

## 2. Management Discussion and Analysis of Operating Results for the Third Quarter of 2012

### 2.1 PTTEP Performance

The volatility in the global economy from the second quarter of 2012 continues to loom in the third quarter of 2012. There continue to be major concerns around the economic uncertainties of European nations. Despite the economies showing signs of improvement as a result of the Outright Monetary Transactions by the European Central Bank (ECB) and the establishment of the European Stability Mechanism (ESM) by Germany, resistance from civilians in Greece and Spain towards bailout terms affected the recovery of the European debt crisis. In the United States, although the U.S. Federal Reserve has announced the third round of quantitative easing (QE3) to alleviate unemployment and economic concerns, the impact of such measure is yet to be seen. In China, the economy continues to slow down as both domestic and international demands retract.

As for the Thai economy, 2012 is expected to be better than 2011. The Office of the National Economic and Social Development Board (NESDB) forecasts that Thai economic growth will be approximately 5.5 to 6.5 percent in 2012. Average demand for natural gas per month in the first two months in the third quarter of 2012 increased by 2% compared to the same period in the second quarter of 2012 and is expected to carry momentum in line with the industrial and export growths. However, as much of the Thailand flood crisis recovery activities have taken place in the first half of 2012, the third quarter of 2012 expanded no more than 4 percent. This is slightly lower than the growth in the second quarter of 2012, amidst the European debt crisis and tension in the world's major economies, such as United States and China. Given the current global economic condition, Thailand's industrial and exports growths may be deferred to the end of the third quarter of 2012.

The world economy, the Thai economy and oil prices in global market are very volatile and highly uncertain. PTTEP continues to closely monitor the economics and accordingly revise its action plan and investments in line with its strategic objectives. PTTEP also strives to increase its efficiency and develop its capabilities for sustainable growth. The results can be summarized as follows.

**Exploration and Appraisal:** PTTEP continues exploration activities in both domestic and international areas in order to assess the potential of fields and the amount of petroleum reserves added. In the third quarter of 2012, the company drilled exploration appraisal wells in several projects.

**PTTEP Australasia project:** The project completed the drilling of appraisal well, Maple-2, in the Cash Maple field in July with a flow rate for natural gas at approximately 30 million square cubic feet per day (MMSCFD) and a flow rate of condensate at 696 barrels per day (BPD). Currently, the company is assessing the commercial viability of the project.

**Myanmar M3 and M11 Project:** The projects are preparing for the drilling of appraisal wells in M3 block by the end of 2012 and an exploration well in M11 block by the end of the first quarter of 2013.

**Indonesia Semai II Project:** The project is conducting a geological study to assess the petroleum potential and define the location of the second exploration well, located in a shallow water area and planned to be drilled in 2013.

**Algeria Hassi Bir Rekaiz Project:** The project completed the drilling of the fourth and fifth wells with successful discovery of crude oil. The flow rate for the fourth well (OGB-1) is at 485 BPD and the flow rate for the fifth well (BOG-1) is at 2,423 BPD.

To date, the project has completed the drilling of five out of six wells scheduled for 2012, with the drilling of the final well commencing at the end of the third quarter. Crude oil was discovered in four of the five drilled wells.

**Canada Oil Sands KKD Project:** The project is preparing for the Winter Evaluation Program (WEP) of year 2012-2013 to identify the position of the appraisal wells and seismic with the purpose of further development in Leismer, Corner and Thornbury. The program is expected to cover drilling of a total of approximately 140 wells and total seismic coverage of approximately 130 square kilometers.

**Development:** PTTEP has continued the development of various projects both in Thailand and internationally and aims to start up production as planned.

**PTTEP Australasia Project, Montara field:** Development of Montara is progressing. The project has received operation safety case approval. Production is expected to begin in the first quarter of 2013.

For the compensation claim, PTTEP has received total compensation claim of USD 180.15 million as of the end of the third quarter of 2012. The remaining claims are in progress.

Regarding the claim that was submitted by the Government of Indonesia for compensation due to oil leaks from the Montara incident, PTTEP is continuously assessing the case with the government through scientific evidences to determine the impact (if any).

**Myanmar Zawtika Project:** The project is in the process of constructing the Zawtika processing & living quarter platform, bridges wellhead platforms and intrafield sea lines. More than 38 percent of construction work has been completed.

**Algeria 433a & 416b Project:** The project targets to complete the drilling of 4 production wells in 2012, of which three have been completed to date. The third well (BRS-13) has a flow rate of crude oil at 4,000 BPD. The completion of the well is expected at the end of October.

**Canada Oil Sands KKD Project:** The Corner field project is in the process of preparing the Front End Engineering Design ("FEED") contract for the production capacity of 40,000 BPD. The FEED is expected to be effective in the fourth quarter of 2012.

**Production:** PTTEP is continually striving to maintain current production levels for existing projects and increase total production levels from new projects.

**Bongkot Project:** On July 15, 2012, Greater Bongkot North field achieved a record production level for condensate at 25,019 BPD. Consequently, on August 5, 2012, the field reached total production of condensate at 100 million barrels. As for natural gas production, the field reached an average production level of 640 MMSCFD during the third quarter of 2012.

As for Greater Bongkot South field, which began producing natural gas at the level specified in the the Daily Contractual Quantity (DCQ) in June 2012, it reached an average production level of 334 MMSCFD of natural gas and production level of 10,887 BPD of condensate during the third quarter of 2012.

Overall, the Bongkot Project's natural gas production capacity increased to more than 900 MMSCFD, which signifies about 20% of Thailand natural gas demand. This is both a testament to PTTEP's operations and a motivational drive for the company to supply energy to meet increasing domestic demand.

**Canada Oil Sands KKD Project:** Average bitumen production for the Leismer area in the third quarter was approximately 16,300 BPD. The project also received approval from the Energy Resources Conservation Board (ERCB) to construct Well Pad 5, which comprises of 7 pairs of steam assisted gravity drainages and production wells. Construction is expected to commence in June 2013 and steam injection is planned for March 2014.

As for the plans to increase production capacity (Leismer Expansion) to 40,000 BPD, the project is in the process of determining the well pad location, conducting detailed studies of the requirement of additional facilities and preparing for approval on such details from the ERCB.

