foster closer working relationships and to enable senior management to share business directions and challenges with staff.

PETRONAS strives to ensure that the right people are in the right jobs to support business growth. Our rewards and consequence management system is the key driver in differentiating employees with strong performance and outstanding leadership from those who need specific development coaching to improve.

In the year under review, there were 40,992 employees across the Group. Women make up 27% of total PETRONAS employees, of whom 14% are members of higher management (in companies under PETRONAS’ terms and conditions).

Focus

Leading a Team

Rozana Hazizy is currently leading a pioneer project team at PETRONAS’ operations in Turkmenistan.

She heads the PETRONAS Carigali (Turkmenistan) Sdn Bhd Magtymguly Collector Riser Platform A (MCR-A) group at Kiyanly. The MCR-A platform contains a topside and a Gravity Base Structure (GBS). The latter substructure will be the first of its kind for PETRONAS. She has been working on the GBS project since its basic design phase in late 2004.

Rozana, who has been with PETRONAS for 13 years, is the company site representative, managing contractors and subcontractors involved in fabrication work.

“I’ve had very supportive bosses from the time I joined PETRONAS, who treated me equally. They provide plenty of encouragement and motivation and were good role models,” she says.

To ensure that our staff have adequate training, they are given an average of 15 training days annually. We recognise and respect the rights of our employees to have the freedom of association and to engage in collective bargaining consistent with applicable laws. Our permanent non-executives, who comprise 39% total employees from companies under PETRONAS' terms and conditions are covered by collective bargaining agreements.

As a relatively young corporation in a highly competitive industry, PETRONAS faces the challenge of retaining top talent and ensuring remuneration packages remain attractive. We have taken several measures, such as introducing revised remuneration packages for specific skill groups and providing enhanced career development opportunities, so as to remain an attractive and dynamic employer.

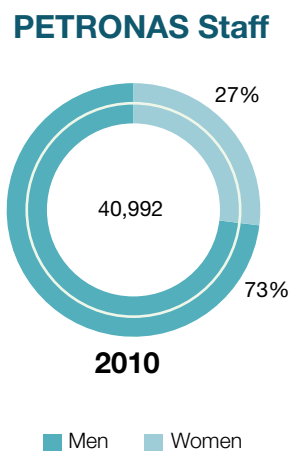


Staff at Engen's facility in South Africa

PETRONAS provides employment based on merit, complying with all applicable laws and regulations. This applies to all our operations across the Group.

PETRONAS encourages staff development through working in different environments. Staff from host countries have the opportunity to work outside their home countries to gain experience and develop their careers.

For example, in PETRONAS Carigali Sdn Bhd (PETRONAS Carigali), host country nationals who have been identified as potential leaders in the company have the opportunity to work in different countries. Employees under PETRONAS' localisation initiative can also be considered for job postings in Malaysia or other countries prior to their appointment, so that they can gain more exposure within their work scope for a period of three months to a year. Currently, there are 51 staff from Myanmar, Mauritania, Turkmenistan and Vietnam who are working in Malaysia.



Host Country Nationals and Non-Local Employees in Selected Countries

Country	Local	Non-Local
Egypt	62%	38%
Indonesia	84%	16%
Malaysia	97%	3%
Myanmar	76%	24%
Sudan	81%	19%
Turkmenistan	71%	29%
Vietnam	89%	11%

PETRONAS staff overseeing plant operations



Focus

Employment Equity at Engen

At Engen, the company endeavours to nurture a workplace that is open, transparent and free of all forms of unfair discrimination, and to promote employment equity and diversity in South Africa. Employment equity is overseen by an overarching company employment equity committee, chaired by the company Managing Director and Chief Executive Officer. An additional five committees comprising employer and employee representatives, in line with the Employment Equity Act, oversee employment equity across the organisation, setting equity targets and plans, with specific programmes implemented by line managers. Employment equity performance is evaluated against set targets.

Affirmative measures focus on skills development, promotion and recruitment, succession and career development planning.

Engen has made some progress over the three-year review period in addressing equity imbalances at certain levels of the organisation, though ensuring more equitable race and gender representation at senior and core business occupational levels remains an ongoing challenge. As part of the efforts to develop female leadership, Engen currently has four women employees participating in the annual Chemical Industry Education and Training Authority (CHIETA) sponsored Leadership in Energy Development Programme, developed by Wits Business School, in partnership with the South African Petroleum Industry Association (SAPIA).

