



## 2014 SUSTAINABILITY REPORT



# EXPLORING FOR A SUSTAINABLE HAPPINESS

MEMBER OF

**Dow Jones  
Sustainability Indices**

In Collaboration with RobecoSAM 



**PASSION**  
STARTS HERE

our **PASSION**

GROWTH

BALANCE

VALUE

HARMONY

AND **HAPPINESS**  
SPREADS EVERYWHERE



GROWTH

VALUE

HARMONY

AND  
**SUSTAINABILITY**  
IS OUT THERE



BALANCE

our PASSION

**DEDICATION**  
STARTS HERE

# ZAWTIKA PARTNERSHIP FOR PROSPERITY



AND  
**SUCCESS**  
IS OUT THERE

Passion to Explore for a Sustainable Future



**PTTEP**



# 25 YEARS OF *EXCELLENCE* PTTEP IN MYANMAR



**DEDICATION**  
STARTS HERE

SHARING KNOWLEDGE,  
EXPERTISE, AND EXPERIENCE

IMPROVING THE  
QUALITY OF LIFE

PTTEP has been working with national partners to improve the quality of life for people living in communities across Myanmar as the Company social commitment to the country. Thousands of people have been touched by various programs in community development, healthcare and education.

From building new schools and hospitals, to supporting the healthcare system, and providing educational scholarships to students, we have been supporting the community since launching operations in Myanmar in 1989. These projects have been implemented not only within areas where we operate, but extend to other communities where support is needed.

"PTTEP Myanmar has witnessed how these programs have delivered sustainable results which are truly beneficial to communities," said Kanok Intharawijitr, Former General Manager of PTTEP Myanmar.

## COMMUNITY DEVELOPMENT

Supporting the basic needs of communities through socio-economic development programs is the top priority, spread across public infrastructure, utility supplies and religion support.

Under these programs, more than 4,000 students are studying in 13 schools in Dawei areas, where clean drinking water systems have been provided.

*"Before, we used to fetch water from the artesian well opposite to the school. We feel that the water from the filtering buckets is much cleaner and healthier for us," said Myo Sat Paing, a Grade 7 student at Kaung Mhu Post Primary School*



Besides, several significant infrastructure projects have been initiated which included the construction of schools, community clinics, renovation of hospitals with medical equipment contribution, the installation of hygienic toilets, establishing power supply systems, upgrading roads, and supporting local community's religious centers.

#### HEALTHCARE

Part of our drive to improve the livelihoods of people in Myanmar also extends to healthcare. PTTEP is leading a program to fight intestinal parasites, which can lead to serious health problems in general.

The "Parasite-Free Schools Initiative" was launched in 2010 and the cumulative number of pupils covered by the program has increased from 622 in 2010 to 6,069 in 2014, resulting in a dramatic fall in the number of cases of infection from 41.5% in 2009 to 15.4% in 2014. In Daminseik Village, Dr Kalayar Htun, a public health specialist from Yangon, visits students every year to teach them about basic health hygiene. She also maintains records of each student so her team can monitor their health over several years.

*"We want to reduce the rate of infection as much as possible. If we find students with serious infections, it would be good if we could also check other members of the families, so that we can treat them all. That's my plan for the future," she emphasizes.*



# ZAWTIKA PARTNERSHIP FOR PROSPERITY



UPGRADING THE LIVING STANDARDS

BENEFIT OF BOTH COUNTRIES

AND **SUCCESS** IS OUT THERE

## EDUCATION

PTTEP has long been a leading education patron in Myanmar, providing scholarships to local students, state officials and the general public, helping develop the necessary human capital for Myanmar's future development.

Funding from the Company on education programs has increased significantly since it began providing support with a 700 US dollars donation in 2009 as a foundation. Since then, the Company expenditure on education programs has escalated rapidly in recent years, with funding of 374,700 US dollars in 2013 and 418,804 US dollars in 2014.

Hundreds of nationals have benefitted from the funding, ranging from master's degree scholarships at overseas institutes to vocational training. The most recent extensive program was for the provision of scholarships to 70 students to pursue studies in petroleum production technology at the IRPC Technological College in Rayong Province in Thailand.

Thiri Wai, one of the scholars, had long dreamed of becoming a teacher, but thought it would not be achievable because her family could not afford. Thanks to her strong academic record and PTTEP, she can make her dream come true.

*"I have no worries now because I am supported by PTTEP," she says. "I intend to do my best to build a better future for me and my family and believe that I can make it."*



# CONTENTS



**10** Message from the President and CEO

**12** About PTTEP

**13** PTTEP Business

**16** E&P Projects and Shareholding Structure of PTTEP

**18** Sustainability Management

**20** Good Corporate Governance



**21** Organizational Structure

**23** Business Ethics and Human Rights

**25** Risk and Crisis Management

**29** Supply Chain Management

**32** Green Practices

**34** Operational Eco-Efficiency



**37** Energy and Climate Change Management

**40** Biodiversity

**42** Safety Culture

**44** PTTEP Employees

**48** Managing Impacts on Communities

**50** Community and Social Development



**56** SD Performance Summary

**62** Awards & Recognition

**64** Statement of External Assurance

**66** GRI Content Index & UNGC Principles

**71** About This Report

**77** Survey of Readers' Opinions

10 Message from the President and CEO



As part of our global petroleum exploration and production operations, PTTEP strives for a balance that creates long-term value for business, society and the environment. Our vision is to become a leading Asian exploration and production company driven by technology and green practices.

It is necessary for PTTEP to balance economical, societal and environmental factors as part of our operations to maintain success in the challenging petroleum exploration and production (E&P) industry. From geological conditions that render access to reserves difficult and demand diverse technologies, to areas with increased environmental, social and political risks, we fully recognize that E&P cannot be viewed simply as a profit-seeking endeavor. Instead, an important element of our strategy is to sustainably incorporate social and environmental concerns into our business operations.

PTTEP has adopted a robust risk management system into our business strategy in preparation for potential global economic turmoil. We have also adjusted our organizational structure to increase management efficiency, improve resource management and enhance our financial liquidity. In terms of investment expansion, PTTEP has invested in deepwater petroleum exploration in Brazil - a first step in expanding our investments to Latin America. We acquired Hess Corporation (Thailand) to raise our production capacity and petroleum reserves, and signed a Production Sharing Contract on the MOGE 3 Site in the Republic of the Union of Myanmar. Over the past year, we have achieved success in commencing gas production under the Zawtika Project, effectively delivering gas to both Myanmar and Thailand.

With our determination to conduct business in an environmentally and socially responsible manner, PTTEP has in place a Climate Change Management Strategy that specifies our target to reduce greenhouse gas emissions by 20% from operations and increase energy efficiency by 5% from 2012 as a base year. For these efforts, we were given the "Best CDP Performance Score for Hong Kong and Southeast Asia" Award. In addition, we remain mindful of

the health and safety of our employees and contractors; since 2011, we have implemented Safety, Security, Health and Environment (SSHE) initiatives to strengthen our SSHE Culture. Examples of these initiatives include the Step Change in the SSHE Project, the "Life Saving Program," and annual SSHE training and workshops.

During the past 29 years, we have conducted our business under strict adherence to the rule of law, good corporate governance principles, and respect for local cultures, traditions, and human rights. Our standards of procedures and regulations comply with international standards and, in 2014, we adopted a Company-wide Human Rights Policy. These achievements, among others, led to our recognition in 2014 as a Dow Jones Sustainability Indices (DJSI) Listed Company in the World Oil and Gas Sector for the first time, which confirms our conviction in advancing our business along the path of sustainable growth.

PTTEP wishes to thank our shareholders, business partners, relevant government agencies, and management and employees for their continued commitment towards the Company sustainable growth. To prepare for business expansion, we have appropriately aligned our strategies, personnel and resources. We remain committed to conducting business under ethical practices and good governance, in combination with our corporate responsibility to society and the environment. In the coming years, we will strive towards sustainable business growth while delivering results to our stakeholders.



Mr. Tevin Vongvanich  
President and Chief Executive Officer

## About PTTEP

PTTEP is committed to our mission of expanding business in the country and overseas to ensure energy security, while sustainably creating value for our stakeholders.



<p>Sales Revenue increased by <b>5%</b> compared to last year</p>	<p>Sales of Petroleum increased from <b>292,629</b> to <b>321,886</b> barrel of oil equivalent per day (BOED)</p>
<p>Net Income in 2014 <b>677</b> million US dollars</p>	
<p>Social Contribution <b>44.5</b> million US dollars</p>	<p>Total Employees of <b>4,547</b></p>

### ▶ 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

### Values

<b>E</b>	<b>P</b>	<b>S</b>	<b>P</b>	<b>I</b>	<b>R</b>	<b>I</b>	<b>T</b>
Explorer	Passion	Synergy	Performance Excellence	Innovation	Responsibility for Society	Integrity and Ethics	Trust and Respect

# PTTEP Business

We clearly identify the direction of our business and set achievable targets to ensure energy security for the society now and in the future.



<b>BIG</b> Production	<b>LONG</b> Reserves and Resources Life	<b>STRONG</b> Competitive Performance
<b>Target</b>		
Increase production capacity to 600,000 BOED by 2020	Maintain proved reserves life (R/P Ratio or 1P/Production) to greater than 10 years and resources life ((2P+2C)/Production) to greater than 40 years	Operate the business to deliver return on capital employed (ROCE) above the exploration and production (E&P) industry average and maintain the Company credit rating in line with Thailand's
<b>Progress in 2014</b>		
<ul style="list-style-type: none"> <li>▶ Increase in overall production from last year by 7.8% as Zawtika Project was able to deliver first gas, Montara Field increased production and we acquired Hess (Thailand) Limited, increasing ownership in Contract 4 Project and Sinphuhorm Project</li> </ul>	<ul style="list-style-type: none"> <li>▶ Reserves-to-production ratio (R/P Ratio or 1P/Production) of 5.9 years</li> <li>▶ On-going investment expansion in South America, as high-potential petroleum discovery areas with an agreement to acquire 20% of Concession Block BM-ES-23 in Brazil</li> <li>▶ Success in restructured ownership of Mariana Oil Sands Project (previously known as Canada Oil Sands KKD Project) resulted in more Contingent Resources (2c)</li> <li>▶ Investment in onshore petroleum exploration Concession Block MOGE 3 to enhance exploration capacity</li> </ul>	<ul style="list-style-type: none"> <li>▶ Bond issue worth 1,600 million US dollars including hybrid bonds worth 1,000 million US dollars and synthetic bonds worth 600 million US dollars</li> </ul>

## Strategic Plans for 2015

As the national petroleum E&P Company, PTTEP main responsibilities are to ensure energy security for Thailand and grow sustainably in line with international standards. However, there are challenges in the industry related to the rapid change of environmental conditions, reduced petroleum fields and increasingly complex geological conditions. Therefore, as part of our sustainable operations, we must strive to advance our knowledge and technology while considering the environment and society.

Moreover, external factors such as decreasing oil prices in the global market have impacted PTTEP business operations. As a result, we redirected our investment strategy to reduce costs, while balancing business growth and sustainable, long-term benefits:

- ▶ The cost for maintaining the production rate of projects that are in the production phase will not be reduced.
- ▶ Final investment decision will be made for projects that are in the development phase but require large amounts of investment.
- ▶ Exploration projects will be focused on areas with low risks and operations will be based mainly on commitments with the government.
- ▶ Mergers and Acquisitions will be focused on projects that are moving toward to production phase in order to increase the reserves and revenues for the Company in short term.
- ▶ We will incorporate SAVE to be SAFE, a work plan aimed at reducing short and long-term capital through optimization, standardization, integration of work plans, incorporation of new technology, and office-related costs such as consultation, travel, and technology information support.

To achieve these targets, PTTEP has strategic action plans as follows:

### Existing Asset Value Optimization

To optimize the value of existing assets, PTTEP invests in 43<sup>1</sup> petroleum E&P projects in 11 countries, which are classified by phase as follows:

- ▶ **Production:** PTTEP focuses on maintaining the production level of our current domestic and overseas assets by enhancing operational efficiency and integrity and exploring concession areas. In addition, the Company aims to accelerate exploration and development in the concession areas to increase petroleum reserves and sustain production. This effort satisfies domestic petroleum demand and generates our present and future revenues.
- ▶ **Development:** Projects in the development phase will increase production levels and proved reserves and generate income and add value to the Company in the near future in order to replace projects that have decreasing production rates. PTTEP focuses on completing projects and operates in accordance with targeted plans and budgets, and, in response to decreasing oil prices, we also plan to review the final investment decision on projects that require significant capital for development.
- ▶ **Exploration:** Exploration assets are essential for PTTEP sustainable growth as they will increase reserves and production rates in the future. The Company emphasizes the management of our exploration portfolio and acceleration, through our development plans, of projects that have high petroleum potential.

### Growth Investment

Growth investment through new exploration acreage and Mergers & Acquisitions (M&A), especially of new projects ready to yield, to increase the productivity and investments in areas that are significant to our growth platform.

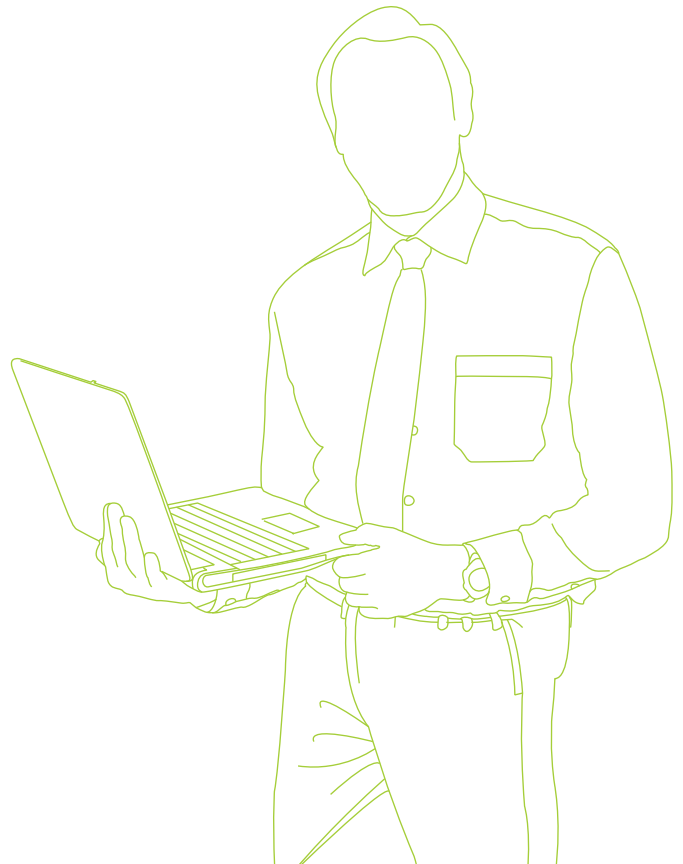
<sup>1</sup> Excluding Indonesia Sadang, Indonesia Semai II and A4/48 & A5/48 projects which PTTEP has submitted relinquishment documents to the respective governments of each project and been waiting for the official approval.



## Enablers

Corporate capability enablers are important to ensure effective operations. PTTEP has enhanced our organizational capabilities in the following areas:

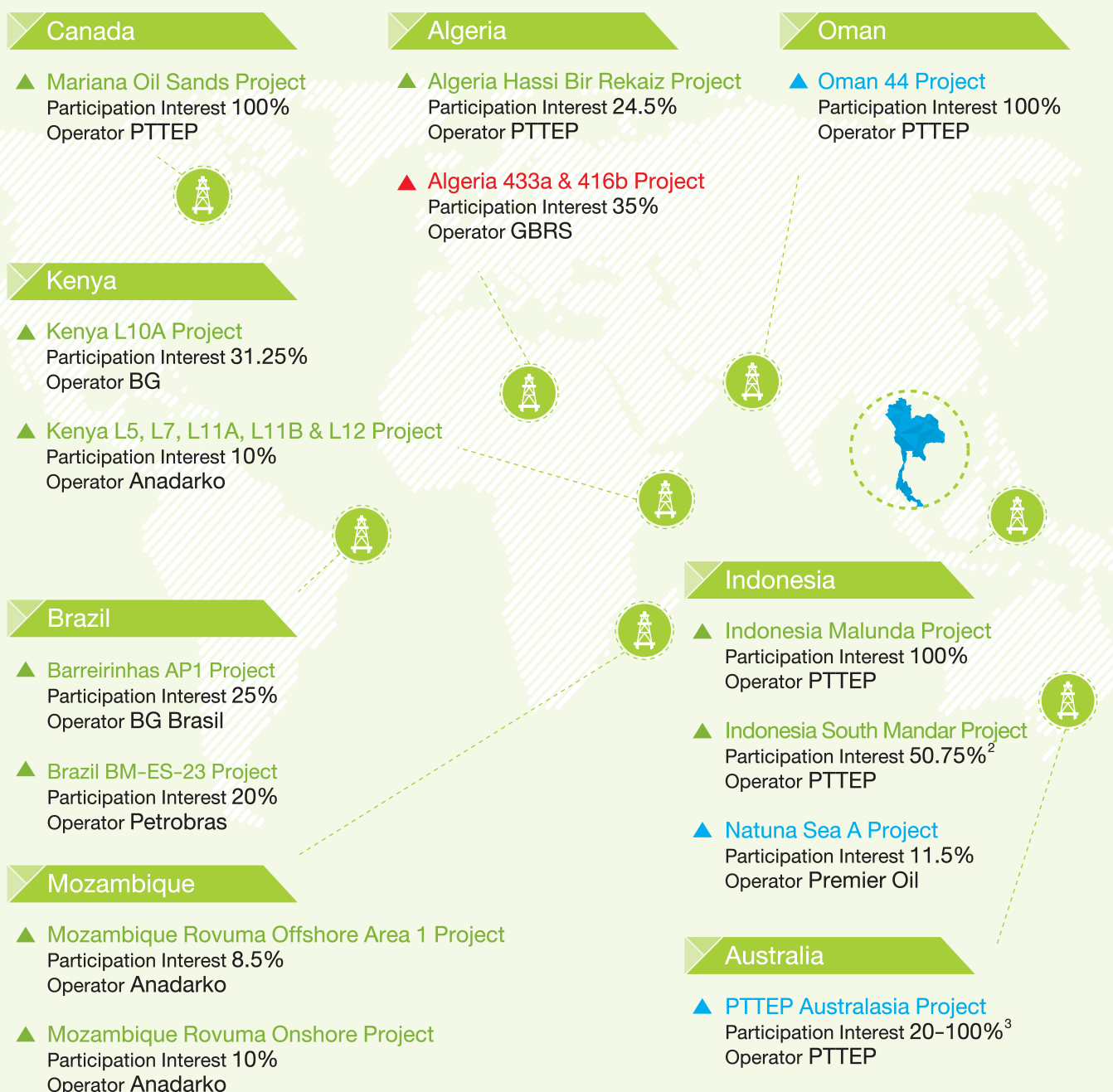
- ▶ For finance management, the Company has funded mobilization plans that align with our planned investments, to maintain our debt-to-shareholder equity ratio and debt-to-reserves ratio at appropriate levels and maintain PTTEP credit rating. In addition, we continually monitor currency risk, interest rates and liquidity. The Company is building financial and accounting management capacity, through both processes and resources, to meet world-class levels.
- ▶ For acceleration of knowledge, technology and research capacity, the Company needs to be in line with growth plans by creating a Capability and Technology Development Roadmap to ensure we operate in accordance to strategic plans. Such actions include increasing success in exploration, increasing production rate, unconventional operations, and deepwater project development, as well as the development of an R&D Technology Center as sources for research for the Company.
- ▶ For systems development, operational procedures and organizational structure should be in line with the strategies and business plans to invest and operate overseas, such as the global operating model/organization, etc.
- ▶ For human resources management and organizational capability development, in order to compete internationally, PTTEP not only needs to have sufficient qualified personnel, but we also must constantly further their capabilities and enhance leadership skills, as well as the level of commitment and sense of belonging. In addition, the Company corporate values, which have been molded around EP SPIRIT, is being constantly cultivated. It is a key to development and foundation of growth for the PTTEP.
- ▶ For sustainable development, PTTEP incorporates social and environmental factors into our business decision-making process. Through this process, we can operate sustainably and build trust with business partners, government officials of host countries, communities and employees. We also cultivate a governance risk compliance culture to ensure the effectiveness and efficiency of our operations, and incorporate social, community and environmental consideration into CSR management. We continually work to improve our Safety, Security, Health and Environment (SSHE) system and enhance our SSHE culture, with a target of zero accidents, allowing us to retain our license to operate. PTTEP uses the Dow Jones Sustainability Indices (DJSI) as an indicator to assess the corporate sustainable development at the international level. In 2014, PTTEP was listed as a DJSI member, and we plan to remain listed.



