

2015 SUSTAINABILITY REPORT



# LEAP

TOWARDS A SUSTAINABLE  
FUTURE

MEMBER OF  
**Dow Jones  
Sustainability Indices**  
In Collaboration with RobecoSAM





**PTTEP**

# 30 YEARS OF PASSION & PRIDE

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AS A LEADING EXPLORATION AND  
PRODUCTION COMPANY IN ASIA

THREE DECADES OF CREATING SHARED VALUE...  
NOW WE CAN GROW UP OUR SUSTAINABLE FUTURE

# TOGETHER

## BUSINESS

CREATING VALUE  
FOR OUR STAKEHOLDERS

## SOCIETY

CREATING HAPPINESS  
FOR OUR COMMUNITIES

## ENVIRONMENT

CREATING BETTER TOMORROW  
FOR OUR FUTURE GENERATIONS



# L LEARN

1985

PTTEP was founded as a petroleum exploration and production department under the Thai national oil company. Our task is **to provide energy security for Thailand**. It was also the year where PTTEP became a joint-venture partner in S1 Exploration Block (later renamed Sirikit Field).

1991

PTTEP became a foreign joint-venture partner for the first time in Myanmar.

1993

Having built our knowledge and experience, PTTEP became the operator of our first onshore oil field, the PTTEP 1 Project.



# E ENHANCE

PTTEP was the first petroleum exploration and production company in Southeast Asia to achieve **International Environmental Standard Management System (ISO 14001) Certification**.

**Good Corporate Governance and Climate Change Policies** were announced to lead the Company in an effective and ethical manner, and to sustain long-term interests of our stakeholders.

We strived towards sustainability as we developed the **Sustainable Development G.R.O.W.T.H Policy**.

**Biodiversity Management Guideline** was developed to prevent and reduce biodiversity impacts from our operations.

We developed **Human Rights Policy** to support human rights in our business.



# A ADVANCE

PTTEP was listed in the  
**DJSI World Index of Oil and Gas Industry.**

MEMBER OF  
**Dow Jones  
Sustainability Index**  
In Collaboration with RobecoSAM

PTTEP has become a participant of  
**the UN Global Compact**, to commit  
to the ten principles related to human rights,  
labour, environment, and anti-corruption.

PTTEP was **the first and only company  
in Southeast Asia listed in CDP's Climate A List**  
which reflected our excellent approach and performance  
in climate change.



PTTEP was rated as **the Top three  
Domestic Publicly Listed Companies  
in Thailand Award and Top 50 ASEAN  
Publicly Listed Companies**  
Award in accordance with ASEAN CG Scorecard





# P PROGRESS



**We commit to building reliability in energy supply** at present and in the future.

**Our strong sustainability foundation** leads to business, social and environmental growth.

**Our employees have great opportunities** for building their capacity.



**We value education for children and youths** and we aim to fulfil their future potential.



**We enhance the awareness of communities** to protect and care for the natural resources in order to ensure environmental sustainability for our future generations.



ES





**PTTEP**

FROM THE FIRST STEP...  
TO A SECURE

**LEAP**

TOWARDS A SUSTAINABLE  
**FUTURE**

With commitment and passion, we are ready to take a leap towards a sustainable future, supported by outstanding social and environmental performances that underpin our license to operate and license to grow.







# BUSINESS

PTTEP anticipates and manages current and future economic, environmental and social opportunities and risks by focusing on a diversified portfolio of projects, innovation and technological competence, which will emerge as a leader and are more likely to create a competitive advantage and long-term stakeholder value for a sustainable business growth.





## SOCIETY

PTTEP believes that the cultivation of intellectual assets within the community is the true path towards sustainability. Therefore, we strive to give back and return benefits to society as a whole. By equipping the people with the knowledge and means with which to improve their lives and livelihood, the quality of living can be improved sustainably.





# ENVIRONMENT

PTTEP aims to become a 'sustainable energy company; therefore, we strive for a sustainable environment together with the encouragement of, and cooperation with, public and private participation. Through the earnest efforts of all parties, we create an awareness of natural conservation to help conserving the environment and protecting ecosystems.

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Message from the President and CEO



**For 30 years, PTTEP has gained experiences and acquired extensive knowledge in order to explore energy in a responsible manner while committed to enhancing our capabilities, utilizing innovation and technology to drive operational and responding to changing circumstances. We are now ready to be part of the move towards a sustainable future.**

Over the past two years, PTTEP has undoubtedly been affected by the global trends of low oil prices, arising from a number of issues ranging from weaker global economic activity and the growth in the U.S. unconventional production, which have extensively impacted the oil and gas sector. The resilience of our business and risk management plans mean we have the means to overcome these circumstances. As part of this business and risk management planning, the SAVE to be SAFE project was implemented in late 2014, as one of many strategies to improve operations efficiency during this period. The project was designed to produce a consistent approach to capital allocation prioritizing activities and investments and streamlining operations. Another part of this process involved the use of oil price hedging to reduce the risks arising from oil price volatility. Thanks to the SAVE to be SAFE project, a total of USD 1.42 billion was saved in operating and capital expenditures in 2015.

PTTEP reported a profit from normal operations and an operating cash flow of more than USD 2.8 billion in 2015. With approximately USD 3.2 billion cash on hand at the end of the year, PTTEP remains financially strong in the face of volatile oil prices and is prepared to engage in justifiable and value-accretive investment opportunities.

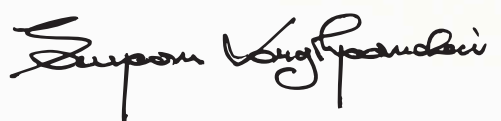
Despite reduced average product prices which were seen towards the second half of 2015, PTTEP increased production through new contributions from the Zawtika Project, Myanmar and Bir Seba Field, part of our Algeria 433a & 416b Project, which began production in late 2015. Bir Seba represents our first petroleum production in Africa, with daily production of 20,000 barrels per day. PTTEP total sales volume was 322,167 barrels of oil equivalent per day (BOED) in 2015 and achieved 3 percent growth as planned.

At PTTEP, we work to ensure an accident-free workplace by adhering to excellent operational standards. We seek to create an open and inclusive safety culture where our employees, are empowered to “stop work” any time they believe it is unsafe to continue. Through our commitment to personal and operational safety, the lost time injury rate has significantly decreased to the competitive level of International Association of Oil and Gas Producers (IOGP).

Furthermore, strong corporate governance and transparency are a fundamental part of our business, evidenced in attaining the standards of the United Nations Global Compact: Advanced COP, which addresses human rights, labor, the environment and anti-corruption. For these efforts the ASEAN Capital Markets Forum (ACMF) has recognized PTTEP as one of the three companies in Thailand and one of the 50 in ASEAN to receive the highest assessment score according to the ASEAN CG Scorecard guidelines.

For our continued commitment to a sustainable future, we were listed in the Dow Jones Sustainability Index (DJSI): World Index Oil and Gas Industry in 2015 for a second consecutive year. In addition, PTTEP is the first and only company in Southeast Asia that has been listed on the CDP: The Climate A List for outstanding climate change guidelines and operational performance. These recognitions reflect our commitment and determination to a sustainable and responsible growth.

I strongly believe these are indicators of our ability and capability to eventually become a leading petroleum exploration and production company in Asia. We remain committed to ensuring energy security and creating value for our stakeholders, driven by technological and green practices for the long-term sustainable growth. I would like to take this opportunity to thank you and express my gratitude to everyone who has supported PTTEP in attaining these goals.



(Mr. Somporn Vongvuthipornchai)  
President and Chief Executive Officer

## About PTTEP

PTTEP has developed a strategic business plan to prepare for dynamic situations, in order to serve and strengthen energy security. Our vision is to be a leading petroleum exploration and production company in Asia.



## VISION

Leading Asian E&P company  
driven by technology and green practices

## MISSION

PTTEP operates globally to provide reliable energy supply  
and sustainable value to all stakeholders

In order to accommodate highly volatile oil prices, we have implemented **the SAVE to be SAFE project**, which encourages all employees and personnel to consciously cut down all expenses to mitigate potential financial risks.

In 2015, PTTEP was able to **reduce operational costs by USD 1,420 million or 30% of our total costs.**



## BIG

Production



### Target

Increase production capacity to 600,000 BOED by 2025

### 2015 Business Performance

- A 3% increase in overall production from last year since we started to operate in the Bir Seba Field, the Algeria 433a & 416b Project and the Zawtika Project, Myanmar

## LONG

Reserves and Resources Life



### Target

Maintain proved reserves life (R/P Ratio or 1P/Production) of no less than 7 years

### 2015 Business Performance

- Reserves-to-production ratio (R/P Ratio or 1P/Production) of 5.4 years
- Rescheduled the Final Investment Decision (FID) of two projects, the Contract 4 project in Thailand and the Mozambique Rovuma Offshore Area 1 project, due to the expected decline in oil prices

## STRONG

Competitive Performance



### Target

Operate the business to deliver return on capital employed (ROCE) and cost at a level better than the industry average, while maintaining the Company credit rating in line with Thailand's standard. These targets will support the efficiency of corporate operations and grow sustainably in the long run.

### 2015 Business Performance

- PTTEP continued strengthening financial status and EBITDA Margin at 70%, as well as generated operating cash flow of more than USD 2.8 billion to maintain and grow E&P operations. Furthermore, we still have cash on hand of USD 3.2 billion for mergers and acquisitions opportunities in the future.
- We maintained the Company credit rating in line with Thailand's standard.



Explorer



Passion



Synergy



Performance Excellence



Innovation



Responsibility for Society



Integrity & Ethics



Trust & Respect

## About PTTEP

The continued fall in global crude oil prices has directly affected all businesses in the energy sector. PTTEP has been monitoring the situation closely for possible impact. In response, we have advanced our SAVE to be SAFE project as a long-term cost reduction strategy through effective cost-control measures that maximize the use of human capital and time - for example, standardization of operative equipment and an integrative approach and utilization of information technology. Our business strategies have been adjusted to ensure the growth and prosperity of PTTEP over the long run and to align with the Company's direction:

1. The cost reduction initiatives are applied, while maintaining the production level.
2. Developing projects will be re-evaluated and investment plans will be adjusted according to the oil price situation.
3. Exploration projects will be focused on low-risk areas and will be based mainly on commitments from the government.
4. For mergers and acquisitions, PTTEP will focus on projects that are moving toward the production phase in order to secure reserves and revenues for the Company in the short term.
5. Corporate expenses such as consultation, business travel and information technology support will be reduced.

For new investment decisions, PTTEP deploys an oil price analysis program to assure favorable outcomes. Currently, the oil price analysis program is supporting six E&P projects: Contract 4 Project (Ubon Field), Mozambique Rovuma Offshore Area 1 Project, Algeria Hassi Bir Rekaiz Project, PTTEP Australasia Project (Cash Maple Field), Mariana Oil Sands Project and Myanmar M3 Project. Furthermore, we have reviewed our mergers and acquisitions strategy, to identify opportunities that create value and energy security. Besides maintaining domestic E&P production bases, we also aim to invest in new opportunities in Southeast Asia, an area where the Company has strong potential to operate. In addition, we will consider investments in other countries if these opportunities are aligned with the Company's growth strategy, such as the United States.

To align with the growth strategy of the Company, E&P technological development is essential to strengthen capabilities and expertise according to the following main principles:



### Unconventional Resources



### Production Enhancement



### Exploration Success



### Development of Deepwater Exploration



### Green Practices

## Sustainability Management

PTTEP uses the latest technology and green business practices to ensure a sustainable future and energy security for generations to come.



PTTEP has been listed in the Dow Jones Sustainability Indices in the DJSI World Index of Oil and Gas Industry for two consecutive years, from 2014 to 2015.

MEMBER OF  
**Dow Jones  
Sustainability Indices**  
In Collaboration with RobecoSAM

Realising the importance of sustainability management we established the PTTEP Sustainable Development Policy and Sustainable Development Management Guideline, which cover important areas of business, society and the environment. We have been working toward raising our standards of excellence in sustainable development and maintaining our valued membership of the Dow Jones Sustainability Indices in the DJSI World Index of Oil and Gas Industry in the future.

### G.R.O.W.T.H Policy

**G**ood Governance

**R**esponsible Operation

**O**ptimum Returns on Capital

**W**ealth Contribution

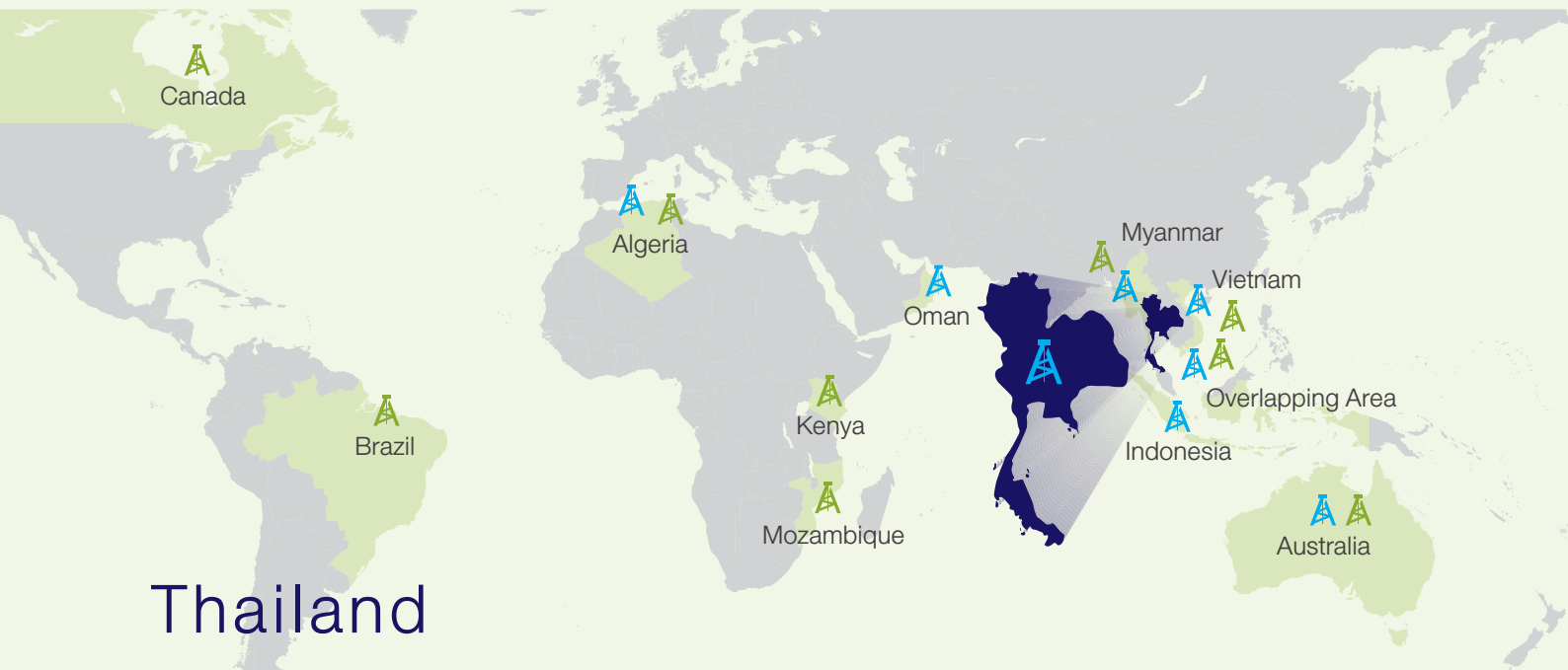
**T**echnologically Advanced Company

**H**igh Performance Organization

## E&P Projects and Shareholding Structure of PTTEP

### Business Overview

PTTEP's core business is exploration and production of petroleum in Thailand and foreign countries. As of December 31, 2015, PTTEP Group had 38<sup>1</sup> petroleum exploration and production projects in 11 countries. 14 projects were under the exploration phase and 24 projects were under the commercial production phase.