Engen has implemented an incentive-driven training programme aimed at addressing the gaps identified in a scarce and critical skills audit conducted two years ago, through enhanced efforts to attract and retain critical skills and to promote strategic skills transfer within the company. It has an established culture of internal promotions, with

most senior staff at Engen having advanced from junior levels.

Engen is in the process of reviewing its five-year Employment Equity Plan, which is an integral part of its strategic plans to ensure business sustainability in a competitive, turbulent market. The revised five-year Employment Equity Plan (2009-2014), prompted by new business environment and expansion considerations, will replace the existing Employment Equity Plan (2007-2012).

Accelerated Capability Development (ACD)

Launched in May 2007, the main aim of Accelerated Capability Development (ACD) is to speed up the capability development of PETRONAS staff, so as to enable them to work independently within a shorter time frame in line with growing business demands.

The ACD assessment result analysis conducted for around 1,500 junior executives in November 2009 to January 2010 showed the positive impact of ACD. This included the improved Time to Autonomy (TTA) of 8.5 years for most skill groups (SkGs), which is getting closer to the company target of seven years.

The implementation of ACD for all technical SkGs was completed in July 2009. Relevant tools were developed, including Skill Development Matrices and Training Roadmaps. Technical coaches have also been appointed.

Apart from ACD, young professionals in PETRONAS have an opportunity to network and develop their soft skills and networking skills through the Young Professionals Club (YPC). The club was first established by PETRONAS Carigali's Development Division



Engagements among staff to ensure smooth flow of activities at PETRONAS' plants

(DD) in 2007 with the objectives of establishing networks among peers; developing soft skills; encouraging knowledge sharing; providing a platform for young professionals in DD to reach out to top management and to act as a platform for PETRONAS Carigali's DD to contribute to the community. YPC has since been established in many OPU's in PETRONAS.

Members have had opportunities to interact with others in the Group and with external parties through joint events. YPC has also become a platform for young employees to show their leadership potential and develop their oratory skills through the YPC Toastmasters' Club. They are also given the opportunity to lead small projects that help build their confidence.

“I find the skill group trainings very helpful to improve my knowledge and capabilities. I think there is more to come from PETRONAS. Career growth is there, and I am looking forward to the future.”

Offshore Installation Manager (OIM) Bagis Hj Aring,
Erb West Platform, Sabah Operations

Focus

Optimist

Managing work-life stress is an important aspect of maintaining good health and well-being. PETRONAS has a counseling service programme for staff and their families called Optimist (We are Friends who Offer Personal help Through Intense and Meaningful Interchange, built on Support and Trust), which provides counseling through staff volunteers and licensed counselors.

Launched in 2008, volunteers called Optimist in Action (OiA) from various operating units have gone through a selection process and have attended an intensive training course.



Community

PETRONAS supports community development programmes that help participants enrich their lives and empower them with new knowledge and skills. Our community activities reach people in both urban and rural areas. We believe in addressing societal needs in a consistent and sustainable manner, providing opportunities for people to have higher living standards, and contributing towards national development. These include programmes that address living healthy and productive lives, safety, and being a smart consumer. PETRONAS partners with communities, industries and governments to meet such common objectives.

Malaysian Programmes **Sahabat PPDa-PETRONAS**

In Malaysia, we work with the Ministry of Education (MOE) and an NGO on drug and substance abuse prevention and awareness programmes.

Sahabat Pendidikan Pencegahan Dadah-PETRONAS (Sahabat PPDa-PETRONAS) is a partnership effort between PETRONAS and the MOE that targets primary and secondary schoolchildren and teachers around the country. Sahabat PPDa-PETRONAS encompasses four annual interactive components to assist the MOE to achieve drug-free schools by 2012.

The Coaching Enhancement Course for Teachers on Drug Abuse Prevention is designed to enhance coaching skills and share experience. Nearly 2,000 teachers nationwide have been recruited and trained so far.

The Sahabat PPDa-PETRONAS Facilitator Course is designed to enhance coaching skills and the sharing of experience among schoolchildren. A total of 3,200 schoolchildren have completed this course in the year under review.