E&P Projects and Shareholding Structure of PTTEP

 Business Overview

PTTEP core business is exploration and production of petroleum in Thailand and foreign countries. As of December 31, 2014, PTTEP had 43<sup>1</sup> petroleum exploration and production projects in 11 countries. 19 projects were under the exploration phase, 2 projects were under the development phase, and 22 projects were under the commercial production phase.



 Production phase     Development phase     Exploration phase

### Myanmar

- ▲ Myanmar M3 Project  
Participation Interest 80%  
Operator PTTEP
- ▲ Myanmar M11 Project  
Participation Interest 52.9412%  
Operator PTTEP
- ▲ Myanmar PSC G & EP 2 Project  
Participation Interest 90%  
Operator PTTEP
- ▲ Myanmar MD-7 and MD-8 Project  
Participation Interest 100%  
Operator PTTEP
- ▲ Myanmar MOGE 3 Project  
Participation Interest 85%  
Operator PTTEP
- ▲ Zawtika Project  
Participation Interest 80%  
Operator PTTEP
- ▲ Yadana Project  
Participation Interest 25.5%  
Operator TOTAL
- ▲ Yetagun Project  
Participation Interest 19.31784%  
Operator Petronas

### Vietnam

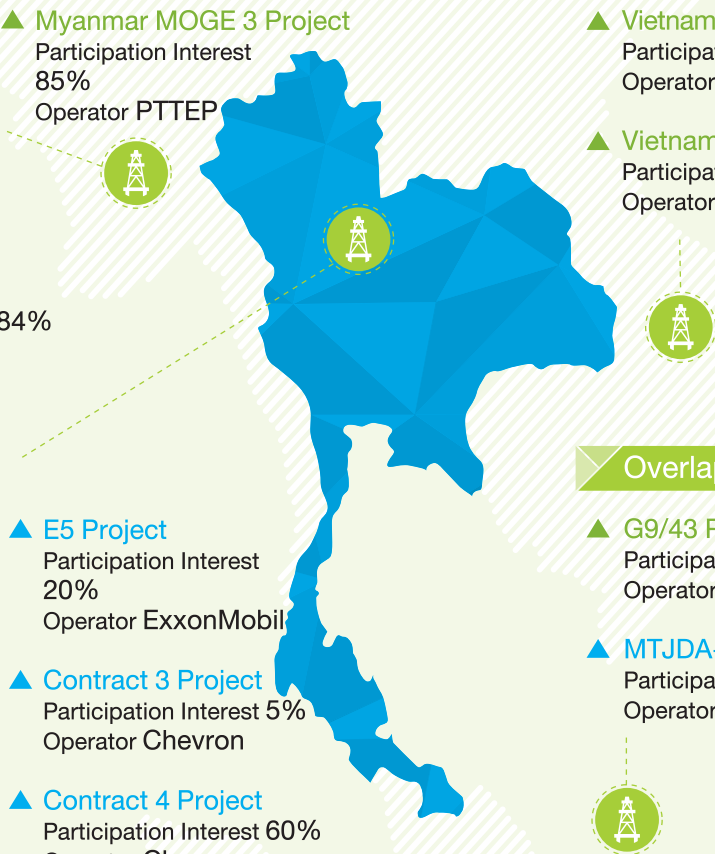
- ▲ Vietnam 9-2 Project  
Participation Interest 25%  
Operator HV JOC
- ▲ Vietnam 16-1 Project  
Participation Interest 28.5%  
Operator HL JOC
- ▲ Vietnam B & 48/95 Project  
Participation Interest 8.5%  
Operator Chevron
- ▲ Vietnam 52/97 Project  
Participation Interest 7%  
Operator Chevron

### 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%  
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
- ▲ L28/48 Project  
Participation Interest 70%  
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  
Participation Interest 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

### Overlapping Area

- ▲ G9/43 Project  
Participation Interest 100%  
Operator PTTEP
- ▲ MTJDA-B17 Project  
Participation Interest 50%  
Operator CPOC



<sup>1</sup> Excluding Indonesia Sadang, Indonesia Semai II and A4/48 & A5/48 projects which PTTEP has submitted relinquishment documents to the respective governments of each project and been waiting for the official approval.

<sup>2</sup> Waiting for the official approval from Indonesian government to change the participation interest resulting from Talisman's withdrawal from the project. After the approval, PTTEP will hold 50.75% participation interest (increasing from 34%) and TOTAL will hold 49.25% participation interest of the project.

<sup>3</sup> PTTEP Australasia Project holds many petroleum blocks which have various participation interest from 20-100%.

PTTEP is committed to building a sustainable foundation for future growth by striving to meet our business objectives, conserving the environment and also generating benefits to society.



In 2014, PTTEP became a listed company, (member) of the Dow Jones Sustainability Indices (DJSI) in Sustainability World Index of the Oil and Gas Industry. DJSI, a family of indexes evaluating the sustainability performance of major companies around the world, is the longest-running global sustainability benchmark that analyzes corporate economic, social and environmental performances. DJSI is the key reference point in sustainability investing for investors and companies alike.

MEMBER OF

**Dow Jones  
Sustainability Indices**

In Collaboration with RobecoSAM 

PTTEP 2014 DJSI World Oil and Gas Index member status emphasizes our vision of becoming a leading Asian exploration and production company driven by technology and green practices. Such an achievement brings forth the challenges of maintaining our membership status, as well as continuously improving our sustainability performances. In order to do so, PTTEP will continue to operate our business under the guidance of our sustainability management framework.



### Sustainability Management Structure

After undergoing organizational restructuring to accommodate the Company long term strategies, PTTEP established the Technology and Sustainability Development Group to manage the overall picture of sustainable development. The Sustainability Strategy Section is directly responsible for determining corporate level strategies pertaining to sustainability, developing work plans and targets, coordinating and communicating with all functional groups for the adoption and implementation of these work plans. The Sustainability Strategy Section also acts as Secretariat for the

Sustainable Development (SD) Working Team, and reports directly to the Executive Vice President of the Technology and Sustainable Development Group (who is also Chairman of the SD Working Team). The SSHE-Sustainable Development Council (SSHE-SD Council), chaired by PTTEP President and CEO, with members composed of all top management from each functional group as well as relevant parties, governs the Sustainable Development Working Team. The SSHE-SD Council endorses & manages policy, authorizes strategies, ensures that sustainability targets are achieved, and provides necessary resources for implementation.

In 2014, the SSHE-SD Council convened quarterly (four times) to review and approve various roadmaps, strategies and projects concerning the Company sustainability operations such as the 2014 DJSI Continuous Improvement Plan, Greenhouse Gas Emissions Reduction and Offsetting Roadmap, Reforestation Plans, Thailand Voluntary Emission Reduction Program (T-VER), and Sustainable Development Communications Plan.

 Sustainability Management

PTTEP Sustainability Management framework provides clear guidelines and expectations that are derived from our Sustainable Development G.R.O.W.T.H Policy. In addition to the sustainability management framework, PTTEP also has a Sustainable Development Guideline, which incorporates the expectations and a way of conduct for business growth, environmental stewardship and social development dimensions. Each division and/or department has its own duty and responsibility for promoting these sustainability standards for organizational excellence.

SD Day Event 2014

PTTEP organized the first SD Day Event in 2012 with objectives to create awareness and build knowledge and understanding of sustainable development for employees and various target groups, as well as portraying “PTTEP’s Journey towards Sustainable Development”. On 28 October 2014, PTTEP hosted the SD Day annual exhibition event on PTTEP’s Journey towards Sustainability or 2014 SD Day under the theme “We All Play a Part”. The event clearly demonstrated our PTTEP corporate values (EP SPIRIT) on “Synergy” as the exhibition event included all three sustainability dimensions, aspects and various business drivers from across functional groups known as enablers that PTTEP employs to achieve our vision and mission ultimately, sustainability. There were a total of 10 business enablers (business tools) at the exhibition which included the following: PTTEP Sustainable Development Framework, Policy, Strategy and Achievements on DJSI; Robust Corporate Strategy; PTTEP Corporate Values (EP SPIRIT); Energy Fact - Important facts on Thailand’s energy sector; Energy Myths and Truths revealed; Corporate Social Responsibility (CSR); Green Practices; Operational Excellence, Corporate Governance and Business Ethics; Risk Management & Business Continuity Management; and Internal Control. There were approximately 1,400 participants, including guests from PTTEP and the other companies under PTT Group.

SD Day: PTTEP’s Journey towards Sustainability



“PTTEP has implemented concrete policies, strategies and guidelines for sustainable development, for the purpose of realizing energy security for the nation and awareness for the environment, society and community. Sustainability is a critical driver in our joint-venture and investment decisions, and we are determined to advance together with the nation in the midst of a rapidly changing world.

This is the third year that PTTEP has organized the SD Day Event: “PTTEP’s Journey towards Sustainability” whereby highlighting the fact that for a Company to attain sustainability, this must originate from employees themselves — in the way they think, act and work. Such qualities, apart from creating sustainability, will help the Company achieve our 2020 business targets.”

**Mr. Tevin Vongvanich**  
President and Chief Executive Officer



PTTEP Board of Directors and Management have the responsibility of defining the Company business direction and strategy under our Good Corporate Governance & Business Ethics policy, to maximize benefits for PTTEP and our shareholders.



Good Corporate Governance

The Board of Directors (“the Board”) and Management, whose duties and responsibilities are clearly specified under this policy, consciously set good examples for all employees and build respect among relevant stakeholders.

 Governance Structure

The Board is responsible for overseeing PTTEP overall operations and leading the Company in a more sustainable business direction. Consequently, the Board must consider factors such as the economy, society and environment; Board composition and member qualifications; and its legal obligations under relevant rules and laws. Such regulations include: public company laws, securities and exchange laws, rules of the Securities Exchange Committee (SEC), the Capital Market Supervisory Board (CMSB)

and Stock Exchange of Thailand (SET), relevant Cabinet resolutions, and best practices in corporate governance. Business plans approved by the Board are adopted by Management, which then play a vital role in implementing strategies to achieve business objectives.

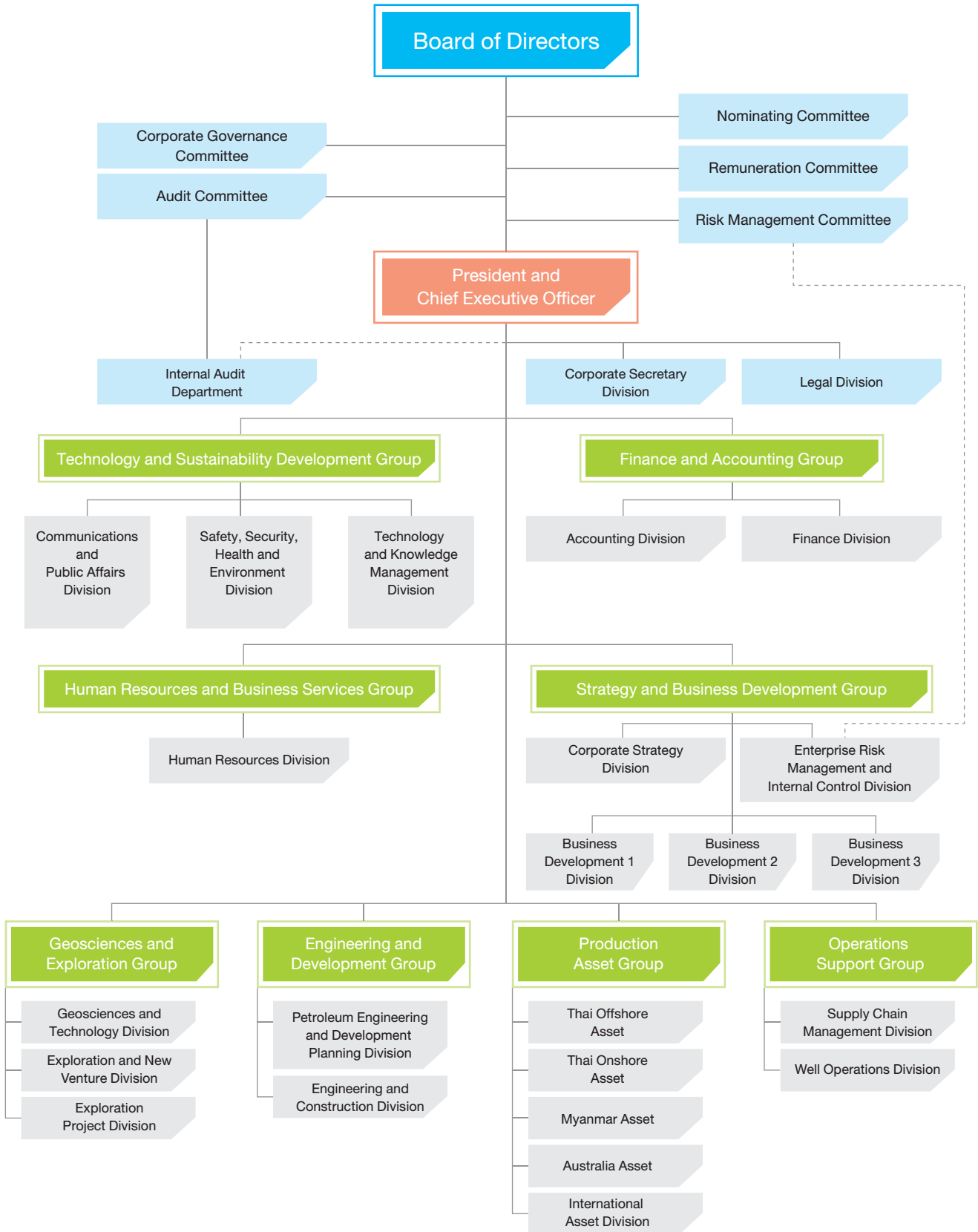
To achieve efficiency and transparency in management practices, PTTEP separates the role of Chairman of the Board from that of the President and Chief Executive Officer (CEO). Furthermore, the Chairman must be a Non-Executive Director, maintaining a balance in the governance of management and business operations.

As of 31 December 2014, the Board consisted of 14 members as follows:

Classification of Board Members	Members
Non-Executive Director (Excluding Independent Director)	5
Executive Director	1
Independent Director (More than 50% of current members must be Independent Directors)	8
<b>Total</b>	<b>14</b>

Note: PTTEP is currently recruiting for an additional Director position.

Organizational Structure





### Board Selection and Nomination

PTTEP Nominating Committee has the primary responsibility of recruiting talents to be the Board of Directors. The Committee evaluates a variety of criteria for a mix of skills, experience, occupations and other specialized qualifications to fill areas where the Board may be lacking and which they consider necessary to our business. The Committee considers candidates from diverse backgrounds and does not discriminate based on conditions such as gender, nationality or other status. Possible conflicts of interest between Board members are also taken into consideration.



### Board Assessment

PTTEP conducts performance assessments of the Board, Chairman, and the President & CEO on an annual basis. The Board of Directors and Chairman are evaluated by using assessment forms and scores calculated from Board Performance Targets; the President and CEO is assessed according to the Performance Agreement previously approved by the Board, which also incorporates the Company KPIs during that year to enable a straightforward and transparent process.

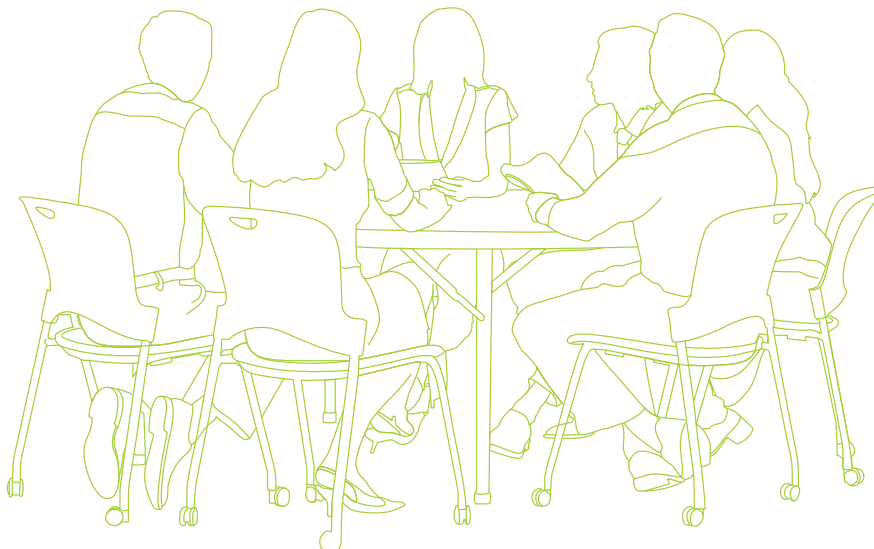


### Communication with the Board of Directors

The Board of Directors holds regular monthly meetings, with additional sessions held as required. Meeting agendas are predetermined and relevant materials and information are distributed before hand to facilitate decision-making during Board meetings. In 2014, there were a total of 14 Board Meetings and 84

agenda proposals submitted for approval, comprising issues such as organizational restructuring, the strategic direction and policies of PTTEP operations, annual budget and financial statements, and potential business strategy adjustments to respond to the oil price crisis. The Board also discussed investments in various projects, participation in the Private Sector Collective Action Against Corruption (CAC), and revisions to the CG&BE policy. On governance-related matters, the Board discussed nominations, elections and appointments of Directors, Sub-committees members and Vice-Chairmen; performance assessments of the Board; and revisions or new issuances of Company regulations, such as the revisions to the Risk Management Committee regulations in 2005 and regulations issued on the management of investment projects in 2014.

PTTEP has established an electronic communication channel for our minor shareholders to freely communicate with Independent Directors and enquire about diverse issues such as the Board's current activities, good governance practices and auditing, etc. Minor shareholders can also contact the Corporate Secretary Office or the Investor Relations Division directly for information. Furthermore, during the annual general meetings of shareholders, minor shareholders have the opportunity to ask questions and express their opinions related to the Company, the Board, and Senior Management. In this way, PTTEP works to build trust and open communication among our stakeholders.





PTTEP believes that it is essential for a sustainable business to operate under responsible corporate governance and business ethics. This belief is reflected in the values and culture of our Company, and in our conduct towards our employees, suppliers and shareholders.



### Business Ethics and Human Rights



#### Business Ethics

All PTTEP management and employees conduct business according to the principles of our Company-wide CG&BE policy. The Board of Directors assumes direct responsibility for communicating CG&BE issues across the Company to ensure compliance. We make available various activities and e-learning channels through the internet and mobile devices, and administer a knowledge test to gauge understanding of our CG&BE policy. A total of 2,737 management and employees, or 70% of PTTEP personnel, have so far participated in CG&BE activities and passed the test. We will integrate these findings into relevant planning processes in 2015.

