

# SUSTAINABLE EXCELLENCE

SUSTAINABILITY REPORT 2013  
THAI OIL PUBLIC COMPANY LIMITED





I

THE GROWTH OF THAIOIL GROUP  
IS BUILT ON A STRONG FOUNDATION  
OF OPERATIONAL EXCELLENCE



WE

OUR PRESENCE IN THE COMMUNITY  
IS ESTABLISHED THROUGH DIRECT  
AND ON-GOING DIALOGUES  
WITH OUR STAKEHOLDERS



WORLD

THAIOIL GROUP'S COMMITMENT  
TO THE ENVIRONMENT IS THE KEY  
TO ACHIEVE OUR SUSTAINABILITY VISION

# VISION

WE STRIVE TO BE A LEADING FULLY INTEGRATED REFINING  
AND PETROCHEMICAL COMPANY IN ASIA PACIFIC

# MISSION

- 1 TO BE IN TOP QUARTILE ON PERFORMANCE  
AND RETURN ON INVESTMENT
- 2 TO CREATE A HIGH-PERFORMANCE ORGANIZATION  
THAT PROMOTES TEAMWORK, INNOVATION AND  
TRUST FOR SUSTAINABILITY
- 3 TO EMPHASIZE GOOD CORPORATE GOVERNANCE  
AND COMMIT TO CORPORATE SOCIAL RESPONSIBILITY

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# THAI OIL PUBLIC COMPANY LIMITED



## HEADQUARTER

555/1 ENERGY COMPLEX BUILDING A, 11TH FLOOR,  
VIBHAVADI RANGSIT ROAD, CHATUCHAK, CHATUCHAK,  
BANGKOK 10900, THAILAND



## LISTED DATE

9/10/2004

ON THE STOCK EXCHANGE OF THAILAND



## REGISTERED CAPITAL

20,400,278,730 THB



## ASSOCIATE OF PTT CO., LTD.

49.10% OWNED

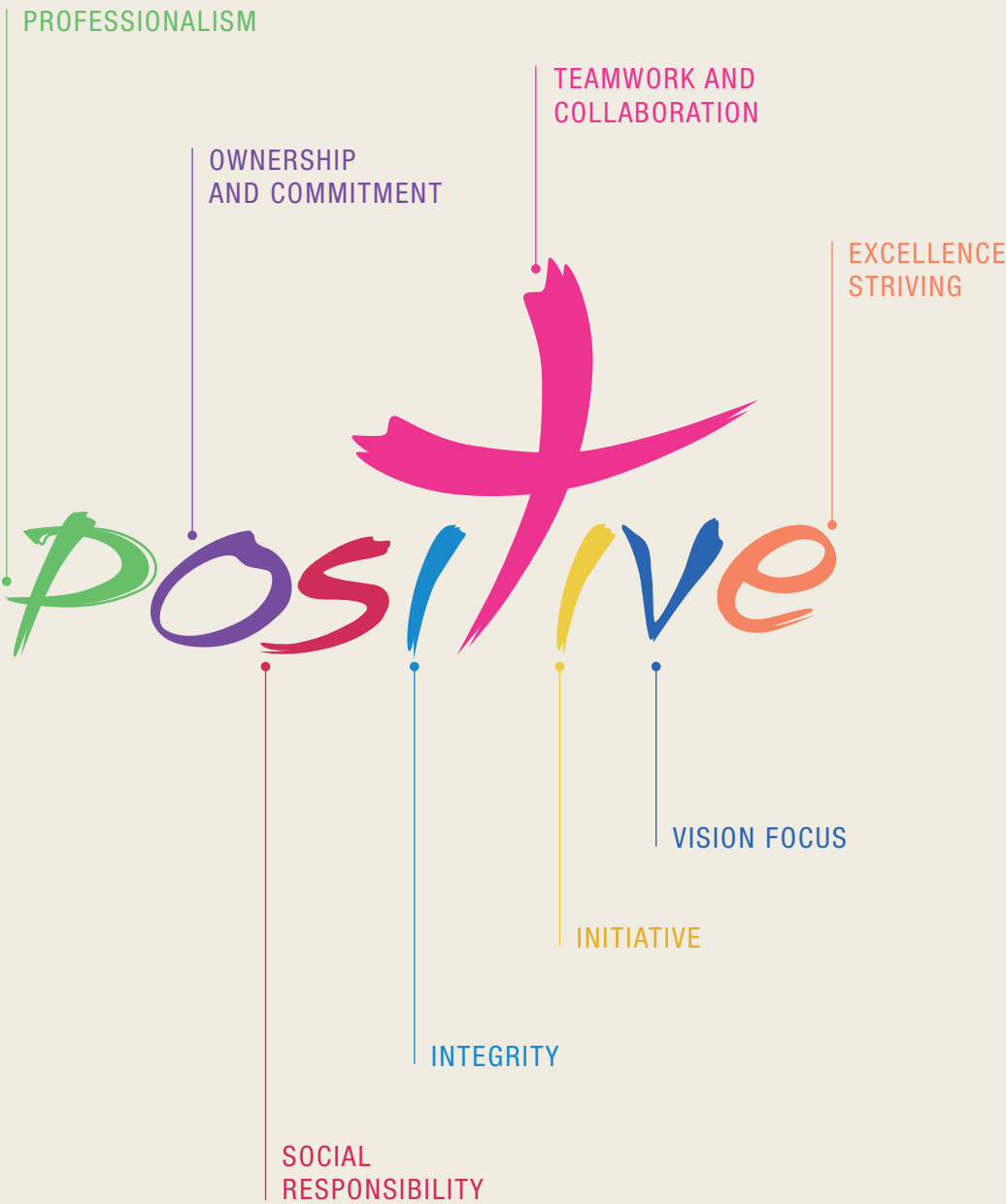
AS REFINERY FLAGSHIP COMPANY WITHIN PTT GROUP

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



THAI OIL IS LISTED AS A MEMBER OF DOW JONES SUSTAINABILITY INDICES 2013 IN OIL AND GAS PRODUCER INDUSTRY WITH ITS RECOGNITION AS A GLOBAL SUSTAINABLE ORGANIZATION. WITH 2013 SUSTAINABILITY PERFORMANCES AMONG INDUSTRY PEERS, THAI OIL IS ALSO RECOGNIZED BY RobecoSAM IN GOLD CLASS LEVEL OR AS ONE OF THE TOP 3 SUSTAINABLE COMPANIES FROM TOTAL 89 OIL AND GAS COMPANIES IN THE GLOBE.

## CORPORATE VALUE





# MESSAGE FROM THE CEO AND PRESIDENT

Thai Oil Public Company Limited was accepted as a member of Dow Jones Sustainability Indices 2013, Emerging Market universe in Oil and Gas industry, also being classified for Gold Class Award means we were one of the top three companies among eighty-nine companies assessed by RobecoSAM. This achievement reflects investors' confidence in Thailoil's ability to create stable and long-term financial returns.



MR. VEERASAK KOSITPAISAL

THE CEO AND PRESIDENT  
THAI OIL PUBLIC COMPANY LIMITED

**This past year has been another successful one for Thailoil Group** despite on-going challenges in running a sustainable business. The success reflects the strength of our business from managing production cost, complying with requirements, ensuring the highest level of safety meanwhile building the capabilities of our suppliers and business partners so that they can grow with us.

**Thailoil Group is able to withstand challenges in a competitive environment through continuous improvement** in our risk management and tighter and more systematic risk management for project development. The Thailoil Group Investment Management (TIM) enhances systematic project screening process which taking sustainability issues into consideration with return on investment. Our notable projects from the past year include: a joint venture in establishment of LABIX Company, a company that produces Linear Alkyl Benzene (LAB), an intermediate for the production cleaning chemical, and the expansion project of Small Power Plant Producer.

**In response to increasing stakeholders' demands, Thailoil Group has defined an approach in conducting our business sustainably covering three dimensions as follows:**

**Thailoil Group:** Drive Operational Excellence to improve operational effectiveness and increase competitiveness both in terms of reliability and production process by focusing on predictive maintenance, production efficiency, process and

personnel safety through the project "Safe, White, Green", as well as employee development and succession planning in a systematic way in accordance with our business growth plan.

**Stakeholders:** Promote relationships and partnerships with all parties involved from our suppliers, contractors, customers to the communities and society at large through direct engagement activities such as community relations project and Energy Efficiency Projects in remote areas.

**Environment:** Sustainably protect and develop the environment while generating business value by meeting and exceeding regulations, using natural resources efficiently to reduce energy consumption and greenhouse gas emission and investing in alternative energy such as ethanol.

In 2013, Thailoil Group established the Sustainability Management Function and implemented the Thailoil Group Sustainability Management Policy. To drive forward our sustainability effort, we are also working on the Sustainability Management Master Plan and 5-year roadmap (2014-2018) encompassing Thailoil Group's value chain.

I take this opportunity to thank our employees, customers, suppliers, and all stakeholders who helped make this past year a success for Thailoil Group. Lastly, I would like to emphasize that sustainability starts with us—from improving production process, managing community and environmental impacts, to increasing financial returns. We pursue sustainability for the long-term improvement of society and the environment.