## Thailand

- **Bongkot Project**  
Participation Interest 44.4445%  
Operator PTTEP
- **S1 Project**  
Participation Interest 100%  
Operator PTTEP
- **PTTEP 1 Project**  
Participation Interest 100%  
Operator PTTEP
- **B6/27 Project**  
Participation Interest 60%<sup>2</sup>  
Operator PTTEP
- **Arthit Project**  
Participation Interest 80%  
Operator PTTEP
- **L22/43 Project**  
Participation Interest 100%  
Operator PTTEP
- **L53/43 & L54/43 Project**  
Participation Interest 100%  
Operator PTTEP
- **E5 Project**  
Participation Interest 20%  
Operator ExxonMobil
- **Contract 3 Project**  
Participation Interest 5%  
Operator Chevron
- **Contract 4 Project**  
Participation Interest 60%  
Operator Chevron
- **G4/43 Project**  
Operator 21.375%  
Operator Chevron
- **Sinphuhorm Project**  
Participation Interest 55%  
Operator PTTEP
- **B8/32 & 9A Project**  
Participation Interest 25%  
Operator Chevron
- **G4/48 Project**  
Participation Interest 5%  
Operator Chevron

<sup>1</sup> Excluding Indonesia Semai II, Indonesia Malunda, Indonesia South Mandar, Mozambique Rovuma Onshore and L28/48 projects which PTTEP has submitted relinquishment documents to the respective governments of each project and been waiting for the official approval.

<sup>2</sup> Another joint venture of B6/27 Project had terminated its 40% participating interests which was effective on January 1, 2015 based on Joint Operating Agreement. The termination is under the process of approval from the Department of Mineral Fuels.

## Myanmar

- Myanmar M3 Project  
Participation Interest 80%  
Operator PTTEP
- Myanmar M11 Project  
Participation Interest 100%  
Operator PTTEP
- Zawtika Project  
Participation Interest 80%  
Operator PTTEP
- Yadana Project  
Participation Interest 25.5%  
Operator TOTAL

## Canada

- Mariana Oil Sands Project  
Participation Interest 100%  
Operator PTTEP

## Brazil

- Barreirinhas AP1 Project  
Participation Interest 25%  
Operator BG Brasil
- Brazil BM-ES-23 Project  
Participation Interest 20%  
Operator Petrobras

## Algeria

- Algeria Hassi Bir Rekaiz Project  
Participation Interest 24.5%  
Operator PTTEP
- Algeria 433a & 416b Project  
Participation Interest 35%  
Operator GBRS

- Yetagun Project  
Participation Interest 19.31784%  
Operator Petronas

- Myanmar PSC G & EP 2 Project  
Participation Interest 70%  
Operator PTTEP

- Myanmar MD-7 and MD-8 Project  
Participation Interest 100%  
Operator PTTEP

- Myanmar MOGE 3 Project  
Participation Interest 75%  
Operator PTTEP

## Kenya

- Kenya L11A, L11B & L12 Project<sup>3</sup>  
Participation Interest 10%  
Operator Anadarko

## Mozambique

- Mozambique Rovuma Offshore Area 1 Project  
Participation Interest 8.5%  
Operator Anadarko

## Oman

- Oman 44 Project  
Participation Interest 100%  
Operator PTTEP

## Vietnam

- Vietnam 9-2 Project  
Participation Interest 25%  
Operator HV JOC

- Vietnam 16-1 Project  
Participation Interest 28.5%  
Operator HL JOC

- Vietnam B & 48/95 Project  
Participation Interest 8.5%  
Operator Petrovietnam

- Vietnam 52/97 Project  
Participation Interest 7%  
Operator Petrovietnam

## Indonesia

- Natuna Sea A Project  
Participation Interest 11.5%  
Operator Premier Oil

## Australia

- PTTEP Australasia Project  
Participation Interest 20 - 100%<sup>4</sup>  
Operator PTTEP

## Overlapping Area

- G9/43 Project  
Participation Interest 100%  
Operator PTTEP

- MTJDA Project  
Participation Interest 50%  
Operator CPOC

● Production phase

● Exploration phase

<sup>3</sup> All concessionaires agreed to relinquish blocks L5 and L7 in the project resulting in the change of project name to be Kenya L11A, L11B & L12 Project.

<sup>4</sup> PTTEP Australasia Project holds many petroleum blocks which have various participation interests from 20 - 100%.

# Promoting Business Integrity



## OUR COMMITMENT

PTTEP's Board of Directors, executives and employees understand and adhere to the Good Corporate Governance and Business Ethics of the PTTEP Group which is based on the six principles:

1. Responsibility
2. Accountability
3. Fairness and Integrity
4. Transparency
5. Creation of Long-term Value to Stakeholders
6. Promotion of Best Practices

These six principles form the framework for a strong operational foundation and can also serve as a shield and internal control system for managing risks in all areas of operation. The principles are integrated with PTTEP's core values, **EP SPIRIT**, which we communicate to all our employees and sets the tone of the Company's corporate culture.



## Good Corporate Governance

PTTEP believes in operating responsibly, transparently and honestly under the framework of the Good Corporate Governance and Business Ethics (CG&BE) of the PTTEP Group. Conducting business with integrity has led us to achieve and maintain our business goals of "Growth, Prosperity, Stability, Sustainability and Dignity." This practice is rooted in the roles and responsibilities of the Board of Directors and management as the leaders of PTTEP, setting a good example, providing guidance and keeping open communication with all employees. With our commitment

to the CG&BE framework, the United Nations Global Compact (UNGC) recognized PTTEP as an organization that achieved the UNGC Advanced Level for our adherence to human rights, the environment and anti-corruption measures. This is one of our proudest accomplishments at the international level.

This achievement reflects our commitment to promoting and endorsing employees through CG&BE-related activities designed to meet the needs of our diverse workforce. They aim to create an

amicable learning environment that stimulates engagement and fine tunes their attitudes to align with the Company's expectations. We monitor, assess and evaluate the results, which are used for future development plans and activities. In addition to implementing these activities at our headquarters and domestic projects, we began expanding CG&BE activities to international sites (the Republic of the Union of Myanmar) which emphasize that our directors and management place the utmost importance on and expect everyone to seriously adhere to CG&BE's framework. Moreover, the results were impressive, as our employees have demonstrated a high level of understanding of PTTEP's CG&BE principles as well as improved performance.

Throughout 2015, PTTEP developed strategies to combat corruption by establishing a Governance, Risk Management and Internal Control and Compliance (GRC) Management System, which managed the three principles of PTTEP's Line of Defense: governance, risk management, and international control and compliance as well as other relevant units for specific issues such as the Internal Audit unit. This management system allowed for more transparent operations that were in line with the Company's objectives and enabled us to specify measures of internal management.

PTTEP performed internal control assessment based on the principles of the Committee of Sponsoring Organizations of the Treadway Commission (COSO) which includes fraud risk assessment. The assessment workshops were conducted for all levels of management to discuss the adequacy and effectiveness of internal control. When the control deficiencies were found, the appropriate action plans and responsible units were assigned to improve the internal control.

We encourage our personnel and stakeholders to report any cases of fraud and misconduct by directors, management, employees and other persons acting on behalf of the PTTEP Group. In 2015, PTTEP received five reports via the CG Hotline. Based on sufficient evidence, three were acknowledged by the Corporate Secretary division. The reports were related to the inappropriate behaviors of some employees and miscommunication between management and employees which fell under the Human Resources' CG&BE policy. The three reports, however, did not affect the organization's reputation and property. After the investigation of all three reports was completed, the results were reported to the relevant agencies and verbal warnings were given to those who violated the regulations of the Company.



“Conducting business with transparency requires the effort of every employee at all levels. In order to drive the organization toward sustainable goals, all employees must comply with the Good Corporate Governance and Business Ethics of the PTTEP Group. It is essential that every employee fully understand his or her own responsibility in order to create a good working culture.”

**Pimsuda Sirichote**  
Manager, CG & Shareholder Engagement Section

## Promoting Business Integrity

### Risk Management

As part of PTTEP's risk management system, we work together with management and employees from all business units to identify both internal and external factors, assess and evaluate potential risks to the Company. We also prepare mitigation plans to minimize and prevent potential impacts. With this effective risk management system, PTTEP is prepared for any short- and long-term risks that might occur. Moreover, the process enables us to continuously monitor and anticipate any potential risks, including emerging risks, in all functions of the Company such as finance, investment, exploration and production, and project development.

To promote our risk management culture to employees, we introduced a Governance Risk and Control E-Learning program to raise employee awareness of their own responsibilities as well as recognize and manage risks from their tasks. This program consists of Enterprise Risk Management (ERM), Business Continuity Management (BCM) and internal control. Furthermore, we provide various channels for employees to report cases of suspicious activities or breaches to their functional representatives, whereby identifying risks at all levels will enable a more efficient and thorough risk management process.

## No Corruption and Human Rights Violations in 2015

In 2015, our Risk Management Committee, Operational Risk Committee and Business Continuity Management Committee convened on a regular basis to oversee the Risk Management System and to acknowledge any serious risks to the Company, such as those related to project investments, fluctuating oil prices, currency exchange and project development. PTTEP encouraged the creation of a risk culture and risk prevention measures to mitigate potential internal risks, as well as supported risk management awareness among high executives. This resulted in significantly reducing the impacts and chances of interruption to production for sites in Thailand, compared to the previous year.

**In 2015 PTTEP comprehensively managed risks in the areas of investment,  
finance, exploration and production,  
drilling and operation.**

**We defined our risk appetite  
to clearly understand our capacity  
to respond to changes and  
in achieving the Company's targets  
and objectives.**



**PTTEP has constantly assessed Emerging Risks and in 2015, there were two important examples.**

1. The expiry period of the Bongkot Project's concession is in 2023-2024, where it remains unclear whether PTTEP will be able to continue the concession and maintain the current condition of the fiscal regime. This poses a risk to the production and reserves of PTTEP. Thus, PTTEP has prepared risk measures to reduce possible impacts by working together with the government to find possible solutions, which would offer reasonable fiscal structures for the Company and its future production projects. We also promote understanding of petroleum exploration and production (E&P) business among stakeholders such as the environment and human rights, their rights to free prior and informed consent on projects which have community impacts, and resources reclamation. All of these engagements are communicated through public relations, collaboration, follow-ups and opinions provided via online media for efficiency and accuracy.

2. The uncertainty of decommissioning in Thailand is likely to pose impacts on the Company expenditure, local communities and the environment. PTTEP has engaged with the government in providing opinions for appropriate decommissioning in terms of technical and economic issues, as well as studying environmental and social impacts in advance.

Furthermore, PTTEP continued to reinforce its existing risk management system by upholding the international certification of the Business Continuity Standard ISO 22301.



# Promoting Business Integrity

## Supplier Risks Management

PTTEP realizes the importance of our suppliers' roles and responsibilities in the sustainable growth of the Company. We have therefore incorporated integrity into our supplier chain management and treat our suppliers on the basis of fairness and transparency. We also request our suppliers to embrace social responsibility and encourage them to comply with the principle to strengthen our long-term business relationship.

In 2015, PTTEP integrated Environmental, Social and Governance (ESG) aspects into the five-year procurement roadmap and Procurement and Contract Procedures. The integration is also part of the process of screening the qualifications of new suppliers and part of our Green Procurement Guideline. The well-trained employees from Thailand, Canada and Australia conform and comply with the procedures and the guideline.

PTTEP first implemented the Green Procurement project for the category of office supplies. In 2014, the portion of green products and stationery items used in our offices was 63.26%, increasing to 83.80% in 2015. Furthermore, we have extended green procurement practices to the purchase of cars where environment-friendly product/service criteria are considered for supplier selection. At the same time, PTTEP developed an SAP system to record all procurement information related to environment-friendly products and services. This information will be used for our green procurement monitoring and analysis.

PTTEP also developed the PTTEP Vendor Guide to support suppliers in PTTEP's business information and practices. This guide contains the Good Corporate Governance and Business Ethics (CG&BE), Procurement Processes, Contract Management, the PTTEP Vendor Sustainable Code of Conduct and related laws. It is meant to encourage suppliers to operate with integrity, respect human rights and work against corruption. PTTEP and our suppliers have signed an agreement to create and maintain such behavior within the corporation.

Moreover, PTTEP enhanced Contract Management and Supplier Relationship Management (SRM) elements to more efficiently achieve business targets, work plans and contract objectives as well as critical Key Performance Indicators (KPIs). In addition, as part of our supplier risk management, we periodically assess, monitor and follow up on performance to ensure that suppliers operate according to the contractual terms regarding Safety, Security, Health and Environment (SSHE), quality control, and compliance with related laws. To assure the quality of our SSHE standards, for example, Lost Time Injury Frequency (LTIF) data and oil spills are systemically recorded. At the end of the contract management period, the contract holder must complete the Contract Closed-out Report in order to record performance results, identify areas for improvement and continue to develop suppliers' capability for the development of long-term relationships with suppliers.

PTTEP conducts supplier audits on a regular basis to bolster our supplier relationships and prevent any impact that might occur during operations in terms of safety, the environment and human rights. In 2015, PTTEP conducted SSHE audits of 12 suppliers from four groups with high-potential risks, including drilling, logistics, wellhead platform construction and other related functions.

In order to conduct our business with social responsibility for sustainable supply chain development balancing business, society, the environment and capability development, PTTEP has implemented Suppliers Collaboration Initiatives with the purpose of sharing knowledge and experience in the field of petroleum exploration and production. These initiatives help us and our suppliers gain more insights into the environment, communities and good corporate governance and include KPIs related to safety, quality of performance, equipment and materials, social and environmental impacts, and logistics.

Supply chain efficiency and collaboration has enabled PTTEP to reduce costs in our supply chain by more than

○ USD **45.83** million through the following:

**Logistics Excellence Operation**

- Fuel consumption reduction of Offshore Supply Vessels (OSV)
- Marine Fleet Optimization
- Inventory Optimization
- Waste Management
- Helicopter Optimization

The project was able to reduce costs by

USD **22.84** million



**Green Procurement**

increased the percentage of environment-friendly products used in our offices by

**83.80%**

or

USD **196,528**



**Supply Chain Plus**

reduced costs by

USD **22.80** million

stemming from contract renegotiation of the fluctuation of oil prices, material procurement, a new method of operation, and strategic development of procurement



**Local Procurement**

comprised

**91%**

of PTTEP's total procurement *(only in Thailand)*



### Marine Fleet Optimization

*aims to reduce costs,  
increase efficiency and  
prevent environmental impacts*

From the use of ships in order to support offshore petroleum E&P activities, the optimization can only be successful through the cooperation of internal staff and suppliers and support from the Arthit and Bongkot projects.

We have also implemented Centralized Marine Control and Integrated the Look Ahead Work Plan and Vessel Scheduling, during which we collect data for assessing further improvements and efficiency. Through these initiatives, PTTEP achieved the following:



Cost reduction: In total, we *reduced costs by USD 5.97 million*, while reducing the number of ships from 19 to 17.



Efficiency: PTTEP was able to *reduce the number of shipping trips from 45 trips per month in 2014 to 37 trips per month*, on average, in 2015, and utilized deck space for more shipments, from 74% in 2014 to 86% in 2015.