Apart from our compliance with CG&BE, PTTEP follows the Ten Principles of the United Nations Global Compact, which defines core values in the areas of human rights, labor standards, the environment and anti-corruption in business practices. PTTEP has in place policies, strategies and committee with clearly established mandates to uphold these commitments.

### Good Corporate Governance & Business Ethics (CG&BE) Workshop



We regularly hold CG&BE workshops to review employee understanding of CG&BE principles. The Director of the Corporate Governance Committee, President and CEO, and Management of Functional Groups attend all workshop sessions to demonstrate their own commitment to the policies, with the expectation that every employee will display similar responsibility. The workshop incorporates fun and creativity into interactive discussion prompts and work-related role-playing scenarios, and provides opportunities for employees to engage and share their thoughts in each case. Ultimately, the purpose is to promote awareness of ethical business practices according to CG&BE that employees can later incorporate into their daily work lives.

In 2014, we organized a total of six CG&BE workshops that were attended by 699 people, mainly management and employees of functional groups, as well as management and employees of PTTEP S1 Project. Based on our evaluation results, we found that employees displayed a 44.96% increase in understanding of CG&BE.



### Anti-Corruption



PTTEP believes that an integrated management mechanism that covers all aspects of business is necessary to combat corruption, and this key principle is reflected in our CG&BE policy. In 2014, we established a committee to revise our corruption policy as it related to issues such as anti-corruption, political neutrality, conflicts of interest, procurement and contracts, receipt of gifts and entertainment and other benefits, and prevention of money laundering.

Furthermore, PTTEP has signed on to become a member of the Thailand Private Sector Collective Action Coalition Against Corruption (CAC). As part of our membership, the Director of the Audit Committee was appointed as Internal Auditor during the self-appraisal of our Anti-Corruption measures, which covers four areas: 1) Policy-making 2) Policy Implementation 3) Monitoring of Policy Implementation and Effectiveness and 4) Public Reporting and Communication of Stakeholder and Employee Expectations. On 4 July 2014, PTTEP received approval

from the Board of Directors of the CAC to become a “Certified Company”, reaffirming our commitment to fighting corruption in all forms. Further details are provided in our 2014 Annual Report under the Good Corporate Governance section.



### Human Rights

In 2014, PTTEP announced the implementation of a Human Rights Policy to demonstrate our standing commitment to upholding basic human rights principles, by respecting local laws and regulations, cultures and traditions, and promoting respect and honor in all conduct with our employees through non-discriminatory practices. Additionally, we only do business with industry peers who share our commitment to human rights.

We are currently in the process of developing a concrete Human Rights Framework that will allow all relevant committee to streamline human rights issues into Company standards, from human rights risk assessments and performance tracking, to transparent evaluation procedures. The Framework will also align with the Human Rights Due Diligence Process of the International Petroleum Industry Environmental Conservation Association (IPIECA), the Ten Principles of the UNGC, and the Universal Declaration of Human Rights.



### Grievance Mechanisms

PTTEP provides our employees with a confidential CG Hotline through which they can anonymously report corrupt or unethical employee behaviors. In 2014, PTTEP received eight reports via the CG Hotline, though these reports did not significantly impact our image or property. We thoroughly investigated six of these cases and shared results with the reporter, and issued appropriate warnings and punishments to offenders in accordance with the Company policy. Two cases are pending investigation; however, these cases are not related to the right of employee congregation, procurement negotiations, employment termination, child labor or forced labor.

Effective enterprise risk management enables PTTEP to identify risks throughout their operations and prevent impacts to, safety of employees and contractors, business, environment and society.



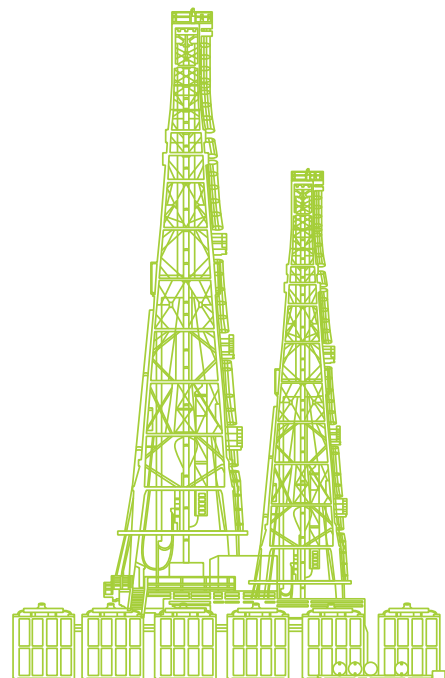
PTTEP received a full score for the risks management section in the Dow Jones Sustainability Indices.

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

## Risk and Crisis Management

PTTEP oversees risks through three types of the committee: 1) the Risk Management Committee, whose responsibilities are directing and monitoring every aspect of risk management for PTTEP 2) the Operation Risk Committee, whose responsibilities are governing and monitoring operational risks and 3) the Management Committee, whose responsibility is to monitoring the PTTEP corporate risk profile and impacts to business performance.

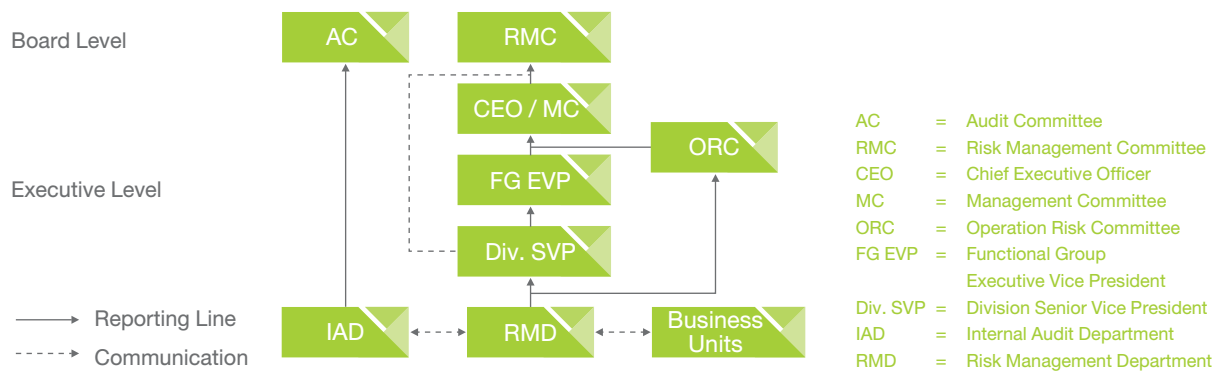
The PTTEP corporate risk profile identifies key risks throughout the Company, including strategic and portfolio, financial, stakeholders, operational and major project risks as well as emerging risks such as the outbreak of Ebola virus in the areas near operating assets and the fluctuation of oil prices. Risk Management Department and management in each business unit are closely monitoring their performance and key risks which will be reported to Risk Management Committee every quarter. The Key Risk Indicator (KRI) is identified in each risk area to provide early warning of any unexpected situation. The KRI is monitored on a monthly basis through the PTTEP corporate risk profile which is registered in SAP Governance Risk Compliance (SAP GRC) and results are regularly reported in the Risk Management Committee meetings.



 Risk Management Approach

PTTEP risk management process consists of three lines of defense: 1) Executives and employees in each Business Unit 2) Risk Management Department and committees who are responsible for governing the management of risk, such as the Operation Risk Committee, Management Committee and the Risk Management Committee and 3) Internal Audit Department. PTTEP applies

bottom-up and top-down approaches to implement, deploy and communicate risk management to executives and employees in each business unit — augmented by tools and methods including risk map, risk profile, bow-tie analysis, risk satellites, sensitivity analyses and SAP GRC — to enhance the effectiveness of PTTEP risk management process.



In 2014, PTTEP improved enterprise risk management effectiveness by initiated Risk Management System which was comprised of policy, standard and guideline for consistently implementing risk management practice across the Company.

 Emergency and Crisis Management

PTTEP approach for responding to emergencies and crises depends on the characteristics and severity level of each situation. PTTEP uses the Emergency and Crisis Management Standard as a guide for the development of response plans such as Emergency Management Plans (EMPs) and Crisis Management Plans (CMPs) to respond to such situations.

**Operation Risk Management**

PTTEP Operation Risk Committee (ORC) is responsible for managing operation risks to ensure safe operation to employees and contractors and environment in each activity and providing recommendation to improve operation efficiency, quality and complete within timeframe. Risk owners must monitor and report highlighted issues to the Operation risk committee quarterly.

As a result of strong leadership and commitment from the Risk Management Department and Top Management from each business unit, PTTEP was able to finish the project and delivered the gas to Myanmar as planned without major accidents in 2014.

In 2014, we did exercise our EMP for four main assets: Arthit Project, Bongkot North Project, Bongkot South Project and S1 Project. Furthermore, once a year, we exercise our corporate CMP for the executives involved in our Corporate Crisis Management Team (CMT). The exercise in 2014 was based on simulation of crisis occurred overseas and we also tested a software platform used as a tool to systematically support crisis management.

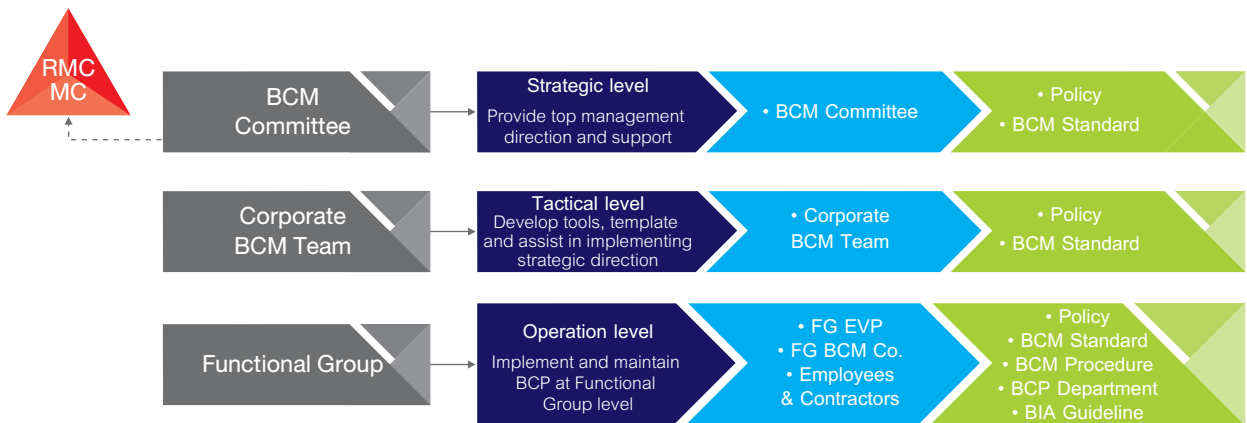
### Business Continuity Management

To achieve business objectives, it is essential that we embed business continuity throughout our business and operation areas. The emergency and crisis events, such as natural disasters, can directly or indirectly affect our business or relevant stakeholders and disrupt normal operations. Thus, it is very important in maintaining business or operation resilience to quickly respond to such emergency or crisis situation and promptly recover the business. Our Business Continuity Management System (BCMS) objectives are to protect people, organization, brand and reputation, the interests of our stakeholders and the wider community, to mitigate the risks from events that disrupt operations and businesses, to minimise non-compliance risks, and to continually improve the organization's business continuity capabilities. The Business Continuity Plan (BCP) implementation and the annual exercise program for key business and operations areas, both domestic and overseas, have assured effective PTTEP BCMS.

### Business Continuity Management Structure and System

Our BCMS has three levels: Strategic, Tactical and Operational. The Business Continuity Management Committee, Corporate BCM Team, and employees ranging from executives at the Functional Group level to employees and contractors are all involved in maintaining PTTEP business continuity.

PTTEP BCMS was developed in alignment with ISO 22301, focused on Plan-Do-Check-Act, where each process contains various activities that support the continuous improvement of the BCMS.



BCM = Business Continuity Management  
 BCP = Business Continuity Plan  
 BIA = Business Impact Analysis

RMC = Risk Management Committee  
 MC = Management Committee  
 FG EVP = Functional Group Executive Vice President  
 FG BCM Co. = Functional Group Business Continuity Management Coordinators

### Readiness for Business Continuity Management

In 2014, PTTEP developed BCPs, including exercises, for domestic and international projects, such as engineering and development, operational support, finance and accounting, IT support, building and facilities management, business services, Myanmar assets, etc.

Moreover, PTTEP provided training related to the fundamental knowledge of business continuity and roles and responsibilities to 40 BCM Coordinators in 2014. A number of BCM communication, to raise BCM awareness, were made regularly. In 2015, we also plan to expand the scope of training to cover other personnel whose work is related to business continuity management.

**Business continuity management under the shutdown of Ministry of Energy and PTT Group Building Complex**

PTTEP normal business was disrupted by political unrest that occurred from December 2013 to May 2014. The shutdown of several governmental agencies' offices including the Energy Complex, which houses the office of the Ministry of Energy and head office of PTTEP and companies within PTT Group. As a result, PTTEP Business Continuity Management Plan was activated to respond to the office disruption.

We carefully selected and set up alternative offices, where in safe location and equipped with the necessary infrastructure and communication, for each function. Executives from each function were involved in the Emergency Management Team (EMT) and Crisis Management Team with responsibility to closely monitor the situation and other issues that both protect staff, reputation and undertook business continuity actions.

Our Business Continuity Plan helped us quickly resume key processes and activities, and reduce impacts to employee health and safety, revenue, compliance, and our reputation. During 21 weeks of crisis, PTTEP was able to operate effectively without significant impacts to the Company.



PTTEP fully realizes the important roles of our suppliers in advancing the Company sustainable growth, and we highly value management practices that demonstrate social responsibility. Our cooperation with suppliers is based upon a foundation of fairness, legal compliance, and good corporate governance and ethics, which as a whole contribute to fair competition and respect for local rights, and ultimately create lasting shared value.



## Supply Chain Management

Key Performance Indicators	Results			2014 Target	2015 Target
	2012	2013	2014		
Cost reduction from various projects to increase supply chain efficiency (Million US dollars)	110.5	13.35	76.25	12	43

### Supply Chain Management Approach

PTTEP emphasizes efficiency in our supply chain management to reduce social and environmental risks, as well as supplier management risks that may negatively impact stakeholder confidence in our business operations. Our supply chain management consists of the initial vendor registration; pre-qualification assessments for new suppliers; procurement, monitoring and evaluation of supplier performance; and supplier relationship management that also includes contract management strategies. We procure our goods and services from reliable suppliers that align with Company requirements and reasonable values which can respond swiftly to the technical, safety, security, and commercial needs of the Company including management of Environment, Social and Governance (ESG)

PTTEP is in the process of improving our procurement practices to align with PTT Group's Operational Excellence Management System (OEMS). The Company has established a procurement policy and strategy for 2015 to 2019 and an annual procurement plan that details the standards of contractual arrangements for each group of goods and services. We have also revised the approval process by evaluating risks at each stage, established a risk mitigation plan and a regular monitoring assessment, and identified supplier performance indicators, such as on-time product delivery, which will also be used to evaluate the performance of procurement employees.

PTTEP conducted a data analysis to evaluate the overall performance results of our supply chain management. We first analyzed the procurement data to determine risks. These results were used to identify suppliers' classification and came up with a "Critical Suppliers" group that posed a high risk to PTTEP business operations. In this way, we will be effectively prepared to handle the risks emerging from the latter group.

**Critical Suppliers 2014**



Critical Suppliers  
**18** suppliers  
**0.51%** of total suppliers



Procurement Value of Critical Suppliers  
**883.7** million US dollars  
**47.24%** of total procurement value

**Pre-Qualification Assessments of Suppliers in 2014**



Number of new suppliers who received pre-qualification assessments **209**



Total number of suppliers who received pre-qualification assessments **561**



Number of suppliers not approved during the pre-qualification assessment stage **8**

In 2014, we developed the PTTEP Vendor Sustainable Code of Conduct to cover four main issues: Business Ethics, Human Rights, Occupational Health and Safety, and Environmental Management. We have applied the Code of Conduct to the vendor pre-qualifications to assess all new suppliers whose contract value is greater than 62,500 US dollars and/or have high operational risks.

PTTEP began utilizing the Vendor Sustainable Code of Conduct in 2014. However, we plan to evaluate supplier performance against this code with the critical supplier group.

**Supply Chain Risk Management**

Our approach to supply chain risk management, applied to suppliers with procurement value over 62,500 US dollars considers factors such as technical capacity and quality, health and safety, security, the economy, and ESG. The process addresses important supplier practices that are conducted poorly, could negatively impact PTTEP operations in terms of safety, financing and reputational risks, including project delays, negative media coverage, illegal activities, oil spills and workplace injuries or deaths. In 2014, 79 of PTTEP Critical Suppliers received ESG Risk Assessments.

**Monitoring and Evaluation of Operations**

In 2014, PTTEP carried out on-site SSHE assessments and audits for 12 high-risk suppliers from four functional groups namely Engineering and Development, Maintenance, Logistics, and Drilling. Those suppliers who did not pass the assessments and audit had to submit a Corrective Action Plan to align their operations with PTTEP SSHE Standards.

In 2014, 2.95% of the total domestic and overseas procurement activities did not comply with the procurement regulations (procurement non-compliance). In 2015, PTTEP intends to maintain the level of procurement non-compliance at under 3% through the following methods:

- ▶ Organizing procurement training for the users and contract holders to enhance their understanding of good procurement practices, as well as their roles and responsibilities for contract management
- ▶ Developing a contract management system to prevent overspending and overextension of contracts, which are a part of procurement non-compliance to PTTEP procurement regulations



### Training for Procurement and Contract Employees

In 2014, PTTEP initiated a training program for procurement and contract employees to strengthen their competency in procurement and contract strategy analysis and contract management, Supplier Relationship Management (SRM), and effective supplier coordination. This will help reduce the costs of operations between PTTEP and suppliers.

The training curriculum is divided into two levels - fundamental and advance levels. A total of 36 procurement and contract employees enrolled in the fundamental training course, with 26 enrolled in the advanced training. The initiative was very successful and proved to be highly beneficial for PTTEP in organizational restructuring for 2015.

### Local Procurement

PTTEP supports local procurements and services (procurement within Thailand), and we also encourage the procurement of goods and services from the operation areas in order to provide employment and income generation to support locals as well as to reduce costs and delivery time. As a result of our commitment to building long-term relationships with the communities where we operate, PTTEP has gained from each of the communities a license to operate. In addition, PTTEP also encourages the suppliers to operate with care and responsibility wherever they are and to support local procurement within their local area in order to lower the cost of goods as well as to support their local community. In 2014, the local procurement value equaled 748.9 million US dollars, or 34% of the total procurement annually spent.



### Supporting Cooperation and Efficiency in the Supply Chain

PTTEP strives to improve our procurement practices by identifying opportunities for cooperation with companies in the PTT Group, including Bangchak Petroleum Plc, ThaiOil Plc, PTT Global Chemical Plc and IRPC Plc. This cooperation benefits PTT Group by increasing competitiveness, reducing investment costs and forging concerted efforts in the petroleum value chain.