# ABOUT THIS REPORT

## REPORTING PRINCIPLES

2013 Sustainability Report of Thai Oil Public Company Limited (TOP) is the third sustainability report. Its information covers the period of 1 January to 31 December 2013, prepared in accordance with the Global Reporting Initiative (GRI) Version 4.0 (G4) and its Oil and Gas Sector Disclosures. We declare this report to be in accordance with the GRI guidelines at a comprehensive level.

Reporting boundary conforms with the Global Reporting Initiative (GRI) guideline as shown on page 9 and 19

## PROCESS FOR DEFINING REPORT CONTENTS

The contents in this sustainability report are defined by conducting Materiality Assessment applied from AA1000 AccountAbility Principles Standard (2008) and GRI Reporting Principles for Defining Report Content.

Details of Materiality Assessment are provided on page 18.

THAIOIL GROUP'S COMPANIES <sup>(G4-17)</sup>		AND REPORTING BOUNDARY <sup>(G4-17)</sup>	
RELATIONSHIP	COMPANY NAME	BUSINESS TYPE	REPORTING BOUNDARY
-	Thai Oil Public Company Limited	Oil refining and distribution	◆ ◆
Direct subsidiary	Thai Paraxylene Company Limited	Production and distribution of upstream aromatic petrochemicals	◆ ◆
Direct subsidiary	Thai Lube Base Public Company Limited	Production and distribution of lube base oil	◆ ◆
Direct subsidiary	Thaioil Power Company Limited	Small Power Producer (SPP)	◆ ◆
Direct subsidiary	Thaioil Energy Services Company Limited	Human resource service providers	◆ ◆
Direct subsidiary	Thaioil Solvent Company Limited	Investment in solvent and chemical business	◆
Direct subsidiary	Thaioil Ethanol Company Limited	Investment in ethanol business and alternative energy products	◆
Direct subsidiary	Thaioil Marine Company Limited	Domestic and international marine transportation of petroleum and petrochemical products	◆
Direct subsidiary	Global Power Synergy Company Limited**	Power Producer	◆
Direct subsidiary	Thai Petroleum Pipeline Company Limited	Petroleum transportation service via multi-product pipeline	◆
Direct subsidiary	PTT ICT Solutions Company Limited	Information technology and communications services	◆
Direct subsidiary	PTT Energy Solutions Company Limited	Provider of engineering technical consulting services	◆
Direct Subsidiary	TOP SPP Company Limited*	Small Power Producer	◆
Indirect Subsidiary	TOP Nautical Star Company Limited*	Provider of vessels and transportation services	◆
Indirect subsidiary	TOP Solvent Company Limited	Distributor of solvent and chemical products	◆
Indirect subsidiary	Sak Chaisidhi Company Limited	Producer and distributor of solvents and chemicals	◆
Indirect subsidiary	TOP Solvent (Vietnam) LLC.	Distributor of solvent and chemical products	◆
Indirect subsidiary	Thaioil Marine International Private Limited	Domestic and international marine transportation of crude oil and petrochemical products	◆
Indirect subsidiary	TOP-NYK MarineOne Pte. Ltd.	Domestic and international marine transportation of crude oil and petrochemical products	◆
Indirect subsidiary	TOP Maritime Service Company Limited	Marine transportation services for crew and utilities	◆
Indirect subsidiary	Thome Ship Management (Thailand) Company Limited	Dynamic provider of integrated ship management services to the international shipping and offshore industries such as offshore structure management, port agency, vessel inspection and crew training.	◆
Indirect subsidiary	TOP-NTL Private Limited	Trustee Manager	◆
Indirect subsidiary	Sapthip Company Limited	Producer and distributor of cassava-based ethanol	◆
Indirect subsidiary	Ubon Bio Ethanol Company Limited	Producer and distributor of cassava and molasses-based ethanol	◆
Indirect subsidiary	Maesod Clean Energy Company Limited	Producer and distributor of sugarcane-based ethanol	◆
Indirect subsidiary	LABIX Company Limited*	Producer of Linear Alkyl Benzene	◆

Remarks: \* new companies in 2013 (G4-22)  
\*\* Independent Power (Thailand) Co., Ltd. has changed the name to Global Power Synergy Company Limited (GPSC) where Thai Oil is a minority shareholder and does not consume electricity from the GPSC. As a result, GPSC's performance is not covered within the boundary for 2013. (G4-23)

## REPORT QUALITY CONTROL

In preparation of the report, the information have been collected and revised the consistency and completeness by the Sustainability Management Function together with the data owners. The contents have been reviewed before compiling into the report so as that the accuracy has been verified. Moreover, according to the transparency and accountability policy of the company, we engaged the services of an independent external party to undertake an assurance process for our report to ensure the quality and accuracy of the material issues as the report assurance statement is shown on page 82.

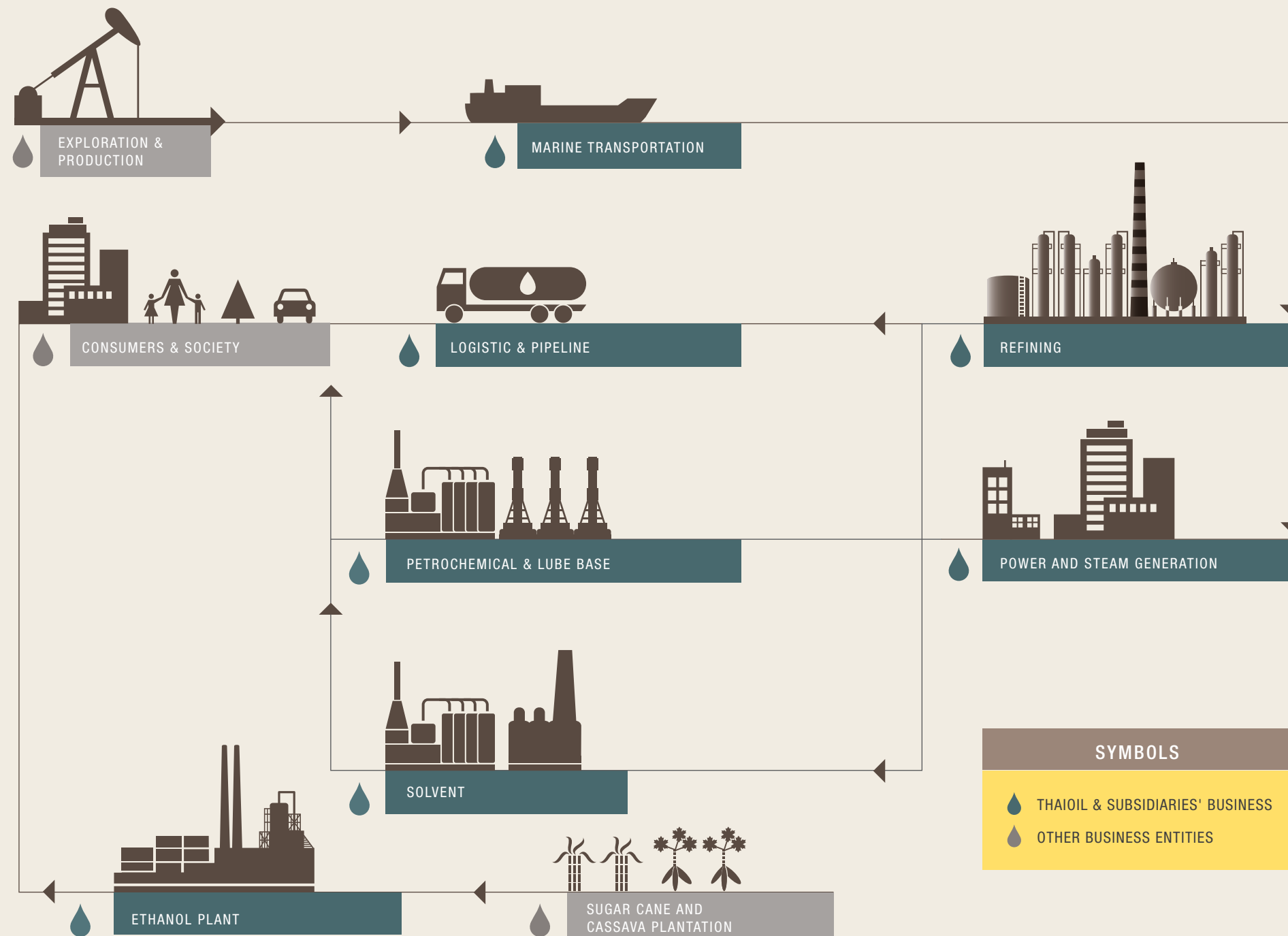
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UPSTREAM

DOWNSTREAM

# THAIOIL GROUP'S VALUE CHAIN



The business of Thaioil Group is mainly the extension of petroleum refinery value chain in both upstream (crude oil marine transportation) and downstream (petrochemical and lube base oil, power and steam generation, ethanol, solvent production and other businesses) to create value added and stability for the sustainable value chain of Thaioil. As a result, sales revenue of the group in 2013 reached up to Baht 414,599 Million

**Oil Refinery** The Oil Refinery is our Core Business. It has a capacity of approximate 275,000 bbl per day to refine crude oil and other feed stocks. This accounts for approximate 23% of the national overall refining capacity.

**Petrochemical & Lube base** The Business provides value added of the by-products from our petroleum refinery. The petrochemical complex has a total annual production of 838,000 tons of aromatics and 684,535 tons of lube base oil, bitumen and TDAE.