**Oman 44 Project:** The production capacity of crude oil has more than tripled and the project is expected to reach a production level of 5,000 BPD of crude oil and condensate in October 2012. Average production of natural gas stood at 50 MMSCFD. This is contributed from the successful drilling program in 2011-2012, which involved 7 development and appraisal wells, with the Munhamir field contributing approximately 2,500 BPD of crude oil. The new field, Shams-E South, will commence production in October and is expected to contribute approximately 1,000 BPD of crude oil. The company is also planning to conduct 3D seismic survey on the west part of the block to assess further petroleum potential.

**The Vietnam 16-1 project:** On July 6, 2012, production of the second wellhead platform of Te Giac Trang field has successfully begun. As a result, the project increased its production of crude oil from 41,000 BPD to approximately 55,000 BPD.

**Portfolio Management:** PTTEP has operated continuously in the areas of Portfolio Management. This aims for appropriate investment both in value added projects and risk

management. To keep pace with changing social, economic and political conditions, the company studies and analyzes the factors and the impact of investment on a regular basis to derive investment considerations and decisions. In addition, the company reviews the target for expansion (Focused Countries) by grouping the countries according to the opportunities, appropriateness and consistency with the company's direction and goals. The analysis is based on many factors such as petroleum potential, geographic factors, the government share, risk of politics and business, and a competitive advantage. PTTEP has continued the development of various projects as follows.

**Total and JX NOEX participation in Myanmar M11 block:** PTTEP International Limited (PTTEPI), a wholly owned subsidiary of PTTEP, has selected Total E&P Myanmar (Total) and JX Nippon Oil & Gas Exploration (Myanmar) Limited (JX Myanmar), a wholly owned subsidiary of JX Nippon Oil & Gas Exploration Corporation (JX NOEX), to be partners in Block M11 with 40% and 15% participation interests, respectively. PTTEPI still remains the operator holding a 45% participation interest. The transaction is subject to official approval from the government of the Republic of the Union of Myanmar. Introduction of partners into Block M11 is a part of PTTEP's strategy in portfolio management, aiming to both add value to the project and manage risk.

**Offer for Cove Energy Plc:** On July 23, 2012, PTTEP, through its subsidiary PTTEP Africa Investment Limited (PTTEP AI), made an offer to acquire the entire issued and to be issued share capital of Cove Energy Plc at approximately 1,221.4 million Pound Sterling (GBP), or at 240 pence per share. The progress subsequent to the date of the offer is as follow:

On August 17, 2012, PTTEP AI has fulfilled all conditions to acquire Cove shares, namely the receipt of valid acceptances from more than 90% of Cove shares from existing Cove shareholders and the written consent from the Mozambican Ministry of Mineral Resources to the indirect change of control of Cove's interests in Mozambique.

On August 23, 2012, PTTEP AI began the process of compulsory acquisition of the remaining Cove shares from Cove shareholders who have not yet accepted the offer. As of October 5, 2012, which is the last date for the compulsory acquisition, PTTEP AI held 100% interest in Cove Energy Plc.

On September 18, 2012, the London Stock Exchange announced the cancellation of admission to trading of Cove's shares on AIM, subsequent to PTTEP's request for Cove to apply to the London Stock Exchange for the cancellation of trading in Cove Shares on Alternative Investment Market (AIM) on August 17, 2012.

## 2.2 Results of Operations

Since 1 January 2011, PTTEP has complied with Thai Financial Reporting Standards (TFRS). Moreover, the Company has adopted Thai Financial Reporting Standard No.21 (revised 2009) “The Effects of Changes in Foreign Exchange Rates”, which has been published but will not become effective until 2013, and which also requires the Company to determine its functional currency. The Company has also completed early adoption of International Accounting Standard (IAS) No. 39 “Financial Instruments: Recognition and Measurement”.

The Company has determined the USD to be its functional currency in accordance with Thai Accounting Reporting Standard No.21 (revised 2009) “The Effects of Changes in Foreign Exchange Rates”. However, in submission of its financial statements to the Stock Exchange of Thailand and the Department of Business Development, the Company is also required to convert the financial statements from USD to the presentation currency, which is Thai Baht.

Detailed discussion of financial results by quarter are as follows:

### 2.2.1. Results of Operations - Quarterly Comparison

Earnings summary (Unit : Millions of USD, excepting USD per share amounts)	2 <sup>nd</sup> Quarter 2012	3 <sup>rd</sup> Quarter 2012	3 <sup>rd</sup> Quarter 2011
Total Revenues	1,667	1,820	1,422
Total Expenses	(982)	(967)	(932)
<b>Operating Income</b>	<b>685</b>	<b>853</b>	<b>490</b>
Share of gain from associates	1	1	-
<b>Income before income taxes</b>	<b>686</b>	<b>854</b>	<b>490</b>
Income tax expenses	(436)	(296)	(240)
<b>Net income</b>	<b>250</b>	<b>558</b>	<b>250</b>
Diluted earnings per share	0.08	0.17	0.08
<b>Income from normal operations</b>	<b>461</b>	<b>506</b>	<b>428</b>
Gain (Loss) from non-recurring items	(211)	52	(178)
<b>Net income</b>	<b>250</b>	<b>558</b>	<b>250</b>

Earnings summary (Unit : Millions of Baht, excepting Baht per share amounts)	2 <sup>nd</sup> Quarter 2012	3 <sup>rd</sup> Quarter 2012	3 <sup>rd</sup> Quarter 2011
Total Revenues	52,164	57,083	42,837
Total Expenses	(30,786)	(30,290)	(28,141)
<b>Operating Income</b>	<b>21,378</b>	<b>26,793</b>	<b>14,696</b>
Share of gain from associates	42	40	-
<b>Income before income taxes</b>	<b>21,420</b>	<b>26,833</b>	<b>14,696</b>
Income tax expenses	(13,687)	(9,307)	(7,246)
<b>Net income</b>	<b>7,733</b>	<b>17,526</b>	<b>7,450</b>
Diluted earnings per share	2.33	5.28	2.24

### **Third Quarter of 2012 compared with Third Quarter of 2011**

For the results of operations (Unreviewed) in the third quarter of 2012, PTTEP and subsidiaries' net profit amounted to USD 558 million (equivalent to 17,526 million baht), or USD 0.17 per share-diluted (equivalent to 5.28 baht per share-diluted), an increase of USD 308 million or 123% against the third quarter of 2011, which was USD 250 million (equivalent to 7,450 million baht), or USD 0.08 per share-diluted (equivalent to 2.24 baht per share-diluted). The returns on shareholders' equity for the third quarter of 2012 were 28.74%.