As a result, PTTEP was able to reduce costs by more than 86.5 million US dollars for the following projects:

- ▶ Increasing green office supply procurement in 2014 to 63.26% of the Company overall procurement office supplies, equivalent to 100,937 US dollars
- ▶ Reducing Marine Gas Oil (MGO) consumption on the Marine Green Logistics Project and the New Marine Model Project by 9 million US dollars
- ▶ Reducing cost on procurement and contract strategies management by 76.25 million US dollars
- ▶ Reducing cost on the integrated procurement of supplies such as computer notebooks and instrument tubes among the PTT Group by 789,193 US dollars

As a result of using the supply chain management, PTTEP is able to manage their total supply chain according to Laws, user requirements and specifications from qualified suppliers at reasonable terms and conditions in respect of delivery, quality, pricing, technical specifications, SSHE requirements and risk assessment. Overall, we operate our supply chain management process in a professional, transparent and ethical manner.

Effective environmental management system along with continuous monitoring programs helps PTTEP to prevent potential impacts on the environment and community near our projects.



### Integrated Environmental Management

PTTEP commits to eliminating or reducing environmental impacts through effective business management and decision-making. We have an SSHE policy and SSHE management system that are aligned with international standards. Our Target Zero program is intended to reduce our spills to zero. To ensure that environmental impacts are controlled and managed effectively, all PTTEP operating assets in Thailand and PTTEP Australasia (Montara Operation, Support Base in Darwin and the Perth office) have been achieved the certification of ISO 14001:2014 standard.

The key principle for managing impacts on the environment and communities is the effective planning and risk assessment to understand the likelihood of undesired impacts. We believe that effective engagement with our communities will help us better understand their expectations and concerns.

We also have a Green Practice Roadmap aligned with the Company vision and essential to sustainability management at

PTTEP. Through green practices, we can reduce environmental impacts from operations, as well as our ecological, carbon and water footprint, in order to enhance biodiversity and added business value. PTTEP green practices also include a target to reduce our GHG emissions by 20% by 2020. In addition, we are aware of potential climate change risks and opportunities and have conducted a Climate Change Adaptation Study Project to increase the sustainability of our business.

### Safety, Security, Health and Environment Management System

PTTEP Safety, Security, Health and Environment Management System (SSHE MS) is a management system that is incorporated into the SSHE policy, strategic objectives and targets. It is a minimum requirement to be applied across the organization to ensure that the SSHE policy and SSHE risk management are effectively and consistently managed with the aim of continuously improving the SSHE performance.

PTTEP SSHE MS is designed to align with the International Association of Oil & Gas Producers (IOGP) as well as the international standards, such as ISO 14001 and OHSAS 18001.



 **Process Safety**

PTTEP manages process safety risks following the Process Safety Management Standard. By regular inspection and maintenance of plants, equipment, safety critical elements and systems of all domestic and international projects, the production loss originated by the integrity of the equipment can be reduced. Moreover, the major accident event which may cause impacts to the environment and nearby communities can be preventable.

PTTEP applies the Asset Reliability and Integrity Management System (ARIMs) to manage risks to be as low as reasonably practicable (ALARP). As part of this, PTTEP started implementing the MAE Prevention Tool at PTTEP AA and then in 2014 at Bongkot, Arthit and S1 projects.

Process safety performance can be measured through the Loss of Primary Containment Rate (LOPCR), Tier 1 and Tier 2. PTTEP, therefore, plans to set LOPCR as one of the 2015 corporate key performance indicators (KPIs). In 2014, PTTEP LOPCR was lower than the 2012 IOGP average. This can be reflected in the way PTTEP manages process safety performance. In 2014, there was no unplanned shutdown as a result of the equipment failure.

Key Performance Indicators	Performance			2015 Target
	2012	2013	2014	
Loss of Primary Containment Rate (LOPCR) (Number of incidents per million work hours of drilling and production)	0.23	0.34	0.48	0.24

The improvement and development of environmental efficiency not only reduce impacts to the environment but also help reduce costs and protect stakeholder trust.

Operational Eco-Efficiency



Spills

The ultimate goal of PTTEP is to operate without any oil or chemical spills. PTTEP sets performance indicators that are in accordance with the work plans of the International Association of Oil and Gas Producers (IOGP). Furthermore, the statistics and trends of spills have also been analyzed, and the results were used for the development of risk reduction mitigations, especially for activities with a likelihood of significant spills, i.e. the spill occurring during transportation of drilling chemicals, etc.

By implementing risk reduction mitigation measures developed from spill statistics and trends analysis, we significantly reduced oil and chemical spills to 0.09 tonnes per million tonnes production, which is better than our 2014 target, while the petroleum industry's performance is 6.59 tonnes per million tonnes production. Furthermore, PTTEP was able to reduce spillage of drilling mud by 54 tonnes from 2013, which also reduced our production costs.

Hydrocarbon Spill Fingerprint Analysis



Hydrocarbon fingerprint technology enables PTTEP to analyze whether or not spilled hydrocarbon or tarball is the consequence of our operations. This technology can identify a biomarker, which is the identification assigned to a specific hydrocarbon composition. This cutting-edge approach helps us to identify our spills and clarify the concerns to our communities. In addition, it prevents business interruptions from temporary shutdowns as a result of a strike.

In 2014, we used the tool to analyze spills found in Chumphon, Nakhon Si Thammarat and Surat Thani Provinces, where it was revealed that the spills were not caused by PTTEP activities. Also, PTTEP plans to introduce the hydrocarbon spill fingerprint analysis tool to the Oil Industry Environmental Safety Group Association (IESG) for the benefits of petroleum industry.

Key Performance Indicators	Performance			2014 Target	2015 Target
	2012	2013	2014		
Oil and chemical spill rate (tonnes per million tonnes production)	0.43	2.92	0.09	5.94	2.26

 **Waste**

In 2014, waste from drilling activities accounted for 98% of our total waste. PTTEP managed the waste by adhering to the principles of reduction, reuse, recycling and treatment. 34% of cuttings was recycled and used as co-material in cement kiln and also used for the Company construction work. As a result of effective waste management, we have reduced amount of waste to landfill to lower than 0.5% since 2013. Moreover, PTTEP conducted a study to reduce mud and cutting waste generated during drilling in 2014.

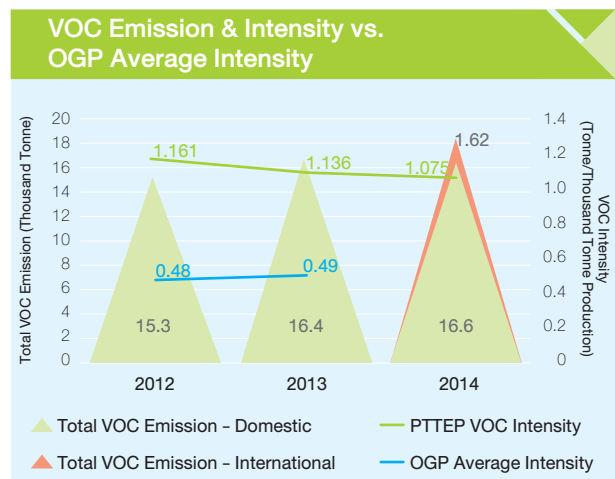
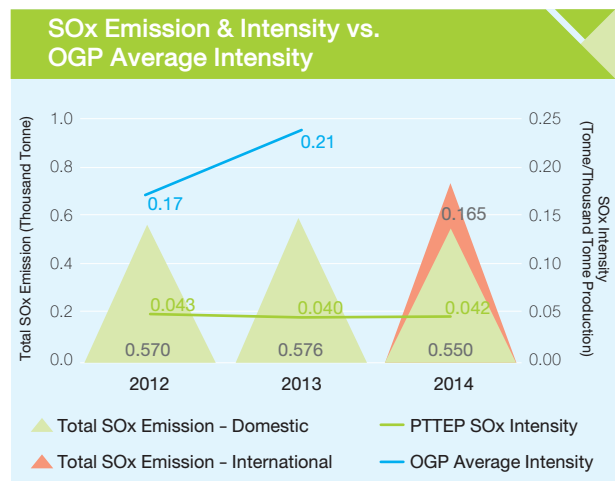
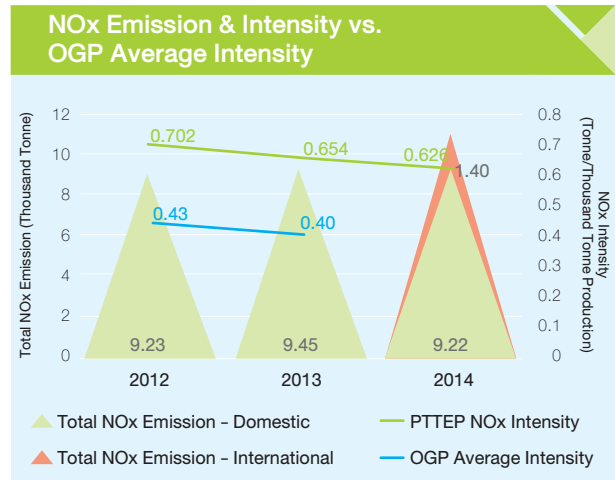
**Improvement of Drilling Waste Management**

In 2014, PTTEP started testing of a cutting dryer unit as part of onshore projects, which could help to reduce synthetic-based mud in the cuttings from drilling. The preliminary result of study shows that the amount of drilling waste and synthetic-based mud in drilling cuttings can be cut down by 20%. As a result, PTTEP would be able to reduce cost for waste treatment and recover synthetic-based mud for process, accounting for a cost saving of 3 million US dollars by applying this initiative.

 **Pollution Reduction Initiatives**

As part of petroleum exploration and production activities, machines and equipment, such as compressor engines and heaters, are the major emission sources of Nitrogen oxides (NOx), Sulfur oxides (SOx) and Volatile organic compounds (VOC). PTTEP works diligently to control and reduce these emissions. In 2014, we were able to reduce NOx and VOC intensities by 4% and 5% respectively. The VOC, NOx and SOx emissions were equal to 1.075, 0.626 and 0.042 tonnes per thousand tonnes of production respectively.

According to the last year performances, PTTEP continuously improved energy efficiency and flare reduction projects which helped us to enhance VOC, NOx and SOx emission reduction in 2014.








 **Water Resources**

Water is a key component for our operation as well as an essential resource for communities and environment. At every asset we operate in PTTEP focuses on managing water effectively and preventing contamination of water sources caused by our production activities.

Moreover, as part of every project, we conduct water risk assessments which cover a number of risk factors such as water scarcity, increased price and tariff of fresh water, laws and regulatory related to water consumption, water conflicts with stakeholders, etc. During the assessment, PTTEP uses the local databases along with the international tools that can help us to forecast water situations in the future (e.g., IPEICA/WBCSD Global Water Tool for Oil and Gas, WRI Aqueduct and WWF Water Risk Filter). Also, in 2014, PTTEP conducted a water efficiency study in three of our operational areas where the risk of water scarcity was identified, including S1, PTTEP 1, and L53/43 and L54/43 projects in Thailand. The results show that our water consumption did not pose any conflicts with stakeholders since PTTEP used groundwater abstracted from a different level from that was used by communities. PTTEP is currently conducting a detailed research and summarizing results of study to establish water targets for our operational assets located in water stress areas by 2015.

**Water Withdrawal Management (m<sup>3</sup>)**

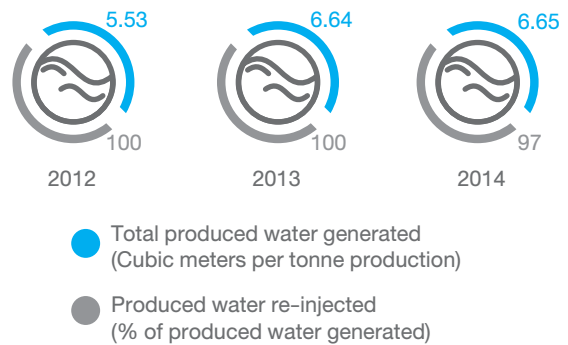
	2012	2013	2014
 Water Supply	17,141	108,258	165,345
 Ground Water	246,059	409,290	550,563
 Sea Water <sup>1</sup>	1,509,124	1,509,974	1,906,696
 Once through Cooling Water	68,214,995	65,004,518	48,411,046
 Total Fresh Water Consumption	69,987,319	67,032,040	51,033,650

<sup>1</sup> Once through Cooling Water excluded

**Produced Water**

Since 2010, PTTEP has controlled the discharge of produced water to the environment, and thus potential contamination of water sources by using a re-injection process to store produced water underground. 97% of produced water was re-injected to underground storage while the remaining was treated and disposed in accordance to the regulatory requirements.

**Produced Water**



**Water Efficiency Study**

PTTEP conducted water efficiency studies for the projects located in areas with the risk of water scarcity, as defined by IPEICA/WBCSD Global Water Tool for Oil and Gas. Such projects included S1, PTTEP 1, and L53/43 and L54/43 Projects.

The main objective of these studies is to support the reduction of water consumption, thus reducing potential impacts to the surrounding communities. The findings will be used to help increase the efficiency of water consumption in 2015 through mitigating actions such as leak detection and repairing program, regular maintenance of water-distributing equipment, and the use of air blower instead of water to clean equipment.

In addition, we also conducted a study of groundwater models to ensure that PTTEP water consumption would not cause any impacts to the environment and communities within our project areas, whilst sufficient amount of water would be available for continued business operations. We found that there was no contamination of water sources as part of PTTEP projects last year.

PTTEP has committed to becoming a low-carbon organization. In 2014, we reduced our emissions of carbon dioxide equivalents by 233,000 tonnes, which was a greater reduction than our target.



Energy and Climate Change Management

Key Performance Indicators	Performance		2014 Target	2015 Target
	2013	2014		
CO <sub>2</sub> reduction (tonnes CO <sub>2</sub> e)	114,000	233,000	166,000	245,000
CO <sub>2</sub> reduction from Marine Green Logistics project (tonnes CO <sub>2</sub> e)	56,000	56,000	56,000	62,000

PTTEP has a proactive approach for climate change management, with a target to reduce GHG emissions by 20% and increase energy efficiency by 5% by 2020, based on year 2012. In 2014, our GHG emissions were 5.1% lower than in 2012.

 Climate Change Adaptation

Increased variability and severity of the climate could potentially impact our business and the safety of our employees, contractors and communities. PTTEP initiated our climate change adaptation assessment project to plan for risk management in the short and long terms (2015, 2030 and 2050 respectively). The assessment, which will be completed in 2015, will enable us to identify climate

change risks, which we can then manage and estimate associated costs required to reduce the severity of these risks.

Climate Change Risk Management

PTTEP is committed to managing and assessing climate change risks by considering physical and regulatory impacts and risk factors. In 2014, we set the reduction of CO<sub>2</sub> as one of our corporate KPIs, which we successfully achieved.



### Disclosure of Greenhouse Gas Information

Since 2008, PTTEP has participated in the Carbon Disclosure Project (CDP). Continual improvement in our information database system and environmental performance has led PTTEP to receive the CDP Best Performance in Hong Kong and the Southeast Asia Region. In addition, we have been included in the CDP's Asia ex-Japan Climate Disclosure Leadership Index (CDLI) for two consecutive years. Both achievements reflect our commitment to become a low-carbon organization.



### Greenhouse Gas Reduction

Since 2012, PTTEP has conducted GHG reduction projects using two key approaches: reduction of CO<sub>2</sub> in the oil and gas production process and reforestation to absorb CO<sub>2</sub> and sustain ecological balance. For more details of the reforestation project, please refer to the Community and Social Development section.



### Energy Efficiency

In 2014, PTTEP continuously improved energy efficiency in order to reach our long-term target of reducing consumption by 5% by 2020 compared to 2012. For other energy-efficiency improvement initiatives, we set a target for fuel uptake for corporate logistics to 14 kilometers per liter. The average fuel uptake for transportation was 12.5 kilometers per liter in 2014.



### Greenhouse Gas Reduction and Energy-Efficiency Initiatives

#### Flash Gas Recovery Unit at Bangkok South

In 2014, PTTEP was able to recover flash gas from the condensate production in Bangkok South, accounting for 3.5 million cubic meters per day worth 10.3 million US dollars, which was equivalent to a GHG reduction of approximately 120,000 tonnes CO<sub>2</sub>e.

#### Methane (CH<sub>4</sub>) Reduction in Production Process

PTTEP set a target to maintain methane (CH<sub>4</sub>) emissions intensity not to exceed the intensity in 2012. In 2014, we conducted a methane emission database for the Sirikit oilfield, where we reduced fugitive emissions of GHGs by 5,000 tonnes of CO<sub>2</sub>e, equal to a cost saving of 33,000 US dollars. Maintenance during the production process also helps to mitigate Loss of Primary Content (LOPC) risks.

PTTEP is currently collecting data and developing a database of CH<sub>4</sub> emissions in the natural gas production process to study the feasibility of implementing technology and management approaches to reduce these emissions. We plan to apply the actions done at S1 to at the Bangkok North as well in 2015.

#### Vapor Recovery Unit (VRU)

As part field investigation with the U.S. Environmental Protection Agency (US EPA) to develop a CH<sub>4</sub> emissions database, it was found that installing Vapor Recovery Units (VRUs) could potentially reduce CH<sub>4</sub> emissions for the S1 project. As a result, we plan to conduct a study of installing VRUs within the area in 2015. It is estimated that VRU installation can reduce methane emissions by 1,600 tonnes of CO<sub>2</sub>e.

#### Flare Reduction at Sao Tien A in S1 Project

PTTEP reduced a flare of 16,000 tonnes of CO<sub>2</sub>e per year in Sao Tien A Petroleum Field within S1 Project. The excess gas from the petroleum production process (approximately 0.65 million cubic feet per year) was sold to Ratchaburi Power Plant, which accounted for approximately 180,000 US dollars of revenue generation for PTTEP.

Sao Tien A Petroleum Field in S1 Project has been registered as Clean Development Mechanism and is undergoing the verification process to apply for Certified Emissions Reduction (CERs) from the United Nations Framework Convention on Climate Change (UNFCCC) for the reduction of GHGs.

#### Green Logistics Project

The objective of the Green Logistics Project is to reduce energy consumption from logistics, which can also help to reduce GHGs. PTTEP focuses on developing and managing a marine transportation system under the Fuel Oil Control and Monitoring Program by identifying appropriate routes for transportation and using diesel-electric engines instead of conventional diesel engines, to improve the efficiency of energy consumption as part of logistics. In 2014, we were able to reduce costs by 16.8 million US dollars as a result of our efforts to reduce diesel fuel use.