**Solvent** The Business produces solvent from by-products obtained from Thai Oil petroleum refinery through a subsidiary with production capacity of over 76,000 tons per year along with solvent distribution business in Thailand and Vietnam.

**Power and Steam Generation** Power generation business is established to ensure stability of our operations. Our power generation business has natural gas co-generation power plant with capacity to produce 118 MWh. Electricity from Thaioil Power is mainly for internal use to provide stability of operations. Moreover, it is able to provide 168 tons of steam per hour for operations in other areas.

**Ethanol** The ethanol business is established to respond to Thai government policy on promotion of producing and using of renewable energy. Engaging in renewable business is also preparing for the future changing in energy mix. Thaioil engages in ethanol production business through joint venture with 3 ethanol plants which have combined production of 800,000 liters per day.

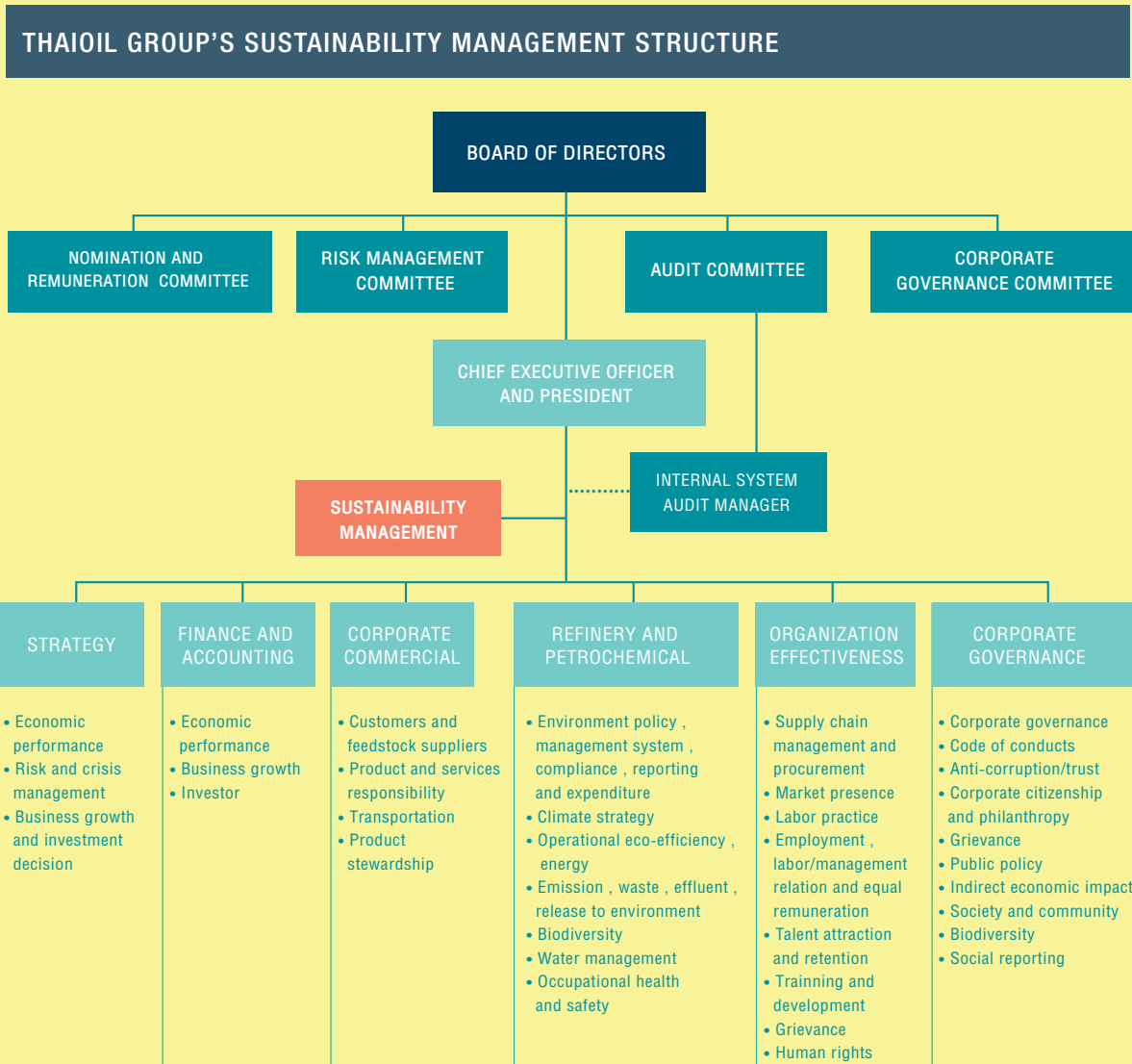
**Transportation & Others** Thaioil Group also has other businesses for marketing support, efficiency improvement and creating future opportunities. Thaioil invests in the business of international marine transportation of petroleum products and petrochemical products. Our fleet comprises 7 vessels from large crude carriers to medium to small-sized crude oil tankers and petrochemical product tankers with a total capacity of 728,074 deadweight tons. Thaioil also invests in petroleum product pipeline business with the transmitting capacity of 26,000 million liter per year. In addition, Thaioil has businesses in human resource management to supply workforce for companies in Thaioil Group and technology consultation and knowledge management for refining and petrochemical technologies.

# SUSTAINABILITY OF THAI OIL GROUP

SUSTAINABILITY TO THAI OIL GROUP MEANS DELIVERING SUSTAINABLE GROWTH AND LONG-TERM VIABILITY THROUGH OPERATIONAL EXCELLENCE BY BALANCING BETWEEN ECONOMIC DEVELOPMENT, SOCIAL RESPONSIBILITY AND ENVIRONMENTAL STEWARDSHIP TO CREATE VALUE FOR ALL STAKEHOLDERS.

Thaioil Group strives to be a leading fully integrated refining and petrochemical company in Asia Pacific and is fully aware of environmental and society’s well-being through the best management. Therefore, Thaioil Group places priority on environmental and social managements in the planning, construction and operation of the

Group’s business activities, and has also established the Sustainability Management Function to oversee tangible and systematic sustainability management under the following structure.



**Sustainability Management Function** reports directly to the Chief Executive Officer and President. The core responsibilities of the function include proposing strategy, policy and planning on sustainability management and coordinating with multiple functions and companies within Thaioil Group to develop a sustainability management master plan, road map and procedures, including the development of a sustainability culture among employees in the Group and its stakeholders to promote awareness of sustainable business conduct.

Sustainability is one of Thaioil Group's key strategies and the Group also implements a Thaioil Group Sustainability Management Policy to communicate our commitment to all groups of stakeholders. It is the responsibility of the Board of Directors, the management and every employee to support and drive the implementation of the policy.



### Thaioil Group Sustainability Management Policy

Thaioil Group aspires to become a business leader in line with the principle of sustainable development by building confidence of stakeholders through excellent and transparent operations, and continuously delivered innovations for a sustainable future of society and the environment in accordance with a Sustainability Management Framework in order to align the Group's direction with international standards. The policies of Thaioil Group Sustainability Management are as follows:

1. Operate in an economically, socially and environmentally sustainable manner whilst balancing the interests of a diverse range of stakeholders to assure sustainable business growth.
2. Reduce the footprint along the value chains in which we operate. Our "footprint" covers environment, social and health and safety dimensions.
3. Develop Green Growth Strategies focusing on economic and environmental sustainability through our internal capabilities and collaboration with external stakeholders.
4. Possess high aspiration to enable future growth through prioritized technologies to sustain operations, deliver growth, and shape the future for Thaioil Group.
5. Disclose performances on sustainability transparently and in accordance with widely accepted international standards to enable continuous development.

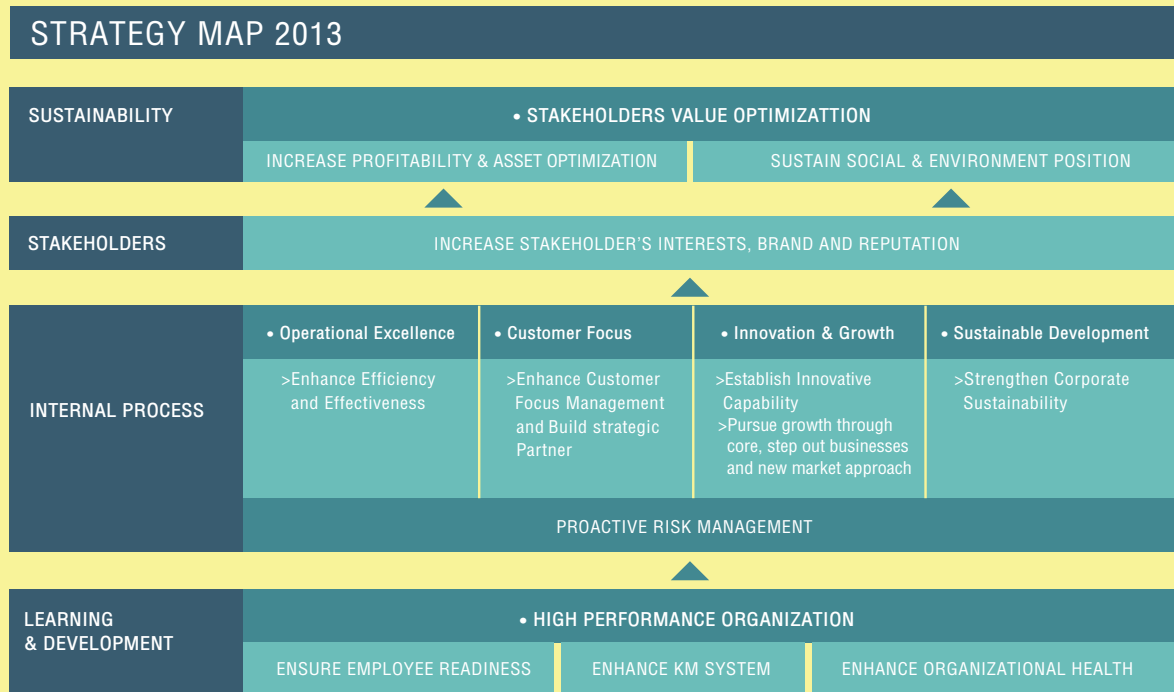
Every Director, Management member and employee of Thaioil Group is responsible for contributing, driving and executing the above Policy and Thaioil Group Sustainability Management Framework.