However, PTTEP and subsidiaries' net profit amounted to USD 558 million for the third quarter of 2012, comprising the recurring net profit for this period, which amounted to USD 506 million, and the gain from non-recurring items, which amounted to USD 52 million.

For the results of recurring operations in the third quarter of 2012, PTTEP and subsidiaries' recurring net profit was USD 506 million, an increase of USD 78 million or 18% against the third quarter of 2011, which was USD 428 million. The returns from normal operations on shareholders' equity for the third quarter of 2012 were 30.35%.

For the third quarter of 2012, the total revenue was USD 1,820 million (equivalent to 57,083 million baht), an increase of USD 398 million or 28% against the same period last year, which was USD 1,422 million (equivalent to 42,837 million baht). The increase was mainly due to an increase of sales revenue of USD 381 million, caused by the following:

(1) The higher average petroleum sales price for the third quarter of 2012, which rose to USD 64.00 per barrel of oil equivalent (BOE) against the same period last year which was USD 55.37 per BOE.

(2) There was a higher average sales volume in the third quarter of 2012, which increased to 292,228 barrels of oil equivalent per day (BOED) against the same period last year which was 264,961 BOED. This average sales volume increased as a result of;

- Bongkot project: Sales volume of natural gas and condensate increased because Greater Bongkot South started its production as required by the Gas Sales Agreement in June 2012. Sales volume of natural gas and condensate of Great Bongkot North also increased resulting from no production shutdown in the third quarter of 2012, while there was a partial shutdown of 15 days in the third quarter of 2011.
- Vietnam 16-1 project: Crude oil sales volume increased because of higher production volume produced from 5 new wells in the third quarter of 2012, while the first production started in the third quarter of 2011.

- S1 project: Crude oil sales volume increased because of higher production volume produced from new wells and higher beam pump activities; however,
- Arthit North project: Sales volume of natural gas and condensate decreased due to the production stoppage in November 2011.
- MTJDA-B17 project: Sales volume of natural gas and condensate decreased resulting from a shutdown of 10 days due to the annual maintenance in the third quarter of 2012; while, there was a shutdown of only 5 days in the third quarter of 2011.

PTTEP and subsidiaries' revenue from pipeline transportation from proportionate revenue in Moattama Gas Transportation Company (MGTC) and Taninthayi Pipeline Company LLC (TPC) increased.

In the third quarter of 2012, PTTEP and subsidiaries took in other revenues of USD 26 million, an increase of USD 16 million against the third quarter of 2011, when the figure was USD 10 million. Most of the other revenues came from insurance claims received from the Montara incident of the PTTEP Australasia project which is non-recurring item against no insurance claims for the same period last year.

PTTEP and subsidiaries incurred expenses amounting to USD 967 million (equivalent to 30,290 million baht) in the third quarter of 2012, an increase of USD 35 million against USD 932 million (equivalent to 28,141 million baht) for the same period last year. This increase was driven by the net effect of the following:

- (1) Depreciation, depletion and amortization expenses increased amounting to USD 100 million, mainly from an increase in the completed assets of the Bongkot and S1 projects and from the increase of production from new wells of the Vietnam 16-1 project. However, depreciation, depletion and amortization expenses decreased from the Arthit North project due to discontinuation of the production since November 2011.
- (2) Petroleum royalties and remuneration increased amounting to USD 45 million, in line with higher sales revenue.
- (3) Administrative expenses increased amounting to USD 29 million, mainly due to stamp duties from share acquisition of Cove Energy Plc., export duties of Vietnam 16-1 project, administrative expenses of the Canada Oil Sands KKD project and expenses related to the contract staff at the head office.
- (4) Finance costs increased amounting to USD 21 million, mainly due to an increase of interest expenses of PTTEP Canada International Finance Limited (PTTEP CIF) which issued a debenture for the total amount of USD 500 million during the second quarter of 2012 and drew down CAD loans total of 475

million from financial institutions during the second and third quarter of 2012.

However,

(5) Loss on foreign exchange which is a non-recurring item decreased, amounting to USD 169 million. In the third quarter of 2012, PTTEP and subsidiaries recognized loss on foreign exchange of USD 12 million, mainly from:

- Loss on foreign exchange from the GBP loan, given the GBP appreciation against the USD.
- Loss on foreign exchange from the receipts of accounts receivable in Thai Baht, given the Baht depreciation against the USD.

While,

- Gain on foreign exchange from the USD loans of PTTEP Canada Limited, given the CAD appreciation against the USD.

While in the third quarter of 2011, PTTEP and subsidiaries recognized loss on foreign exchange amounting to USD 181 million, mainly derived from USD loans of PTTEP Canada Limited.

In the third quarter of 2012, PTTEP and subsidiaries incurred income tax expenses of USD 296 million (equivalent to 9,307 million baht), an increase of USD 56 million, against that of the same period last year of USD 240 million (equivalent to 7,246 million baht). The increase was mainly due to higher overseas income taxes and petroleum income tax in line with an increase in sales; however, income tax expenses affected by the foreign exchange rate which are non-recurring items decreased.

For the third quarter of 2012, PTTEP and subsidiaries' recognized a gain from non-recurring items of USD 52 million, an increase of USD 230 million, against a loss from non-recurring items of the same period last year of USD 178 million, primarily stemming from the following:

- (1) Loss on foreign exchange decreased, amounting to USD 169 million. In the third quarter of 2012, PTTEP and subsidiaries recognized loss on foreign exchange of USD 12 million while in the third quarter of 2011, they recognized loss on foreign exchange of USD 181 million.
- (2) Income tax expenses affected by functional currency of the third quarter of 2012 decreased amounting to USD 106 million, against the same period last year. The decrease is mainly from in the third quarter of 2012, income tax benefits affected by the functional currency amounting to USD 63 million, occurring

mainly because of lower deferred income tax liabilities amounting to USD 50 million. This is due to an increase in net assets after they were translated into USD on 30 September 2012, compared with net assets after were translated into USD on 30 June 2012, given the Baht appreciation against the USD. The increase of net assets resulted in an increase of depreciation expenses in USD and a decrease of income tax expenses in the future, accordingly.

However, the income tax expenses affected by functional currency of the third quarter of 2011 resulted in an increase in future income tax expenses of USD 36 million.