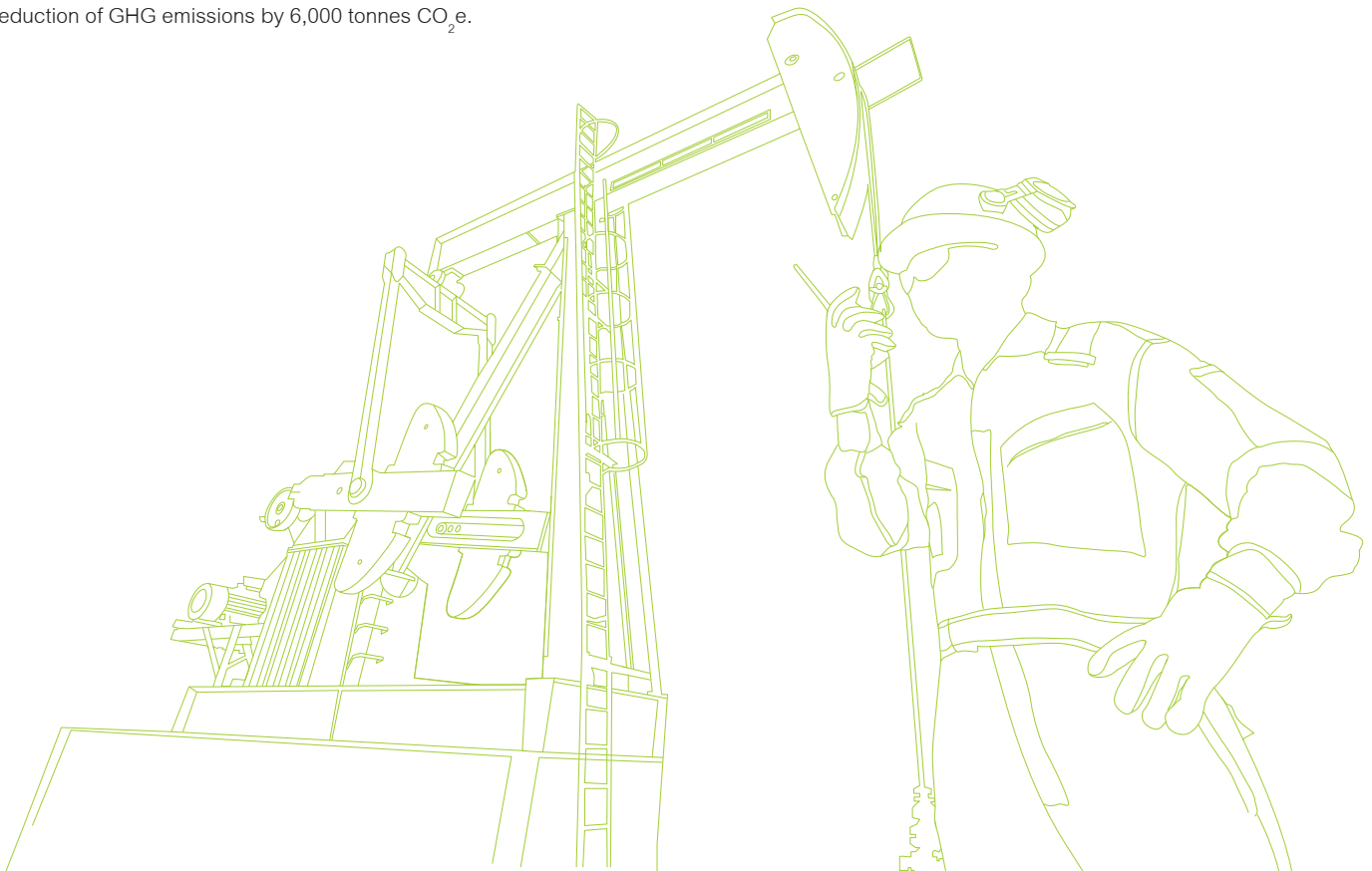


Green Logistics Project	2014	2014 Target	2015 Target
CO <sub>2</sub> reduction from Green Logistics Project (tonnes CO <sub>2</sub> e)	56,000	56,000	62,000
Reduction of diesel fuel for marine transport (cubic meter per day)	11.44	11.50	10.53

**Energy Consumption Database Studies**

In 2014, PTTEP conducted energy consumption studies and developed potential energy saving mitigations for Bongkot South and S1 Projects. As part of these preliminary studies, we estimated that these mitigation measures would help improve energy efficiency. In 2015, PTTEP plans to study energy consumption for overseas assets such as Australia.

Also, we implemented the measure summarized from the studies at Arthit Project by shutting down some of the sea water pumps used to generate cooling water for other machines, thus resulting in fuel savings accounted for 550,000 US dollars, equivalent to the reduction of GHG emissions by 6,000 tonnes CO<sub>2</sub>e.



PTTEP not only implements procedures to protect biodiversity, we also aim to deliver a net positive impact through our biodiversity management strategy.



Biodiversity

 Biodiversity Management Practice

PTTEP has continually developed and improved our biodiversity management approach to understand the status of biodiversity in our operational areas. We are currently conducting biodiversity risk assessments for projects in Thailand and the Republic of the Union of Myanmar. We also plan to expand the scope of biodiversity risk assessments to other countries in the future. Apart from this, PTTEP has established the biodiversity management guideline and environmental impact assessment guideline in place for the developmental of every project.

All of our projects in Thailand have undergone biodiversity risk assessments since 2012 to identify the level of biodiversity risk and prepare an appropriate Biodiversity Action Plan (BAP) if necessary.

According to the result of risk assessment conducted in 2013, S1 was identified to have a medium level of biodiversity risk. However, after re-evaluating in 2014, it was found that the S1 Project does not currently pose any biodiversity threats as the project site has been converted into an agricultural area, rendering

the BAP unnecessary. The assessment result also shows that the Sinphuhorm Project site poses a high level of biodiversity risks since the project is located within the river basin 1A. As a result, PTTEP plans to carry out a survey and design a risk management framework and develop a pertinent BAP in 2015.

In 2014, PTTEP compiled preliminary data to evaluate biodiversity risks for projects in Myanmar. The result indicated that some sections of the PTTEP gas pipeline cross into the Taninthayi Forest Reserve, creating a high biodiversity risk. In response to this, we conducted field surveys of biodiversity, designed a risk management framework and an appropriate BAP. Furthermore, PTTEP plans to conduct the survey to assess risks for other projects in Myanmar in 2015.

To deliver a net positive impact on biodiversity, we are planning to prepare an Ecosystem Service Inventory using data collected from our "PTTEP Reforestation" project in 2015. This will help us to understand the status of biodiversity and ecosystem services of the



selected areas and will enable PTTEP to measure the net positive impact on biodiversity and ecosystem services by comparing results to baseline data. Moreover, biodiversity and ecosystem service offset plans will be developed for the other areas with high biodiversity risks.



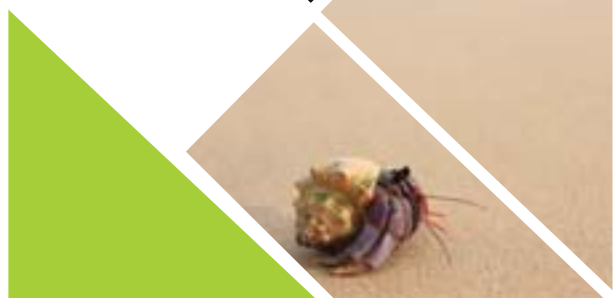
### Biodiversity Promotion Project

#### Training on Biodiversity and Ecosystem Services

In 2014, PTTEP developed an employee training course on SSHE to create awareness on biodiversity and ecosystem services, and will begin conducting the training for employees in 2015. We expect to increase attendee awareness of these topics by more than 80%.

#### Research and Development Collaboration Project on Remotely Operated Vehicle (ROV)

As Thailand still lacks technology to monitor underwater ecosystems effectively, PTTEP has collaborated with King Mongkut University of Technology North Bangkok (KMUTNB), Burapha University, Kasetsart University, and the Southeast Asian Fisheries Development Center (SEAFDEC) to develop a remotely operated vehicle (ROV) to be used during marine biodiversity and ecosystem survey for the “Rig to Reef” Project, a collaboration with government agencies to monitor an artificial reef in real time. Apart from this, we are also able to use the ROV to survey ecosystems under exploration and production rigs at offshore project locations. This will help increase community confidence that our operations will not adversely affect marine biodiversity. Development of the ROV is expected to be completed in 2016.



The safety of PTTEP employees and contractors in every aspect of our operations is the key success to achieve the goal of "Target Zero".



### Safety Culture

PTTEP has in place Safety, Security, Health and Environment Management System (SSHE MS) as a foundation for operational and risk control to ensure that SSHE risks are systematically managed, and appropriate control measures are identified and monitored. Moreover, PTTEP continuously reinforces SSHE Culture among all employees and contractors to ultimately create an injury-free workplace. This is to reduce unexpected disruptions due to work-related incidents, minimise the remediation and compensation costs, and help increase the confidence of its stakeholders.



#### SSHE Performance

In 2014, PTTEP Lost Time Injury Frequency (LTIF) and Total Recordable Injury Rate (TRIR) increased when compared with 2013. A contributing factor may be an increase in the operational activities and man-hours worked. No fatalities of employees and contractors were reported in 2014.

Comparing with the International Association of Oil & Gas Producers (IOGP) safety performance indicator - 2013 data, 2014 PTTEP LTIF and TRIR were better than the IOGP average. However, PTTEP continues to improve its SSHE performance through contractor management system, SSHE culture, SSHE training programs, risk management, emergency preparedness and stop work authority.

In 2014, the majority of work-related injuries were the hands, wrists and fingers. The root causes of the injuries include being struck by moving equipment or materials; being caught in, under or between machinery and equipment; and cuts, punctures and scrapes. An Injury Prevention Campaign is implemented to continuously create SSHE awareness for both employees and contractors. The themes of this campaign are derived from past incidents, e.g. hand and finger safety, land transport safety, manual handling, etc. Lessons learned from the incident are also developed and communicated throughout the Company in order to prevent recurrences.



#### Contractor Management

All contractors shall conduct their operations according to the PTTEP SSHE Contractor Management Standard which covers all necessary SSHE related requirements that need to be strictly followed, e.g. SSHE training, SSHE risk management, and incident management.

To assure that all contractors perform their work in compliance with the aforementioned standards, the SSHE contractor management audit for the high-risk contractors are conducted. Additionally, the audit findings closure and improvement areas are regularly monitored and followed up. The goal is to strive to reduce the contractor-related incidents.

## SSHE Culture

PTTEP continuously improves SSHE culture through various campaigns. These campaigns are derived from past performance, root cause of the incident and the injury rate of employees and contractors. This will enable PTTEP to improve SSHE management system even further.

Normally, the PTTEP SSHE culture survey, as a snapshot of the organization's culture in relation to SSHE, is conducted every 3 years. In 2014, PTTEP conducted the second SSHE culture survey where the average score was 3.7 (scale 1 to 5) or "Calculative" level comparing with the average score of 3.3 in 2011. Based on the survey results, PTTEP has organized various SSHE-related activities to promote SSHE culture. These include the Step Change in SSHE Program, Life Saving Program, SSHE Handbook for employees and contractors, training and workshops for staff at all levels, and the injury prevention campaign. PTTEP has set a long-term SSHE culture improvement and implementation plans and communicates to all operating assets, projects, and sites. The intent is to achieve the ultimate goal of the "Generative" SSHE culture level.



PTTEP believes our employees are our most valuable resource and are the key driver for the organization's success.



### Human Resources



#### Human Resources Management Approach

PTTEP approaches to managing our human resources focus on providing tools and opportunities for our employees to develop their capabilities while building an awareness of human rights in line with business ethics and our human rights policy.

To ensure the continuity of the business, PTTEP continually improves our human resources management and recruitment to be more efficient with systematic and transparent recruiting procedures. In 2014, PTTEP was able to recruit employees for general and management positions within 90 and 120 days, respectively.

PTTEP human resources management and development strategy can be classified into three areas: Workforce Readiness, Corporate Culture and Employee Engagement. The three strategies support

strong and sustainable business growth for the Company according to our stated goals.



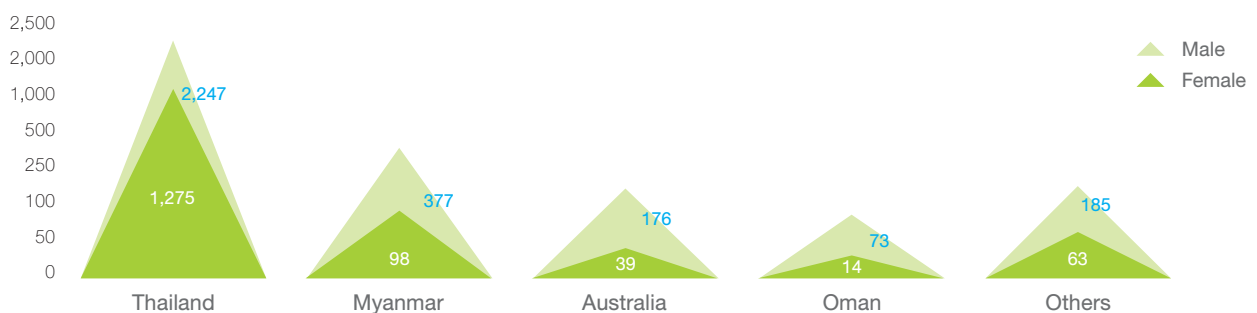
#### Human Resources Development

In 2014, PTTEP developed staff's capabilities through the following projects:

#### PTTEP Accelerated Development Program (ADP)

PTTEP has developed Accelerated Development Program (ADP) to be an intensive program for newly graduated staff in the core technical job families: Geosciences (GG), Drilling & Well Engineering (DWE) and Engineering. The objective is to provide a focused development program to help staff become familiarized with the E&P business, gaining required technical knowledge

### Employees by country of operation



and skills via coaching and mentoring across work functions. To become competent staff, they are required to undergo Induction, Foundation and Work Assignments during the ADP program and also cultivate the values “EP SPIRIT” which is our business core values embedded in the PTTEP way of thinking and work.

### PTTEP Competency Management System (CMS)

PTTEP has established Competency Management System (CMS). The objective is to develop staff competency as per the Job Competency Profile (JCP). The results of competency assessment will be input for supervisors to decide Individual Competency Development Plan (ICDP), which specific development activities would be defined to close gaps as per individual needs. Presently CMS has been developed to cover both technical job families (GG, DWE, Engineering and Commercial) and other supporting job families, for example, Finance & Accounting, Legal, Internal Audit, ER, HR and Supply Chain, etc. To support business growth strategy, the special competency model has been developed for Exploration, Unconventional and Deep Water to build staff's capabilities while career development roadmap and mentoring programs are established to drive competency and career development for staff in PTTEP.

### Leadership Development Program

PTTEP assesses the capability of management and high potential staff and develops a Career Development Roadmap to prepare these staff for advanced positions to support PTTEP future business growth. At the Assessment Center, all management and high-potential staff will be assessed against the PTTEP Management Success Profile which includes several elements namely Competency, Personal Attributes, Organizational Knowledge and Experience. After the assessment, they shall individually receive the results to work with their supervisors on further management and leadership skill development plans. Moreover, PTTEP has also co-developed the comprehensive leadership development program with IMD Business school, one of the world's premier business and management institutions, for the middle management development and also conducted an Executive Coaching Program for the top management. All of these are to ensure that our management and high-potential staff have the appropriate knowledge and skills to support the PTTEP business expansion.

### General Training

PTTEP courses offer training and knowledge-building for employees at all levels in the organization. The training for capability and competency development is in line with our organizational targets as follows:

- ▶ To comply with PTTEP standard on Safety, Security, Health and Environment (SSHE), which is aligned with law
- ▶ To improve current job performance
- ▶ To prepare for future roles and assignments
- ▶ To develop basic skills and improve self-sufficiency
- ▶ To develop knowledge and skills for proficiency and information technology

### Succession Planning

PTTEP has developed a Succession Plan in order to replace vacant Management positions resulted from retirement and reorganization to support business expansion domestically and internationally. The Career Review Board (CRB) is responsible for selecting the right candidates from the high-potential staff pool, in consideration of their knowledge, experience, competencies, Currently Estimated Potential (CEP), as well as related experience to the vacant positions. Long-term and short-term Individual Development Plan (IDP) of each successful successor will be identified in order to accelerate the development to ensure that the successor is ready to take the targeted position at the specified timeframe.

In 2014, PTTEP completed successor identification as well as IDP development for all top management positions (Executive Vice President and Senior Vice President). This will also ensure that PTTEP has competent management at younger ages.

## Human Resource Development 2014



Budget  
**8.4** million US dollars

Average training  
**75.4** hours per employee

### Myanmar Staff Value Creation Program

Myanmar is an important production base for PTTEP due to its high potential of petroleum discovery. Thus, PTTEP carefully considers the ability and readiness of our employees in this region.

In 2014, we developed the Myanmar Staff Value Creation Program to recruit and develop the Myanmar with high potential to work with PTTEP in Myanmar, to comply with Myanmar's Foreign Investment Law.

In addition, we put in place individual development plans and monitoring and assess the performance of Myanmar staff to build local workforce capacity. These potential personnel are trained in Thailand to boost their knowledge and skills. PTTEP is aware of the importance of education; therefore, as part of the program, we provide scholarships to technical students and plans to give scholarships to students in undergraduate geology, engineering, accounting and logistics programs.



### Corporate Culture

PTTEP not only develops the technical knowledge and capability of employees but also supports them to integrate our corporate culture, "EP SPIRIT," into their work life. To help management lead by example, we have provided EP SPIRIT training to 244 leaders and management staff, with a satisfaction score of 95%. The EP SPIRIT training for 1,974 general employees was also conducted and the satisfaction score was 92%.



### Performance Appraisal

Apart from performance appraisal in the work-related criteria, PTTEP also includes the corporate core values EP SPIRIT as criteria for performance assessment which accounts for 32%. All employees are acknowledged of the target settings and expected behaviors. They undergo performance appraisal twice a year. The compensation for management depends on the success of corporate performance; whereas, the compensation for employees depends on the success of corporate and individual performance.



### Employee Engagement

PTTEP conducted an employee engagement survey to analyze factors impacting employee retention. The engagement score in 2014 was 46%<sup>1</sup> compared to 57% in Oil & Gas industry in Asia Pacific. As a result, PTTEP is preparing the employee engagement improvement plan for 2015, which aims to improve talent management, communication and senior leadership.

Moreover, PTTEP also works to increase employee ability to manage and develop their career path and we apply a job rotation system. In 2014, PTTEP initiated an internal job posting program to allow employees who desired to change their career paths to apply for available positions within the Company. We advertised a total of 20 positions through the program; two of these positions were filled by internal candidates.



### Employee Retention

PTTEP sets up, regularly reviews and revises a fair wage system for its staff according to corporate short and long-term performance in order to attract and retain competent staff. The salary rate and the method of payment paid by the petroleum industry in the country are considered. The difference of each position, the required skills and expertise, the level of difficulty of work, the assigned responsibilities and the staff's capacity for their responsibilities will be wholly considered as well.

PTTEP manages and/or enhances the fair welfare for the staff and the Company itself. We consider the payment capacity in the present and long term. We emphasize the sustainable welfare for the staff and families' living. Such welfare will be for most staff who cannot provide with their financial capacity and there has not yet been a sufficient governmental support such as housing interest subsidy and health care benefit for the staff and families. Lastly this is common provision granted by the petroleum entrepreneurs in the country. PTTEP regularly reviews the welfare for its appropriateness and pertinence of changing social, economic and other obligatory conditions in business running. In addition, PTTEP also takes care of the staff to relieve the anxiety of the staff through the Sabaijaidee program that provides consulting services for all staff, spouses and children on the matters of family, private life, work, love, law, etc. by psychologists from a consulting company.

<sup>1</sup> Aeon Hewitt

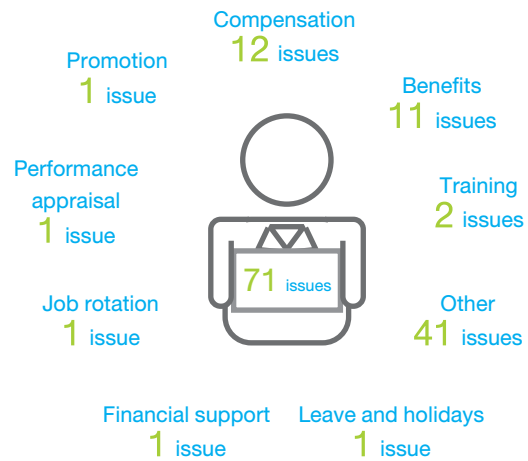


PTTEP provides the welfare and benefits that are consistent with the corporate performance in both short and long terms. In the short term, PTTEP provides the special payment which is variable related to the corporate performance. In the long term, PTTEP manages the provident fund for staff in order to enrich their livings and become work security for them when they resign or retire. The provident fund consists of staff and PTTEP regular contributions. PTTEP makes monthly contribution at a rate of 15% of the staff's basic salary while the staff contributes at the range between 2-15% on a monthly basis. Receiving this fund is subject to the PTTEP regulations. Moreover, PTTEP establishes the Employee Joint Investment Program (EJIP) intended to encourage staff to participate in EJIP on a voluntary basis and this program shall build motivation of staff to work efficiently and effectively, create alignment between the employees, management and shareholders, and establish long-term loyalty and a sense of ownership to PTTEP. The purchasing of ordinary shares will be carried out through the trading system of the Stock Exchange of Thailand. This program commences from 1 February 2013 until 31 January 2018 totalling a 5-year period. The eligible staff will ask PTTEP to deduct from their basic salary at the rate of 2 to 10% of basic salary whereas PTTEP will contribute the same amount paid by staff each month. Receiving shares value is subject to the corporate performance in the long term. In 2014, 82.5% of eligible employees joined the EJIP.