With regard to the implementation of the Sustainability Management Policy, Thaioil Group integrates sustainability management into the annual **Strategic Thinking Session (STS)** when the management team and the Board define the Group's strategy in business, governance, the environment and society. Environmental, social, occupational health and safety issues along with stakeholders' concerns are, therefore, included in this Strategic Thinking Session.

## CORPORATE SUSTAINABILITY

The strategic plan which has been approved by the Board and management team will become part of the Group's Key Performance Indicators (KPIs) at the corporate level. Corporate KPIs will be assigned to the CEO and cascaded down to executive vice presidents, assistant executive vice presidents, vice presidents and section managers. Thaioil Group's Corporate KPIs are illustrated in below Strategy Map.



Thaioil Group Strategy Map is adapted from the Balanced Score Card concept consisting of 4 aspects as follows:

- Sustainability
  - Stakeholders
- Internal Process
  - Learning and Development

The Corporate KPIs of Thaioil Group incorporate every aspect, including finance, business and sustainability, i.e. Dow Jones Sustainability Indices, customer satisfaction, corporate governance rating, community satisfaction, employee engagement, total recordable case frequency rate, process improvement (including energy intensity index), sustainability reporting according to GRI, long-term employee readiness and succession plan, and organizational health index.

The Corporate KPIs are monitored monthly in the meeting of each department as well as in the top management meeting of Thaioil Group. Achieving of these KPIs positively affects the variable compensation payment scheme of the employees and management.

## SUSTAINABILITY MONITORING AND EVALUATION



### EXECUTIVES' RESPONSIBILITY IN SUSTAINABILITY MANAGEMENT

Under Sustainability Management framework, the executives of Thaioil Group are responsible for defining the vision, target and strategy regarding the sustainability of the Group in a balanced manner and with due consideration for stakeholder feedback; for deploying the sustainability vision and framework; for defining the responsibilities and direction of effective performance monitoring; and for arranging internal and external performance evaluations to ensure conformance with the guidelines of the Thaioil Group Sustainability Management Framework. Last but not least, Thaioil Group management also has the responsibility of promoting a culture of sustainability management to all stakeholders of Thaioil Group.

In addition, Thairoil Group is in the process of developing a sustainability master plan and a five-year roadmap to provide a long term direction in economic, social and environmental management by taking stakeholder perspectives gained from the insight of relevant responsible functions into developing Corporate goals in terms of economic, social and environmental aspects as follows:

ECONOMIC 	“TO SUPPORT THAI OIL GROUP’S ECONOMIC VIABILITY AND CORPORATE DEVELOPMENT THROUGH OPERATIONAL EXCELLENCE AND HOLISTIC SUPPLY CHAIN MANAGEMENT”
SOCIAL 	“TO BE RESPONSIBLE AND ACCOUNTABLE TO ADVANCING THE SOCIAL WELL-BEING OF ALL THOSE INVOLVED IN THAI OIL GROUP’S BUSINESS DIRECTLY AND INDIRECTLY”
ENVIRONMENTAL 	“TO COMMIT TO RESPONSIBLE USE AND PROTECTION OF THE NATURAL ENVIRONMENT THROUGH CONSERVATION AND SUSTAINABLE BUSINESS PRACTICES”

Eventually, Thairoil Group will review the Group’s sustainability management continuously by benchmarking performance against leading oil and gas companies in the Corporate Sustainability Management of Dow Jones Sustainability Indices as well as through ongoing stakeholder engagement.

STAKEHOLDER ENGAGEMENT (G4-25)

Stakeholder engagement is an integral part of Thairoil Group’s business conduct, included in our business code of conduct and Thairoil Group Sustainability Management Policy. Each function is responsible for engaging, identifying and prioritizing material aspects with stakeholders under their responsibility. The results from the engagement process are the key factors for defining any sustainability issues within Thairoil Group.

	(G4-24) STAKEHOLDER GROUP	(G4-26) ENGAGEMENT METHODS	(G4-27) EXPECTATIONS	CHAPTER
1	Shareholders, money-lenders, financial institutions	<ul style="list-style-type: none"><li>• Annual General Meeting (AGM)</li><li>• Quarterly corporate performance announcement</li><li>• Financial analysts meeting</li><li>• Investment exhibition (Road show)</li><li>• Preparation of the annual report</li><li>• Grievance mechanism</li></ul>	<ul style="list-style-type: none"><li>• High and sustainable return on investment</li><li>• Good corporate governance and risk management</li><li>• Sustainability disclosure including employee related data</li><li>• Sustainable business plans</li></ul>	<ul style="list-style-type: none"><li>• Sustainability of Thairoil Group</li><li>• Corporate Governance</li></ul>
2	Customers	<ul style="list-style-type: none"><li>• Communication as planned</li><li>• Monthly customer visit</li><li>• Annual satisfaction survey</li></ul>	<ul style="list-style-type: none"><li>• Good quality of products and after-sale service</li><li>• Delivery of products within timeframe</li><li>• Response to customers' needs</li></ul>	<ul style="list-style-type: none"><li>• Our Customers</li></ul>
3	Suppliers and contractors	<ul style="list-style-type: none"><li>• Communication via electronic media and telephone</li></ul>	<ul style="list-style-type: none"><li>• Fair and transparent procurement process</li><li>• Acceptable payment period</li><li>• Added value and long-term relationships</li></ul>	<ul style="list-style-type: none"><li>• Supply Chain Management</li></ul>
4	Employees	<ul style="list-style-type: none"><li>• Employee Committee</li><li>• Monthly journal (Akanee)</li><li>• Annual employee engagement survey</li><li>• CEO meets employees</li></ul>	<ul style="list-style-type: none"><li>• Good compensation</li><li>• Career security, career path progression, benefits, human resource management</li><li>• Employment trend disclosure</li></ul>	<ul style="list-style-type: none"><li>• Human Resource for Sustainability</li></ul>
5	Society and communities	<ul style="list-style-type: none"><li>• Regular involvement of the community as planned</li><li>• Monthly meetings with community leaders</li></ul>	<ul style="list-style-type: none"><li>• No negative impact on the environment and society</li><li>• Supports for long term community and society development</li></ul>	<ul style="list-style-type: none"><li>• Our Communities and Societies</li></ul>
6	Government agencies and related organizations	<ul style="list-style-type: none"><li>• Participation in the activities and programs of the government agencies</li><li>• Delivering reports to the government agencies</li></ul>	<ul style="list-style-type: none"><li>• Comply with relevant laws and regulations</li></ul>	<ul style="list-style-type: none"><li>• Corporate Governance</li></ul>

MATERIALITY ASSESSMENT (G4-18)

Thaioil Group conducted materiality assessment by applying GRI Reporting Principles for Defining Report Content which includes the following 5 steps:

**STEP 1:** Identify aspects relevant to the sustainability of Thaioil Group by considering stakeholders' expectations, stakeholders' feedback on previous year's report, Thaioil Group business context and industrial sustainability issues

**STEP 2:** Prioritize the issues by scoring each topic from 1-5 regarding importance to Thaioil Group in accordance with enterprise risk management criteria and the frequency with which each issue has been raised by stakeholders. In the next step, organize workshops with the relevant functions to explain the approach and conduct exercises. Each function is required to prioritize issues relevant to their work, the results of which must be approved by their supervisor.

**STEP 3:** Present the sustainability issues to the CEO and top executives

**STEP 4:** Present high priority issues in Sustainability Report and medium priority issues on the Company's website

**STEP 5:** Review sustainability context to ensure compliance with GRI principles on Report Quality

This process confirms Thaioil Group's commitment to continuous development through the external assessment approach and verification of external stakeholder expectations.