- (3) Net effect from Montara incident increased, amounting to USD 30 million. In the third quarter of 2012, PTTEP and subsidiaries recognized the additional insurance claims of USD 29 million against the third quarter of 2011 when there was USD 1 million of loss from Montara incident; however,
- (4) Decreased tax benefits from augmentation of USD 50 million resulting from a tax benefit of the PTTEP Australasia Project, in which the Australian Commonwealth Government enables the investors to deduct more expenditure from taxable income with the percentage based on investment (Augmentation). In the third quarter of 2012, the PTTEP Australasia Project did not recognize this additional tax benefit due to the impairment loss recognition in second quarter of 2012, while in the same period last year, PTTEP and subsidiaries recognized this benefit for USD 50 million.

### **Third Quarter of 2012 compared with Second Quarter of 2012**

For the results of operations (Unreviewed) in the third quarter of 2012, PTTEP and subsidiaries' net profit amounted to USD 558 million (equivalent to 17,526 million baht), or USD 0.17 per share-diluted (equivalent to 5.28 baht per share-diluted), an increase of USD 308 million or 123% from the previous quarter's net profit of USD 250 million (equivalent to 7,733 million baht), or USD 0.08 per share-diluted (equivalent to 2.33 baht per share-diluted). Return on shareholder's equity for the third quarter of 2012 was 28.74%.

However, PTTEP and subsidiaries' net profit amounted to USD 558 million for the third quarter of 2012, comprising the recurring net profit for this period, which amounted to USD 506 million, and the gain from non-recurring items, which amounted to USD 52 million.

For the results of recurring operations in the third quarter of 2012, PTTEP and subsidiaries' recurring net profit was USD 506 million, an increase of USD 45 million or 10% from the second quarter of 2012's net profit of USD 461 million. The returns from normal operations on shareholders' equity for the third quarter of 2012 were 30.35%.

For the third quarter of 2012, the total revenue of PTTEP and subsidiaries was USD 1,820 million (equivalent to 57,083 million baht), an increase of USD 153 million or 9% from the second quarter of 2012's total of USD 1,667 million (equivalent to 52,164 million baht), which was chiefly due to higher sales, totaling USD 188 million, resulting from the net effect of:

- (1) A higher average sales volume in the third quarter of 2012, which increased to 292,228 BOED against the second quarter of 2012, when the figure was 263,411 BOED. This average sales volume increased as a result of:
  - Bongkot project: Sales volume of natural gas and condensate increased because Greater Bongkot South started its production as required by the Gas Sales Agreement in June 2012. Sales volume of natural gas and condensate of Greater Bongkot North also increased resulting from no production shutdown in the third quarter of 2012, while, there was a shutdown of 11 days in the second quarter of 2012.
  - Vietnam 16-1 project: Crude oil sales volume increased because of higher production volume produced from 5 new wells in the third quarter of 2012.

However,

- Arthit: Sales volume of natural gas and condensate decreased because nominations from PTT returned to normal levels compared to that of prior quarter when the nominations were higher than normal.

- Contract 4: Sales volume of natural gas decreased resulting from a shutdown of 7 days in the third quarter of 2012, while, there was a shutdown of only 2 days in the second quarter of 2012.
- MTJDA-B17 project: Sales volume of natural gas decreased resulting from a shutdown of 10 days due to the annual maintenance in the third quarter of 2012.

However,

- (2) The average petroleum sales price of the third quarter of 2012 went down to USD 64.00 per BOE compared with the second quarter of 2012's price of USD 64.17 per BOE.

PTTEP and subsidiaries' revenue from pipeline transportation from proportionate revenue in Moattama Gas Transportation Company (MGTC) and Taninthayi Pipeline Company (TPC) increased.

In the third quarter of 2012, PTTEP and its subsidiaries gained other revenues of USD 26 million (equivalent to 808 million baht), a decrease of USD 34 million against the second quarter of 2012, which was USD 60 million (equivalent to 1,884 million baht). The decrease mainly resulted from the recognition of a downward adjustment to the purchase price of the Canada Oil Sands KKD project.

PTTEP and subsidiaries incurred expenses of USD 967 million (equivalent to 30,290 million baht) in the third quarter of 2012, a decrease of USD 15 million from the second quarter of 2012, which was USD 982 million (equivalent to 30,786 million baht). This net effect stemmed from the following:

- (1) Impairment loss of assets decreased, amounting to USD 109 million due to no recognition of impairment loss of assets in the third quarter of 2012, while in the second quarter of 2012, there was recognition of impairment loss from Montara amounting to USD 109 million which were non-recurring items.
- (2) Loss on foreign exchange which is a non-recurring item decreased, amounting to USD 31 million. In the third quarter of 2012, PTTEP and subsidiaries recognized loss on foreign exchange of USD 12 million mainly from;
  - Loss on foreign exchange from the GBP loan, given the GBP appreciation against the USD.
  - Loss on foreign exchange from the receipts of accounts receivable in Thai Baht, given the Baht depreciation against the USD.

While,

- Gain on foreign exchange from the USD loans of PTTEP Canada Limited, given the CAD appreciation against the USD

While in the second quarter of 2012, PTTEP and subsidiaries recognized loss on foreign exchange amounting to USD 43 million, mainly derived from USD loans of PTTEP Canada Limited

However,

- (3) Depreciation, depletion and amortization expenses increased, amounting to USD 53 million from an increase in the completed assets and the increase of production volume of the Bongkot, Vietnam 16-1 and S1 projects.
- (4) Operating expenses increased, amounting to USD 25 million from maintenance expenses of Contract 4 and Arthit projects and from operating expenses of Greater Bongkot South. In addition, operating expenses also increased from Synthetic Blend of the Canada Oil Sands KKD project.
- (5) Petroleum royalties and remuneration increased amounting to USD 22 million, in line with higher sales revenue.
- (6) Finance costs increased amounting to USD 14 million, mainly due to stamp duties from share acquisition of Cove Energy Plc. and export duties of Vietnam 16-1 project.

In the third quarter of 2012, PTTEP and subsidiaries incurred income tax expenses of USD 296 million, a decrease of USD 140 million or 32%, against that of the second quarter of 2012 of USD 436 million, mainly due to a decrease of income tax expenses affected by the functional currency which are non-recurring items.