Environment: Reduction in ships aided in decreasing fuel consumption by 3 million liters per year, which *reduced greenhouse gas emissions by 9,147 tonnes of CO<sub>2</sub>e per year*.

"In today's world, we are facing environmental and energy issues. The SC Group wants to differentiate our customer services from other companies so we decided to work with PTTEP to systematically control the fuel usage of Crew Boats and AHTS. This collaboration helped reduce the use of oil and energy, which resulted in helping to preserve the environment. With environmental management and logistics, we were able to reduce costs and preserve the environment thereby contributing to sustainable development."

Surachai Nimmual  
EVP, Marine SC Group



## Protecting the Environment



### OUR COMMITMENT

“Target Zero” for spills

Improving energy efficiency  
by 5% by 2020



### Operational Eco-Efficiency

PTTEP minimizes air emissions from our operations in order to prevent harming our communities and the environment. PTTEP adheres to principles of reduction, reuse, recycling and treatment for effective waste management. The majority of our waste is cuttings, of which 17% was recycled and used for other activities. In addition, PTTEP reduced hazardous waste to landfill less than 0.5% in 2015. We are conducting a study to assess ways we can reduce drilling mud among other drilling waste.

Our greenhouse gas emissions reduction project is designed to reduce air emissions of NOx, SOx, and VOCs from our activities in order to minimize the impact on our workforce, the environment and surrounding communities.

The oil and chemical spill rate decreased  
**0.90** tonnes  
per million tonnes of production,  
which is lower than  
the 2015 target.



PTTEP reduced overall energy consumption of more than  
**170,000** GJ  
as a result of energy-efficiency programs implemented in 2015.



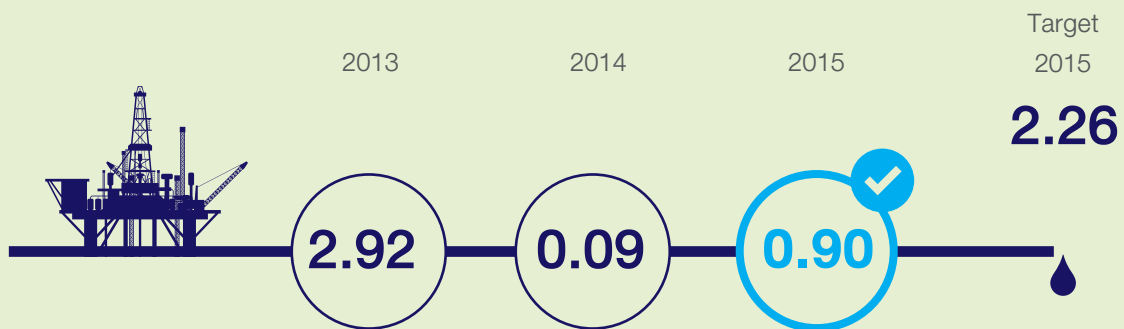
PTTEP deploys a Safety, Security, Health and Environmental Policy (SSHE Policy) as a framework for effective environmental management in every step of production.



## Spills

As an essential part of our strategy to prevent impacts on the environment, PTTEP analyzes the causes of spills and has developed effective mitigation measures. This approach helped us to achieve our 2015 spill target of 2.26. Furthermore, PTTEP cooperated with the Department of Mineral Fuels to develop and publish hydrocarbon spill fingerprint analysis handbooks, and conducted training for relevant users.

### Oil and chemical spill rate (tonnes per million tonnes of production)



“Driving toward sustainability is not a difficult matter. It depends on the commitment of the organization and workforce. For example, shutting down one seawater pump for cooling water generation at the Arthit Project contributed to fuel savings of 70 MMSCF per year and a reduction in greenhouse gas by 5,929 tonnes of CO<sub>2</sub>e per year. This example proves that success does not always depend on hefty investment. The essential part is to focus on sustainable development, principles, and cooperation among employees and executives to set good examples and deliver benefits to the Company as well as the environment.”

Narongrit Apinyovichien  
Manager, Safety, Security, Health and Environment (SSHE)



# Protecting the Environment

## Water Management

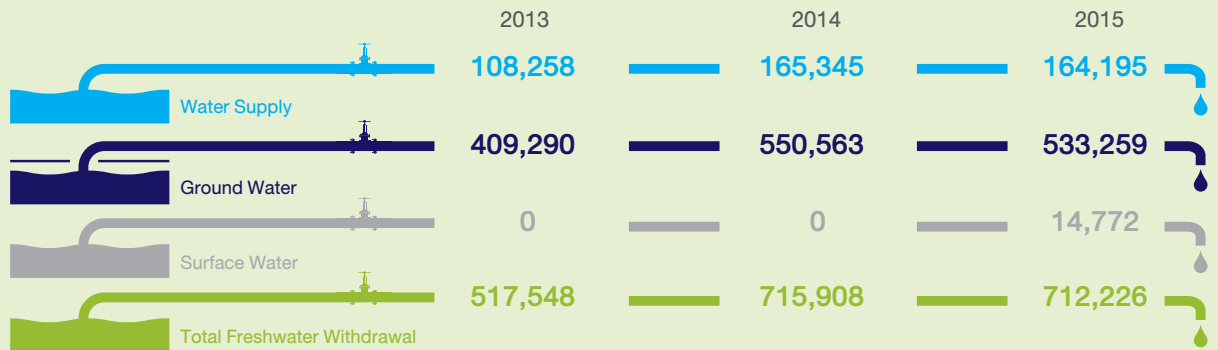
Water is one of the key components of our operations, and PTTEP aims to use water efficiently and prevent contamination of water sources in all project activities.

PTTEP conducts water risk assessments as part of all projects under our operational control. Results for our S1 and PTTEP1 projects showed medium water risks; however, in 2015, we put in place water-efficiency plans that reduced water consumption for these two projects from 2013, the base year. In addition, the Sinphuhorm Project, which PTTEP acquired in 2014, did not pose significant long-term water risks. PTTEP also has a system to convert seawater to freshwater for our offshore activities, which significantly reduces freshwater consumption.

In 2015, PTTEP reduced freshwater consumption more than 3,500 cubic meters as a result of water-reduction plans, which included steps such as cleaning machinery using high-pressure water-injected pumps, and maintaining machinery and equipment such as cooling machines, heat exchangers, etc.

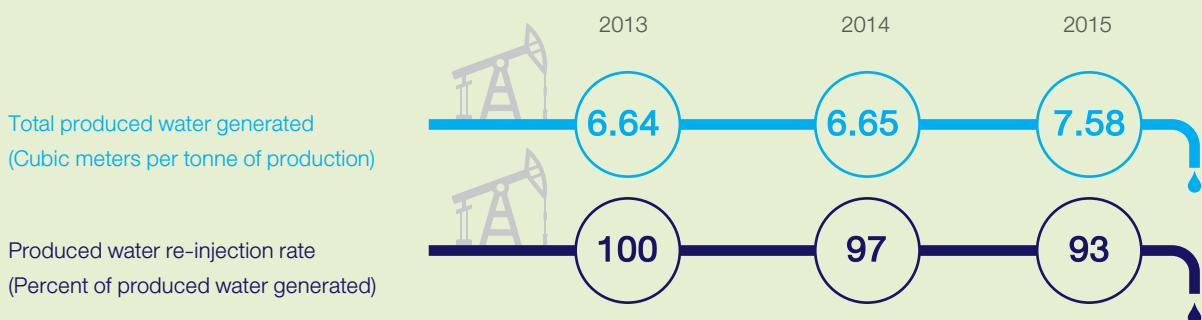


### Freshwater Withdrawal (Cubic Meters)



Remark: Surface water was used at Mariana Oil Sands Project, Canada

PTTEP manages water usage on all projects in order to prevent contamination of natural and community water sources. We apply a produced water re-injection technique to store produced water underground. In 2015, we re-injected 93% of produced water for underground storage while the remainder was treated and disposed of in accordance with regulatory requirements.





## Biodiversity

As PTTEP's operations are located in different areas with diverse ecological conditions, we are committed to having a net positive impact on the ecosystems and biodiversity of our communities. Since 2012, we have been assessing the biodiversity risks for all our projects in Thailand.

The results of biodiversity risk assessments in 2014 revealed that the Siphuhorm Project posed high biodiversity risks since the project is located within the river basin 1A, which is considered by the World Commission on Protected Areas (WCPA) to be a highly sensitive area that requires biodiversity protection. As a result, PTTEP developed risk mitigation plans and a Biodiversity Action Plan (BAP) for the Siphuhorm Project in 2015. In addition, PTTEP also conducted biodiversity training for employees in our SSHE department for various projects such as Siphuhorm, S1, and Bongkot, etc.

In 2015, PTTEP and PTT jointly supported no net loss impact and net positive impact policies with the International Union for Conservation of Nature (IUCN) and provided financial support for Myanmar's Tanintharyi Nature Reserve Project (TNRP), which is operated by Myanmar's Forest Department and companies in the petroleum exploration and production industry, in order to improve the level of compliance with the policies during the project development.

PTTEP is in the process of developing a remotely operated vehicle (ROV) as part of the Biodiversity Promotion Project. In 2015, PTTEP tested the ROV and we plan to use it to screen marine ecosystems and biodiversity for the Rig to Reef Project, which is a prototype project located in Cha Lok Lam Bay in Phangan Island aimed at restoring marine resources for communities and fishermen in the area. The ROV will allow PTTEP to monitor the effectiveness of rig structures. The Department of Marine and Coastal Resources and companies in the petroleum exploration and production industry also support the disclosure of information and project performance to local communities in Phangan Island.

## Energy Efficiency

PTTEP's energy-efficiency program is designed to reduce energy consumption by 5% by 2020, and we plan to expand this program to cover all projects in Thailand by 2016 and one overseas project over which PTTEP has operational control. In 2015, we reduced energy consumption by approximately 80,100 GJ as a result of shutting down the seawater pump used to generate cooling water for the Arthit Project and more than 91,000 GJ from installation of heat recovery steam generator (HRSG) at the S1 Project.

PTTEP conducted energy consumption database studies and implemented energy saving mitigation for the South Bongkot and S1 Projects in 2015. Currently, we are considering implementing a KPI targeting the energy efficiency of all petroleum exploration and production projects in Thailand, except the Siphuhorm Project, which requires baseline studies; the implementation of its energy-efficiency program will take place in 2016.



## Responding to Climate Change



### OUR COMMITMENT

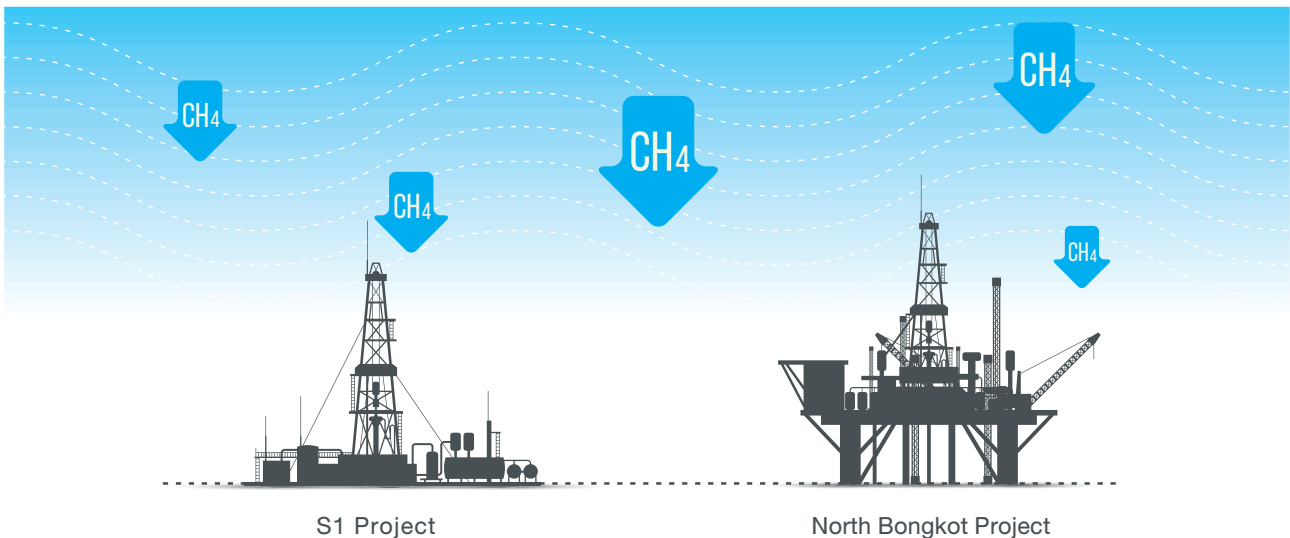
PTTEP has set a target to reduce greenhouse gas by 20% by 2020.



### Climate Change Adaptation

PTTEP takes a proactive management approach to respond to climate change. In 2015, we assessed the financial impact of climate change risks in order to estimate their severity and prioritize them. This information can then be used to develop an appropriate climate change risk response plan in the future.

As carbon tax laws may come into effect in the future, PTTEP has already incorporated carbon tax considerations into projects in areas with carbon pricing regulations. PTTEP also plans to initiate an internal Carbon Pricing Policy in 2016. The policy will be used to assess new projects that PTTEP plans to acquire or enter into a joint venture agreement/partnership with. It also requires continuous carbon reduction projects to promote responsible operation.



PTT signed an agreement with the US Environmental Protection Agency (USEPA) to voluntarily **reduce methane emissions**. As a subsidiary of the PTT Group, PTTEP started the initiative at the S1 Project in 2013. In 2015, we studied the methane emission database of the North Bongkot Project and the results showed **no significant greenhouse gas emissions**. In addition, PTTEP plans to assess the effectiveness of greenhouse gas reduction plans at the S1 Project in 2016.

In 2015

PTTEP reduced greenhouse gas emissions by

**4.7%**

compared to the base year

in 2012



PTTEP is the only company  
in Southeast Asia  
and one of the two companies  
from the energy sector globally

in the A List of

CDP Climate Change Program 2015

“PTTEP’s mission is to find energy sources for national development, which is essential and takes long-term planning. We understand the impact energy production might have on the environment and constantly ensure that our procedures are safe. For example, the Clean Development Mechanism (CDM) is a project which received the Letter of Approval from the Thailand Greenhouse Gas Management Organization (TGO), a public organization that assesses and approves the procedures of projects to comply with sustainable development principles. The United Nations has approved PTTEP’s procedures and protocols which are able to reduce greenhouse gas from flare production by approximately 10,000 tonnes of CO<sub>2</sub>e. With the current technologies in the petroleum industry, it is very difficult to cut down greenhouse gas emissions. Despite that, PTTEP never stops improving and seeking out new opportunities to operate more efficiently.

Moreover, TGO has recognized PTTEP’s long-term efforts and dedication to greenhouse gas reduction, one of which is the reforestation project. For Thailand, it is the national policy to reforest a total area of 400 million rai, including the existing forest, but it is very difficult for the government to do it alone as it will take years to achieve. Hence, PTTEP has been supporting the reforestation and conservation of existing forests. It is a meaningful activity and I would like to thank PTTEP for not only reforesting but conserving the forests which facilitate absorbing greenhouse gas. Forests are the lungs of the nation. In addition, PTTEP has joined together with TGO for the Thailand Voluntary Emission Reduction (T-VER) Program. This joint program is between PTTEP and the Ministry of Natural Resources and Environment. From this engagement, TGO understands that it is not about earning carbon credits for PTTEP but rather highlighting PTTEP’s greenhouse gas reduction indicators at the national level to support the government and the general public.”