The Sahabat PPDa-PETRONAS Orientation and Sahabat PPDa-PETRONAS Alumni Award Ceremony are the other components that support the MOE's drug-free schools initiative. Nearly 10,000 students have participated in the Sahabat-PPDa-PETRONAS Orientation, which is held annually from April to June. Over 200 teachers and students have been rewarded for their excellence during the Sahabat PPDa-PETRONAS Alumni Award Ceremony.

Focus

PM's CSR Award

PETRONAS received recognition from the Malaysian Government for outstanding contributions in the field of corporate social responsibility (CSR) at the Prime Minister's CSR Award 2009. We won three awards: Best Overall CSR Programme, Education, and Culture and Heritage. In the Education category, our winning entry was 'Petrosains - The Discovery Centre'. The centre's efforts in enhancing science literacy and instilling a passion for acquiring scientific knowledge in Malaysians was recognised by the judging committee. In the Culture and Heritage Category, we won based on our contribution to the arts through Galeri PETRONAS, PETRONAS Performing Arts Group (PPAG) and the Malaysian Philharmonic Orchestra's (MPO) Encounter programme.



Besides funding the programme, PETRONAS staff are actively involved in the programme and have facilitated a module on career opportunities in the oil and gas industry and education sponsorship avenues in PETRONAS.

Kenali Anak Kita

PETRONAS partners with Pengasih, an NGO on the Kenali Anak Kita (KAK) or Know Your Children Campaign to equip parents with knowledge on drug and substance abuse prevention. This two-year campaign began in 2009, and aims to enable parents to help their children live healthier, more productive lives. In the year under review, seven dialogue sessions have been conducted in Kedah, Kelantan, Kuala Lumpur, Perak, Pulau Pinang, Selangor and Terengganu. Over 3,500 parents have benefited directly from the sessions. Also, three seminars and three workshops have been held.

3K (Kempen Konsumer Kebangsaan)

The 3K (Kempen Konsumer Kebangsaan or National Consumer Campaign) Programme is another example of how PETRONAS fosters smart partnerships with relevant agencies for effective community engagement. 3K promotes smart, sustainable consumerism among the grassroots in Malaysia. PETRONAS works with the Federation of Malaysian Consumers Associations (FOMCA), National Council of Women Organizations (NCWO), Congress of Unions of Employees in the Public and Civil Services (CUEPACS) and Majlis Belia Malaysia (Malaysian Youth Council) on the 3K Programme.

There have been 171 training programmes held nationwide, reaching 14,584 participants among rural, urban and sub-urban communities, including schoolchildren. There was also a study done to evaluate whether or not consumers who participated in the 3K Campaign have actually changed their habits. Change was measured by behavioural intent to change and actual change of behaviour. The results of this study (conducted on 28 training participants) show that there were actual behavioural changes.

Also, a 3K Awareness Survey carried out showed that the campaign had increased the awareness of rights and responsibilities, and financial literacy among participants. Many had never experienced consumer education prior to the 3K programme.

Overseas Programmes

Reproductive Health Programme in Myanmar

In Myanmar, PETRONAS has been running the Yetagun Socioeconomic Development Programme since 1997. Reproductive Health (RH) is one of the key aspects of the programme and it has been implemented in 53 villages in Longlone Township in the Dawei District. PETRONAS has been working to improve the utilisation of RH services and protective practices among women in Longlone Township by providing Tetanus toxoid shots and ferrus folate supplements, information on birth spacing methods, clean practices at delivery and emergency obstetric care for complications. The objective of the programme, which is in line with the UN Millennium

Development Goals on Maternal Health, is to increase the availability and accessibility to antenatal and postnatal care, emergency obstetric care services, and birth spacing services and supplies. The programme also aims to increase the quality of antenatal care, delivery care, post natal care and birth spacing services at the community level.

Among the activities carried out to support the objectives include the formation of village health volunteers, the establishment of service centres, linking and building relationships between midwives, auxiliary midwives (AMWs) and traditional birth attendance for safe and clean delivery, support and collaborate refresher technical training course for AMWs, and mass health education related to safe motherhood, newborn care and HIV/AIDS.

In the year under review, the RH programme has succeeded in reaching 98% of the community in Longlone resulting in good antenatal care practices from a baseline of 52% in 2003. It has also provided 95% of the community with clean delivery kits where none was available in 2003. Postnatal care has also reached 32% of Longlone where none existed seven years ago.