For the third quarter of 2012, PTTEP and subsidiaries' recognized a gain from non-recurring items of USD 52 million. An increased gain of USD 263 million, against that of a loss from non-recurring items of the second quarter of 2012 of USD 211 million, resulted from the net effect of:

- (1) Income tax expenses affected by the functional currency decreased amounting to USD 145 million against that of the second quarter of 2012. In the third quarter of 2012, income tax benefits affected by the functional currency amounting to USD 63 million were mainly due to lower deferred income tax liabilities amounting to USD 50 million because of an increase in net assets after they were translated into USD on 30 September 2012, compared with net assets after they were translated into USD on 30 June 2012, given the Baht appreciation against the USD. The increase of net assets resulted in an increase of depreciation

expenses in USD and a decrease of future income tax, accordingly.

However, income tax expenses affected by the functional currency of the second quarter of 2012 caused an increase of income tax expenses in the future of USD 67 million.

- (2) Impairment loss of assets decreased amounting to USD 109 million due to no recognition of impairment loss of assets in the third quarter of 2012. While in the second quarter of 2012, there was recognition of impairment loss from Montara amounting to USD 109 million due to the increase of project cost and the delay of the first oil production.

### 2.2.2. Results of Operations – First Nine Months of 2012 Comparison

Earnings summary	Millions of USD		Millions of Baht	
	2012	2011	2012	2011
Total Revenues	5,081	4,153	158,617	125,852
Total Expenses	(2,712)	(2,347)	(84,688)	(71,154)
<b>Operating Income</b>	<b>2,369</b>	<b>1,806</b>	<b>73,929</b>	<b>54,698</b>
Gain from the investments in associates	4	1	129	37
<b>Income before income taxes</b>	<b>2,373</b>	<b>1,807</b>	<b>74,058</b>	<b>54,735</b>
Income taxes expenses	(976)	(828)	(30,510)	(25,136)
<b>Net income</b>	<b>1,397</b>	<b>979</b>	<b>43,548</b>	<b>29,599</b>
Diluted earnings per share	0.42	0.30	13.12	8.92

  

<b>Income from normal operation</b>	<b>1,505</b>	<b>1,171</b>
Gain(Loss) from non-recurring items	(108)	(192)
<b>Net income</b>	<b>1,397</b>	<b>979</b>

#### For the 9-month period of 2012 compared with the 9-month period of 2011

Regarding the results of operations (Unreviewed) for the nine months of 2012, PTTEP and its subsidiaries' totaled a net profit of USD 1,397 million (equivalent to 43,548 million baht) or USD 0.42 per share-diluted (equivalent to 13.12 baht per share-diluted), an increase of USD 418 million or 43% compared with the nine months of 2011's net profit of USD 979 million (equivalent to 29,599 million baht) or USD 0.30 per share-diluted (equivalent to 8.92 baht per share-diluted). Return on shareholder's equity for the first nine months of 2012 was 28.74%.

However, PTTEP and subsidiaries' net profit amounted to USD 1,397 million for the nine-month period of 2012, comprising the recurring net profit for this period, which amounted to USD 1,505 million, and the loss from non-recurring items, which amounted to USD 108 million.

For the results of recurring operations in the nine months of 2012, PTTEP and subsidiaries' recurring net profit was USD 1,505 million, an increase of USD 334 million or 29% against that of the nine months of 2011 which was USD 1,171 million. The returns from normal operation on shareholders' equity for the first nine months of 2012 were 30.35%.

For the nine-month period of 2012, the total revenue of PTTEP and subsidiaries was USD 5,081 million (equivalent to 158,617 million baht), an increase of USD 928 million or 22% from the nine months of 2011 when the figure was USD 4,153 million (equivalent to 125,852 million baht), which was chiefly due to higher sales, totaling USD 848 million. Reasons for these higher sales are detailed below:

- (1) Higher average petroleum sales price for the nine months of 2012, which rose to USD 64.30 per barrel of oil equivalent (BOE) brought about by higher world market prices against that of the nine months of 2011 when the price was USD 53.68 per BOE; however,
- (2) A lower sales volume persisted in the nine months of 2012, which declined to 269,776 barrels of oil equivalent per day (BOED) against that of the nine months of 2011 which rested at 269,831 BOED. This sales volume decreased as a result of;

- Arthit North project: Sales volume of natural gas and condensate decreased due to the production stoppage in November 2011.
- Arthit project: Sales volume of natural gas and condensate decreased in line with the newly instituted daily contract quantity.

However,

- Vietnam 16-1 project: Crude oil sales volume increased because production started in the third quarter of 2011.
- Bongkot project: Sales volume of natural gas and condensate increased because Greater Bongkot South started its production as required by the Gas Sales Agreement in June 2012. However, sales volume of natural gas and condensate of Greater Bongkot North decreased due to an 11-day production shutdown in the nine months of 2012
- S1 project: Crude oil sales volume increased because of higher production volume produced from new wells and higher beam pump activities.

PTTEP and subsidiaries' revenue from pipeline transportation from proportionate revenue in Moattama Gas Transportation Company (MGTC) and Taninthayi Pipeline Company (TPC) increased.

In the nine months of 2012, PTTEP and subsidiaries took in other revenues of USD 110 million (equivalent to 3,416 million baht), an increase of USD 59 million against the nine month of 2011, when the figure was USD 51 million (equivalent to 1,553 million baht), The increase resulted from higher insurance claims received from the Montara incident of the PTTEP Australasia project amounting to USD 40 million. Moreover, PTTEP Canada Limited recognized a downward adjustment of USD 17 million to the purchase price of the Canada Oil Sands KKD project.

PTTEP and its subsidiaries incurred expenses for the nine-month period of 2012 amounting to USD 2,712 million (equivalent to 84,688 million baht), an increase of USD 365 million, compared with USD 2,347 million (equivalent to 71,154 million baht) for the nine months of 2011. This increase was due to the following:

- (1) Depreciation, depletion and amortization expenses escalated, amounting to USD 165 million, mainly from increases in the completed assets of the Bongkot and S1 projects and from the startup of production of the Vietnam 16-1 project in the third quarter of 2011. The depreciation, depletion and amortization expenses, however, decreased from the discontinuation of the production of the Arthit North project since November 2011, and from the lower production volume of the Arthit project in line with the newly instituted daily contract quantity.
- (2) Impairment loss on assets amounting to USD 109 million, from impairment of assets of Montara of the PTTEP Australasia project in the nine months of 2012 due to the increase of the project cost and the delay of the first oil production.
- (3) Increased petroleum royalties and remuneration of USD 96 million resulting from increased sales revenues.
- (4) Finance costs increased by USD 40 million, mainly from the interest expense of PTTEP Canada International Finance Limited which issued an unsecured and unsubordinated debenture for the amount of USD 500 million, and drew down the CAD loan total of CAD 475 million during the second and third quarter of 2012. Finance costs also increased due to the interest expense of loan from Krung Thai Bank Plc. amounting to Baht 6,000 million in 2012.
- (5) Operating expenses increased by USD 42 million, mainly from the net effect of the higher production volume of the Canada Oil Sands KKD project and from the production startup of Vietnam 16-1 project in the third quarter of 2011. However, operating expenses decreased from the discontinuation of the production of the Arthit North project since November 2011.
- (6) Increased general and administrative expenses of USD 35 million, mainly resulting from export duty of Vietnam 16-1 project from the startup of production in the third quarter of 2011, stamp duty from share acquisition of Cove Energy Plc. as well as expenses related to the contract staff at the head office.