Prasertsuk Chamornmarn  
Executive Director,  
Thailand Greenhouse Gas Management Organization  
(Public Organization)



# Responding to Climate Change

## Greenhouse Gas Reduction

Reducing greenhouse gas emissions is one of PTTEP's missions and the target of an organizational KPI. We have improved energy efficiency and the monitoring of greenhouse gas leakages in production process in order to reduce the social and environmental impacts. PTTEP reduces greenhouse gas emissions through the following projects:

### Heat Recovery Steam Generator

PTTEP improved heat recovery as part of a steam generation technique that resulted in reducing greenhouse gas by 400 tonnes of CO<sub>2</sub>e per month.



### Clean Development Mechanism (CDM)

PTTEP's CDM has been certified by the United Nations Framework Convention on Climate Change (UNFCCC). The project generates electricity from waste gas from the production process at Sao Tien Expansion Petroleum Field in Sukhothai Province. As a result, 17,049 tonnes of CO<sub>2</sub>e per year has been saved. PTTEP has offered such credit in the carbon market, which could be a potential revenue stream for the Company in the future.



### PTTEP Reforestation

In 2015, PTTEP planted trees covering an area of 5,000 rai to restore deteriorated forests. Altogether, the reforested areas under the PTTEP Reforestation Project cover 105,000 rai in 25 provinces in all regions of Thailand. The forests will absorb carbon dioxide, improve soil fertility and also increase ambient moisture and oxygen, which also helps cushion the impact of climate change.



### Office Energy-Efficiency Project

PTTEP aims to reduce energy consumption in the office and enhance awareness of energy efficiency among all staff. The project includes energy consumption reduction activities and changing electrical equipment to improve the efficiency at PTTEP's headquarters. Since 2013, we have reduced 90 tonnes of CO<sub>2</sub>e and received a greenhouse gas emissions reduction certificate for the Low Emission Support Scheme from the Thailand Greenhouse Gas Management Organization.



### Carbon Neutral Event

PTTEP has bought carbon credit from a carbon credit provider in Thailand accounting for a total 6 tonnes of CO<sub>2</sub>e in order to neutralize our carbon emissions from the SD Day 2015 in order to support the voluntary carbon market in Thailand.



### Marine Green Logistics

Marine Green Logistics improves the effectiveness of marine transport for support vessels in the Gulf of Thailand. In 2015, the project reduced 46,108 tonnes of CO<sub>2</sub>e, which accounted for 20% of the total greenhouse gas emissions reduction.





“We are enhancing the effectiveness of marine transport for offshore petroleum exploration and production activities to reduce operation costs and also contribute to environmental protection. Initially, there were some difficulties due to stakeholders’ concerns about replacing our existing operating system, which resulted in changing work procedures and an increased workload for us. Nevertheless, the most important factor leading to success is cooperation from internal and external parties to drive the organization toward a shared goal with confidence that such changes will set us in the right direction and create benefits for all parties. In 2015, we reduced costs by over USD 12.3 million by reducing the number of ships and cutting fuel consumption, which accounted for a reduction of 46,108 tonnes of CO<sub>2</sub>e. The results contributed towards excellence and sustainability.”

Thiti Preeyanurak  
Manager, Engineering and Marine Logistics



## Developing our People



### OUR COMMITMENT

In 2015 PTTEP successfully developed our employees' competency level at an average of 5%, which was higher than the initial target.



"When working in the department, I only knew about my own tasks and responsibilities. After listening to an internal speaker, it opened my eyes to see the other functions of the organization. I had the chance to better understand the impact and the relationship of my work to the other departments. There was also a quiz to evaluate our knowledge and understanding from the workshop."

**Thanisorn Metheesuwapab**

Officer, Tax Compliance



"Being an internal speaker gave me an opportunity to review my own tasks and responsibilities with fresh eyes to improve my performance. It provided a chance to review and organize my tasks and responsibilities for a clearer direction. Giving these lectures has also benefited me because I got to learn from the audience as well. Realizing the relationship between their work and mine has allowed me to improve the quality of my work and become more efficient."

**Prathet Pipatmongkolchai**

Marine Engineer

USD **7** million  
were used for  
**employee development**  
in 2015



The result of the **employee engagement survey** in 2015

was **50%** > which was  
an increase of **4%**

The survey result  
of the same industry was

**57%**

Besides sponsoring our  
**employees to attend trainings**  
at well-known domestic  
and international institutes  
and inviting external  
speakers to give key lectures,



PTTEP had more than  
**137** internal speakers  
for internal programs



A total of **175** curricula



Using internal resources,  
the Company saved  
approximately **75%**  
or **USD 10 million**  
of the total training budget.



We plan to **build better relationships with employees** throughout the organization by addressing their most important concerns which include:

- Improvement of operational procedures
- Enhancing human capital development
- Effective communication

# Developing our People

## Human Capital Development

PTTEP develops the capacity of our employees through acquiring new knowledge, developing skills and enhancing capacity and performance. In 2015, the Company evaluated the capacity and potential of employees in every department through our Competency Management System (CMS) by identifying the Job Competency Profile for each field and evaluating employee capabilities and managing Individual Competency Development Plans (ICDP) according to the development approach of 70/20/10: On the Job Assignment / Coaching and Mentoring / Formal Training. Moreover, we instituted a Mentoring Program for senior staff or equivalent in 2015. The purpose of this program is to encourage knowledge transfer from senior staff to the younger generation.

PTTEP continually develops and prepares our future leaders through various distinguished programs. In addition to our EP-LEAD III program arranged for the middle management in 2014, we organized the EP-LEAD II program for senior staff or equivalent to strengthen their leadership qualities and prepare them for advanced positions in order to support PTTEP's future business. Twenty-eight participants completed the program in 2015. This accounted for 63.64% of the targeted successor pool. Furthermore, we also conducted People Skills for Managers training to develop a clear understanding of leaders' roles and responsibilities, as well as to enhance leadership skills. Fifty-four senior staff or equivalent, accounting for 42% of the targeted participants, completed this program in 2015.

PTTEP has prepared a succession plan for the next five years (2016 - 2020). This is to ensure a smooth transition so that successors will be ready and qualified for the positions they will assume.

## Talent Attraction and Retention

PTTEP has a strategy to attract talented individuals to join the organization through many channels such as university scholarships and internship programs. Through strategic methods of selecting candidates and an interview process joined by leaders

of that particular team, we carefully choose new hires we believe will contribute to the short- and long-term needs of the Company. We also provide the opportunity for our employees to apply for vacant positions through internal job postings (Career Choice). The Career Choice program was launched in 2014 with the intention to encourage PTTEP staff to design their own career path, actively develop their capacity and seek new challenges in their own career life. In 2015, PTTEP announced 52 vacant positions through the Career Choice program, 10 of which were filled by current employees. This marks a great beginning to creating new behaviors among PTTEP employees and shows that they are eager to learn new things and wish to grow their careers with the organization.

Our Technical Career Ladder (TCL) program has also been implemented to encourage technical staff to continuously develop their skills and competencies. They will have alternative career opportunities to grow as specialists, which is equal to management positions, once their technical competencies are proven. Through the capability development program, staff will also be encouraged to generate technical innovation and technological development at PTTEP. Moreover, in order to retain high-potential staff, we strive to develop and prepare our employees by assigning challenging work and providing opportunities for overseas assignments. Through these development approaches, they will become more competent and obtain career growth opportunities in the organization.

The Republic of the Union of Myanmar is one of PTTEP's most important production bases due to its production capacity. Thus, recruitment is a crucial process for us to select new hires for the exploration and production team who are knowledgeable, skilled and willing to learn. With a group of talented individuals, an efficient production base can increase the economic and social prosperity of the country. To comply with Myanmar's Foreign Investment Law, PTTEP utilizes the Myanmar Staff Value Creation program to recruit and develop Myanmar people with high potential to work with PTTEP in Myanmar. In 2020, we plan to hire local people to fill 70-80% of the positions at the project, including executive and middle management positions.



## Labor Rights

PTTEP treats employees and contractors in accordance with the labor laws of every country in which we operate. This practice complies with our corporate Human Rights Policy, business ethics, law and international practices, which cover fair employment and the creation and maintenance of a safe working environment. In 2015, our Welfare Committee identified 13 issues related to benefits and labor rights, including employee benefits, compensation and more. The committee consists of employee and management representatives accounting for 1% of the total workforce. The committee meets on a monthly basis to discuss and identify relevant issues related to benefits and employee welfare.



## Ensuring Safe Operations



### OUR COMMITMENT

“Target Zero” is PTTEP’s highest goal related to safety, security, health and the environment, to ensure that there are no impacts on our stakeholders and the environment.



### Safety and Occupational Health

PTTEP cares about the safety and occupational health of our employees and contractors and tracks Lost Time Injury Frequency (LTIF) and Total Recordable Injury Rate (TRIR). In 2015, we decreased both LTIF and TRIR by 57% and 23%, respectively, from the previous year, achieving our target goals. In addition, there were no life-threatening accidents involving our employees and contractors.

PTTEP believes the health and well-being of our employees and contractors are fundamental for the sustainable growth and development of the Company. Hence, we keep records of the Total Recordable Occupational Illness Rate (TROIR) as basic information and a KPI to ensure a healthy working environment that protects our people and prevents illness.

PTTEP organizes annual health check-ups for our employees, as well as a team of doctors to provide advice on healthy living. In 2015, we implemented the E-Health book, an application that makes the results of check-ups available online. This application provides our employees with better knowledge of their health by comparing current results to those from previous years and predicting the possible results of their next check-ups.

Because contractors are also essential to PTTEP operations, we provide safety protocols for their well-being, too. In 2015, we began our Pre-Mobilization Induction project to inform all contractors of our operational guidelines and impacts that may occur during their work. It has been one of our long-term commitments to continuously improve and endorse our safety culture for all employees and contractors. We conduct frequent safety audits, and regularly monitor and follow up on audit findings, closures and areas for improvement.

### Process Safety and Asset Integrity

PTTEP has adapted a Process Safety Management Standard and Management Change of Standard to prevent major accident events (MAEs) in the business, community and the environment. As a result, we had a Major Accident Event Rate (MAER) of zero in 2015.

## Security and Emergency Management

Besides the importance of safety and occupational health, PTTEP also understands the significance of security and emergency management. To prevent any losses and damages both domestically and internationally, we conduct risk management for all accidents and implement defensive measures to limit risks in all operating sites. On top of that, there are annual emergency practices to prepare our employees for any emergency situation that might occur.

### Zero Accident

Involving life-threatening injuries to both our employees and contractors



Achieved our target  
Lost Time Injury Frequency



Achieved our target  
Total Recordable Injury Rate



In 2015

PTTEP began studying **the Safety Cases** of the S1 and PTTEP1 projects using a **Bow-tie tool** to identify and assess risks.

The goal was to define suitable measures to prevent serious accidents.



## Engaging with Communities



### OUR COMMITMENT

G.R.O.W.T.H Policy,  
as one of our main policies  
for sustainable development,  
aims to create value  
for stakeholders.



### Social Impacts on Communities

PTTEP works with local communities when seeking and developing energy sources to create mutual benefits. We value the importance of our relationships with local communities and encourage their involvement. With respect to human rights, ways of living and local cultures, we are determined to elevate the quality of life and improve the living standard of local people. Anticipating potential social impacts, we have launched the Issue and Stakeholder Management System (ISMS), a two-way communication tool to address conflicts with communities. This system facilitates analysis, planning, measuring and monitoring potential social impacts. The ISMS is currently deployed in both domestic and international projects.

After deployment of the ISMS, we were able to specify four important strategies to manage social impacts:

1. Communication and relationships with stakeholders
2. Supervision and control of the operation
3. Community engagement
4. Laws and regulations

The Sinphuhorm Project is one of many projects in Thailand that stretch across two provinces - in this case, Udon Thani and Khon Kaen. Deploying ISMS and meeting with target groups of stakeholders, we recognized the importance of engaging with our stakeholders to identify issues pertinent to them and our business.

It was an opportunity to educate and explain to the communities our exploration and production procedures. With a better understanding of our business, there were fewer concerns about the social impacts of PTTEP operations. Key risk indicators showed zero conflict with our communities for the entire year of 2015.

PTTEP creates plans to improve and develop community relations as a part of every project to manage any social impacts according to our standards and guidelines. We also intend to improve our Community Relations and Management Policy to more clearly support and guide communities in self-managing in the future.

100%  
**10** production projects  
and  
**11** exploration and development projects  
involved community engagement and consultations

## Community Relations and Management Policy

1. Demonstrate corporate responsible citizen behavior by acting responsibly and exercising care in preventing any potential impact on communities, society or the environment at every stage of our operations.
2. Seek to understand and respond to stakeholders' concerns through a fair and transparent process, in accordance with the relevant rules and regulations.
3. Encourage inclusive engagement among stakeholders for effective collaboration and mutual benefits which, in turn, constitute a basis of trust and acceptance among PTTEP and our stakeholders.
4. Recognize and respect the rights, way of life, cultural diversity and values of local communities at all times.
5. Promote the well-being of communities through sustainable development activities, and fulfill our promise of delivering long-term benefits.



USD **26.46** million

as the total contribution

to our Communities and Society



# Engaging with Communities

## Employee Volunteering

On the occasion of the 30<sup>th</sup> Anniversary of the Company, PTTEP arranged the "30 CSR Activities, 30<sup>th</sup> Anniversary of PTTEP" Campaign. Throughout 2015, staff participated in a wide variety of CSR activities including DIY Notebooks for Children, Blood Donation, Running for Charity, Tree Planting, Survival Kit Packing, School Development and Disabled Youth Camp, pursuing the corporate value of "EP SPIRIT" in terms of "R = Responsibility for Society".



**1,664**

employees volunteered

**6,438 hours**

of volunteer work



## Social Development

The sustainable social development strategy of the Company is focused on engaging with and creating value for stakeholders. The strategy covers social projects in four areas: basic needs, education, environment and culture & sports, with the goal to improve the quality of life of people in communities and create sustainable development, thus leading to communities and society supporting our business.



### Basic Needs

PTTEP engaged in healthcare through various activities such as our "Community Hospital Project". We founded the hospital to help meet the shortage of medical services in the area. Together with assistance from Ubonrat Hospital, we were able to provide medical education and employment for community members at local hospitals. This has enabled employees in the area to receive medical care from the hospital.

As part of our contribution to public health, PTTEP also offset hospital travel expenses by providing motorcycles and mobile medical equipment to dispense medical services beyond hospitals by initiating the project "Good Health Starts at Home".

**14** graduates completed nursing programs **1,195** patients received medical care



### Education

#### Cooperative Institute for Petroleum Geophysics Program

PTTEP has teamed up with Chiang Mai University to establish and develop a Master's of Science Program in Petroleum Geoscience, which is an international standard, in response to the need for human resources in this field. This cooperation has helped support the rapid growth of the petroleum industry at both the national and regional levels.



**10** Thai students  
**14** international students  
totaling **24**



### Environment

#### Reforestation and Restoration Project for Eco-learning at Sri Nakhon Khuean Khan Park in line with HRH Princess Sirindhorn's Initiative (Bang Kachao)

Aiming to preserve the existing green space at Bang Kachao, the project entails the restoration of a 40-rai forest, the restoration of two nature trails - one bicycle trail and one wheelchair accessible trail, the development of multilingual signboards along the two trails, an outdoor exhibition in ecological learning stations, as well as the restoration of the overall landscape in the park. The forest restoration approach takes into account the rebuilding of a strong forest structure and planting of native species suitable to the area with the aim of creating an ideal nature learning venue under the nature's classroom concept, so that visitors can realize the importance of urban forest conservation and sustainable development of green space at Bang Kachao.