Myanmar women attending a health education class



Focus

Scope

Star Energy, a subsidiary of PETRONAS, began its association with Scope in 2002. Scope is an organisation in the UK that aims to challenge society's view on disability and looks to provide new and effective solutions to the obstacles disabled people face every day. Star Energy is very proud to support such a valuable and inspirational organisation.

It has supported some of Scope's most important projects, including Scope's Community Team Activities, the Chester Skills Development Centre, Nottingham's Belvoir Lodge: The Star Energy Transition Service for Young Adults, and most recently, the development of a new residential wing at Ingfield Manor School, in Hampshire.

Ingfield Manor School offers both day and residential primary and secondary services, and a pre-school, for 33 children with cerebral palsy and associated impairments.

The children at Ingfield Manor have a range of learning disabilities, although all the pupils' learning needs are complex, as a direct result of their cerebral palsy. They have wide-ranging physical and communications disabilities, specific learning difficulties, visual-perceptual problems, additional medical conditions and special dietary requirements.

Staff from PETRONAS' subsidiary Star Energy with children from Ingfield Manor School



Focus

Paraffin Safety

Paraffin is used extensively as a household fuel by the majority of poor communities in South Africa. It is for this reason that the promotion of paraffin safety is Engen's ongoing focus.

Engen promotes a nationwide paraffin safety education and awareness campaign through various ventures in communities across South Africa, focusing on preventing fires and paraffin ingestion by children. It has long supported the Paraffin Safety Association of South Africa (PASASA), which plays a critical role in promoting awareness of paraffin safety.

Awareness raising session on paraffin safety by Engen



Indigenous Communities

PETRONAS runs community activities that focus on education to enhance the quality of life of indigenous communities, while respecting their rights to practice their way of life. These include national identification card registration and dental treatment on a regular basis for indigenous communities.

We also run ongoing education-based projects. For example, Petrosains - The Discovery Centre has been providing a rich and

stimulating environment aimed at enhancing science literacy and instilling in Malaysians, of differing ages and cultures, a passion for acquiring scientific knowledge. To extend the benefits to the community beyond its Science Centre in Kuala Lumpur, Petrosains has established sustainable and distinctive Outreach initiatives. One such initiative is the Sahabat Petrosains or Friends of Petrosains.

Launched in June 2002, Sahabat Petrosains is an education-based project, developed especially for indigenous students from the rural areas of Peninsular Malaysia, Sabah and Sarawak with the aim of igniting their interest in learning and to continue their schooling. The programme also exposes them to the wonders of science and technology at a young age, and assists teachers and students in accessing alternative resources for the teaching and learning of science.

This programme has directly and indirectly helped more than 2,000 people, particularly primary schoolchildren in these communities, showing positive behavioural change and personal development. Managed in collaboration with State Governments, Department of Orang Asli Affairs, State Education Departments, village heads and other community members, the interest of indigenous students in science subjects has increased and their school attendance records have shown much improvement, proving that the programme greatly assists in the teaching and learning process in these communities.

Students have benefited tremendously where there is positive change in terms of personal development, which can be seen in the overall outlook, speech and motivation of the individual. Also, with growth in confidence, there is increased positive behavioural change, in that students become more hardworking and diligent.

PETRONAS continues to engage with local communities to keep them informed of projects in their area. With regards to the Sabah-Sarawak Gas Pipeline (SSGP), for instance, we hold community engagement sessions where all members of affected communities are encouraged to participate.

During the initial stages of the project, these meetings were held along the proposed pipeline route to inform the communities of how the project may affect their lives. These community engagement sessions were attended by relevant PETRONAS

staff as well as representatives of Government departments, Resident and District Offices, and the police.

Participation by community members has been positive and they take the opportunity to get their questions answered. Among the concerns typically raised was on the effect of land clearing activities on crops and water quality. PETRONAS has assured them that we would take all reasonable measures to ensure the community's way of life would not be disrupted as much as possible. Overall, the sessions have been successful in creating awareness within the local communities, assuring them that PETRONAS would always engage them in dialogue prior to carrying out new activities.

Education

PETRONAS supports institutions of learning, as education is the cornerstone of our corporate social investments (CSI). Our experience of rapid growth has taught us the value of learning and how education continues to play a big role in empowering our employees to thrive as they take on industry challenges. This motivates PETRONAS to continue to invest in education and human capital development at home and abroad.