 Labor Rights

PTTEP operates in accordance with the labor laws of every country in which we do business, including prohibitions against child or forced labor. Our operations comply with our corporate Human Rights Policy, business ethics, laws and international practices, regardless of the host country's existing human rights requirements. We have also defined fair employment and working conditions for safety and healthy purposes.

Labor Rights



Moreover, PTTEP also supports the ability of our employees to exercise their labor rights through our Welfare Committee, which consists of representatives from staff and management and accounts for 1.04% of our total workforce. The committee meets on a monthly basis to discuss topics related to benefits and employee welfare. In 2014, issues of discussion included the following.

In addition to the expectations we set for our employees, we also clearly define the behaviors of security personnel, to ensure they operate in accordance with PTTEP ethical and human rights principles.

As part of PTTEP  
 “Social License to Operate”,  
 we engage with the stakeholders to help identify  
 and minimize adverse impacts on the  
 environment and safety of communities  
 near our operations.



### Managing Impacts on Communities

PTTEP is committed to developing petroleum exploration and production projects that strictly observe local laws and regulations. For each project, we organize at least two public participation meetings to gather stakeholder opinions and concerns, perform Environmental Impact Assessments, and implement a PTTEP operations framework to encourage harmony in project development.

In 2015, we also plan to develop Resettlement Guidelines that will establish clear guidance on engagement with communities facing resettlement. These guidelines will include corrective and preventative measures to guard against impacts and protect the rights of stakeholders.

### Environmental Impact Assessments

In 2014, PTTEP carried out Environmental Impact Assessment Reports for 10 projects, including one Safety and Environmental Management Plan for Seismic Inspections in which 21 stakeholder meetings were held during the process.

To develop an appropriately protective and corrective framework that effectively reduces environmental impacts, we integrate the opinions and concerns of our stakeholders into the analysis. This is in addition to our regular monitoring and inspection of environmental equality, during which we submit reports to relevant government entities throughout the entire length of operations.





## Issue and Stakeholder Management

We recognize the importance of engaging with our stakeholders to identify issues pertinent to them and our business. Accordingly, PTTEP utilizes the Issue and Stakeholder Management System (ISMS) to facilitate analysis, planning, measurement and monitoring of potential social impacts. The objectives are to ensure that PTTEP operations comply with fair operating practices, and foster mutual understanding and relationships with relevant stakeholders. PTTEP aims to apply the ISMS in every project area to avoid work disruptions caused by conflicts with communities.

### Contractor Forum

In 2014, we organized a contractor forum to engage with contracted parties working with the PTTEP Petroleum Development Support Base (PSB) in Songkhla Province. As part of the forum, we worked with a total of 133 parties to cultivate common understanding regarding engagement with communities and society to prevent human rights violations and support practices that comply with our standards.

PTTEP evaluates our risks and social impacts through the ISMS System on an annual basis. In 2014, we evaluated eight projects: PTTEP 1 Project, PTTEP Petroleum Development Support Base (PSB) in Ranong, B6/27 Project, Isan Project and PTTEP PSB in Songkhla, as well as projects in Australia, the Republic of the Union of Myanmar and Indonesia. Risk frameworks were implemented in these project areas to prevent societal impacts. Moving forward, PTTEP plans to conduct risk and social impact assessments for S1 Project, Sinphuhorm Project, Andaman Project and projects in Oman and Canada.

As part of community relations, we have implemented social grievance mechanisms in our project areas. This past year, there was one case of grievance reported relating to the encroachment of a land boundary between a public road and the entrance to a farming community, where a base drilling station is being constructed as part of Projects L53/43 and 54/43. The issue has been fully resolved by the responsible subcontracting company.



In 2014, in accordance with PTTEP Social Development Strategy, we allocated 44.5 million US dollars of our budget on community and social development projects to respond to the needs of the community.



### Community and Social Development

PTTEP is committed to elevating the quality of life in our communities and society through our Social Development Strategy, which focuses on socio-economic development through investment in four themes: basic needs, education, environment, and culture and sports. PTTEP works closely with communities to develop programs that fit their needs, in line with our strategy.

#### Contribution to Community and Social Development Projects



**Basic Needs**  
2.4 million US dollars



**Education**  
27.9 million US dollars



**Environment**  
11 million US dollars



**Culture and Sports**  
0.8 million US dollars



### Basic Needs

By helping our communities meet their basic needs, we can increase the quality of life and enable them to build a sustainable foundation for the future.



### Crab Hatchery Learning Center

PTTEP collaborated with the Local Fishermen Group, Songkhla Province, and the National Institute of Coastal Aquaculture (NICA) to develop a Zoea (juvenile crab) hatchery project that will return crabs to their natural environment. The project is a model Crab Hatchery Learning Center that provides the crabs with a better chance of survival than they would have in the wild. Apart from this, the project enhances community livelihoods and supports skills for self-sufficiency.

PTTEP understands the importance of developing a systematic knowledge base for crab aquaculture that is also up to standard; with this in mind, we lent our support to the construction of an aquaculture facility that was eventually transformed into a learning center to raise awareness among youth. The facility has since expanded into an eco-tourism venue, which helps to boost the local creative economy and increase sales revenue from processed sea food, souvenirs and crab shell art.



### Free Health Clinic

In Indonesia, PTTEP partners with Dompot Dhuafa, a respectable non-profit organization in establishing a free health clinic for the underprivileged in Cilincing, North Jakarta - a community home to 16,500 underprivileged population (with income less than 2 US dollars per day). Our five-year plan is to improve community's accessibility to health services and awareness of their own health status. In 2014, mobile outreach units provided healthcare and dental services to 2,299 people which all of our Indonesia based managements and employees have volunteered in the services. The project will expand its support to address communities' concerned health pattern including tuberculosis in the 2<sup>nd</sup> year and eventually HIV-AIDS unit by the 5<sup>th</sup> year.



### Education

PTTEP prioritizes the education of children and young adults by providing access to opportunities to help them fulfill their potential in the future. To achieve this goal, we organize community education projects focusing on knowledge development and scholarship grants.



### PTTEP Smart Center

PTTEP, in collaboration with the Municipality of Songkhla Province, Thailand Knowledge Park, the Office of Knowledge Management and Development (Public Organization) and Songkhla Heritage Society, established the "PTTEP Smart Center" in Songkhla Province, which offers a new method of learning that integrates new and local community knowledge under one curriculum. The expected date of project completion is in 2016.

Furthermore, our Company commitment to educational and human capital development extends to providing opportunities for youth and other disadvantaged groups through scholarship programs in Thailand and overseas. Some examples include the "PTTEP Scholarships Project" which grants scholarships to local students from towns and villages surrounding PTTEP operational sites, from elementary to university levels; the "High School Attraction Campaign (HSAC)" which supports science education at the High School level for students interested in an occupation in petroleum exploration; and PTTEP collaboration with the Office of The Civil Service Commission (OSCS) to provide Bachelor's degree scholarships at overseas universities to train individuals in Geological Science and Engineering.





**Environment**

PTTEP promotes community interest in natural resources and the environment by developing conservation-focused projects to foster environmental sustainability for future generations.



**Reforestation Restoration Project for Eco-learning at Sri Nakhon Khuean Khan Park in line with HRH Princess Sirindhorn’s Initiative**

The “Bang Kachao” area is a 10,000-rai green area in Samut Pra Kan Province, located at the bend of the Chao Phraya River. It is considered the “Green Lungs” of Bangkok for its fresh, clean air that comes with the monsoon winds from the Gulf of Thailand and whisks away the pollution of the Bangkok city for up to nine months a year. TIME Magazine recognized Bang Krachao as “The Best Urban Oasis” of 2009.

PTTEP, in collaboration with Thailand’s Department of Forestry and Kasetsart University, launched a forest recovery campaign at Sri Nakhon Khuean Khan Park — established under the royal patronage of Her Royal Highness Princess Maha Chakri Sirindhorn — to restore the Bang Kachao natural green area surrounding the city. The restoration campaign consists of reforestation projects and nature trail development of 40 rai, with the goal of creating an eco-learning network and an area for relaxation, and furthering conservation efforts that will maintain these “green lungs” for the people of Bangkok and surrounding provinces.

PTTEP, the Forestry Department and Kasetsart University will offer the 40 rai and the eco-learning site of Bang Kachao to Her Royal Highness Princess Maha Chakri Sirindhorn in honor

of her 60<sup>th</sup> birthday in 2015, which also coincides with the PTTEP 30<sup>th</sup> anniversary.



**PTTEP Reforestation**

The PTTEP 200,000-rai reforestation project to reduce the climate change began in 2013 and will continue through 2020. During the first three years of the project, we were responsible for the reforestation and care of the trees before we handed the project over to the Department of National Parks, Wildlife and Plant Conservation and the Department of Marine and Coastal Resources for their care and supervision of the following four-year maintenance. Aside from aiding in carbon dioxide (CO<sub>2</sub>) absorption, the project creates the economic value for local communities through employment creation and revenue generation.

In 2014, PTTEP conducted reforestation in areas in 15 provinces, totaling to 50,000 rai, and maintained plots that had been reforested in 2013. In 2015, PTTEP will plant an additional 5,000 rai.



Greenhouse gas reduction target during the project period  
**620,000**  
tonnes CO<sub>2</sub> equivalent



Tree Survival Rate  
more than **89%**



Economic value received by local community  
**7.6** million US dollars



Current Forest Area  
**100,000** rai



**288** Households benefiting from employment generation

 **PTTEP Thai Heritage World Heritage (Nature)**

PTTEP worked with the Department of National Parks, Wildlife and Plant Conservation to support knowledge dissemination on the value of “Thai Heritage, World Heritage” sites by developing eco-learning networks and an eco-tourism center, setting up exhibitions, and creating nature trails. The objectives of this effort are to create useful resources for increasing knowledge of environmental conservation knowledge, promote the creation of a community conservation network, and support Thai research, namely the “**Tiger Conservation Research**” and “**Hornbill Conservation Research**” projects in Huai Kha Khaeng Wildlife Sanctuary and Khao Yai National Park. Tigers and hornbills are vital indicators in revealing the abundance and biodiversity of the forest floor, and this research will help increase their population and reduce the likelihood of extinction in the natural heritage areas. The findings will further contribute to improving a patrolling system to protect the Thai Heritage, World Heritage areas.

**Hornbill Conservation Research Project**

Since 2007, we have helped support the birth of **940** hornbills at Khao Yai National Park.



**Tiger Conservation Research Project**

In 2014, researchers working on the Tiger Conservation Research project successfully attached GPS satellite collars to **6** tigers - a significant achievement for tiger research in Asia.





### PTTEP TEENERGY CAMP

The PTTEP TEENERGY CAMP fosters youth engagement in natural resource conservation and sustainable actions that benefit their communities and wider society. The camp is a component of PTTEP ongoing social development activities, which was organized in 2014 under the title “Thai Heritage World Heritage (Nature): PTTEP TEENERGY CAMP Khao Yai Natural Heritage Conservation”. Between 27 and 29 October 2014, PTTEP brought together 60 high school students from all over the country to promote knowledge and experiential learning around natural resource conservation at Khao Yai National Park in Nakhon Ratchasima Province.

#### Mr. Teerawat Sriburom

Student at Mukdaharn School, Mukdaharn Province

“The inspiration I have received from participating in this activity is to see natural conservation at work — to see the mental and physical sacrifice, the difficulties and the obstacles. From this experience as a TEENERGY, I will be a driving force in conservation and strive to create environmentally conscious minds and good values, for the sustainability and benefits of all. I will share the knowledge that I have gained from this experience with my family, my mother, father, grandparents and all of my friends at school in the future if opportunities arise.”



### Tiger Education Program

Since 2013, PTTEP has supported environmental and wildlife education in Huai Kha Khaeng through the integration of our tiger and conservation research into the curriculums of 13 leading schools in the surrounding areas of Huai Kha Khaeng Wildlife Sanctuary. This will enable teachers and students in the area to understand the value and significance of wildlife and nature conservation, enabling them to vitalize the natural heritage conservation network.





**Culture and Sports**

PTTEP believes in the importance of personnel and cultural well-being and promotes well-rounded lifestyles for communities and societies.



**PTTEP Thai Heritage World Heritage (Culture)**

PTTEP, with the Department of Fine Arts, worked to improve the management of cultural heritage sites at the Historical City of Ayutthaya. Through the dissemination of academic information, prepared learning materials, improved employee skillsets and enhanced communication about activities related to historical and cultural learning, we helped create awareness around the conservation of cultural heritage sites. According to the Memorandum of Understanding for World Heritage Conservation, Phase 2 (2014-2017) signed by PTTEP and the Department of Fine Arts and in continuation of Phase 1, the collaboration supports education, analysis and preparation of learning materials for historical sites and exhibition buildings, serving as an educational resource for arts and cultural heritage.

**7<sup>th</sup> PTTEP Thai Heritage World Heritage Camp for Disabled Youth**

**Ms. Nathcha Tavanukulkit, Volunteering Employee**

“It is a great opportunity to be involved in helping the community. Regardless of whether it is a small camp and is just one corner of society, at least it helps us realize that good things like this exist.”

**Keng**

“I love walking in the forest and studying nature. All of us can help — it doesn’t matter if we can see or not. We are small specks of light that can reflect back to society and say that this forest still needs to be taken care of. Please do not destroy it.”



**Employee Volunteering**



Employee volunteering in social and community activities is a KPI under PTTEP SSHE-SD Plan, which provides opportunities for employees to engage creatively in a wide range of activities for at least three hours per person, per year. For employees, this helps instill a sense of corporate citizenship; for local communities, these activities create opportunities to voice suggestions and opinions regarding our programs, so we can integrate their input into future project development. For example, the “PTTEP GREEN UP” Activity, organized for two consecutive years, encourages employees and their families to get involved in reforestation programs. Through this activity, participants cultivated 150 tree seedlings, moved 7,230 saplings, and planted 3,765 trees and mangroves in 2014. In addition, the “7<sup>th</sup> PTTEP Thai Heritage World Heritage Camp for Disabled Youth” brought 40 physically disabled students from the School for the Blind and the Blind with Multi-Handicaps, in Lopburi Province, to learn about Thai natural heritage at Huai Kha Khaeng Wildlife Sanctuary in Uthai Thani Province. Forty PTTEP and public volunteers gathered to act as “buddies” for these students. Prior to this, we organized a Company activity for volunteering employees to produce learning materials for the blind, such as braille books and hornbill models.

**PTTEP GREEN UP**



**Mr. Nawe Anant-raksakul**

**Executive Vice President, Geosciences and Exploration Group**

“The intangible benefit that PTTEP will receive from employees is the heart of natural conservation. When I saw my colleagues laugh, they were happy and very proud to be participating in Company CSR activities. I thought it was the happiness of the Company and executives.”

## SD Performance Summary

Economic	Unit	2011	2012	2013	2014
<b>Direct Economic Value Generated</b>					
Total revenue	Million USD	5,685	7,021	7,445	8,017
<b>Economic Value Distributed</b>					
Salary, wages and employees' benefits	Million USD	85.72	103.91	137.27	171.12
Operating expenses	Million USD	625	706	827	857
<b>Payments to Providers of Capital</b>					
Payment to governments <sup>(2)</sup>	Million USD	1,615	1,886	2,151	2,183
Dividend payments	Million USD	560	588	783	736
Interest payments	Million USD	123	178	174	216

Remarks:

- 1) Scope of reporting Economics performance is in alignment with PTTEP Annual Report 2014.
- 2) Payment to government covers petroleum royalties, remuneration for the petroleum and tax payments.

Environmental	Unit	2011	2012 <sup>(1)</sup>	2013 <sup>(1)</sup>	2014 <sup>(12)</sup>	
					Domestic	International
<b>Hydrocarbon Production</b>						
Production from operating asset	BOE	84,441,889	96,282,938	105,924,646	105,205,817	18,886,056
	Tonnes	11,531,232	13,151,812	14,452,553	14,402,539	2,552,809
<b>Energy Consumption</b>						
Total direct energy consumption	GJ	18,886,907	20,377,244	20,825,094	20,520,695	3,320,172
Total indirect energy consumption by primary energy source (electricity purchased)	GJ	29,440	29,231	34,167	65,289	8,180
Total energy intensity	GJ/tonne production	1.64	1.55	1.44	1.43	1.30
<b>Greenhouse Gas Emissions<sup>(2)</sup> (GHGs)</b>						
Direct total GHGs <sup>(3,4)</sup>	Tonnes CO <sub>2</sub> equivalent	2,751,323	4,431,144	4,459,039	4,399,529	722,545
Indirect total GHGs	Tonnes CO <sub>2</sub> equivalent	1,675	1,649	1,808	3,520	635
Other relevant indirect GHG emission <sup>(5)</sup>	Tonnes CO <sub>2</sub> equivalent	10,978	12,817	12,470	33,622	1,742
GHG intensity	Tonnes CO <sub>2</sub> equivalent/thousand tonne production	239	337	310 <sup>(11)</sup>	308	284
<b>Flare</b>						
Total flaring	MMscf	20,812	44,050	47,946	48,158	5,870
Hydrocarbon flaring	Tonnes	482,983	1,015,134	1,101,526	1,104,472	160,698
Hydrocarbon flaring intensity	Tonnes/thousand BOE	5.70	10.50	10.40	10.50	8.51

Environmental	Unit	2011	2012 <sup>(1)</sup>	2013 <sup>(1)</sup>	2014 <sup>(12)</sup>	
					Domestic	International
<b>Emissions</b>						
Volatile organic compounds (VOCs)	Tonnes VOC	7,160	15,265	16,412	16,614	1,617
VOC intensity	Tonnes VOC/ thousand tonne production	0.621	1.161	1.136	1.154	0.633
Nitrogen oxides (NOx)	Tonnes NO <sub>2</sub>	6,940	9,228	9,454	9,216	1,399
NOx intensity	Tonnes NO <sub>2</sub> / thousand tonne production	0.602	0.702	0.654	0.640	0.548
Sulfur oxides (SOx)	Tonnes SO <sub>2</sub>	457	570	576	550	165
SOx intensity	Tonnes SO <sub>2</sub> / thousand tonne production	0.040	0.043	0.040	0.038	0.065
Ozone-depleting Substances <sup>(6)</sup> (ODS)	Kg of CFC11 equivalent	-	-	8.3	13.8	0
<b>Spills</b>						
Spills <sup>(7)</sup>	Cases	14	7	26	12	16
	Tonnes	6.00	5.87	44.22	0.28	1.16
Hydrocarbons	Cases	13	7	23	11	14
	Tonnes	0.75	5.87	44.18	0.28	1.14
Non-hydrocarbons	Cases	1	0	3	1	2
	Tonnes	5.25	0	0.10	0.00	0.02
<b>Water Withdrawn</b>						
Water withdrawal (excluding once through cooling water)	Cubic meters	1,133,491	1,772,324	2,027,523	2,262,918	359,686
Once through cooling water	Cubic meters	63,136,840	68,214,995	65,004,518	48,411,046	0
<b>Water Discharge</b>						
Water discharge by destination						
Produced water injection	Cubic meters	5,330,736	5,559,511	6,640,290	6,438,057	0
Produced water disposed by evaporation	Cubic meters	NA	0	0	1,854	126,745
Produced water treated & discharged <sup>(8)</sup>	Cubic meters	NA	0	0	0	89,564
Produced water disposed by waste processor	Cubic meters	NA	0	0	1,958	0
<b>Waste Generation<sup>(9, 10)</sup></b>						
Hazardous waste	Tonnes	NA	NA	NA	36,436	32
Non-hazardous waste	Tonnes	NA	NA	NA	202,877	290
<b>Waste Disposal</b>						
Hazardous waste	Tonnes	18,235	33,874	44,559	36,706	32
Drilling mud and cutting waste	Tonnes	16,999	32,430	41,894	34,702	NA
Other hazardous waste	Tonnes	1,236	1,444	2,665	2,004	32