MATERIAL ASPECTS AND ASPECT BOUNDARY SETTING (G4-18)

The criteria to define the aspect boundaries of sustainability issues include the relevance of each issue in terms of impact from the Company, illustrated as follows:

MATERIAL SUSTAINABILITY ISSUES	(G4-19)	(G4-20)
	GRI ASPECTS	ASPECT BOUNDARY
1. Business growth	Economic Performance	Thaioil Group
2. Health and Safety	Occupational Health and Safety, Asset Integrity and Process Safety	TOP, TPX, TLB, TP, TES
3. Code of Conduct	Compliance	TOP, TPX, TLB, TP, TES
4. Customer Relations	Product and Service Labelling (PR5 – customer satisfaction)	TOP, TPX, TLB
5. Human Development	Training and Education	TOP, TPX, TLB, TP, TES
6. Employment Management	Economic Performance, Market Presence, Employment, Labor/Management Relations	TOP, TPX, TLB, TP, TES
7. Climate Strategy	Economic Performance (EC2)	TOP, TPX, TLB, TP
8. Material and Energy	Materials, Energy	TOP, TPX, TLB, TP
9. Water Resource Management	Water	TOP, TPX, TLB, TP
10. Community Impact	Assessment, Local Communities	TOP, TPX, TLB, TP
11. Anti-corruption	Anti-corruption	TOP, TPX, TLB, TP, TES
12. Grievance Mechanism	Environmental Grievance Mechanisms, Labor Practices Grievance Mechanisms, Human Rights Grievance Mechanisms, Grievance Mechanisms for Impacts on Society	TOP, TPX, TLB, TP, TES
13. Air Emissions	Emissions, Transport	TOP, TPX, TLB, TP
14. Effluent, Waste and Spills	Effluent and Waste	TOP, TPX, TLB, TP
15. Social Investment	Indirect Economic Impacts	Thaioil Group
16. Environmental Compliance	Environmental Compliance	TOP, TPX, TLB, TP
17. Customer Privacy	Customer Privacy	TOP, TPX, TLB
18. Supplier Assessment	Supplier Environmental Assessment, Supplier Assessment for Labor Practices, Supplier Human Rights Assessment, Supplier Assessment for Impacts on Society	TOP, TPX, TLB, TP
19. Public Policy	Public Policy	Thaioil Group

**Remark** : Thaioil Group is under improvement of data management system. The sustainability performance for Sustainability Report 2013 is mainly from TOP, TPX, TLB, TP and TES companies of which the data is considered adequately reliable and auditable.  
: The scope excludes partners and contractors unless otherwise stated that it is under Thai Oil's direct management or that operation essentially affects. (G4-21)



# I

## OUR WELL-BEING



### CORPORATE GOVERNANCE

- Board of Directors
- Risk Management
- Code of Conduct



### HUMAN RESOURCE FOR SUSTAINABILITY

- Human Resource Development
- Employee Engagement



### OCCUPATIONAL HEALTH AND SAFETY

- Occupational Health
- Safety

## MORE THAN 50 YEARS OF REFINING ENERGY FOR THAILAND.

WE STRIVE TO MAINTAIN OUR REFINERY LEADER POSITION IN THAILAND BY LAYING THE STRONG FOUNDATION FOR THE SUSTAINABLE GROWTH IN THE FUTURE THROUGH OUR GOOD CORPORATE GOVERNANCE, HUMAN RESOURCE READINESS AND LEADING OCCUPATIONAL HEALTH AND SAFETY





# CORPORATE GOVERNANCE

**96%**  
OF CORPORATE  
GOVERNANCE SCORE



THAIOIL BELIEVES THAT HAVING VISIONARY, COMPETENT AND RESPONSIBLE LEADER IN COMBINATION WITH FAIR, TRANSPARENT AND AUDITABLE BUSINESS OPERATIONS ARE CRITIACL REQUISITES FOR BUILDING TRUST AMONG STAKEHOLDERS AS WELL AS DRIVING ORGANIZATIONAL DEVELOPMENT. THAIOIL INTEGRATES MEANS OF SUSTAINABILITY INTO OUR GOOD CORPORATE GOVERNANCE SYSTEM IN ORDER TO BUILD SUSTAINABLE BUSINESS OPERATION.

## BOARD OF DIRECTORS

The Board of Directors comprises individuals who are competent, trustworthy and respected, and skillful in various areas of expertise, such as industrial, accounting and finance, business, management, international marketing, strategy, crisis management, law and corporate governance. At least one-third and not less than 3 members of the Board of Directors must be independent directors. At present, the number of independent directors exceeds the requirements stipulated by law. There are 15 Thail's current Board of Directors, of which 1 is an executive director and 14 are non-executive directors. Of these 15 directors, 11 are independent. There are 4 audit directors, who are all independent and responsible for providing independent opinions on Thail's business operations. All directors have been recruited by the Nomination and Remuneration Committee, comprised of 3 independent directors. Individuals qualified in different areas of expertise have been recruited as directors which ensure diversity of the Board with different ideas and business perspectives presented. The nomination and appointment guidelines are outlined in Thail's Corporate Governance Manual.

In the past year, Thail held 12 meetings of the Board of Directors to establish the Group's vision, policy and business strategy so as to define the Group's organizational values of good corporate governance, corporate social responsibility, environment and human rights.

In addition, in order to achieve the objectives of corporate governance, the Board of Directors appointed 4 committees in charge of screening and developing regulations consisting of the Audit Committee, the Nomination and Remuneration Committee, the Corporate Governance Committee and the Risk Management Committee.

List of Board of Directors can be viewed in the Annual Report 2013  
at : [www.thaioilgroup.com](http://www.thaioilgroup.com)



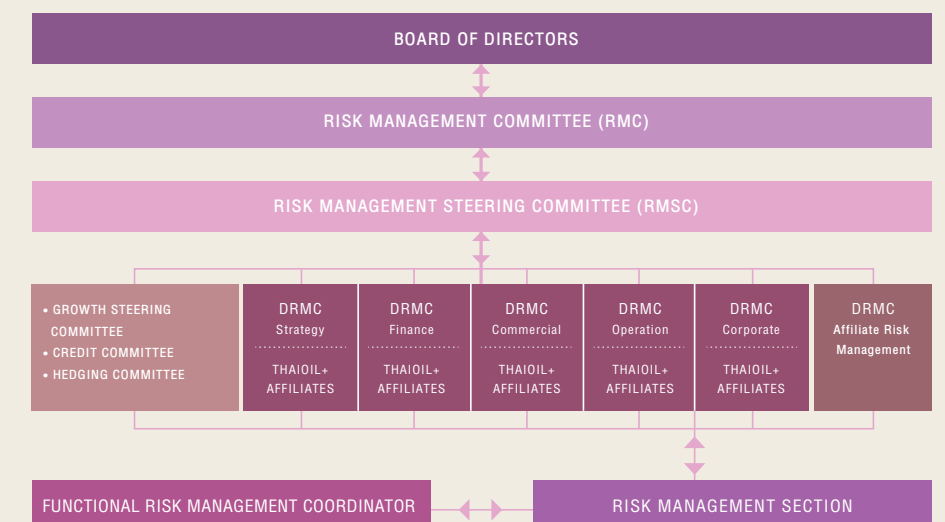
Thail has developed mechanisms to ensure compliance with the business etiquette. Thail's internal audit department works independently and reports directly to the Audit Committee. The department is responsible for auditing key business processes; the high risk processes are included in the audit plan. The internal control framework is outlined pursuant to the guidelines of the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The risk management section has been established to analyze, assess and monitor risks in various situations which may affect the business operations in the organization. In the past year, there were no findings indicating that Thail incompliance with any law or regulations which would lead to a penalty for anti-competitive practice, corruption, discrimination, product use, product safety, or product information.

## PARTICIPATION OF THE BOARD OF DIRECTORS IN STRATEGY DEVELOPMENT

The Board of Directors participates in developing and reviewing the Company's strategy in August and November every year. Sustainability issues are integrated into the organizational strategy through corporate indicators in terms of economy, society and the environment. Additionally, in order to expand the directors' knowledge, Thail develops knowledge programs with third-party support and organizes overseas study trips for the Board of Directors.

## CORPORATE RISK MANAGEMENT

Thail's risk management structure comprises the Board of Directors, Risk Management Committee (RMC), Risk Management Steering Committee (RMSC) and Disciplinary Risk Management Committee (DRMC). In 2013, Thail held 7 Risk Management Committee meetings, as normally planned once in a quarter, in order to assess corporate risks, project and major investments risks before presenting the findings to the Board of Directors for consideration.





Each committee has consistent roles and responsibilities to ensure that corporate governance and corporate risk are implemented in all key activities including all risks related and linked to Thail's affiliates. Then, the Disciplinary Risk Management Committee and Risk Management Committee of each affiliate will report its risk management progress and results to Thail's Risk Management Steering Committee pursuant to Thail's risk management framework and in compliance with international standards, i.e. ERM COSO and ISO31000. The **Risk Management Policy** and **Risk Management Manual** are provided as guidelines for all functions in Thail Group in order to set it as one standard. Thail Group has developed the **Risk Management Information System (RMIS)** to store the risk data of Thail Group's companies and provide alerts to review the risk management plan for each company.

Thail Group's risks are divided into 5 areas, which are Business and Strategy, Commercial and Marketing, Corporate Affairs, Financial, and Operations. Thail Group assesses the risks and develops the appropriate measures and plans to prevent any environmental and social impacts which may affect business operations e.g. oil spills and refinery blockage by communities.

## PERFORMANCE MONITORING

Thail Group monitors performance through its indicators from the level of the Board of Directors to the operating functions in a monthly management meeting.

## PERFORMANCE EVALUATION AND REMUNERATION OF THE BOARD OF DIRECTORS

There are 3 performance evaluations of the Board of Directors which are Self Assessment of the Director, Assessment of other Directors and Assessment of the Board and Sub-Committees which cover the Board policy, Board composition, Board meeting and Board practices. In the past year, the overall Board assessment is in the level of excellence.