However,

- (7) Loss on foreign exchange which is a non-recurring item decreased, amounting to USD 93 million. In the nine months of 2012, PTTEP and subsidiaries recognized loss on foreign exchange of USD 22 million mainly from;

- Loss on foreign exchange from the GBP loan, given the GBP appreciation against the USD.
- Loss on foreign exchange from the receipts of accounts receivable in Thai Baht, given the Baht depreciation against the USD.

Whereas,

- Gain on foreign exchange from the USD loans of PTTEP Canada Limited, given the CAD appreciation against the USD

While in the nine months of 2011, PTTEP and subsidiaries recognized loss on foreign exchange amounting to USD 115 million, mainly derived from USD loans of PTTEP Canada Limited.

(8) Moreover, there were decreased exploration expenses amounting to USD 46 million, primarily due to:

- In the nine months of 2012, exploratory well write-off costs decreased amounting to USD 74 million. The exploratory well write-off costs of the period amounted to USD 44 million were driven by the Bahrain 2, Algeria Hassi Bir Rekaiz, and Oman 44 projects; while there were also USD 118 million exploratory well write-off costs in the nine months of 2011, principally from the Indonesia Semai II, PTTEP Australasia, Myanmar M7 and Bongkot projects.

On the other hand,

- There were some higher exploration expenses, amounting to USD 28 million, which were mainly from S1 and PTTEP Australasia projects.

In the nine-month period of 2012, PTTEP and subsidiaries incurred income tax expenses increase of USD 148 million mainly due to an increase in overseas income taxes.

PTTEP and subsidiaries' suffered a loss from non-recurring items of USD 108 million, a decrease in loss from non-recurring items of USD 84 million against the same period last year, which totaled USD 192 million. The decrease in loss stemmed from the following:

- (1) Decreases in income tax expenses affected by the functional currency of USD 140 million against that of the nine months of 2011 which was mainly due to lower deferred income tax liabilities because of an increase in net assets after they were translated into USD on 30 September 2012, compared with net assets which were translated into USD on 31 December 2011, given the Baht appreciation against the USD. The increase of net

assets resulted in an increase of depreciation expenses in USD and a decrease of future income tax expenses of USD 31 million, accordingly.

Whereas, the income tax expenses affected by the functional currency of the nine months of 2011 caused an increase of future income tax expenses of USD 91 million.

- (2) Lower loss on foreign exchange amounted to USD 93 million. In the nine months of 2012, PTTEP and subsidiaries recognized loss on foreign exchange in the amount of USD 22 million, while they recognized loss on foreign exchange amounting to USD 115 million in the nine months of 2011.

However,

- (3) Impairment loss of Montara assets of the PTTEP Australasia project amounting to USD 109 million recognized in the nine months of 2012 due to the increase of project cost and the delay of the first oil production.

### 2.2.3. Financial position

	Unit : Millions of USD		Unit : Millions of Baht	
	Sep 30, 2012	Dec 31, 2011	Sep 30, 2012	Dec 31, 2011
<b>Total Assets</b>	<b>17,258</b>	<b>14,131</b>	<b>532,061</b>	<b>447,842</b>
Current Assets	2,324	2,737	71,655	86,764
Non-current Assets	14,934	11,394	460,406	361,078
<b>Total Liabilities</b>	<b>9,975</b>	<b>7,819</b>	<b>307,527</b>	<b>247,818</b>
Current Liabilities	3,932	3,139	121,230	99,504
Non-current Liabilities	6,043	4,680	186,297	148,314
<b>Shareholders' Equity</b>	<b>7,283</b>	<b>6,312</b>	<b>224,534</b>	<b>200,024</b>
<b>Total Liabilities and Shareholders' Equity</b>	<b>17,258</b>	<b>14,131</b>	<b>532,061</b>	<b>447,842</b>

As of September 30, 2012, PTTEP and subsidiaries commanded total assets of USD 17,258 million (equivalent to 532,061 million baht), an increase of USD 3,127 million higher than the total on hand as of December 31, 2011 at which point total assets were USD 14,131 million (equivalent to 447,842 million baht). This increase was mainly due to

(1) An increase of USD 2,722 million of intangible assets and goodwill mostly from intangible assets and goodwill amounting to USD 2,609 million resulted from the acquisition of Cove Energy plc.

(2) An increase of USD 907 million in exploration and production assets mainly from an increase in assets of the PTTEP Australasia, Arthit, Zawtika, and Bongkot projects, however,

(3) A decrease in current assets of USD 413 million, mostly from the decrease of cash and cash equivalents and restricted deposits at financial institution of USD 675 million mainly due to the investing in exploration and production assets, the acquiring of Cove Energy plc. share capital and dividend payment for the second half of 2011 and the first half of 2012. The decrease in current assets was offset by cash received from operations, bond issuance and from loans from financial institutions. However, the account receivable – parent company increased amounting to USD 304 million from an increase in sales.

Most current assets as of September 30, 2012 were in cash and cash equivalents, cash deposits at financial institutions, parent company accounts receivable, trade accounts receivable, and materials and supplies. A large proportion of the non-current assets were assets used in joint-venture exploration and production, presented under Property, Plant, and Equipment, goodwill and intangible assets; and deferred income taxes. PTTEP and subsidiaries' Current Ratio as of September 30, 2012, was 0.59 times.

PTTEP and its subsidiaries had total liabilities of USD 9,975 million (equivalent to 307,527 million baht), an increase of USD 2,156 million higher than the total at the end of 2011, when total liabilities were USD 7,819 million (equivalent to 247,818 million baht), principally due to the net effect of:

(1) An increase of current liabilities of USD 793 million primarily from an increase of short-term loans from financial institution of USD 1,511 million mostly from syndicated loans amounting to GBP 950 million, offset with a decrease of current portion of long-term debts amounting to USD 525 million from the redemption of Baht bond of THB 21,800 million and a decrease of tax payable of USD 122 million.