## SD Performance Summary

Environmental	Unit	2011	2012 <sup>(1)</sup>	2013 <sup>(1)</sup>	2014 <sup>(12)</sup>	
					Domestic	International
Non-hazardous waste	Tonnes	588	873	1,238	202,916	290
Drilling mud and cutting waste	Tonnes	NA	NA	NA	200,757	NA
Other non-hazardous waste	Tonnes	NA	873	1,238	2,159	290
Exported hazardous waste under the Basel Convention	Tonnes	515	429	460	205	0
<b>Environmental Management</b>						
Investing in managing environmental impacts	Million USD	4.44	5.96	9.34	6.09	NA
Treatment and disposal expenses	Million USD	2.44	3.77	4.08	3.99	NA
Protection, management and investments	Million USD	2.00	2.19	5.26	2.09	NA
Percentage of prevention cost in total environment expense	%	45	37	56	34	NA
<b>Legal Compliance</b>						
Significant fines, penalties and settlements	Case	0	0	0	0	0
	Million USD	0	0	0	0	0

## Remarks:

- 2012 & 2013 Environmental performance data included Thailand assets only.
- Total direct GHG emissions (Scope 1) based on equity basis are not included in this report. Noted that GHG emissions (Scope 1) in 2012 as base year are recalculated to be 4,471,086 tonnes CO<sub>2</sub> equivalent.
- GHG emissions from well service venting is not included.
- Methane (CH<sub>4</sub>) emissions are equivalent to 11,092 and 1,397 tonnes CH<sub>4</sub> for Thailand and International assets respectively.
- Other relevant indirect GHG emissions (Scope 3) are comprised of transportation and air travel.
- Ozone-depleting substances (ODS) includes Hydrochlorofluorocarbon (HCFC) only.
- No significant spills from the third parties under contractual obligations
- Hydrocarbon discharged within produced water is equal to 0 and 1.42 tonnes for Thailand and International assets respectively.
- Drilling mud & cutting waste is included in Thailand assets only.
- The difference between waste generation and disposal amount is accounted for on-site storage.
- Re-calculation to match 2014's calculation method
- NA (not available)
- 100% data coverage based on PTTEP operational control.

Labor Practices	Unit	2011		2012		2013 <sup>(1)</sup>		2014	
		Male	Female	Male	Female	Male	Female	Male	Female
<b>Workforce</b>									
Total Workforce <sup>(4)</sup>	Persons	3,639		4,080		4,316		4,547	
		2,479	1,160	2,732	1,348	2,851	1,465	3,058	1,489
<b>Staff by region</b>									
Thailand (PTTEP and PTTEP Services)	Persons	2,166	1,076	2,340	1,233	2,155	1,252	2,247	1,275
Australia	Persons	186	43	217	59	204	57	176	39
Oman	Persons	59	6	55	6	68	6	73	14
Myanmar	Persons	29	23	66	34	246	92	377	98
Others	Persons	39	12	54	16	178	58	185	63
<b>Staff by age</b>									
<30 years	Persons	909		1,148		869		924	
30 - 50 years	Persons	2,004		2,102		1,603		1,671	
>50 years	Persons	329		323		379		463	

Labor Practices	Unit	2011		2012		2013 <sup>(1)</sup>		2014	
		Male	Female	Male	Female	Male	Female	Male	Female
<b>Staff by employment type</b>									
Permanent <sup>(2)</sup>	Persons	NA	NA	NA	NA	2,251	1,162	2,431	1,216
Temporary <sup>(3)</sup>	Persons	NA	NA	NA	NA	600	303	627	273
<b>Staff by employment category</b>									
Executives	Persons	NA	NA	NA	NA	29	7	34	8
Middle Management	Persons	NA	NA	NA	NA	66	23	77	25
Senior	Persons	NA	NA	NA	NA	672	213	618	222
Employee	Persons	NA	NA	NA	NA	2,084	1,221	2,329	1,234
<b>Training and Development</b>									
Average all employees	Hours/person/year	40.9	48.6	52.0	43.3	57.1	65.4	48.6	40
<b>Composition of Governance Bodies</b>									
Board of directors	Persons	14	1	14	1	14	1	14	0
Executives	Persons	45	8	57	9	29	7	34	8
Middle management	Persons	282	70	312	84	66	23	77	25
Senior	Persons	478	234	536	274	672	213	618	222
Employee	Persons	1,361	764	1,435	866	2,084	1,221	2,329	1,234
<b>New Employee Hire by Age Group</b>									
<30 years	Persons	194	141	152	168	291	226	268	137
30 - 50 years	Persons	181	54	131	59	230	104	201	65
>50 years	Persons	26	1	19	2	42	3	54	7
Total	Persons	401	196	302	229	563	333	523	209
New hire rate	% of total employees	12.4	6.0	8.5	6.4	13.0	7.7	11.5	4.6
<b>Turnover by Age Group</b>									
< 30 years	Persons	28	47	33	51	42	42	66	77
30 - 50 years	Persons	48	18	74	19	57	33	81	50
> 50 years	Persons	20	3	27	2	20	2	42	9
Total	Persons	96	68	134	72	119	77	189	136
Turnover rate	% of total employees	3.0	2.1	3.8	1.8	2.8	1.8	4.2	3.0
<b>Turnover by Type</b>									
Voluntary resignation	Persons	86	66	127	72	108	76	173	129
Dismissal	Persons	0	0	0	0	0	0	0	0
Retirement	Persons	10	2	5	0	8	1	11	6
Death - not related to work	Persons	1	0	2	0	3	0	5	1
<b>Parental Leave</b>									
Employee taken parental leave	Persons	23	32	15	29	0	27	17	15
Employee returned to work after parental leave	%	100	100	100	100	100	100	100	100
<b>Integrity</b>									
Training hours concerning human rights, anti-bribery, and corruption	Hours	208	260	784	1,170	420	833	1,694	1,568

## SD Performance Summary

Labor Practices	Unit	2011		2012		2013 <sup>(1)</sup>		2014	
		Male	Female	Male	Female	Male	Female	Male	Female
<b>Equal Remuneration</b>									
Ratio basic salary women/men	Ratio	0.74		0.76		0.87		0.89	
<b>Gender Diversity</b>									
Women in workforce	Persons	1,076		1,233		1,465		1,489	
	%	33		35		34		33	
Women in professional positions	Persons	234		274		1,222		1,234	
	%	33		34		37		35	
Women in management positions	Persons	70		84		30		33	
	%	20		21		24		23	
Women in senior leadership positions	Persons	9		10		213		222	
	%	13		12		24		26	

## Remarks:

- 1) PTTEP started reporting human capital data at the global level in 2013 (100% data coverage).
- 2) Permanent means a full time employment contract with an indeterminate period. PTTEP does not have part-time employees.
- 3) Temporary means an employment contract with a limited duration and terminated by a specific event, including the end of a project or work phase or return of replaced personnel.
- 4) Total staff exclude outsource staff i.e. maids, gardeners and drivers.
- 5) NA (not available)

Corporate Social Responsibility	Unit	2011	2012	2013	2014
<b>Total Contribution</b>					
Total contribution	Million USD	-	6.49	19.76	44.50
Volunteer	Hours	-	-	9,083	10,308

## Remarks:

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

Health and Safety	Unit	2011	2012	2013	2014 <sup>(3)</sup>
<b>Fatalities</b>					
Total number	Cases	0	0	1	0
Workforce <sup>(1)</sup>	Cases	0	0	0	0
Contractors <sup>(2)</sup>	Cases	0	0	1	0
Fatal accident rate (FAR) - Workforce	Cases	0.00	0.00	0.00	0.00
	per hundred million hours worked				
Fatal accident rate (FAR) - Contractors	Cases	0.00	0.00	2.55	0.00
	per hundred million hours worked				

Health and Safety	Unit	2011	2012	2013	2014 <sup>(3)</sup>
<b>Occupational Health and Safety</b>					
Total recordable incident rate (TRIR) - Workforce	Cases	12	9	5	6
	Cases per million hours worked	2.65	1.18	0.59	0.63
Total recordable incident rate (TRIR) - Contractors	Cases	42	51	39	46
	Cases per million hours worked	1.98	2.09	1.26	1.50
Lost time injury frequency (LTIF) - Workforce	Cases	3	2	1	0
	Cases per million hours worked	0.66	0.26	0.12	0.00
Lost time injury frequency (LTIF) - Contractors	Cases	7	4	5	9
	Cases per million hours worked	0.33	0.16	0.16	0.29
Near Miss – Workforce	Cases	43	55	67	98
Near Miss – Contractors	Cases	84	87	98	53
<b>Illnesses</b>					
Total recordable occupational illness frequency (TROIF) - Employees	Cases per million hours worked	0.23	0.06	0.15	0.22
Absentee rate – Workforce	Cases per million hours worked	NA	NA	NA	171.69
Absentee rate – Contractors	Cases per million hours worked	NA	NA	NA	NA
Restricted work case (RWC) – Workforce	Cases	14	24	20	7
Restricted work case (RWC) – Contractors	Cases	NA	NA	2	0
Medical treatment case – Workforce	Cases	30	30	13	1
Medical treatment case – Contractors	Cases	NA	NA	2	4
<b>Process Safety</b>					
Number of Tier 1 process safety events	Cases	NA	1	4	3
Number of Tier 2 process safety events	Cases	NA	3	2	7

## Remarks:

- 1) Workforce means employees and supervised workers of PTTEP (PTTEP Services Limited).
- 2) A 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.
- 3) 100% data coverage.

## Awards & Recognition

PTTEP is proud to have been recognized globally by a number of leading organizations and publications in 2014 for our business activities.



### Corporate Governance

- ▶ Best CEO and Best CFO
- ▶ Top Corporate Governance Report Awards
- ▶ Asian Corporate Director 2014
- ▶ The 10<sup>th</sup> Corporate Governance Asia Recognition Awards
- ▶ Asia's Best CEO (Investor Relations) Award
- ▶ Asia's Best CFO (Investor Relations) Award
- ▶ The 2<sup>nd</sup> Asian Company Secretary of the Year Award

- Investment Analysts Association
- Stock Exchange of Thailand and Money and Banking Magazine
- Corporate Governance Asia Magazine
- Corporate Governance Asia Magazine
- Corporate Governance Asia Magazine
- Corporate Governance Asia Magazine
- Corporate Governance Asia Magazine

### Social Responsibility

- ▶ CSR Recognition Award 2014
- ▶ Best Strategic Corporate CSR
- ▶ Best Community Program Award
- ▶ Best Environmental Responsibility
- ▶ EIA Monitoring Awards 2014
- ▶ CSR Excellence Award
- ▶ TOP CSR Free Medical Services

- Stock Exchange of Thailand
- Alpha Southeast Asia Magazine
- Pinnacle Group International Singapore
- Corporate Governance Asia Magazine
- Ministry of Natural Resources and Environment
- Ministry of Social Development and Human Security
- Dompert Dhuafa Foundation

### Investor Relations

- ▶ Best IR in Energy Sector 2014
- ▶ Best IR by a CFO 2014
- ▶ Investor Relations Awards
- ▶ Best Senior Management IR Support in Thailand
- ▶ Best Investor Relations Company Award

- IR Magazine
- IR Magazine
- Stock Exchange of Thailand and Money and Banking Magazine
- Alpha Southeast Asia Magazine
- Corporate Governance Asia Magazine



Best Practices

- ▶ The Asset Platinum Corporate Award
- ▶ Outstanding Sustainability Report Award 2014
- ▶ Thailand's Top Corporate Brand Value 2014 Award
- ▶ Best Public Company 2014 Resources Industry Award
- ▶ 2013 Thailand Quality Class Award
  
- ▶ Listed Company of the Dow Jones Sustainability Indices (DJSI) in Sustainability World Index of the Oil and Gas Sector 2014
- ▶ PTTEP AA has achieved certification to the International Organization for Standardization (ISO) 14001 Environmental Management System
- ▶ Best Corporate Hybrid
- ▶ Best Deal of Thailand
- ▶ Best Investment Grade Bond

- The Asset Magazine
- Securities and Exchange Commission and Thaipat Institute
- Chulalongkorn University, Faculty of Commerce and Accountancy
- Money and Banking Magazine
- Thailand Quality Award National Committee of Thailand
- Productivity Institute
- RobecoSAM
  
- International Organization for Standardization
  
- The Asset Magazine
- The Asset Magazine
- FinanceAsia Magazine



## 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 2014

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 2014' ("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 production operations phase and activities in Thailand only which included reporting boundaries 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: 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: type of injury and rates of injury and occupational diseases (G4-LA6) for exploration and production phases.

Our assurance engagement excluded the environmental data and information of PTTEP's exploration phase in Thailand. All of PTTEP's exploration and production phases, and petroleum development support bases outside of Thailand were also excluded.

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 environment and occupational health and safety indicators under reporting boundaries 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 S1 Project to sample evidence for the selected environmental and occupational health and safety indicators to confirm its reliability. The S1 Project was visited because water discharge and waste disposal were largest here among PTTEP's production phase operations. No off-shore production operation 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: The centralized system for data and information collection from PTTEP's assets within Thailand to the head office level has improved and implemented a review structure that includes an internal verification process. However, we believe that PTTEP should also implement this process to cover its international sites as to ensure the readiness of both data and systems for the next assurance engagement.
- Future reports: PTTEP should consider reviewing significant changes to its reporting boundaries both inside and outside Thailand. This is particular to the disclosure of its material aspects and the comparability of its environmental and occupational health and safety performance, for example, the base year re-calculation and completeness review of its GHG emission data and information.

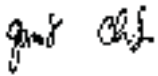
### LRQA's competence and independence

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: 19 February 2015



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: BGK6022747

Lloyd's Register Group Limited, its affiliates and subsidiaries, including Lloyd's Register Quality Assurance Limited (LRQA), and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

The English version of this Assurance Statement is the only valid version. Lloyd's Register Group Limited assumes no responsibility for versions translated into other languages.

This Assurance Statement is only valid when published with the Report to which it refers. It may only be reproduced in its entirety.  
Copyright © Lloyd's Register Quality Assurance Limited, 2013. A member of the Lloyd's Register Group.

## GENERAL STANDARD DISCLOSURES

General Standard Disclosures		Page Number (or Link)	Omissions/Remarks	External Assurance	UNGC Principles
Strategy and Analysis	G4-1	10-11	-	-	-
	G4-2	14, 18, 25	-	-	-
Organizational Profile	G4-3	<a href="http://www.pttep.com/en/aboutPttep_PTTEPGroup.aspx">http://www.pttep.com/en/aboutPttep_PTTEPGroup.aspx</a>	-	-	-
	G4-4	14	-	-	-
	G4-5	<a href="http://www.pttep.com/en/aboutPttep_PTTEPGroup.aspx">http://www.pttep.com/en/aboutPttep_PTTEPGroup.aspx</a>	-	-	-
	G4-6	16	-	-	-
	G4-7	<a href="http://www.pttep.com/en/InvestorRelations_ShareholderInformation.aspx">http://www.pttep.com/en/InvestorRelations_ShareholderInformation.aspx</a>	-	-	-
	G4-8	14	-	-	-
	G4-9	12, 16, <a href="http://www.pttep.com/en/InvestorRelations_FinancialRatio.aspx">http://www.pttep.com/en/InvestorRelations_FinancialRatio.aspx</a>	-	-	-
	G4-10	58-59	-	-	-
	G4-11	47	-	-	3, 6
	G4-12	30-31	-	-	-
	G4-13	13	-	-	-
	G4-14	25	-	-	-
	G4-15	24, 32-33, 36, 38	-	-	-
G4-16	18, 38	-	-	-	
Identified	G4-17	74	-	-	-
Material Aspects and Boundaries	G4-18	75	-	-	-
	G4-19	74-75	-	-	-
	G4-20	75	-	-	-
	G4-21	75	-	-	-
	G4-22	56-61	-	-	-
	G4-23	74	-	-	-
Stakeholder Engagement	G4-24	72-73	-	-	-
	G4-25	49	-	-	-
	G4-26	72-73	-	-	-
	G4-27	47, 49, 73	-	-	-
Report Profile	G4-28	71	-	-	-
	G4-29	<a href="http://www.pttep.com/en/CSR_Publication_5.aspx?page=all">http://www.pttep.com/en/CSR_Publication_5.aspx?page=all</a>	-	-	-
	G4-30	<a href="http://www.pttep.com/en/CSR_Publication_5.aspx?page=all">http://www.pttep.com/en/CSR_Publication_5.aspx?page=all</a>	-	-	-
	G4-31	77-78	-	-	-
	G4-32	66-70	-	-	-
	G4-33	64-65	-	-	-
Governance	G4-34	20-21	-	-	-
	G4-35	18	-	-	-
	G4-36	18	-	-	-

General Standard Disclosures	Page Number (or Link)	Omissions/Remarks	External Assurance	UNGC Principles
G4-37	22	-	-	-
G4-38	20	-	-	-
G4-39	20	-	-	-
G4-40	22	-	-	-
G4-41	22, <a href="http://www.pttep.com/en/CSR_CorporateGovernanceDetail.aspx?ContentID=159">http://www.pttep.com/en/CSR_CorporateGovernanceDetail.aspx?ContentID=159</a>	-	-	-
G4-42	22	-	-	-
G4-43	23	-	-	-
G4-44	22	-	-	-
G4-45	18, 25	-	-	-
G4-46	18, 25	-	-	-
G4-47	18, 25	-	-	-
G4-48	74	-	-	-
G4-49	22, 25	-	-	-
G4-50	22, 25	-	-	-
G4-51	22, 46	-	-	-
G4-52	<a href="http://www.pttep.com/en/CorporateGovernance_TheCommittee.aspx?Type=2&amp;CatID=5">http://www.pttep.com/en/CorporateGovernance_TheCommittee.aspx?Type=2&amp;CatID=5</a>	-	-	-
G4-53	<a href="http://www.pttep.com/en/CorporateGovernance_TheCommittee.aspx?Type=2&amp;CatID=5">http://www.pttep.com/en/CorporateGovernance_TheCommittee.aspx?Type=2&amp;CatID=5</a>	-	-	-
G4-54	-	Information is confidential.	-	-
G4-55	-	Information is confidential.	-	-
<b>Ethics and Integrity</b>	G4-56	23-24, 46	-	10
	G4-57	47	-	10
	G4-58	<a href="http://www.pttep.com/en/ContactUs.aspx?Section=3&amp;Person=3">http://www.pttep.com/en/ContactUs.aspx?Section=3&amp;Person=3</a> <a href="http://www.pttep.com/en/CSR_CorporateGovernance_HotlinePolicy.aspx">http://www.pttep.com/en/CSR_CorporateGovernance_HotlinePolicy.aspx</a>	-	-