Every year, Thail's Corporate Governance is evaluated by third party organizations. This year, Thail participated in the Board of the Year Award, where the Board of Directors' performance is evaluated every 2 years by Thai Institute of Directors (IOD), in cooperation with the Stock Exchange of Thailand and other business associations. In 2013, Thail's Corporate Governance was evaluated (Corporate Governance Report of Thai Listed Companies 2013) at a rating of "excellence" for 5 consecutive years which is the highest award. Thail is 1 of 30 companies of the Top Quartile with a market value of over 10 billion Baht as evaluated by Thai Institute of Directors (IOD). Thail received the Top Corporate Governance Report Awards in the SET Awards 2013 held by the Stock Exchange of Thailand (SET).

Remuneration provided for the Board of Directors is linked to the responsibilities of each director and is subject to the management of the Remuneration Committee and approval of the annual shareholders' meeting.

Remuneration provided for the Chief Executive Officer depends on corporate key performance indicators and appraisal of leadership competency as well as budget and project management.

Remuneration provided for the top executives depends on corporate key performance indicators which will determine bonus amounts and is subject to the management of the Remuneration Committee. The ratio of annual total compensation of the highest top executive to the median annual total compensation of employee is 10:01 and the ratio increased from the previous year at 1:1, respectively.

## CODE OF CONDUCT

Thail regularly reviews Code of Conduct in various areas to ensure that its content is suitable for the Group's operations under changing business situations. The Board of Directors, top executives and all employees must sign their names to acknowledge understanding and acceptance of the Code of Conduct, and the top executives are obliged to ensure that the employees, business partners and contractors also understand and comply with Thail's Code of Conducts.

### MEASURES AGAINST CORRUPTION

Thail has business code of conduct principles including conflict of interests; maintaining confidential information and the use of inside information; giving or acceptance of presents, properties, or other benefits, etc. Thail's code of conduct prescribes that employees are prohibited from soliciting or accepting any advantage from third parties that may impair their objectivity or weaken their ability to promote the best interest of the Company. Employees shall refrain from offering advantages to outside persons as a motive for him/her to do, or refrain from doing any illegal or wrongful act that may lead to seek

benefits for themselves or their families. Further detail is disclosed in the Company's CG manual, which can be downloaded in the Company's website. Moreover, Thail has launched a **"Conflict of Interest Disclosure Electronic Form"** for all employees to encourage them to perform their duties with transparency, morality, lawfulness, responsibility for their own actions, and increased efficiency in performing their work based on transparency and fairness, in compliance with the Company's corporate governance principles.

Since 2010, Thail joined the project on Collective Action Coalition against Corruption in Private Sector. The coalition was initiated by the IOD, the

Thai Chamber of Commerce, the Joint Foreign Chambers of Commerce in Thailand, the Thai Listed Companies Association, the Thai Bankers Association, and the Federation of Thai Industries commerce. The project was also supported by the government and the Office of National Anti-Corruption Commission.

In 2012, Thail joined the membership of the United Nations Global Compact (UNGC), which enabled it to apply the ten UNGC principles, which are internationally recognized in the promotion of good governance on human rights, labor, environment, and anti-corruption in its business operation.



In 2013, Thailoil defined an **Anti-Corruption Policy** by assigning definitions, roles, duties, responsibilities, guidelines, implementing measures of the supervision and control of corruption in the organization. This was to show its concrete commitment to conducting business based on fairness, integrity, transparency, responsibility to society and all stakeholders in compliance with Thailoil’s corporate governance principles and code of business conduct, which conform to the Capital Market Supervisory Board’s announcement, Tor Jor 44/2013 on the conditions on the disclosure of information on financial status and operating results; the 2014 CG Rating of the IOD; and the Private Sector Collective Action Coalition against Corruption (CAC). Thailoil has communicated the policy to all employees through circulars and internal magazines and sent policy notifications to customers and business partners, as well as announcing the policy via the Company’s website for the interested public.

Anti-Corruption Policy

The Company is committed to basing business on fairness, integrity, transparency, responsibility to society and all stakeholders, in compliance with its corporate governance principles and code of conduct on a par with international standards, to bolster confidence among all stakeholders and promote its own sustainability. The Company is aware that corruption is a major obstacle to objective achievement and is also a problem to national country’s economic and social development. Therefore, in 2010, the Company signed its commitment to joining the “Private Sector Collective Action Coalition against Corruption”.

To achieve the objectives, the Company defined its Anti-Corruption Policy, as well as roles, responsibilities, guidelines, and measures as follows:

Definition of the Anti-Corruption Policy

**Corruption** means any action, whether offering, promising, soliciting, demanding, giving or accepting assets or other benefits to government officials or other persons in business dealing with the Company, whether directly or indirectly, as a motive for them to do or refrain from doing any act to acquire or keep benefits that are unsuitable to the business, except as allowed by the laws, rules, regulations, local customs or tradition, or business customs.

**Political contribution** means assistance, whether in cash or in-kind, to support political activities such as giving of objects or services, advertisement on the promotion or support of political parties, purchase of tickets to attend fund-raising sessions, or donation to organizations close to political parties.

Anti-Corruption Policy

The Board of Directors (the Board), the management, and employees must not corrupt or accept corruption of all forms in any circumstances, covering the business of the Company in every country and in every relevant agency. The Company defines guidelines, operating measures, and roles and duties of responsible persons, as well as regularly monitoring and reviewing the implementation of the anti-corruption policy in compliance with changes in businesses, rules, regulations, and relevant laws.

Roles and Responsibilities

Apart from the strict implementation of the policies, guidelines, and measures, the Company defines the roles and duties of the Board, board-committees, and management as follows:

1. **The Board of Directors** must define policies, supervise, follow up, as well as allocating sufficient and suitable resources to ensure that the Company meets the objective of implementing the anti-corruption policy.
2. **The Corporate Governance Committee** must review the policies as necessary in line with changes in businesses, rules, regulations, and relevant laws, approve any improvement or modification before submitting it to the Board for approval; as well as providing comments and recommendations that benefit the management in the preparation of operating plans and the implementation of the measures.
3. **The Audit Committee** must monitor the operation of the Company in line with anti-corruption measures, including financial reports, internal control system, and internal audit to ensure that the operation of various departments are efficient, lawful, and in compliance with ethical rules, regulations, and standards.
4. **The Management** must implement the policies, support resources, communicate and encourage all employees and all relevant persons to understand the policies, guidelines, and measures, encourage and support the Company’s subsidiaries to apply the anti-corruption policy and measures as appropriate, implement the views and recommendations of the Board and the board-committees, review the suitability of various systems and measures, as well as reporting to the Board and/or to the board-committees accordingly.

Implementation

1. In implementing the policies, refer to the guidelines set by the Company in the CG manual and code of business conduct, as well as rules, regulations, and relevant manuals on business operation.
2. In dealing with major corruption risks, the Company ensures that directors, the management, and employees cautiously perform the following duties:
  - 2.1 **Political Contribution** The Company’s policy is politically neutral, with no support or action that supports political parties, whether directly or indirectly, as well as the use of the Company’s resources in activities that cause the Company to lose its political neutrality and/or sustain damage by participating in such activities.
  - 2.2 **Charitable Contribution and Sponsorship** The Company’s policy is to control charitable contributions and sponsorships in various forms to ensure that the activities will not lead to corruption. The Company sets up procedures and control that are clear, concise, efficient, and able to check and follow documents and proofs.
  - 2.3 **Gifts, Hospitality, and Expenses** The Company determines that exchanging gifts and entertainment must be suitably done according to tradition but within reasonable value. They must not induce to act or refrain from acting that may lead to malfeasance and corruption.



Measures

- 1.Board, the management, and employees must comply with the anti-corruption policy and measures, the Company’s corporate governance principles and code of business conduct, by not involving in corruption, whether directly or indirectly.
- 2.Employees should not neglect or ignore, or when they face or doubt any act that is considered corruption by notifying supervisors or responsible persons or through suitable report channels and cooperate in the fact-finding investigation stipulated by the Company’s regulations.
- 3.The Company will provide fairness and protection of employees who refuse or inform about the corruption relevant to the Company’s activities, by not demoting, punishing, or causing negative impacts. The Company will strictly provide protection to the complainant or the person who cooperates in reporting corruption as defined in the policy and personnel guidelines and/or the Company’s complaint and whistle-blowing measures.
- 4.Corrupt persons violate the Company’s code of conduct and must face punishment under the Company’s rules and may also face prosecution if the action violates the law.
- 5.The Company communicates its anti-corruption policy and measures, including channels of whistle-blowing, complaint or recommendations within the Company through various means such as orientation of new directors and employees, the intranet, or newsletter to forge understanding in the implementation of the policy.
6. The Company communicates anti-corruption policy and measures, including channels of whistle-blowing, complaint, or recommendations to the public and stakeholders through various means such as the Company’s website or annual report.
7. The Company sets up risk management on anti-corruption by assessing and ranking risks, and defining suitable measures, as well as following up on the implemented measures.
8. The Company sets up personnel management processes to reflect its commitment to the anti-corruption policy and measures, from the selection of personnel, training, performance assessment, compensation, promotion, to an organizational structure with suitable division of duties for checks and balances, as well as ensuring sufficient and suitable skilled resources and personnel to implement the policy.
9. The Company sets up a Corporate Authorization Procedure that is clear, concise, efficient, transparent, and open to scrutiny.
10. The Company sets up an internal control system covering finance, accounting, data entry, as well as other organizational processes, which is relevant to anti-corruption measures. The Company also ensures that internal control findings are communicated to responsible personnel.
11. The Company sets up an internal audit system covering major activities, including commercial operation, and procurement to ensure that the system meets the objectives, as well as monitoring the operation so that it complies with rules, work practices, regulations, and, finally, provide recommendations on the improvement of processes for greater efficiency.