In Malaysia, our investments include Universiti Teknologi PETRONAS (UTP), Institut Teknologi Petroleum PETRONAS (INSTEP), the Malaysian Maritime Academy (ALAM),

INSTEP students at a practical training session





A group of international students at Universiti Teknologi PETRONAS

PETRONAS eLearning Solutions Sdn Bhd (PeLSSB) and PETRONAS Management Training Sdn Bhd (PERMATA).

PETRONAS has also established two Khartoum Vocational Training Centres with the Khartoum State Ministry in Sudan, and a Technician Training Centre in Turkmenbashi, Turkmenistan.

Also, we sponsor students based on merit to study in Malaysian and foreign universities. We have provided sponsorships worth about RM2.4 billion since 1975. The sponsorships have also been extended to students in host countries where we operate.

Education Sponsorship

	Since 1975 to 31 March 2010	Year under review
	RM mil	RM mil
TOTAL	2,419	158

Focus

Gaining Valuable Experience at UTP



Getting real industry insight on the profession of his choice has put Sermphon Klaiseengern on a positive footing to succeed in his career. The 21 year-old Petroleum Engineering student from Thailand is enjoying his experience at UTP. The sponsorship recipient is grateful for the opportunity to pursue the subject of his choice.

"I've had several wonderful experiences at UTP already. Learning from knowledgeable lecturers, especially the adjunct lecturers who give insights on real industry life. This is especially valuable to me going into the working world," he says.

Sermphon has been active in UTP's International Student Council and the Student Representative Council. He says that the Petroleum Engineering course is enjoyable and challenging.

"In every class, I can see myself putting the knowledge I've gained to work in the future. The theory in textbook and the experience from the lecturers enable me to understand the subjects clearly. The knowledge is practical and the experiences from lecturers motivate me to succeed in the field," he says.



Children participating in an activity organised under Program Bakti

Beyond institutions of learning, PETRONAS also has outreach initiatives, such as Program Bakti Pendidikan PETRONAS (Program Bakti) and the Engen Saturday Schools programme.

Program Bakti is an adopt-a-school programme that is aimed at helping to improve the academic performance of underprivileged children. It also has a character-building element. This award-winning programme provides primary school children from Standard Four to Standard Six with academic and psychosocial skills to overcome challenges, such as the lack of access to educational resources and low self-confidence.

Trained teachers support Program Bakti by conducting additional lessons in English, Mathematics and Science. PETRONAS staff volunteers aid in the learning sessions through monthly engagements. Launched in 2003, the programme continues to reach students across Malaysia.

In the year under review, there were 39 schools in Program Bakti, with over 3,000 students involved.

Statistics have shown that the students who have gone through Program Bakti have produced better results in their Ujian Penilaian Sekolah Rendah (UPSR) examination. In the 2009 UPSR examination, 249 students obtained 3As or more, with the number of passes in English, Mathematics and Science subjects increasing to 65% from 50% in the previous year.

Focus

Bakti Success Story

Lim Boon Yee's ambition is to become a pilot, and with her growing confidence and improving academic results, she may well achieve her dream.

Boon Yee was a Program Bakti participant from Kampung Baru Ampang Chinese Primary School, Selangor. Her teacher chose her to participate in Program Bakti, and she has not looked back since.

"I used to get Cs and Ds in Standard Three, but there was an improvement in my results in Standard Five after a year in the programme. I am so happy to have had this chance to be in the programme as it has helped me a lot," she says.

She particularly enjoyed the language games, which were among the activities in Program Bakti and the games made learning English fun.

Boon Yee scored 5As and 2Bs in her UPSR, and is now a Form One student at Sekolah Menengah Pandan Mewah, Selangor.

"Program Bakti has helped me cope with the change from a Chinese school to a national school because I can communicate better. I am happy that my English has improved. Maybe, someday, I can achieve my ambition," she says.



At Engen, the Saturday Schools programme is a flagship CSI initiative, comprising 90% 'external' learners. The programme, which started 24 years ago, provides tuition in Mathematics, Science and business language for 42 Saturdays throughout the year. Over the last five years, the Saturday Schools programme has been integrated with Engen's talent attraction programmes, including the company's bursary scheme and graduate employment programme.