"Ever since PTTEP began the project, there have been many changes. The scenery has become more pleasant, and the gardens are greener. More tourists are visiting Bang Kachao, which has helped improve the economy in local communities. People have also become aware and started to care about conservation of the area."

**Prampree Trirat**  
Chairman of Pa Ked Nom Klao Community Forest

"This project of PTTEP has been beneficial to local people in terms of the economy, tradition and livelihood of the area. It has created more jobs and increased household incomes. Local people use these opportunities to share their knowledge and traditions, which also boost tourism. Many tourists, both Thais and foreigners, visit Bang Kachao and its green surroundings for getaways. I had the chance to meet some PTTEP employees and shareholders who came to do activities in the area. I was touched and felt the sincerity of these people."

**Ganyapron Nualsaard**  
Chairman of Herbal Joss Stick Home Group



In 2015, **162,768** tourists visited Sri Nakhon Khuean Khan Park, an increase from last year's tally of **111,455** visitors.







## Culture and Sports

### Thai Heritage World Heritage (Culture)

PTTEP, in cooperation with the Fine Arts Department, have conserved Thailand's cultural world heritage site in the Historic City of Ayutthaya. The Company supports architectural and archeological analysis and has produced learning materials about Ayutthaya Ancient Palace. The activities include renovating trails around the palace, reconstructing signage of archeological data, constructing a three-dimensional model of the palace and the Royal Palace of Ayutthaya Kingdom Learning Building, designed as a learning and study resource of history that is easy to understand.

### Hua Hin Regatta

To uphold the royal wish of His Majesty King Bhumibol Adulyadej in publicizing the sport of sailing, and to enable sailors in Thailand to have the opportunity to develop their skills, PTTEP has been supporting the activities of the Yacht Racing Association of Thailand and the Royal Thai Navy and the Royal Yachting Association since 2006 by supporting organizing the activities of Hua Hin Regatta and developing athletes' skills to compete both nationally and globally.

More than  
**300,000** tourists  
were expected to  
visit the site



# Engaging with Communities

## From Organic Waste to Sustainable Communities

Improving the quality of stakeholders' lives is embedded in PTTEP's Social Development Strategy, which aims to strengthen socio-economic standards for sustainable growth. As a result, PTTEP, communities and local government agencies in Udon Thani Province, where the Sinphuhorm Project is located, developed the "Biogas as an Alternative Energy Source and Waste Sorting Training" in 2013.

The area faced environmental problems such as poorly managed agricultural waste which caused water and air pollution that put communities at risk of airborne and waterborne diseases. In addition, the responsibility of managing agricultural waste was a financial burden for the farmers as waste treatment is costly.

The "Biogas as an Alternative Energy Source and Waste Sorting Training" is designed to train the community members in Sang Sawang and Tabkung Subdistricts, the majority of whom are farmers, ranchers and students. The program participants are educated on waste sorting and low cost biogas well construction using local tools and equipment. Due to the increasing number of ranching activities in the area, the communities can use manure from the ranches and household waste to produce methane. This not only helps solve the problem of waste pollution in the area, but also allows the communities to use biogas as an alternative source of energy for household purposes and use organic waste as fertilizer.

### The economic and environmental benefits gained by the communities are:



Produced 3 cubic meters of biogas per day, **equivalent to 1.38 kilograms of LPG per day** amounting to THB 500 per day



**Reduced the treatment of diseases caused by manure**  
THB 100 per household per year



**Reduced the use of carbon fuels and LPG**  
THB 3,600 – 4,800 per household per year



**Reduced waste**  
730 kilograms per household per year



**Reduced the cost of using chemical fertilizers**  
THB 440 per day



**Reduced environmental pollution** from sewage or waste from the communities of about 100 kilograms per day

“We started using biogas in 2013 for the purpose of cooking 3 meals for our family members. For the past 3 years, we have been using the gas from the biogas wells without any problems. In addition to the gas used for cooking, garbage and food waste, including animal manure are eliminated by separating them into the biogas wells. The garbage not put in biogas wells is disposed of properly. Biogas well maintenance is easy. Money is not wasted on repairs. When our neighbors or others in the village see it, they would like to have it installed at their houses. The project helps us manage waste effectively. It also cuts the cost of waste treatment and gas for household cooking.”

**Lamom Sittisart**

Ban Tabhai Village Leader, Moo 4, Sang Sawang Subdistrict,  
Nong Saeng District, Udon Thani Province.

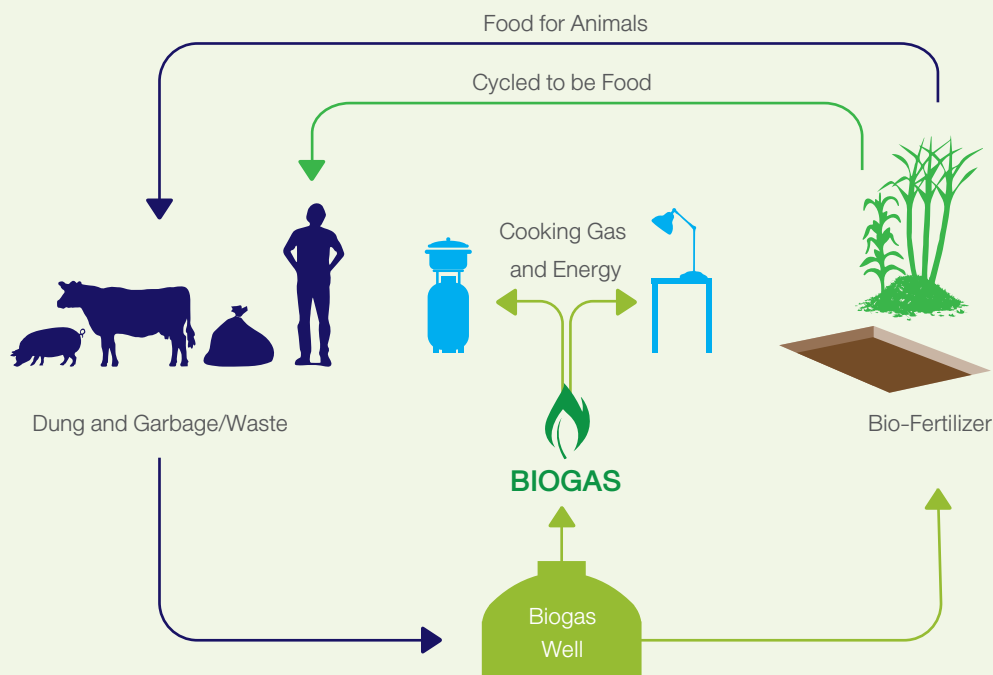


“As a community leader, I have to prove to the community members how good the use of biogas is. Biogas can be utilized in cooking. The dung of the animals we raise is eradicated in the biogas wells. This eliminates bad odors. Using biogas from this project helps us save around THB 400 per month on purchasing LPG for household cooking.”

**Daeng Auantem**

Assistant Village Leader and Ban Tabhai Village Health Volunteer,  
Sang Sawang Subdistrict, Nong Saeng District, Udon Thani Province.

## Production Cycle and Biogas Use



## SD Performance Summary

Economic	Unit	2012	2013	2014	2015
<b>Direct Economic Value Generated</b>					
Total revenue	Million USD	7,021	7,445	7,834 <sup>(2)</sup>	5,654
<b>Economic Value Distributed</b>					
Salaries, wages and employees' benefits	Million USD	103.91	137.27	171.12	139.19
Operating expenses	Million USD	706	827	857	710
<b>Payments to Providers of Capital</b>					
Payment to governments <sup>(3)</sup>	Million USD	1,886	2,151	2,183	1,398
Dividend payments	Million USD	588	783	736	298
Interest payments	Million USD	178	174	216	253

### Remarks

- (1) Scope of reporting Economics performance is in alignment with 2015 PTTEP Annual Report.  
(2) 2014 Restated Financial Statement.<sup>(34-22)</sup>  
(3) Payment to government covers petroleum royalties, remuneration for the petroleum and tax payments.

Environment	Unit	2012 <sup>(1)</sup>	2013 <sup>(1)</sup>	2014		2015	
				Domestic	International	Domestic	International
<b>Hydrocarbon Production</b>							
Production from operating assets	BOE	96,282,938	105,924,646	105,205,817	18,886,056	108,962,720	27,445,579
	Tonnes	13,151,812	14,452,553	14,402,539	2,527,276 <sup>(12)</sup>	15,334,183	3,681,578
<b>Energy Consumption</b>							
Total direct energy consumption	GJ	20,377,244	20,825,094	20,520,695	3,320,172	21,039,514	5,077,094
Total indirect energy consumption by primary energy source (electricity purchased)	GJ	29,231	34,167	65,289	8,180	75,150	6,360
Total energy intensity	GJ/tonne production	1.55	1.44	1.43	1.32	1.38	1.38
<b>Greenhouse Gas Emissions (GHGs)<sup>(2)(3)(5)</sup></b>							
Direct total GHGs	Tonnes CO <sub>2</sub> equivalent	4,431,144	4,459,039	4,399,529	722,545	4,215,807	670,144
Indirect total GHGs	Tonnes CO <sub>2</sub> equivalent	1,649	1,830 <sup>(12)</sup>	3,520	635	3,820	407
Other relevant indirect GHG emission <sup>(5)</sup>	Tonnes CO <sub>2</sub> equivalent	12,817	12,470	33,622	1,742	23,318	34,593
GHG intensity	Tonnes CO <sub>2</sub> equivalent/ thousand tonne production	338 <sup>(12)</sup>	310	308	287 <sup>(12)</sup>	277	192
<b>Flare</b>							
Total flaring	MMscf	44,050	47,946	48,158	5,870	43,557	4,728
Hydrocarbon flaring	Tonnes	1,015,134	1,101,526	1,104,472	160,698	984,072	112,599
Hydrocarbon flaring intensity	Tonnes/thousand BOE	10.54 <sup>(12)</sup>	10.40	10.50	8.51	9.03	4.10
<b>Emissions</b>							
Volatile organic compounds (VOCs)	Tonnes VOC	15,265	16,571 <sup>(12)</sup>	16,614	1,617	14,897	1,723
VOC intensity	Tonnes VOC/thousand tonne production	1.161	1.147 <sup>(12)</sup>	1.154	0.640 <sup>(12)</sup>	0.972	0.468

Environment	Unit	2012 <sup>(1)</sup>	2013 <sup>(1)</sup>	2014		2015	
				Domestic	International	Domestic	International
Nitrogen oxides (NOx)	Tonnes NO <sub>2</sub>	9,228	9,454	9,219 <sup>(12)</sup>	1,399	9,121	1,922
NOx intensity	Tonnes NO <sub>2</sub> /thousand tonne production	0.702	0.654	0.640	0.554 <sup>(12)</sup>	0.595	0.522
Sulfur oxides (SOx)	Tonnes SO <sub>2</sub>	570	576	550	165	476	122
SOx intensity	Tonnes SO <sub>2</sub> /thousand tonne production	0.043	0.040	0.038	0.065	0.031	0.033
Ozone-depleting Substances <sup>(6)</sup> (ODS)	Kg of CFC11 equivalent	3.1 <sup>(12)</sup>	8.3	13.8	0	8.5	0
<b>Spills<sup>(7)(8)</sup></b>							
Spills	Cases	7	26	12	16	9	8
	Tonnes	5.87	44.28 <sup>(12)</sup>	0.28	1.16	9.21	7.93
Hydrocarbons	Cases	7	25 <sup>(12)</sup>	11	14	8	7
	Tonnes	5.87	44.18	0.28	1.14	9.06	7.53
Non-hydrocarbons	Cases	0	1 <sup>(12)</sup>	1	2	1	1
	Tonnes	0	0.10	0	0.02	0.15	0.40
<b>Water Withdrawn</b>							
Total water consumption	Cubic meters	69,987,319	67,032,041	50,673,964	359,686	50,920,018	375,647
Water withdrawal (excluding once through cooling water)	Cubic meters	1,772,324	2,027,523	2,262,918	359,686	2,254,806	375,647
Once through cooling water	Cubic meters	68,214,995	65,004,518	48,411,046	0	48,665,213	0
<b>Water Discharge</b>							
Water discharge	Cubic meters	5,559,511	6,640,290	6,441,869	216,309	7,018,468	650,519
Produced water injection	Cubic meters	5,559,511	6,640,290	6,438,057	0	7,013,451	0
Produced water disposed by evaporation	Cubic meters	0	0	1,854	126,745	3,862	276,068
Produced water treated & discharged <sup>(8)</sup>	Cubic meters	0	0	0	89,564	0	374,451
Produced water disposed by waste processor	Cubic meters	0	0	1,958	0	1,155	0
<b>Waste Generation<sup>(9)</sup></b>							
Hazardous waste	Tonnes	NA	NA	36,436	32	42,264	302
Non-hazardous waste	Tonnes	NA	NA	202,751 <sup>(12)</sup>	135 <sup>(12)</sup>	170,722	5,028
<b>Waste Disposal<sup>(10)(11)</sup></b>							
Hazardous waste	Tonnes	33,874	44,559	36,706	32	42,064	302
Drilling mud and cutting waste	Tonnes	32,430	41,894	34,702	NA	40,286	NA
Other hazardous waste	Tonnes	1,444	2,665	2,004	32	1,778	302
Non-hazardous waste	Tonnes	873	1,238	202,916	290	170,751	1,387
Drilling mud and cutting waste	Tonnes	NA	NA	200,757	NA	168,543	3,368
Other non-hazardous waste	Tonnes	873	1,238	2,032 <sup>(12)</sup>	290	2,208	1,387
Exported hazardous waste under the Basel Convention	Tonnes	429	460	205	0	0	0
<b>Environmental Management</b>							
Investing in managing environmental impacts	Million USD	5.96	9.34	6.09	NA	9.20	3.57

## SD Performance Summary

Environment	Unit	2012 <sup>(1)</sup>	2013 <sup>(1)</sup>	2014		2015	
				Domestic	International	Domestic	International
Treatment and disposal expenses	Million USD	3.77	4.08	3.99	NA	3.76	2.66
Protection, management and investments	Million USD	2.19	5.26	2.37 <sup>(12)</sup>	NA	5.44	0.92
Percentage of prevention cost in total environment expense	%	37	56	37 <sup>(12)</sup>	NA	59	26
<b>Legal Compliance</b>							
Significant fines, penalties and settlements	Case	0	0	0	0	0	0
	Million USD	0	0	0	0	0	0

### Remarks

- (1) 2012 & 2013 Environmental performance data included Thailand assets only.
- (2) Total direct GHG emission (Scope 1) based on equity basis is not included in this report. 2012 GHG emission (Scope 1) as base year is 4,471,086 tonnes CO<sub>2</sub> equivalent.
- (3) GHG emission from well service venting is not included.
- (4) Methane (CH<sub>4</sub>) emission is equivalent to 11,542 and 3,829 tonnes CH<sub>4</sub> for Thailand and International assets respectively.
- (5) Other relevant indirect GHG emission (Scope 3) is comprised of transportation and air travel.
- (6) Ozone-depleting substances (ODS) includes Hydrochlorofluorocarbon (HCFC) only.
- (7) 2012 - 2015 reported spills includes production phase of operating assets in Thailand and International assets.
- (8) Hydrocarbon discharged within produced water is equal to 0 and 9.15 tonnes for Thailand and International assets respectively.
- (9) 2015 hazardous and non-hazardous waste generation subtracted by reuse/recycling are 42,566 and 140,418 tonnes.
- (10) Drilling mud & cutting waste is included in Thailand assets only.
- (11) The difference between waste generation and disposal amount is accounted for on-site storage.
- (12) Data were recalculated due to greater completeness in collection.<sup>(G4-22)</sup>
- (13) NA (not available).