To comply with the policy, the Company has put in place whistle-blowing measures and whistle-blower protection mechanisms, as well as communication on anti-corruption measures via the orientation of new employees, E-newsletter, internal and external magazines, policy notifications to business partners and customers, and the Company’s website.

In 2014, Thailoil plans to become a member of the Private Sector Collective Action Coalition Against Corruption “CAC”. To prepare for certification by CAC, Thailoil is required to submit all relevant information and documents to the Audit Committee so as to obtain approval. This certification will illustrate Thailoil’s intention to engage in fair, honest and transparent business operations displaying corporate social responsibility to society and stakeholders in all groups pursuant to the principles of good Corporate Governance and Business Code of Conduct. Thailoil has established measures to control and prevent corruption such as anti-corruption risk assessment etc.

In order to ensure that all employees comply with Thailoil’s Corporate Governance policy and principles, Thailoil has communicated the policy to our employees through e-newsletters and corporate governance training provided on the Group’s intranet (CG e-learning) since 2010. In 2013, more than 90% of Thailoil’s employees have been trained by CG e-learning.

In 2014, Thailoil plans to communicate anti-corruption issues to the Board of Directors, top executives and employees at all levels and plans to revise the content of e-learning so as to comply with the anti-corruption policy announced at the end of year 2013.

GRIEVANCE MECHANISM

Thailoil accepts complaints from all stakeholders through 2 channels, one inside and one outside the organization. All complaints are investigated and documented according to the established process and in line with the confidentiality policy. All complainants’ names and complaints are treated with confidentiality in order to protect the complainant. Thailoil has also established an investigation process. Thailoil neither condones nor accepts business code of conduct violations by employees, business partners and customers in connection with corruption. In the past year, there were no significant instances of improper business practice in relation to business code of conduct. In 2014, Thailoil plans to improve the grievance mechanism process pursuant to international practice.

GOVERNMENT SUPPORT

Thailoil Group maintains political neutrality and does not support any political party or person in the name of the company. However, Thailoil Group always supports government policies and participates in sustainable development activities organized by the government. For example, the Board of Investment (BOI) has launched an investment promotion for sustainable development by offering privileges to companies for efficiency improvement in terms of efficient energy use and environmental improvement. Thailoil Group has responded to the policy by investing in the energy saving and emission improvement project, and plans to operate at an efficiency level that is beyond the legal requirements.


GRIEVANCE CHANNELS



Thailoil Group recognizes the rights of all stakeholders and provides communication channels for reporting complaints related to any breach of law or Thailoil’s Business Code of Conduct.

Any stakeholders within the organization can lodge a complaint directly with the Human Resource Department.

Any stakeholders outside the organization can lodge a complaint directly via channels below:

 **Mail:**  
Chairperson of Board of Directors/  
Chairperson of Corporate Governance Committee/  
Chairperson of Audit Committee/  
Chief Executive Officer or  
Secretary of the Company  
Thai Oil Public Company Limited.  
555/1 Energy Complex Building A, 11<sup>th</sup> Floor,  
Vibhavadi Rangsit Road, Chatuchak, Bangkok 10900

 **Email:**  
company\_secretary@thailoilgroup.com or  
cgcoordinate@thailoilgroup.com

 **Tel:**  
0-2797-2900 or  
0-2797-2999 or  
0-2299-0000 ext.  
7313-7316 or  
 7440-7442

**Fax:**  
0-2797-2973



# HUMAN RESOURCE FOR SUSTAINABILITY

## 2014 PLAN

Building employee readiness is still one of the challenges faced by Thailoil Group on the path to sustainable development. The objectives of the 2014 initiatives on human resource management are to build employee readiness in terms of **employee competency** and **employee numbers** in order to be able to support business growth and expansion to regional level. These initiatives place emphasis on developing the foundation of the employee management system to incorporate clear and integrated policies and processes, including on encouraging employees' motivation to create and yield the remarkable results that lead to High-Performance Organization.

Thailoil Group prepares employee readiness in 2 dimensions by using proactive employee acquisition strategies by building brand image of the organization to be the most admired and aspired to work with by talented people as an **Employer of Choices**. In addition, Thailoil Group focuses on employee development through an evaluation, selection, and development process as part of a **Talent Management System** that not only creates skilled, good and dedicated employees but also supports high potential employees to progress to management level and become the leaders who will drive the Group's future business growth. For 2014, Thailoil Group still focuses on developing our work systems and employees to be ready to support business growth on a regional level through our **International HR System**, an initiative developed to lay the foundation for all HR activities, including employee selection for overseas work, employee development system, performance management system, career management system, remunerations and benefits management, employee relations and all other administrative requirements during employees' overseas assignments. Also with a focus on regional expansion, Thailoil Group has developed the **Mobility Academy**, an intensive project implemented in 2014 to prepare and develop employees to be able to work overseas.

## HUMAN RESOURCE DEVELOPMENT

100%

Employees developed Individual Development Plan (IDP)

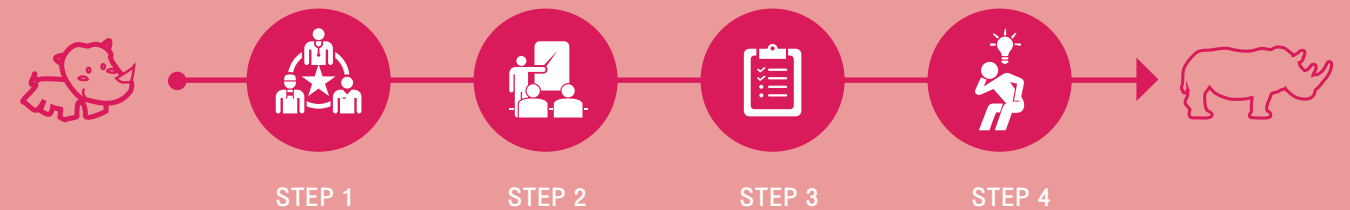


14.4%

Internal promotion rate



THAI OIL GROUP IS COMMITTED TO DEVELOP OUR EMPLOYEES TO GROW SIDE BY SIDE WITH OUR BUSINESS BY PROVIDING EQUAL OPPORTUNITIES FOR ALL PEOPLE AT ALL LEVELS TO DEVELOP THEIR COMPETENCIES FROM THE FIRST DAY RIGHT THROUGH RETIREMENT.



- Step 1 : Employee's Competency Development Planning in accordance with Career Model
- Step 2 : Training
- Step 3 : Performance Assessment
- Step 4 : Retirement Preparation Programs

## STEP 1 :

Thailoil Group is fully aware of the importance of employee planning and competency development which is addressed right from the first interview through assessment of each candidate's competency in the aspects of capability, experience, knowledge, and perspectives of management in order to identify the candidate's Currently Estimated Potential (CEP) and their expected final position within the Group if they are given the opportunity to work with Thailoil Group. This in-depth planning process ensures that the potential candidate will be able to develop their careers in Thailoil Group.

In addition, Thailoil Group's **Career Development Plan** provides direction for the development of each employee in accordance with their competency and then allows the employee to acknowledge their **Individual Career Plan** as appropriate. Each of our employees is also required to develop an **Individual Development Plan**, which includes job rotation to improve their skills and knowledge as well as challenging assignments in accordance with the knowledge and skills which need to be developed for the employee's existing and future positions in line with the **Career Model** for each discipline.

For every position in every discipline, Thailoil Group has a Career Model which defines the expectations in the required knowledge, skills, experience and perspectives for the position. Career Model therefore provides a clear path for competency development of our employees. There are 700 career paths in total.

Each employee's Career Development Plan is reviewed annually and has to be approved by the **Discipline Human Resource Committee** chaired by the Executive Vice President of the relevant discipline and the **Corporate Human Resource Committee** chaired by the CEO and President and of which all Executive Vice Presidents from every discipline are members.



STEP 2 :

Thaioil Group has created courses to support the development of every employee in every level, from operational level through to management level, in order to provide appropriate opportunities for all our employees to develop themselves and prepare for their career development in accordance with the **Thaioil Group Development Blueprint**. The blueprint consists of employee development in line with the Core Program for 3 employee levels: employee level, management-to-be level, and executive-to-be level.

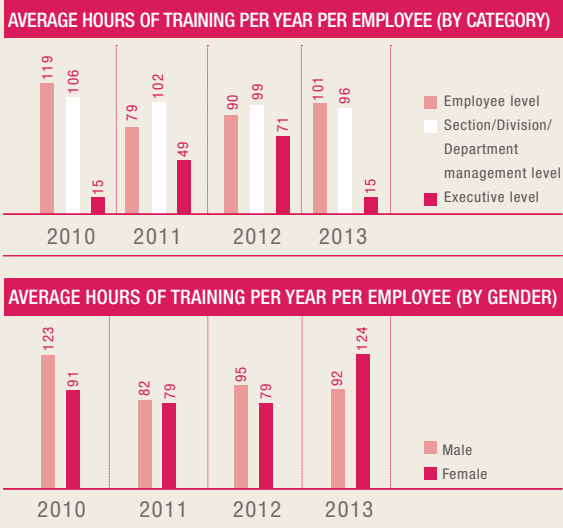
Performer Development Program	Employee Level
Leadership Development Program	Section Manager Level
Advanced Leadership Development Program Executive Development Program	Department Manager Level upwards

In 2013, Thaioil Group invested more than Baht 100 million in human resource development, which included both internal and external employee development for domestic and overseas workers. In addition, Work Based Learning allows employees to apply their skills, knowledge and capabilities in real work situations, while external scholarships support education for society.