## SPECIFIC STANDARD DISCLOSURES

Material Aspects	DMA and Indicators	Page Number (or Link)	Omissions/Remarks	External Assurance	UNGC Principles
<b>ECONOMIC</b>					
Economic Performance	G4-DMA	12-14	-	-	-
	G4-EC1 <sub>OGSS</sub>	56	-	-	-
	G4-EC2 <sub>OGSS</sub>	37-38	-	-	7
	G4-EC3	46-47	-	-	-
	G4-EC4	68	PTTEP does not receive financial assistance from government.	-	-
Indirect Economic Impacts	G4-DMA <sub>OGSS</sub>	48-52	-	-	-
	G4-EC7 <sub>OGSS</sub>	51	-	-	-
	G4-EC8 <sub>OGSS</sub>	51-52	-	-	-
<b>ENVIRONMENTAL</b>					
Energy	G4-DMA <sub>OGSS</sub>	37-39	-	-	-
	G4-EN3	56	-	✓	7, 8
	G4-EN4	-	PTTEP does not report energy consumption outside of the organization publicly at this time.	-	8
	G4-EN5 <sub>OGSS</sub>	56	-	-	8
	G4-EN6	38	-	-	8, 9
	G4-EN7	-	Not applicable to PTTEP business.	-	8, 9
	G4-OG2	-	Not applicable to PTTEP business.	-	-
	G4-OG3	-	Not applicable to PTTEP business.	-	-
Water	G4-DMA	36	-	-	-
	G4-EN8 <sub>OGSS</sub>	36	-	✓	7, 8
	G4-EN9 <sub>OGSS</sub>	36	-	-	8
	G4-EN10	68	No recycled or reused water in 2014.	-	8
Biodiversity	G4-DMA <sub>OGSS</sub>	40-41	-	-	-
	G4-EN11	40	-	-	8
	G4-EN12	40-41	-	-	8
	G4-EN13	40-41	-	-	8
	G4-EN14	40-41	-	-	8
	G4-OG4	40	-	-	-
Emissions	G4-DMA	35, 37-39, 52	-	-	-
	G4-EN15 <sub>OGSS</sub>	56, 58	-	✓	7, 8
	G4-EN16 <sub>OGSS</sub>	56	-	✓	7, 8
	G4-EN17 <sub>OGSS</sub>	56, 58	-	✓	7, 8
	G4-EN18 <sub>OGSS</sub>	56	-	-	8
	G4-EN19 <sub>OGSS</sub>	37-39	-	-	8, 9
	G4-EN20	57-58	-	✓	7, 8
	G4-EN21 <sub>OGSS</sub>	35, 57	-	✓	7, 8

Material Aspects	DMA and Indicators	Page Number (or Link)	Omissions/Remarks	External Assurance	UNGC Principles
Effluents and Waste	G4-DMA <sub>OGSS</sub>	34-36	-	-	-
	G4-EN22	57-58	-	✓	8
	G4-EN23 <sub>OGSS</sub>	57-58	-	✓	8
	G4-EN24 <sub>OGSS</sub>	34	-	✓	8
	G4-EN25	58	-	-	8
	G4-EN26	36	-	-	8
	G4-OG5	36	-	✓	-
	G4-OG6	56	-	-	-
	G4-OG7	35	-	✓	-
Compliance	G4-DMA	32-33	-	-	-
	G4-EN29	58	-	-	8
Supplier Environmental Assessment	G4-DMA	30-31	-	-	-
	G4-EN32	69	100% of new suppliers are assessed using environmental, social, human rights, and labor practice criteria.	-	8
	G4-EN33	-	Information will be reported in next year's report.	-	8
Environmental Grievance Mechanisms	G4-DMA	48-49	-	-	-
	G4-EN34	49	-	-	8
<b>LABOR PRACTICES AND DECENT WORK</b>					
Employment	G4-DMA <sub>OGSS</sub>	44-47	-	-	-
	G4-LA1	59	-	-	6
	G4-LA2	46-47	-	-	-
	G4-LA3	59	-	-	6
Occupational Health and Safety	G4-DMA <sub>OGSS</sub>	42-43	-	-	-
	G4-LA5	47	-	-	-
	G4-LA6 <sub>OGSS</sub>	60-61	-	✓	-
	G4-LA7	42	-	-	-
	G4-LA8	47	-	-	-
Training and Education	G4-DMA	44-46	-	-	-
	G4-LA9	45, 60	-	-	6
	G4-LA10	44-47	-	-	-
	G4-LA11	46	-	-	6
Supplier Assessment for Labor Practices	G4-DMA	30-31	-	-	-
	G4-LA14	69	100% of new suppliers are assessed using environmental, social, human rights, and labor practice criteria.	-	-
	G4-LA15	-	Information will be reported in next year's report.	-	-

## 70 GRI Content Index &amp; UNGC Principles

Material Aspects	DMA and Indicators	Page Number (or Link)	Omissions/Remarks	External Assurance	UNGC Principles
Labor Practices	G4-DMA	23-24, 47	-	-	-
Grievance Mechanisms	G4-LA16	24	-	-	-
<b>HUMAN RIGHTS</b>					
Non-discrimination	G4-DMA	23-24, 47	-	-	-
	G4-HR3	24	-	-	6
Supplier Human Rights Assessment	G4-DMA <sub>OGSS</sub>	30-31	-	-	-
	G4-HR10	70	100% of new suppliers are assessed using environmental, social, human rights, and labor practice criteria.	-	2
	G4-HR11	-	Information will be reported in next year's report.	-	2
Human Rights	G4-DMA	23-24, 47	-	-	-
Grievance Mechanisms	G4-HR12	24	-	-	1
<b>SOCIETY</b>					
Local Communities	G4-DMA <sub>OGSS</sub>	48-49	-	-	-
	G4-SO1	6-7, 48, 51	-	-	1
	G4-SO2 <sub>OGSS</sub>	48-49	-	-	1
	G4-OG10	49	-	-	-
	G4-OG11	70	Zero sites have been decommissioned.	-	-
Anti-Corruption	G4-DMA <sub>OGSS</sub>	23-24	-	-	-
	G4-SO3	24-25	-	-	10
	G4-SO4	23-24	-	-	10
	G4-SO5	25	-	-	10
Compliance	G4-DMA	23-24	-	-	-
	G4-SO8 <sub>OGSS</sub>	58	-	-	-
Supplier Assessment for Impacts on Society	G4-DMA	30-31	-	-	-
	G4-SO9	70	100% of new suppliers are assessed using environmental, social, human rights, and labor practice criteria.	-	-
	G4-SO10	-	Information will be reported in next year's report.	-	-
Grievance Mechanisms for Impacts on Society	G4-DMA	48-49	-	-	-
	G4-SO11	49	-	-	-
Asset Integrity and Process Safety	G4-DMA <sub>OGSS</sub>	33	-	-	-
	G4-OG13	33, 61	-	-	-



## About This Report

The materiality assessment process to identify and prioritize relevant material issues in the PTTEP Sustainability Report was conducted with consideration of the importance to stakeholders and to our business.



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

The purpose of the PTTEP Sustainability Report is to communicate material issues that were important to our stakeholders and our Company during the past 12 months of 2014. The report applies the Sustainability Reporting Guideline: Oil and Gas Sector Supplement (OGSS) G4 of the Global Reporting Initiative (GRI) Core Level, an internationally accepted reporting approach that encompasses economic, social and environmental issues. In 2016, PTTEP intends to begin reporting at the GRI Comprehensive Level. PTTEP is solely responsible for the information contained in this report and especially that which pertains to our sustainability performance. The content has received approval from the SSHE-SD Council.

To assess the validity of the disclosed information, PTTEP has selected Lloyd's Register International (Thailand) Limited to conduct an independent audit of the environmental and safety data. The certification is presented in the Statement of External Assurance section. External auditing of financial statements has been further carried out by an independent auditor from 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 stakeholders are classified into six groups as follows: 1) Government 2) Community and Society 3) Shareholders, Institutional Investors and Researchers 4) Suppliers and Contractors 5) Employees and 6) Independent Organizations, Industrial Associations, and Press and Media. Feedback received from our stakeholder engagement activities is incorporated into all three dimensions of our sustainability practices - economic, social and environmental - for consideration and improvement of the efficiency of our operations.



Stakeholder Engagement Activities <sup>(G4-24, G4-26)</sup>



**Government**

**Engagement Approach**

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

**Performance Summary 2014**

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

**Community and Society**

**Engagement Approach**

- ▶ Monthly meetings with community and civil society groups
- ▶ Public hearing
- ▶ Suggestions and complaints

**Performance Summary 2014**

- ▶ PTTEP continuously prevents impacts from operation to communities and develops community and social projects to generate benefits that reflect stakeholders' interests and are in line with PTTEP social development strategy.



**Shareholders, Institutional Investors and Researchers**

**Engagement Approach**

- ▶ Annual Shareholders General Meeting
- ▶ Analyst meetings
- ▶ Shareholder and investor roadshow
- ▶ Suggestions and complaints

**Performance Summary 2014**

- ▶ PTTEP coordinates and provides accurate information to our relevant stakeholders. We organize various activities including the 2014 Annual General Shareholders' Meeting and the quarterly Analyst Meeting to communicate with investors, roadshows to see our shareholders and investors, and CSR activities.

## Suppliers and Contractors

### Engagement Approach

- ▶ PTTEP Vendor Portal
- ▶ Suggestions and complaints

### Performance Summary 2014

- ▶ PTTEP has established a PTTEP Vendor Sustainable Code of Conduct for suppliers and contractors to acknowledge and act in accordance with this code which aligns with our commitment to good corporate governance.



## Employees

### Engagement Approach

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

### Performance Summary 2014

- ▶ PTTEP conducted the annual employee engagement survey in 2014 and continuously promotes the EP SPIRIT values among our employees.

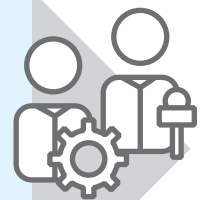
## Independent Organizations, Industrial Associations, and Press and Media

### Engagement Approach

- ▶ PTTEP membership in various organizations

### Performance Summary 2014

- ▶ PTTEP strives to mitigate our social and environmental impacts by getting involved with various independent organizations and disclosing information in a transparent manner.



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

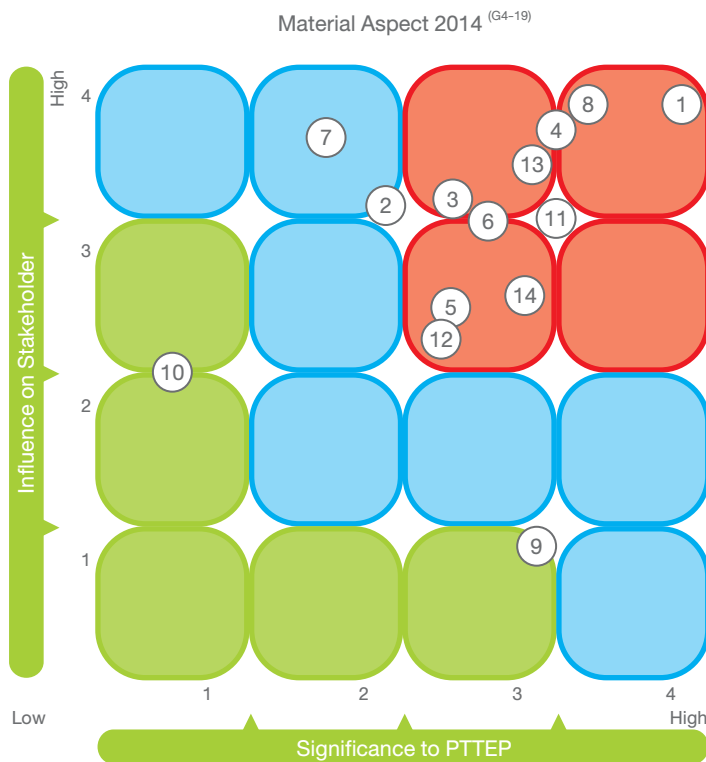
In 2014, PTTEP carried out surveys of stakeholders from various groups, including investors, contractors, customers and sustainability experts. The surveys gauged stakeholder level of satisfaction on material issues and allowed them to provide suggestions for improvement. Important points included:

- ▶ PTTEP should demonstrate an efficient management approach to allow the Company to grow and meet its business targets, which will create confidence among investors and relevant stakeholders.
- ▶ Given that human capital is an important driver of the Company sustainable development, PTTEP should continuously support human capital development initiatives to increase employee potential and operational efficiency.
- ▶ PTTEP should increase support to social development projects that emphasize the environment, as communities and society groups are demonstrating greater awareness for improving environmental quality.

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

To identify material aspects that are of importance to PTTEP and that align with stakeholder interests, the material assessment was conducted through the following process:

1. Identify PTTEP material issues by consideration of PTTEP strategies, risks, challenges, activities, expectations and interests of stakeholders, covering environmental, social and corporate governance aspects.
2. Determine reporting boundaries to ensure that the material issues cover all relevant stakeholder groups, such as subsidiary companies, suppliers, subcontractors, etc.
3. Prioritize material issues by measuring their level of importance to PTTEP, based on the Company risk assessment criteria and stakeholder interests.
4. Propose findings to the Sustainable Development Working Team for review and approval prior to publication in the Company annual report, sustainability report and website.
5. Review information in the report to ensure alignment with GRI G4 guidelines and the accuracy of data by external verification and improve stakeholder engagement processes to ensure that the Sustainability Report reflects stakeholders' interests.



Economic Dimension

1. Business Growth
2. Good Corporate Governance
3. Business Ethics and Human Rights
4. Risk and Crisis Management
5. Supply Chain Management

Environment Dimension

6. Operational Eco-Efficiency
7. Water Management
8. Climate Change Management
9. Biodiversity
10. Energy

Social Dimension

11. Capital Project Development
12. Health and Safety
13. Employees
14. Community and Society

Scope and Reporting Boundaries (G4-17, G4-20, G4-21)

This report covers PTTEP projects both domestically and internationally (see the PTTEP Business section) in which we act as an Operator, as data collection system within these countries are most prompted. In this report, PTTEP discloses performance related to our business partnerships, such as suppliers and contractors. Financial information, in particular financial statements, has been verified by financial auditors in order to ensure compliance to accounting principles and has been approved by the Audit Committee/Board of Directors of PTTEP prior to public disclosure. In addition, PTTEP has reported on our financial reporting responsibility in the Annual Report.

As PTTEP is a subsidiary of the PTT Public Company Limited the information presented here is also included in PTT Corporate Sustainability Report.

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

Material Aspects	GRI Material Aspects	Chapters
1. Business Growth	<ul style="list-style-type: none"> <li>▶ Economic Performance</li> <li>▶ Indirect Economic Impacts</li> </ul>	<ul style="list-style-type: none"> <li>▶ About PTTEP</li> <li>▶ Community and Social Development</li> <li>▶ SD Performance Summary</li> </ul>
2. Good Corporate Governance	-	<ul style="list-style-type: none"> <li>▶ Good Corporate Governance</li> </ul>
3. Business Ethics and Human Rights	<ul style="list-style-type: none"> <li>▶ Anti-corruption</li> <li>▶ Labor Practices Grievance Mechanisms</li> <li>▶ Human Rights Grievance Mechanisms</li> <li>▶ Environmental Grievance Mechanisms</li> <li>▶ Non-discrimination</li> <li>▶ Compliance</li> </ul>	<ul style="list-style-type: none"> <li>▶ Business Ethics and Human Rights</li> </ul>
4. Risk and Crisis Management	-	<ul style="list-style-type: none"> <li>▶ Risk and Crisis Management</li> </ul>
5. Supply Chain Management	<ul style="list-style-type: none"> <li>▶ Supplier Environmental Assessment</li> <li>▶ Supplier Assessment for Labor Practices</li> <li>▶ Supplier Assessment for Impacts on Society</li> <li>▶ Supplier Human Rights Assessment</li> </ul>	<ul style="list-style-type: none"> <li>▶ Supply Chain Management</li> </ul>
6. Operational Eco-Efficiency	<ul style="list-style-type: none"> <li>▶ Environmental Compliance</li> <li>▶ Effluents and Waste</li> </ul>	<ul style="list-style-type: none"> <li>▶ Operational Eco-Efficiency</li> <li>▶ SD Performance Summary</li> </ul>
7. Water Management	<ul style="list-style-type: none"> <li>▶ Water</li> </ul>	<ul style="list-style-type: none"> <li>▶ Operational Eco-Efficiency</li> <li>▶ SD Performance Summary</li> </ul>
8. Climate Change Management	<ul style="list-style-type: none"> <li>▶ Emissions</li> </ul>	<ul style="list-style-type: none"> <li>▶ Energy and Climate Change Management</li> <li>▶ SD Performance Summary</li> </ul>
9. Biodiversity	<ul style="list-style-type: none"> <li>▶ Biodiversity</li> </ul>	<ul style="list-style-type: none"> <li>▶ Biodiversity</li> </ul>
10. Energy	<ul style="list-style-type: none"> <li>▶ Energy</li> </ul>	<ul style="list-style-type: none"> <li>▶ Energy and Climate Change Management</li> <li>▶ SD Performance Summary</li> </ul>
11. Capital Project Development	<ul style="list-style-type: none"> <li>▶ Local Communities</li> <li>▶ Grievance Mechanisms for Impacts on Society</li> </ul>	<ul style="list-style-type: none"> <li>▶ Managing Impacts on Communities</li> </ul>
12. Health and Safety	<ul style="list-style-type: none"> <li>▶ Occupational Health and Safety</li> <li>▶ Process Safety</li> </ul>	<ul style="list-style-type: none"> <li>▶ Safety Culture</li> <li>▶ Integrated Environmental Management</li> <li>▶ SD Performance Summary</li> </ul>
13. Employees	<ul style="list-style-type: none"> <li>▶ Recruitment</li> <li>▶ Training and Education</li> </ul>	<ul style="list-style-type: none"> <li>▶ PTTEP Employees</li> <li>▶ SD Performance Summary</li> </ul>
14. Community and Society	<ul style="list-style-type: none"> <li>▶ Indirect Economic Impacts</li> <li>▶ Local communities</li> </ul>	<ul style="list-style-type: none"> <li>▶ Community and Social Development</li> <li>▶ SD Performance Summary</li> </ul>

### Remarks:

1. Environmental data covers PTTEP operating projects in Thailand, Australia, Oman and Zawtika Project in Myanmar only. PTTEP plans to improve data collection process to expand reporting boundaries for all countries where PTTEP is an operator.
2. Economic performance data in this report follows the same reporting boundary as PTTEP Annual Report 2014.



# 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 satisfaction of PTTEP Sustainability Report 2014

- |                      |                               |                                 |                              |                                       |
|----------------------|-------------------------------|---------------------------------|------------------------------|---------------------------------------|
| 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 Institution               |
| <input type="checkbox"/> Student                       | <input type="checkbox"/> NGO               | <input type="checkbox"/> Communities surrounding PTTEP operation areas |
| <input type="checkbox"/> Others (please specify) ..... |  |  |

PTTEP appreciates your valuable inputs.





2014 SUSTAINABILITY REPORT

# EXPLORING FOR A SUSTAINABLE HAPPINESS

MEMBER OF

**Dow Jones  
Sustainability Indices**

In Collaboration with RobecoSAM

บริการธุรกิจตอบรับ

ใบอนุญาตเลขที่ ปน (น) 3225 ปณศ. จตุจักร  
ถ้าฝากส่งในประเทศไม่ต้องฉีกตราไปรษณียากร

กรุณาส่ง

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





EXPLORING FOR  
**A SUSTAINABLE  
HAPPINESS**





**PTT Exploration and Production Public Company Limited**