Health and Safety	Unit	2012	2013	2014	2015
<b>Fatalities</b>					
Total number	Cases	0	1	0	0
Workforce <sup>(1)</sup>	Cases	0	0	0	0
Contractors <sup>(2)</sup>	Cases	0	1	0	0
Fatal accident rate (FAR) - Workforce	Cases per million hours worked	0.00	0.00	0.00	0.00
Fatal accident rate (FAR) - Contractors	Cases per million hours worked	0.00	2.55	0.00	0.00
<b>Occupational Health and Safety</b>					
Total recordable incident rate (TRIR) - Workforce	Cases	9	5	6	9
	Cases per million hours worked	1.18	0.59	0.63	1.02
Total recordable incident rate (TRIR) - Contractors	Cases	51	39	46	25
	Cases per million hours worked	2.09	1.26	1.50	1.14
Lost time injury frequency (LTIF) - Workforce	Cases	2	1	0	2
	Cases per million hours worked	0.26	0.12	0.00	0.23

Health and Safety		Unit	2012	2013	2014	2015
Lost time injury frequency (LTIF) - Contractors	Cases		4	5	9	2
	Cases per million hours worked		0.16	0.16	0.29	0.09
Near Miss - Workforce	Cases		55	67	98	44
Near Miss - Contractors	Cases		87	98	53	34
<b>Illnesses</b>						
Total recordable occupational illness frequency (TROIF) - Employees	Cases per million hours worked		0.06	0.15	0.22	0.03
Absentee rate - Workforce	Cases per million hours worked		NA	NA	171.69	299.15
Absentee rate - Contractors	Cases per million hours worked		NA	NA	NA	NA
Restricted work case (RWC) - Workforce	Cases		24	20	7	0
Restricted work case (RWC) - Contractors	Cases		NA	2	0	0
Medical treatment case - Workforce	Cases		30	13	1	0
Medical treatment case - Contractors	Cases		NA	2	4	1
<b>Process Safety</b>						
Number of Tier 1 process safety events	Cases		1	4	3	1
Number of Tier 2 process safety events	Cases		3	2	7	5
<b>Loss of primary containment (LOPC)</b>						
Loss of primary containment (LOPC)	Number of incidents per million work hours of drilling and production		0.23	0.34	0.48	0.21

Remarks

- (1) Workforce means employees and supervised workers of PTTEP (PTTEP Services Limited).
- (2) Contractor means an individual or a company carrying out work under the supervision, instructions and SSHE Management System of PTTEP or subsidiaries within the reporting boundary.

Labor Practices	Unit	2012		2013 <sup>(1)</sup>		2014		2015	
		Male	Female	Male	Female	Male	Female	Male	Female
<b>Workforce</b>									
Total Workforce <sup>(2)</sup>	Persons	4,080		4,316		4,547		4,297	
		2,732	1,348	2,851	1,465	3,058	1,489	2,904	1,393
Staff by region									
Thailand (PTTEP and PTTEP Services)	Persons	2,340	1,233	2,155	1,252	2,247	1,275	2,270	1,189
Australia	Persons	217	59	204	57	176	39	154	35
Oman	Persons	55	6	68	6	73	14	72	14
Myanmar	Persons	66	34	246	92	377	98	244	98
Others	Persons	54	16	178	58	185	63	164	57

# SD Performance Summary

Labor Practices	Unit	2012		2013 <sup>(1)</sup>		2014		2015	
		Male	Female	Male	Female	Male	Female	Male	Female
<b>Staff by age</b>									
< 30 years	Persons		1,148	869	563	924	501	660	351
30 - 50 years	Persons		2,102	1,603	824	1,671	893	1,826	955
> 50 years	Persons		323	379	78	463	95	418	87
<b>Staff by employment type</b>									
Permanent <sup>(3)</sup>	Persons	NA	NA	2,251	1,162	2,431	1,216	2,429	1,178
Temporary <sup>(4)</sup>	Persons	NA	NA	600	303	627	273	475	215
<b>Staff by employment category</b>									
Executives	Persons	NA	NA	29	7	34	8	33	8
Middle Management	Persons	NA	NA	66	23	77	25	77	29
Seniors	Persons	NA	NA	672	213	618	222	619	237
Employee	Persons	NA	NA	2,084	1,221	2,329	1,234	2,175	1,119
<b>Training and Development</b>									
Average all employees	Hours/person/ year	52.0	43.3	57.1	65.4	48.6	40	39.22	44.03
<b>Employee Satisfaction</b>									
Employee satisfaction	%		NA		49		46		50
<b>Composition of Governance Bodies</b>									
Board of Directors	Persons	14	1	14	1	14	0	15	0
Executives	Persons	57	9	29	7	34	8	33	8
Middle Management	Persons	312	84	66	23	77	25	77	29
Seniors	Persons	536	274	672	213	618	222	619	237
Employee	Persons	1,435	866	2,084	1,221	2,329	1,234	2,175	1,119
<b>New Employee Hire by Age Group</b>									
< 30 years	Persons	152	168	291	226	268	137	62	39
30 - 50 years	Persons	131	59	230	104	201	65	85	25
> 50 years	Persons	19	2	42	3	54	7	11	1
Total	Persons	302	229	563	333	523	209	158	65
New hire rate	% of total employees	8.5	6.4	13.0	7.7	11.5	4.5	3.7	1.5
<b>Turnover by Age Group</b>									
< 30 years	Persons	33	51	42	42	66	77	46	43
30 - 50 years	Persons	74	19	57	33	81	50	66	67
> 50 years	Persons	27	2	20	2	42	9	37	7
Total	Persons	134	72	119	77	189	136	149	117
Turnover rate	% of total employees	3.8	1.8	2.8	1.8	4.2	3.0	3.5	2.7



Labor Practices	Unit	2012		2013 <sup>(1)</sup>		2014		2015	
		Male	Female	Male	Female	Male	Female	Male	Female
<b>Turnover by Type</b>									
Voluntary resignation	Persons	127	72	108	76	173	129	139	115
Dismissal	Persons	0	0	0	0	0	0	0	0
Retirement	Persons	5	0	8	1	11	6	7	1
Death - not related to work	Persons	2	0	3	0	5	1	3	1
<b>Parental Leave</b>									
Employee taken parental leave	Persons	15	29	0	27	17	15	61	46
Employee returned to work after parental leave	%	100	100	100	100	100	100	98.36	97.82
<b>Integrity</b>									
Training hours concerning human rights, anti-bribery, and corruption	Hours	784	1,170	420	833	1,694	1,568	674.5	890.5
<b>Equal Remuneration</b>									
Ratio basic salary women/men	Ratio		0.76		0.87		0.89		0.44
<b>Gender Diversity</b>									
Women in workforce	Persons		1,233		1,465		1,489		1,393
	%		35		34		33		32
Women in professional positions	Persons		274		1,222		1,234		1,119
	%		34		37		35		34
Women in management positions	Persons		84		30		33		37
	%		21		24		23		25
Women in senior leadership positions	Persons		10		213		222		237
	%		12		24		26		28

Remarks

- (1) PTTEP starts reporting human capital data at the global level in 2013.
- (2) Total staff exclude outsource staff i.e. maids, gardeners and drivers.
- (3) Permanent means full time employment contract with indeterminate period. PTTEP does not have part-time employee.
- (4) Temporary means employment contract with limited duration and terminated by a specific event, including the end of a project or work phase or return of replaced personnel.
- (5) NA (not available).

Corporate Social Responsibility	Unit	2012	2013	2014	2015
<b>Total Contribution</b>					
Total contribution <sup>(1)</sup>	Million USD	6.49	19.76	44.50	26.46
Volunteer	Hours	-	9,083	10,308	6,438

Remarks

- (1) Total contribution includes corporate philanthropic spending and philanthropic spending at the project level since 2013.

# Awards & Recognitions

Accomplishments of PTTEP that show our dedication and excellence in practices were proved by a number of leading organizations and publications in 2015.

## Corporate Governance

- **Asia's Best CEO (Investor Relations) Award**  
Corporate Governance Asia Magazine

- **Asia's Best CFO (Investor Relations) Award**  
Corporate Governance Asia Magazine

- **Top three Domestic Publicly Listed Companies in Thailand Award and Top 50 ASEAN Publicly Listed Companies Award in accordance with ASEAN CG Scorecard**  
Securities and Exchange Commission (SEC)

- **Hall of Fame, Consistent Best Practices, Exemplary Practices, and Audit Committee of the Year**  
Thai Institute of Directors Associations (IOD), Stock Exchange of Thailand (SET), Thai Chamber of Commerce, Federation of Thai Industries, Thai Bankers' Association, Thai Listed Companies Association, and Federation of Thai Capital Market Organizations

## Investor Relations

- **Best Investor Relations Awards**  
Stock Exchange of Thailand and the Money & Banking Magazine

- **Best Investor Relations Company Award**  
Corporate Governance Asia Magazine



## Social Responsibility

- **Honorary Member Award**  
Thailand Business Council for Sustainable Development (TBCSD)

- **Best Environmental Responsibility Award**  
Corporate Governance Asia Magazine



## Best Practices

- Listed Company of the Dow Jones Sustainability Indices (DJSI) in DJSI World Oil and Gas Industry 2015

RebecoSAM

- The first and only company in Southeast Asia listed in CDP's Climate A List

CDP

- Thailand Sustainability Investment 2015 Award

Stock Exchange of Thailand

- Thailand's Top Corporate Brands 2015 Award

Chulalongkorn University, Faculty of Commerce and Accountancy

- Excellent Level of Health, Safety and Environmental Management in Petroleum Operation (SHE Award)

Department of Mineral Fuels, Ministry of Energy

- Certificate of ESG100 Company

Thaipat Institute

- Best Practice Sharing 2015 Award

PTT Group

- Best Learner Award

PTT Group

- Zero Unplanned Shutdown Award

PTT Group

- Best Practice Contest Award

PTT Group

- A Plaque of Honour to PTT Exploration and Production Public Company Limited as 1 out of 10 Thai companies listed in the Dow Jones Sustainability Index (DJSI)

Stock Exchange of Thailand

- Best Regional Cash Management Solution Award

The Asset Magazine

- Best Corporate Hybrid Award

The Asset Magazine

- Best Deal of Thailand Award

The Asset Magazine

- Best Investment Grade Bond Award

FinanceAsia Magazine

MEMBER OF  
**Dow Jones  
Sustainability Indices**  
In Collaboration with RobecoSAM





## LRQA Assurance Statement

### Relating to PTT Exploration and Production Public Company Limited's environmental and occupational health and safety indicators within the Sustainability Report for the calendar year 2015

This Assurance Statement has been prepared for PTT Exploration and Production Public Company Limited in accordance with our contract but is intended for the readers of this Report.

#### Terms of Engagement

Lloyd's Register Quality Assurance Ltd. (LRQA) was commissioned by PTT Exploration and Production Public Company Limited (PTTEP) to provide independent assurance on its 'Sustainability Report 2015' ("the report") against the assurance criteria below to a limited level of assurance and at the materiality of the professional judgement of the verifier using 'LRQA's verification approach'. LRQA's verification approach is based on current best practice and uses the principles of AA1000AS (2008) - inclusivity, materiality, responsiveness and reliability of performance data and processes defined in ISAE3000.

Our assurance engagement covered PTTEP's operations and activities in Thailand only and specifically the following requirements:

- Confirming whether the selected environmental and occupational health and safety indicators below were compiled according to:
  - GRI G4's Sustainability Reporting Guidelines and
  - GRI G4's Oil and Gas Sector Disclosure.
- Evaluating the accuracy and reliability of data and information for the selected indicators listed below:
  - Environmental indicators associated with PTTEP's Production phase: energy consumption within the organization (G4-EN3), total water withdrawal by source (G4-EN8), GHG scope 1, 2 and 3 (G4-EN15-17), ozone depleting substances (ODS), NOx, SOx and other significant air emissions (G4-EN20-21), total water discharge by quality and destination (G4-EN22), total weight of waste generation, waste by type and disposal method (G4-EN23), total number and volume of significant spill (G4-EN24), volume and disposal of produced water (G4-OG 5) and amount of drilling waste and disposal (G4-OG7), and
  - Social indicators associated with PTTEP's Exploration and Production phases: type of injury and rates of injury and occupational diseases (G4-LA6).

Our assurance engagement excluded all of PTTEP's production, exploration and development support bases outside of Thailand and any asset that is not operated by PTTEP within Thailand.

LRQA's responsibility is only to PTTEP. LRQA disclaims any liability or responsibility to others as explained in the end footnote. PTTEP's responsibility is for collecting, aggregating, analysing and presenting all the data and information within the report and for maintaining effective internal controls over the systems from which the report is derived. Ultimately, the report has been approved by, and remains the responsibility of PTTEP.

#### LRQA's Opinion

Based on LRQA's approach nothing has come to our attention that would cause us to believe that PTTEP has not:

- Met the requirements above
- Disclosed reliable performance data and information for the selected environmental and occupational health and safety indicators as no errors or omissions were detected.

The opinion expressed is formed on the basis of a limited level of assurance and at the materiality of the professional judgement of the verifier.

**Note:** The extent of evidence-gathering for a limited assurance engagement is less than for a reasonable assurance engagement. Limited assurance engagements focus on aggregated data rather than physically checking source data at sites.

### LRQA's approach

LRQA's assurance engagements are carried out in accordance with our verification procedure. The following tasks though were undertaken as part of the evidence gathering process for this assurance engagement:

- Auditing PTTEP's data management systems to confirm that there were no significant errors, omissions or mis-statements in the report. We did this by reviewing the effectiveness of data handling procedures, instructions and systems, including those for internal verification. We also spoke with those key people responsible for compiling the data and drafting the report.
- Visiting the Sinphuhorm Project to sample evidence for the selected environmental and occupational health and safety indicators to confirm its reliability. The Sinphuhorm Project was visited because PTTEP is the new operator of this asset.  
Note: no offshore production assets were visited during this assurance engagement.
- Sampling the consolidated data and information at PTTEP's head office in Bangkok.

### Observations

Further observations and findings, made during the assurance engagement, are:

- Reliability: Whilst PTTEP has improved the implementation of its centralized data management system across assets within Thailand, we believe that investors require the same controls and verification checks to PTTEP's production, development and exploration operations outside of Thailand. PTTEP should consider extending their centralized data management system and verification exercise to its international operations before the next assurance engagement.
- Future reports: PTTEP should involve its people locally at assets in selecting and reviewing the data and information prior its consolidation at PTTEP's head office.

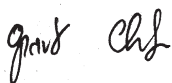
### LRQA's competence and independence

LRQA ensures the selection of appropriately qualified individuals based on their qualifications, training and experience. The outcome of all verification and certification assessments is then internally reviewed by senior management to ensure that the approach applied is rigorous and transparent.

This verification is the only work undertaken by LRQA for PTTEP and as such does not compromise our independence or impartiality.