Some learners are placed in the business-on-holiday internships and given bursaries in Engineering, Commerce or Information Technology. They may be offered permanent employment on completion of their studies.

A future focus of the Saturday Schools programme will be to further expand its rural footprint (two rural schools in Eastern Cape province were inducted in 2008), and to integrate teacher and school management training, to improve skills and pass rates.

In carrying out education programmes, PETRONAS partners with communities, industries and governments to meet their

social and development needs. We also encourage our staff to become volunteers in such programmes. For example, at MISC Berhad (MISC), promoting employee volunteerism is a central component of its CSI efforts. It encourages employees to volunteer their time and expertise to community and charitable projects, through its Mini CSR Project and Navigate Your Career programmes. In the year under review, more than 1,000 MISC employees participated in various CSR programmes within the MISC Group.

PETRONAS is committed to education and sustainable capability building programmes in countries where we have operations. The corporation has been diligently playing a role in human capital building in Vietnam for over a decade. The education and skills development programmes we have been running in Vietnam reflect our belief in education as key to creating a talent pool capable of contributing to the development of the oil and gas industry and the nation as a whole. Since 2000, PETRONAS has been providing education sponsorship to deserving Vietnamese students to pursue their education at UTP. In the year under review, there were 94 recipients of these sponsorships.

Focus

Navigate Your Career

MISC's Navigate Your Career programme enables university undergraduates and secondary school students to experience the importance of soft skills. The programme is divided into three facets: Educate, Engage and Expose. In the Educate segment, MISC partnered with leading motivational and corporate training consultants to develop a soft skills road show, featuring soft skills and career development workshops for university undergraduates and high school students.

In the year under review, MISC brought the Navigate Your Career road show to more than 10,000 university undergraduates and more than 1,000 secondary schoolchildren.

MISC also reaches out to students through its Navigate Your Career portal for students to continue improving their soft skills. The portal also features useful tips on career development and is accessible at <http://www.navigate.com.my>.

MISC holds its annual Navigate Your Career Student Attachment Programme, giving students from various universities in Malaysia the opportunity to experience real 'working life' at MISC. Under the guidance of selected "Staff Office Buddies", students undergo an intensive five-week programme at MISC's headquarters in Dayabumi, Kuala Lumpur. In the year under review, eight students were given the opportunity to undergo the programme.

In Vietnam, PETRONAS embarked on the PETRONAS English Language Programme in 2006 in celebration of the 15th anniversary of our partnership with Vietnam. The initiative enables undergraduate students to take English language courses specially designed to help them communicate effectively in the working environment. So far, 1,060 students from 14 universities in Vietnam have participated in this programme.

The PETRONAS English Language Programme has helped to enable students to secure employment with reputable local and international companies. The programme earned PETRONAS the Certificate of Merit in Education from the Government of Vietnam in a ceremony held in January 2010.

Also, PETRONAS' Natural Science contest entitled "Discovering Our World with PETRONAS" is conducted for Vietnamese schoolchildren, with the objective of nurturing their interest in natural science and promoting the spirit of teamwork. The contest has attracted the interest of more than 854,000 participants. The number is expected to increase in the coming years.



ALAM students sharing learning tips

Focus



Marine Engineering at ALAM

Nurfaaiqa Nadiyah, a Final Year Diploma in Marine Engineering student at ALAM, is ready for a life on the high seas. The first and only girl in her family to pursue

a career in this field, the MISC scholar was among the second batch of female students to enroll in the course.

"I choose Marine Engineering because it is a very exciting field. The experience has been good so far, and there have been a lot of changes in my life. My experience here has taught me to be more independent," she says.

With the support of her family, Nurfaaiqa has put her time at ALAM to good use, learning the various elements in Marine Engineering, and dealing with new challenges and situations.

Our Approach to Reporting

Our sustainability reporting is guided by the International Petroleum Industry Environmental Conservation Association/American Petroleum Institute (IPIECA/API) Oil and Gas Industry Guidance on Voluntary Sustainability Reporting (April 2005). This index is also cross-referenced with the Global Reporting Initiative (GRI) indicators defined in the Sustainability Reporting Guidelines, Version 3.0 (G3).

PETRONAS Sustainability Report: IPIECA/API and GRI Index

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Cover design:

PETRONAS' core businesses are derived from beneath the Earth's surface,
discovered through seismic imaging