(2) An increase of deferred income tax liabilities of USD 597 mostly from the acquisition of Cove Energy plc.

(3) An increase of long term loans from financial institutions of USD 481 million mainly from 475 million CAD loans of PTTEP Canada International Finance Limited.

(4) An increase of bond of USD 261 million, mainly from a USD 500 million bond issuance of PTTEP Canada International Finance Limited, offset with the redemption of PTTEP Baht bond amounted to THB 5,000 million, or equivalent to USD 147 million, and the reclassification of a portion of the bond with maturity within one year to current portion of long term debts.

### **Capital Structure**

PTTEP maintains the company's Short-term Financing Program ("PF") which involves the company's issuance of Bills of Exchange (B/Es) via Public Offering to institutional and high net-worth investors. B/Es are to be issued with a total revolving credit of up to Baht 50,000 million, which was approved by the Resolution of the Board of Directors' meeting in February 2009 and in November 2010. As of September 30, 2012, there are no outstanding B/Es.

On February 13, 2012, PTTEP signed a loan agreement with Krung Thai Bank Public Company Limited. The total loan facility is Baht 20,000 million and is repayable within ten years of the first draw down. PTTEP's first draw down was on March 30, 2012. The loan facility will be used for general corporate purposes. The Board of Directors' meetings in the year 2010 and 2011 approved the Company's entering into loan agreements, whose approved amount remaining was Baht 68,250 million. The total outstanding loan as of September 30, 2012 is Baht 6,000 million.

On March 29, 2012, PTTEP CIF, a subsidiary of PTTEP, signed a 5 years loan agreement with three financial Institutions comprising Bank of Tokyo-Mitsubishi UFJ (Canada), Mizuho Corporate Bank, Ltd. and Sumitomo Mitsui Banking Corporation of Canada. The total loan amount is CAD 300 million. The loan agreement is fully guaranteed by PTTEP. On May 11, 2012, PTTEP CIF drew down the entire amount of CAD 300 million. The proceeds from the loan were utilized for debt refinancing, capital expenditure and/or

general corporate purposes. The Board of Directors' meeting in the year 2011 approved the Company's entering into loan agreements, whose approved amount remaining was Baht 48,250 million. The total outstanding loan as of September 30, 2012 is CAD 300 million.

On April 20, 2012, PTTEP CIF signed a 5 year loan agreement with Citibank, N.A., and Canadian Branch. The total loan amount is CAD 75 million. The loan agreement is fully guaranteed by PTTEP. On May 11, 2012, PTTEP CIF drew down the entire amount of CAD 75 million. The proceeds from the loan were utilized for debt refinancing, capital expenditure and/or general corporate purposes. The Board of Directors' meeting in the year 2011 approved the Company's entering into loan agreements, whose approved amount remaining was Baht 38,950 million. The total outstanding loan as of September 30, 2012 is CAD 75 million.

On August 21, 2012, PTTEP CIF signed a 7 year loan agreement with JP Morgan Chase, N.A. (Toronto Branch). The total loan amount is CAD 100 million. The loan agreement is fully guaranteed by PTTEP. On September 19, 2012, PTTEP CIF drew down the entire CAD 100 million. The proceeds from the loan agreement were utilized for general corporate purposes. The Board of Directors' meeting in the year 2011 approved the Company's entering into loan agreements, whose approved amount remaining was Baht 36,625 million. The total outstanding loan as of September 30, 2012 is CAD 100 million.

On May 23, 2012, PTTEP Offshore Investment Company Limited (PTTEPO) signed a 1 year facility agreement for an amount of GBP 950 million with UBS AG Singapore Branch. On August 8, 2012 PTTEPO syndicated the loan to financial institutions comprising UBS AG Singapore Branch, the Bank of Tokyo-Mitsubishi UFJ, Ltd Singapore Branch, Mizuho Corporate Bank, Ltd., London Branch, Sumitomo Mitsui Banking Corporation , Australia and New Zealand Banking Group Limited, DBS Bank Ltd. and Oversea-Chinese Banking Corporation Limited. The facility is fully guaranteed by PTTEP. The proceeds from the facility were used for the acquisition of Cove Energy Plc. On September 28, 2012, PTTEPO drew down the entire GBP 950 million. The total outstanding loan as of September 30, 2012 is GBP 950 million.

On September 27, 2012, the Board of Directors of the Company passed a resolution to approve as follow;

- Decrease of registered capital
  - Approved the decrement in the Company's authorized share capital from Baht 3,322,000,000 to Baht 3,319,985,400 by cancelling the Company's unissued ordinary share of 2,014,600 shares at the par value of Baht 1.00 per share. The total reduction of authorized share capital is Baht 2,014,600.
- Increase of registered capital and allocation of new ordinary shares
  - Approved the increment in the Company's authorized share capital from Baht 3,319,985,400 to Baht 3,969,985,400 by issuing ordinary shares of 650,000,000 shares at the par value of Baht 1.00 per share. The increment in the Company's authorized share capital will be preferential public offering to all eligible existing shareholders. The allocations of these new registered ordinary shares are as follows;

1. Allocation of new ordinary shares of up to 650,000,000 shares at the par value of Baht 1.00 per share to all eligible existing shareholders pro-rata to their shareholding.
2. If there are shares remaining, the remaining shares will be allocated to shareholders who subscribe over their entitlement on a pro-rata basis for at least one more round.

In the event that there are remain shares from allocation to eligible existing shareholders, the Company may offer such shares to institutional investors, not including PTT.

- The decrease of registered capital, the increase of registered capital and allocation of new ordinary shares is subject to approval by the Company's extraordinary shareholders' meeting which will be held on October 29, 2012.

### **Cash Flows**

For the period of nine months ending on September 30, 2012, PTTEP and subsidiaries had a net cash flow from operating activities of USD 2,304 million, chiefly due to the higher sales revenue resulting from the higher average petroleum sales price and sales volume during this period.

PTTEP and subsidiaries had a net cash flow used in investing activities of USD 4,083 million, mainly resulting from:

- (1) The additional investment in exploration and production assets amounting to USD 2,138 million from the PTTEP Australasia, Arthit, Zawtika, and Bongkot projects.
- (2) The acquisition of the entire issued and to be issued share capital of Cove Energy plc. amounting to USD 1,876 million
- (3) Restricted deposit at financial institution amounting to USD 69 million, a short-term deposit at a financial institution reserved for the acquisition of Cove Energy Plc. shares capital and related expenses.