Signed

Dated: 7 February 2016



Opart Charuratana  
LRQA Lead Verifier  
On behalf of Lloyd's Register Quality Assurance Ltd.  
Lloyd's Register International (Thailand) Limited  
14th Floor, Sirinrat Building, 3388/46 Rama IV Road  
Klongton, Klongtoey, Bangkok 10110 THAILAND

LRQA reference: BGK6022785

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	G4-7	54	<a href="https://www.pttep.com/en/Investor%20Relations/Shareholder%20Information/Top%2010%20Shareholders.aspx">https://www.pttep.com/en/Investor%20Relations/Shareholder%20Information/Top%2010%20Shareholders.aspx</a>	-	-	
	G4-8	12-13	-	-	-	
	G4-9	12, 44, 47	<a href="https://www.pttep.com/en/Investor%20Relations/Financial%20Performance/Financial%20Highlight.aspx">https://www.pttep.com/en/Investor%20Relations/Financial%20Performance/Financial%20Highlight.aspx</a> <a href="https://www.pttep.com/en/Investor%20Relations/Bondholder%20Information/Debt%20Profile.aspx">https://www.pttep.com/en/Investor%20Relations/Bondholder%20Information/Debt%20Profile.aspx</a>	-	-	
	G4-10	47-48	-	-	-	
	G4-11	33	-	-	-	
	G4-12	18-19	-	-	2	
	G4-13	54	No significant changes during the reporting year.	-	2	
	G4-14	16	-	-	-	
	G4-15	14, 17, 25, 27-28	-	-	-	
	G4-16	27	-	-	-	
	Identified Material Aspects and Boundaries	G4-17	63	-	-	-
		G4-18	62	-	-	-
G4-19		63	-	-	-	
G4-20		63	-	-	-	
G4-21		63	-	-	-	
G4-22		44, 46	-	-	-	
G4-23		54	No significant changes from previous reporting periods in the scopes and aspect boundaries.	-	-	
Stakeholder Engagement	G4-24 <sub>OGSS</sub>	60	-	-	21	
	G4-25	59	-	-	21	
	G4-26	60	-	-	21	
	G4-27 <sub>OGSS</sub>	61	-	-	21	
Report Profile	G4-28	59	-	-	-	
	G4-29	54	<a href="https://www.pttep.com/en/Sustainable%20Development/Publications.aspx">https://www.pttep.com/en/Sustainable%20Development/Publications.aspx</a>	-	-	
	G4-30	54	<a href="https://www.pttep.com/en/Sustainable%20Development/Publications.aspx">https://www.pttep.com/en/Sustainable%20Development/Publications.aspx</a>	-	-	
	G4-31	67-68	-	-	-	
	G4-32	52-53, 54-57, 59	-	-	-	
	G4-33	52-53	-	-	-	

General Standard Disclosures	Page Number	Omissions/Remarks	External Assurance	UNGC Principles	
Governance	G4-34	55	<a href="https://www.pttep.com/en/About%20PTTEP/Publications/download.aspx?Content=1967">https://www.pttep.com/en/About%20PTTEP/Publications/download.aspx?Content=1967</a>	-	1, 20
	G4-35	55	Refer to page 66 and 139 of 2015 Annual Report	-	1, 20
	G4-36	55	<a href="https://www.pttep.com/en/Sustainable%20Development/Sustainability%20at%20PTTEP/SD%20Governance%20Structure.aspx">https://www.pttep.com/en/Sustainable%20Development/Sustainability%20at%20PTTEP/SD%20Governance%20Structure.aspx</a>	-	1, 20
	G4-37	55	Refer to page 88-93 of 2015 Annual Report	-	1, 20
	G4-38	55	Refer to page 65 of 2015 Annual Report	-	1, 20
	G4-39	55	Refer to page 71 of 2015 Annual Report	-	1, 20
	G4-40	55	Refer to page 112 of 2015 Annual Report	-	1, 20
	G4-41			-	1, 2, 20
	G4-42	55	Refer to page 65-66 of 2015 Annual Report	-	1, 20
	G4-43	55	Refer to page 113-114 of 2015 Annual Report	-	1, 20
	G4-44	55	Refer to page 73-74 of 2015 Annual Report	-	1, 20
	G4-45	16-17	-	-	1, 20
	G4-46	16-17	-	-	1, 20
	G4-47	16-17	-	-	1, 20
	G4-48	59	-	-	1, 20
	G4-49	16	-	-	1, 20
	G4-50	55	Refer to page 75 of 2015 Annual Report	-	1, 20
	G4-51	55	Refer to page 84 of 2015 Annual Report	-	1, 20
	G4-52	55	Refer to page 84 of 2015 Annual Report	-	1, 20
	G4-53	55	Refer to page 82 of 2015 Annual Report	-	1, 20
G4-54	55	Information is confidential.	-	1, 20	
G4-55	55	Information is confidential.	-	1, 20	
Ethics and Integrity	G4-56	55	<a href="https://www.pttep.com/en/Sustainable%20Development/Business/CG%20and%20Business%20Ethics.aspx">https://www.pttep.com/en/Sustainable%20Development/Business/CG%20and%20Business%20Ethics.aspx</a>	-	12-14
	G4-57	55	<a href="https://www.pttep.com/en/Contact%20Us.aspx">https://www.pttep.com/en/Contact%20Us.aspx</a>	-	12-14
	G4-58	55	<a href="https://whistleblower.pttep.com/en/MainInternetForm.aspx">https://whistleblower.pttep.com/en/MainInternetForm.aspx</a>	-	12-14

# GRI Content Index & UNGC COP for the Advanced Level

## SPECIFIC STANDARD DISCLOSURES

Material Aspects	DMA and Indicators	Page Number	Omissions/Remarks	External Assurance	UNGC Principles
<b>ECONOMICS</b>					
Economic Performance	G4-DMA	10	-	-	15-18
	G4-EC1 <sub>OGSS</sub>	44, 49	-	-	-
	G4-EC2 <sub>OGSS</sub>	26-29	-	-	-
	G4-EC3	44	-	-	-
	G4-EC4	56	PTTEP does not receive financial assistance from government.	-	-
Indirect Economic Impacts	G4-DMA <sub>OGSS</sub>	38-41	-	-	15-18
	G4-EC7 <sub>OGSS</sub>	38-41	-	-	-
	G4-EC8 <sub>OGSS</sub>	38-41	-	-	-
<b>ENVIRONMENTAL</b>					
Energy	G4-DMA <sub>OGSS</sub>	25-29	-	-	9-11, 15-18
	G4-EN3	44	-	✓	9-11
	G4-EN4	56	PTTEP does not report energy consumption outside of the organization publicly at this time.	-	2, 9-11
	G4-EN5 <sub>OGSS</sub>	44	-	-	9-11
	G4-EN6	28-29	-	-	9-11
	G4-EN7	56	Not applicable to PTTEP business.	-	9-11
	G4-OG2	56	Not applicable to PTTEP business.	-	-
	G4-OG3	56	Not applicable to PTTEP business.	-	-
Water	G4-DMA	24	-	-	9-11, 15-18
	G4-EN8 <sub>OGSS</sub>	24	-	✓	9-11
	G4-EN9 <sub>OGSS</sub>	24	-	-	9-11
	G4-EN10	56	No recycled or reused water in 2015.	-	9-11
Biodiversity	G4-DMA <sub>OGSS</sub>	25	<a href="https://www.pttep.com/en/Sustainable%20Development/Environment/Biodiversity.aspx">https://www.pttep.com/en/Sustainable%20Development/Environment/Biodiversity.aspx</a>	-	9-11, 15-18
	G4-EN11	25	-	-	9-11
	G4-EN12	25	-	-	9-11
	G4-EN13	25	-	-	9-11
	G4-EN14	25	-	-	9-11
	G4-OG4	25	-	-	-
Emissions	G4-DMA	26-29	-	-	9-11, 15-18
	G4-EN15 <sub>OGSS</sub>	44	-	✓	9-11
	G4-EN16 <sub>OGSS</sub>	45	-	✓	9-11
	G4-EN17 <sub>OGSS</sub>	45	-	✓	2, 9-11
	G4-EN18 <sub>OGSS</sub>	45	-	-	9-11
	G4-EN19 <sub>OGSS</sub>	28	-	-	9-11
	G4-EN20	45-46	-	✓	9-11
	G4-EN21 <sub>OGSS</sub>	44-45	-	✓	9-11



Material Aspects	DMA and Indicators	Page Number	Omissions/Remarks	External Assurance	UNGC Principles
Effluents and Waste	G4-DMA <sub>OGSS</sub>	22-24	-	-	9-11, 15-18
	G4-EN22	45	-	✓	9-11
	G4-EN23 <sub>OGSS</sub>	45	-	✓	9-11
	G4-EN24 <sub>OGSS</sub>	45	-	✓	9-11
	G4-EN25	45	-	-	9-11
	G4-EN26	25	-	-	9-11
	G4-OG5	45	-	✓	-
	G4-OG6	44	-	-	-
Supplier Environmental Assessment	G4-DMA	18	-	-	2, 9-11, 15-18
	G4-EN32	18	-	-	2, 9-11
	G4-EN33	57	Information is currently unavailable. PTTEP will improve the data collection process.	-	2, 9-11
Environmental Grievance Mechanisms	G4-DMA	36	-	-	9-11, 15-18
	G4-EN34	36	-	-	9-11
<b>LABOR PRACTICES AND DECENT WORK</b>					
Employment	G4-DMA <sub>OGSS</sub>	32-33	-	-	6-8, 15-18
	G4-LA1	48-49	-	-	6-8
	G4-LA2	32	<a href="https://www.pttep.com/en/Sustainable%20Development/Business/Labour%20Practices.aspx">https://www.pttep.com/en/Sustainable%20Development/Business/Labour%20Practices.aspx</a>	-	6-8
	G4-LA3	49	-	-	6-8
Occupational Health and Safety	G4-DMA <sub>OGSS</sub>	34-35	-	-	6-8, 15-18
	G4-LA5	33	-	-	6-8
	G4-LA6 <sub>OGSS</sub>	46-47	-	✓	2, 6-8
	G4-LA7	46-47	-	-	6-8
	G4-LA8	33	-	-	6-8
Training and Education	G4-DMA	32	-	-	6-8, 15-18
	G4-LA9	48	-	-	6-8
	G4-LA10	57	<a href="https://www.pttep.com/en/Sustainable%20Development/Business/Labour%20Practices.aspx">https://www.pttep.com/en/Sustainable%20Development/Business/Labour%20Practices.aspx</a>	-	6-8
	G4-LA11	57	100% of employees received regular performance and career development reviews.	-	6-8
Supplier Assessment for Labor Practices	G4-DMA	18	-	-	2, 6-8, 15-18
	G4-LA14	18	-	-	2, 6-8
	G4-LA15	57	Information is currently unavailable. PTTEP will improve the data collection process.	-	2, 6-8
Labor Practices Grievance Mechanisms	G4-DMA	33	-	-	6-8, 15-18
	G4-LA16	33	-	-	6-8

# GRI Content Index & UNGC COP for the Advanced Level

Material Aspects	DMA and Indicators	Page Number	Omissions/Remarks	External Assurance	UNGC Principles
<b>HUMAN RIGHTS</b>					
Non-discrimination	G4-DMA	58	<a href="https://www.pttep.com/en/About%20PTTEP/Corporate%20Governance/CG%20and%20Business%20Ethics.aspx">https://www.pttep.com/en/About%20PTTEP/Corporate%20Governance/CG%20and%20Business%20Ethics.aspx</a>	-	3-5, 15-18
	G4-HR3	15	No cases of discrimination in 2015.	-	3-5
Supplier Human Rights Assessment	G4-DMA <sub>OGSS</sub>	18	-	-	2, 3-5, 15-18
	G4-HR10	18	-	-	2, 3-5
	G4-HR11	58	Information is currently unavailable. PTTEP will improve the data collection process.	-	3-5
Human Rights Grievance Mechanisms	G4-DMA	15	-	-	2, 3-5, 15-18
	G4-HR12	15	-	-	3-5
<b>SOCIETY</b>					
Local Communities	G4-DMA <sub>OGSS</sub>	36-37	-	-	12-14, 15-18
	G4-SO1	36	-	-	12-14
	G4-SO2 <sub>OGSS</sub>	36	-	-	12-14
	G4-OG10	36	-	-	-
	G4-OG11	58	No sites have been decommissioned.	-	-
Anti-corruption	G4-DMA <sub>OGSS</sub>	14-15	-	-	12-14, 15-18
	G4-SO3	58	<a href="https://www.pttep.com/en/About%20PTTEP/Corporate%20Governance/CG%20Assessment.aspx">https://www.pttep.com/en/About%20PTTEP/Corporate%20Governance/CG%20Assessment.aspx</a>	-	12-14
	G4-SO4	14-15	-	-	12-14
	G4-SO5	58	No corruption cases in 2015.	-	12-14
Compliance	G4-DMA	46	-	-	12-14, 15-18
	G4-SO8 <sub>OGSS</sub>	46	-	-	-
Supplier Assessment for Impacts on Society	G4-DMA	18	-	-	2, 12-14, 15-18
	G4-SO9	18	-	-	2, 12-14
	G4-SO10	58	Information is currently unavailable. PTTEP will improve the data collection process.	-	2, 12-14
Grievance Mechanisms for Impacts on Society	G4-DMA	36-37	-	-	12-14, 15-18
	G4-SO11	36-37	-	-	12-14
Asset Integrity and Process Safety	G4-DMA <sub>OGSS</sub>	34-35	-	-	12-14, 15-18
	G4-OG13	34-35	-	-	-

## About This Report

### Reporting Approach <sup>(G4-18)</sup>

The purpose of the 2015 PTTEP Sustainability Report is to convey material issues that were significant to our stakeholders and our Company during the 12 months of 2015. This report employs the Sustainability Report Guideline: Oil and Gas Sector Supplement (OGSS) of the Global Reporting Initiative's (GRI) G4 Guidelines Core Option, which is an internationally agreed upon reporting approach that comprises economic, social and environmental dimensions. PTTEP's sustainability performance content, which is presented in this report, has been approved by the SSHE-Sustainable Development Council.

The validity of the environmental and safety data disclosed in the 2015 PTTEP Sustainability Report has been independently audited by Lloyd's Register International (Thailand) Limited. The certification is included in the Statement of External Assurance section. PTTEP's financial statement has been externally audited by the Office of the Auditor General of Thailand, and the Audit Report is published in the PTTEP Annual Report.

### Stakeholder Engagement Approach <sup>(G4-25, G4-26)</sup>

PTTEP has engaged with six groups of stakeholders: 1) Government 2) Community and Society 3) Shareholders, Institutional Investors and Analysts 4) Suppliers and Contractors 5) Employees and 6) Independent Organizations, Industrial Associations and Press & Media. We established various stakeholder engagement activities to improve our sustainability practices as they pertain to the economy, society and the environment, and especially the efficiency of our business operations.



# About This Report

## Stakeholder Engagement Activities (G4-24, G4-26)



### Government

#### Engagement Approach

- ▶ Case-by-case meetings
- ▶ Monthly meetings with the Department of Local Administration

#### 2015 Performance Summary

- ▶ PTTEP usually consults with government officials to understand and supervise the effectiveness of mitigation measures.



### Suppliers and Contractors

#### Engagement Approach

- ▶ PTTEP Vendor Portal
- ▶ Recommendations and complaints

#### 2015 Performance Summary

- ▶ PTTEP developed a PTTEP Vendor Sustainable Code of Conduct for suppliers and contractors in order to provide information relevant to transaction activities among suppliers, contractors and PTTEP.