PTTEP and subsidiaries had a net cash flow from financing activities of USD 1,103 million, resulting from the net effect of:

Net cash receipts from:

- Short-term loans from financial institutions amounting to USD 1,465 million.
- Bond issuance amounting to USD 653 million
- Long-term from financial institutions amounting to USD 471 million

Cash payments of:

- Loan payments amounting to USD 783 million
- Dividend payments amounting to USD 588 million
- Interest payment amounting to USD 115 million

As of September 30, 2012, PTTEP and subsidiaries held cash and cash equivalents of USD 675 million, a decrease of USD 676 million from that as at December 31, 2011 at which point cash and cash equivalents were USD 1,351 million.

### **2.3 Impact on Operating Results**

Oil prices continue to be highly volatile during the third quarter of 2012. Factors driving oil prices lower include the remaining uncertainties regarding the Eurozone debt crisis, doubts regarding impact of QE3 to the United States economy and the possibility of calling upon the United States' Strategic Petroleum Reserves. Factors driving oil prices higher include the maintenance shutdown in the North Sea production facilities, the tension and geopolitical conflicts in the Middle East and the hurricane season in the Atlantic Ocean, altogether limited global petroleum production. The average Dubai oil price in the third quarter of 2012 was USD 106.3 per barrel, which was slightly lower than the previous quarter. The crude price is likely to stabilize in the average range of USD 100 – 115 per barrel in the second half of 2012. Investors and analysts speculate that oil prices will remain at high levels in the fourth quarter with the help of ongoing geopolitical conflicts between Israel and Iran, the sanction on Iran by the European Union, and the clearer impact of QE3. The downside risks to oil prices are to remain with the ongoing economic concerns in the Eurozone and the United States and the oversupply of global petroleum inventories.

As the global economy and oil prices are still volatile, PTTEP has continuously monitored the changing economic situation and energy demand and moved in response to the challenging business environment as follows:

***Responding to the increase in energy demand*** In the third quarter of 2012, PTTEP production has increased by 6 percent compared to the second quarter during which production level was at 326,522 barrels of oil equivalent per day (BOED). PTTEP has reviewed the supply plan and improved production in order to meet the rise in energy demand. PTTEP has been cooperating with the related government agencies to collectively outline the optimal supply plan and forecast future energy demand from both domestic and neighboring countries, in both short term and long term. PTTEP has continuously been reviewing and adjusting its production plan as well as project development plans, including developing various technologies in exploration and production. Additionally, PTTEP is constantly seeking for investment opportunities in order to increase its reserves, with the purpose of meeting the nation's demand.

***Improving the efficiency and cost optimization*** PTTEP, together with its parent company, PTT Public Company Limited (PTT), and other companies under the PTT Group, embarked on the PTT Group Operational Excellence Transformation Project to initiate the PTT Group Operational Excellence Management System (OEMS) with the objective of becoming one of the leading enterprises in the energy industry. The project team consists of representatives from PTT, PTTEP and other companies under the PTT Group. The standard operations manuals were successfully established and adopted by PTT Group and will become the template for future operational excellence and process improvement initiatives. Each company in the PTT Group will jointly develop the framework of the project to help achieve its objective.

***Managing Risks on oil price volatility*** PTTEP aims to continuously conduct oil price hedging programs for the petroleum products from the PTTEP group, using the Ice Brent Crude price as a reference. PTTEP also closely monitors the changing economy and events that may have impacted the oil price, especially in the first nine months of this year, during which oil prices were highly volatile. Moreover, PTTEP has considered a variety of scenarios with varying market oil prices and formulated plans in the event of each situation.

**Capability Development** PTTEP acknowledges the importance in the development of organizational capability by focusing on the potential of people, technology and processes to prepare for business growth and meet challenges in different countries around the world. In the third quarter of 2012, the company's Center of Excellence, or COE, established a clear-cut plan to study, research, and collect data including in-depth knowledge and technology in four dimensions: Exploration, Deep Water Exploration and Production, Mergers and Acquisitions, and Unconventional Gas Development. These four dimensions are necessary for the global growth direction of the company for both short and long terms. The plan is expected to be effective from 2013 onwards.

***Safety, Security, Health and Environment (SSHE) and Sustainable Development (SD)***

PTTEP places SSHE as a core value by promoting the implementation and continuous follow-up so that the business runs securely and efficiently. Our goal is to become a Loss Time Injury free organization in 2013. PTTEP has therefore applied and monitored standard measurements from International Association of Oil and Gas Producers (OGP) such as Lost Time Injury Frequency (LTIF), Total Recordable Injury Rate (TRIR), Loss of Primary Containment Rate (LOPCR), and Chemical and Hydrocarbon Spill Rate. The comprehensive safety system can mitigate risks and reduce effect of incidents as shown in improved SSHE statistics in the third quarter.

PTTEP has the strategy to deliver long-term sustainable development and meet the 900,000 BOED production target by 2020 through investment opportunities that yield sustainable growth, as well as achieve economic, social and environmental sustainability. In 2011, PTTEP established the Sustainable Development Committee, which consists of representatives from operational and executive levels, to provide governance and support to different organizations in the company with aligned objectives. PTTEP targets to be listed on the Dow Jones World Sustainability Index (DJSI World) by 2014.

In the third quarter of 2012, PTTEP developed a roadmap for the company's sustainable development journey. The core strategic emphases of the program are business, social and environmental sustainability and the transparency of conduct in each scope. The roadmap is expected to be completed by the fourth quarter of 2012.

PTTEP has also progressed in other sustainable development programs in the third quarter of 2012 as follow:

1. Plans to converge the company to a Green Process Organization to create environmental sustainability have been approved by the company's management committee. The objectives of the organization are:
  - a. Achieve certification of Environmental Management Standard or ISO 14001 for both domestic and international operations.
  - b. Conduct and complete environmental baseline studies in all areas of operation.
  - c. Assess environmental impact before proceeding with exploration and development activities, especially in the scope of seismic studies, which must comply with environmental laws.

- d.** Reduce greenhouse gas emission from different units of the company's operations through process improvement or alternative procedures.
- 2. Conducted gap analysis with consulting agents on the DJSI World and outline plans for gap closure.