### Employees

#### Engagement Approach

- ▶ Employee engagement surveys
- ▶ CG Hotline
- ▶ PTTEP intranet

#### 2015 Performance Summary

- ▶ PTTEP implemented the employee engagement survey, to incorporate our EP SPIRIT values into the everyday behaviors of our employees.



### Independent Organizations, Industrial Associations and Press & Media

#### Engagement Approach

- ▶ PTTEP membership in various organizations

#### 2015 Performance Summary

- ▶ PTTEP collaborates with various independent organizations to mitigate and prevent social and environmental impacts by disclosing information in a transparent manner.



## Community and Society

### Engagement Approach

- ▶ Monthly meetings with community and civil society groups
- ▶ Public hearings
- ▶ Recommendations and complaints

### 2015 Performance Summary

- ▶ PTTEP proactively prevents impacts from our operations on communities and provides community and social projects that create benefits directly related to stakeholders' interests and PTTEP's social development strategy.



## Shareholders, Institutional Investors and Analysts

### Engagement Approach

- ▶ Annual shareholder general meeting
- ▶ Analyst meetings
- ▶ Shareholder and investor roadshows
- ▶ Recommendations and complaints

### 2015 Performance Summary

- ▶ PTTEP collates and provides precise information to our involved stakeholders, through a variety of engagement activities.

## Stakeholder Opinions <sup>(G4-27)</sup>

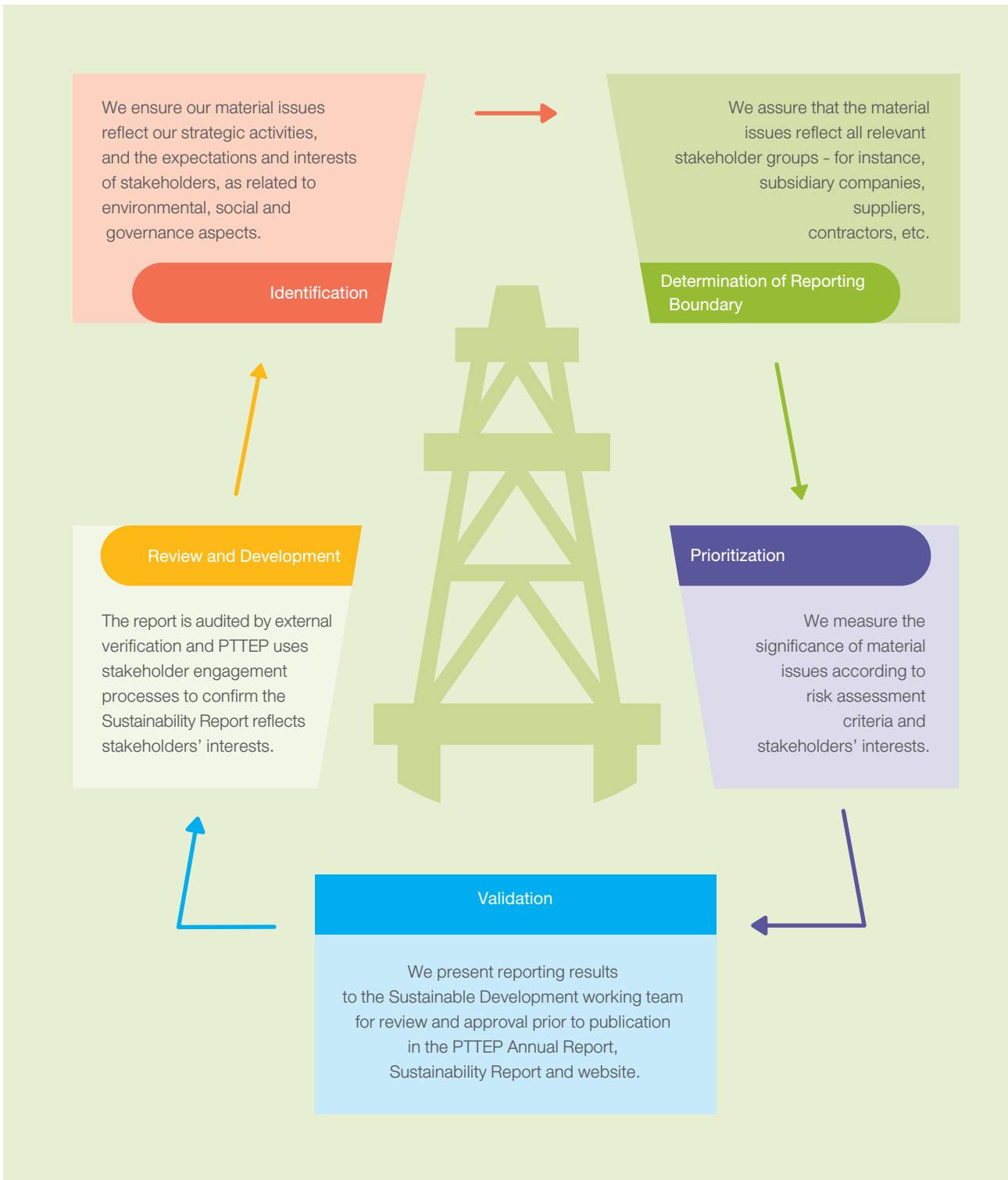
In 2015, PTTEP collected opinions from various stakeholder groups, including investors, contractors, customers and sustainability experts, through interviews and questionnaire surveys. The surveys measured stakeholders' satisfaction on material issues and brought about recommendations for improvement. Stakeholder opinions show that:

1. PTTEP should establish a strategy that allows stakeholders to engage in PTTEP's activities and minimizes impacts on all stakeholders. This will create value for all stakeholders and aid sustainable development.
2. PTTEP should prioritize material issues that have a direct impact on the Company by developing a risk mitigation strategy that will lessen potential risks and increase operational efficiency over the long term.
3. PTTEP should demonstrate the connection of social and environmental issues to our main organization strategy. Also, Corporate Social Responsibility (CSR) activities should obviously reflect organizational strategies and policies.
4. As a national energy company, PTTEP should widely promote the importance of energy by supporting research, development and education on the topic. Energy issues that relate to public education also include energy-efficiency improvement, energy access, energy security and sustainable energy over the long run.

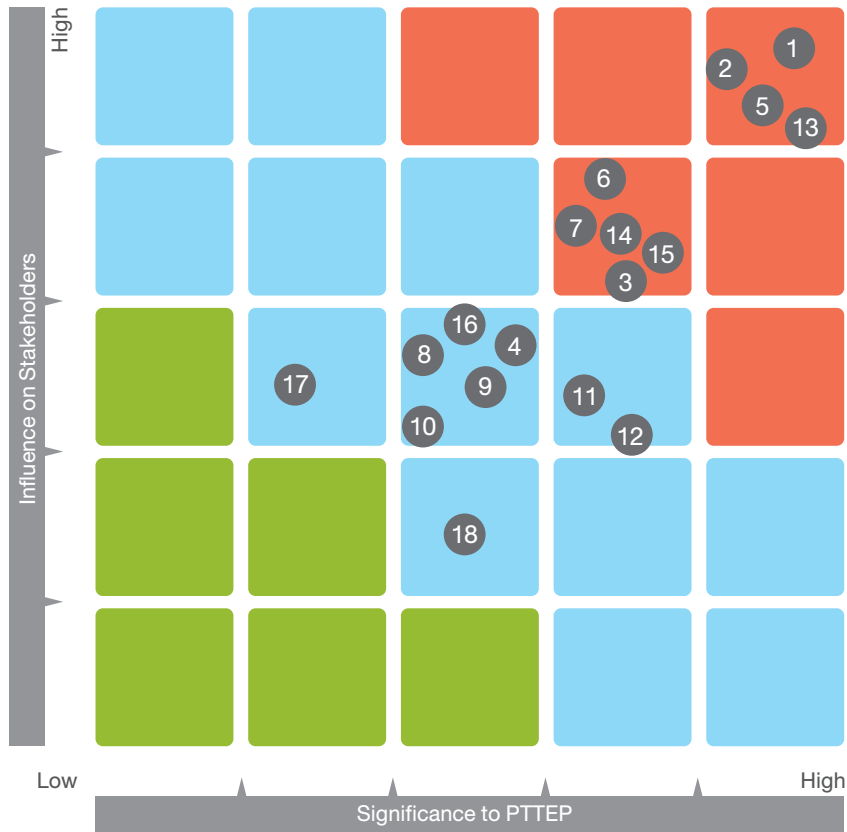
# About This Report

## Identification of Material Aspects (G4-18, G4-22, G4-23)

To identify material issues that are of significance to PTTEP and our stakeholders, we conducted a materiality assessment following the procedures below:



## 2015 Material Aspects <sup>(G4-19)</sup>



### Economic Dimension

1. Business Performance
2. Sustainable Governance
3. Supplier Risks Management
4. Risk Management

### Social Dimension

5. Process Safety and Asset Integrity
6. Human Capital Development
7. Social Impacts on Communities
8. Community Development
9. Talent Attraction and Retention
10. Labor Rights
11. Safety and Occupational Health
12. Security and Emergency Management

### Environmental Dimension

13. Spills
14. Water Management
15. Climate Change Adaptation
16. Operational Eco-Efficiency
17. Energy Efficiency
18. Biodiversity

## Scope and Reporting Boundaries <sup>(G4-17, G4-20, G4-21)</sup>

This report covers safety and environment information for both domestic and international operating sites where PTTEP is the operator. Financial information, especially budgets, has been verified by financial auditors and has been approved by the PTTEP Audit Committee/ Board of Directors prior to public disclosure. Furthermore, financial data are the same as published in our 2015 Annual Report, which has been verified by a third party. As PTTEP is a subsidiary of the PTT Public Company Limited, the information presented in this report is included in the PTT Corporate Sustainability Report as well.

# About This Report

## Summary of Material Aspects (G4-18, G4-20, G4-21)

Material Aspects	GRI Material Aspects	Chapters/Topics
1. Business Performance	▶ Economic Performance	▶ About PTTEP ▶ SD Performance Summary
2. Supplier Risks Management	▶ Supplier Environmental Assessment ▶ Supplier Assessment for Labor Practices ▶ Supplier Assessment for Impacts on Society ▶ Supplier Human Rights Assessment	▶ Promoting Business Integrity ▶ SD Performance Summary
3. Sustainable Governance	▶ Anti-corruption ▶ Labor Practices Grievance Mechanisms ▶ Human Rights Grievance Mechanisms ▶ Environmental Grievance Mechanisms ▶ Non-discrimination ▶ Compliance	▶ Promoting Business Integrity ▶ SD Performance Summary
4. Risk Management	-	▶ Promoting Business Integrity ▶ SD Performance Summary
5. Spills	▶ Effluents and Waste	▶ Protecting the Environment ▶ SD Performance Summary
6. Operational Eco-Efficiency	▶ Effluents and Waste ▶ Emissions	▶ SD Performance Summary
7. Water Management	▶ Water ▶ Effluents and Waste	▶ Protecting the Environment ▶ SD Performance Summary
8. Biodiversity	▶ Biodiversity	▶ Protecting the Environment ▶ SD Performance Summary
9. Energy Efficiency	▶ Energy	▶ Protecting the Environment ▶ SD Performance Summary
10. Climate Change Adaptation	▶ Emissions	▶ Responding to Climate Change ▶ SD Performance Summary



Material Aspects	GRI Material Aspects	Chapters/Topics
11. Human Capital Development	▶ Training and Education	▶ Developing Our People ▶ SD Performance Summary
12. Talent Attraction and Retention	▶ Employment ▶ Training and Education	▶ Developing Our People ▶ SD Performance Summary
13. Labor Rights	▶ Human Rights Grievance Mechanisms ▶ Supplier Assessment for Labor Practices	▶ Developing Our People ▶ SD Performance Summary
14. Safety and Occupational Health	▶ Safety and Occupational Health	▶ Developing Our People ▶ SD Performance Summary
15. Process Safety and Asset Integrity	▶ Asset Integrity and Process Safety	▶ Ensuring Safe Operations ▶ SD Performance Summary
16. Security and Emergency Management	-	▶ Ensuring Safe Operations ▶ SD Performance Summary
17. Social Impacts on Communities	▶ Local Communities ▶ Grievance Mechanisms for Impacts on Society	▶ Engaging with Community ▶ SD Performance Summary
18. Community Development	▶ Local Communities ▶ Indirect Economic Impacts	▶ Engaging with Community ▶ SD Performance Summary





# Survey of Readers' Opinions

Your suggestions will be valuable inputs for the improvement of the future PTTEP Sustainability Report.

1. Does the report provide you with an understanding of PTTEP sustainability?

- Yes, fully                       Yes, partially                       Not at all

2. Please rate your suggestion of the 2015 PTTEP Sustainability Report.

- |                      |                               |                                 |                              |                                       |
|----------------------|-------------------------------|---------------------------------|------------------------------|---------------------------------------|
| Completeness         | <input type="checkbox"/> High | <input type="checkbox"/> Medium | <input type="checkbox"/> Low | <input type="checkbox"/> Dissatisfied |
| Topics               | <input type="checkbox"/> High | <input type="checkbox"/> Medium | <input type="checkbox"/> Low | <input type="checkbox"/> Dissatisfied |
| Ease to understand   | <input type="checkbox"/> High | <input type="checkbox"/> Medium | <input type="checkbox"/> Low | <input type="checkbox"/> Dissatisfied |
| Report design        | <input type="checkbox"/> High | <input type="checkbox"/> Medium | <input type="checkbox"/> Low | <input type="checkbox"/> Dissatisfied |
| Overall satisfaction | <input type="checkbox"/> High | <input type="checkbox"/> Medium | <input type="checkbox"/> Low | <input type="checkbox"/> Dissatisfied |

3. What additional issues should be included in the PTTEP Sustainability Report?

.....  
.....  
.....

4. Please provide further comments and/or suggestions (if any).

.....  
.....  
.....

5. Which best describes you as a stakeholder?

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Shareholder / Investor        | <input type="checkbox"/> Government Agency | <input type="checkbox"/> Media  |
| <input type="checkbox"/> Supplier                      | <input type="checkbox"/> Employee          | <input type="checkbox"/> Research / Academic Institute                    |
| <input type="checkbox"/> Student                       | <input type="checkbox"/> NGO               | <input type="checkbox"/> Communities surrounding<br>PTTEP operation areas |
| <input type="checkbox"/> Others (please specify) ..... |  |   |

PTTEP appreciates your valuable inputs.



2015 SUSTAINABILITY REPORT

# LEAP

TOWARDS A SUSTAINABLE  
FUTURE



บริการธุรกิจตอบรับ



ใบอนุญาตเลขที่ ปน (น) 3225 ปณศ. จตุจักร  
ถ้าฝากส่งในประเทศไม่ต้องผูกตราไปรษณียากร

กรุณาส่ง

บริษัท ปตท.สำรวจและผลิตปิโตรเลียม จำกัด (มหาชน)  
ฝ่ายสื่อสารองค์กร  
ศูนย์เอนเนอร์ยีคอมเพล็กซ์ อาคารเอ ชั้นที่ 6, 19-36  
เลขที่ 555/1 ถนนวิภาวดีรังสิต แขวงจตุจักร  
เขตจตุจักร กรุงเทพฯ 10900



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**FUTURE**



[www.pttep.com](http://www.pttep.com)



**PTT Exploration and Production  
Public Company Limited**

**PTTEP**

Energy Complex Building A, Floors 6, 19-36  
555/1 Vibhavadi Rangsit Road, Chatuchak Bangkok 10900, Thailand  
Tel: +66 (0) 2537 4000 Fax: +66 (0) 2537 4444  
[www.pttep.com](http://www.pttep.com)