In 2013, Major project supporting business growth into the international level:

International Development

This employee development project is designed to develop foreign language skills and cultural awareness in readiness for international business communication, including general English conversation skills with a focus on developing confidence, making presentations in a foreign language, learning about cultural diversity and understanding how to behave in different cultural environments, all of which are intended to prepare employees to adapt to future situations.



STEP 3 :

Thaioil Group defines our performance assessment system at functional and individual levels by starting with Work Target setting, planning, follow-up, development, and assessment for individual key performance indicators. This ensures alignment with the performance management of each employee, function and organization by providing the credibility, correctness and fairness that are key to employee motivation.

Performance Management System (PMS)

Our Performance Management System (PMS) is a continuous process of measuring and assessing knowledge, capability, development progress and effectiveness against specific work targets in line with Functional and Corporate KPI. The PMS is a tool to measure the performance of each individual at a given moment and assess his or her readiness for promotion in terms of knowledge and capability. The PMS also enables any knowledge and skill gaps in the next career level to be identified. The results are then used to determine the appropriate next steps of the Career Development Plan in both short and long term.

Performance evaluation is conducted 2 times a year: mid-year (June–July) and year-end (November–December). Performance and progress against Individual Career Plan and Individual Development Plan are annually reviewed through i-Link by line manager who can then appraise the Career Development Plan of each employee and identify development actions such as training, on the job training and site visits, etc.

STEP 4 :

RETIREMENT PREPARATION PROGRAMS

1. Work-life balance for staff

For employees in the age ranges of 31 -40 years old and 41 -49 years old, physical fitness test is provided, as well as an understanding of work-life balance, and determine the most appropriate financial planning course.

2. How to lead a healthy life after 50

Employees over 50 years old receive physical fitness test, financial planning before retirement courses, an attitude adjustment to live life in happiness so as to utilize the time appropriately.

3. Happy Body and Soul for retirement

For employees due to retire within 1-3 years, this program focuses on physical, psychological and emotional preparation including advice on financial management before and after retirement. Health tips for the aged presented by financial specialists and doctors from leading hospitals are also provided.

Thaioil Group has Human Resource Management Function responsible for strategic human resource development, employee development, remunerations and benefits, and labor rights under human resource management guidelines. Topics covered in the guidelines consist of labor rights in accordance with Thai labor laws and the Universal Declaration of Human Rights, a grievance process, and the confidentiality policy. In addition, Thaioil Group regularly communicates with employees through electronic newsletter and a monthly internal journal called “Akanee” as well as various other channels.

EMPLOYEE ENGAGEMENT



Employees Engagement Score

Thaioil Group provides first quartile remunerations and benefits compared to industry peers in a fair manner, by implementing the policy on remuneration management in line with the organization’s performance and connected to employees’ performance as described below:

**1. Short-term compensation** Thaioil Group sets our levels of compensation in line with those of other organizations in the same industry in order to maintain and improve our competitiveness in human resource management to the organization. In addition, the Company sets a variable bonus system that is tied to the organization’s annual financial performance as well as personal performance in order to motivate employees in management level to achieve the Corporate KPIs each year.

**2. Long-term compensation** To retain and motivate the employees working for the organization to achieve longer term goals, Thaioil Group sets a remuneration policy that includes annual merit pay increases, compensation tied to salary, provident fund, etc. The principles of Thaioil Group’s compensation payments are as follows:

• **Internal Equity** In setting appropriate remuneration, Thaioil Group considers job value, including the scope of responsibility of the position, which is determined by a panel made up of external professional consultants and internal management

from every discipline in order to ensure fairness among employee group.

• **External Equity** The Company sets our remuneration levels comparable to other organizations in the same industry to maintain and improve the organization’s competitiveness in human resource.

• **Employee Contribution** Thaioil Group links corporate performance to individual performance under transparent criteria to establish compensation related to performance (Pay for Performance).

• **Budget Administration** The Company defines a framework for planning and controlling the budget for remuneration in accordance with the corporate budget plan. The plan is prepared with due consideration of ability to make short- and long-term payment based on a precise database that allows the budget plan to be revised instantly at any time during the year in accordance with corporate performance.

## EMPLOYEE REMUNERATIONS AND BENEFITS

Thaioil Group evaluates remunerations and benefits for our employees on an annual basis to ensure the Company is able to maintain our first quartile position in the same industry by conducting a remunerations and benefits survey so as to compare and define appropriate remunerations. In general, remunerations and benefits for permanent employees include:

- Housing benefit
- Allowances
- Bonuses
- Employer contributions to provident fund
- Employer contributions to social security and workman compensation funds
- Medical benefits for employees and family
- Work uniforms
- Group accident insurance
- Awards based on years of service
- Compensation for emergency shift work
- Personal protective equipment
- Support in case of employee and family member bereavement
- Club and recreational activities
- Thaioil consumer cooperative
- Thaioil savings cooperative

Thaioil Group's remuneration policy is based on role and responsibility, experience, and educational background with no discrimination between male and female employees.

## EMPLOYEE RIGHTS

Thaioil Group upholds the Thai labor laws and regulations to define human resource management regulations under which child labor, forced labor, discrimination and anti-collective bargaining are prohibited. The regulations manual is distributed to every employee and is also available on the Company's intranet.

## THAIOIL UNION

Stretching back 39 years to 1975, Thaioil has a long history of good relationships with the Thai Refinery Union (Thaioil) under the principles of protecting the rights of employees as well as Thaioil's business at the same time. Both parties focus on building a proactive relationship through workshops, informal meetings, training or seminars on labor laws and labor relations, and extending invitations to representatives of the union to attend analyst meetings etc.

In addition, Company representatives meet with the Employee Committee to develop strategies for improving benefits and addressing employee issues. To ensure meaningful communication between the two parties, the ratio of representatives from the employer and employee side is 50:50. The meetings are held every 2 months and minutes are taken of every meeting.

In addition to these formal meetings, the Company has established means of discussing and providing

consultation on other specific matters by setting up various committees and working teams, such as the Occupational Health and Safety Committee, the Club Administration Committee, the Provident Fund Committee, the Savings Cooperative Committee, the Consumer Cooperative Committee and the Salary Structure Working Team.

Thaioil and the union periodically engage in collective bargaining to seek agreement between the two parties. Since the foundation of the Company, a collective bargaining agreement has been reached in every instance without need for external mediation and judgment by the government. All such agreements are included in Thaioil's terms of employment, or the Blue Book.

In addition, Thaioil has established mechanism to receive and handle employee grievances and ensures confidentiality. In the previous year, the Company received 3 employment-related grievances, all of which were addressed and resolved immediately.

Currently, 627 persons or 49% of all Thaioil Group employees are members of the Union.

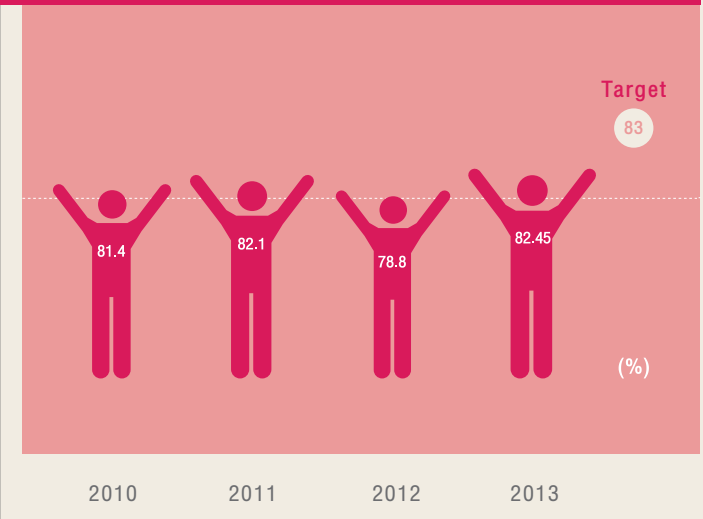
## EMPLOYEE ENGAGEMENT

Thaioil Group has 1,282 employees, a 10% increase from the previous year, most of whom was accounted for by engineers and technicians hired in preparation for future business growth. Employee turnover rate in 2013 was 2.89%, which was very low compared to the industry average of 5%. This demonstrates the confidence of our employees towards the future of Thaioil Group.

## EMPLOYEE ENGAGEMENT INDEX

Thaioil group conducts annual employee engagement survey in the fourth quarter of every year.

Results from employee engagement survey in 2013 showed an increase from the previous year to 82.45%, which is minimally short of the target of 83%. The increased level of employee engagement are the result of efforts made to address and improve the development areas identified in the findings of the previous survey including the Organization Health Index (OHI) study initiative. However, Thaioil Group also believes that the improvement came about as a result of establishing a working team consisting of representatives from each function and the Labor Union to identify issues in need of improvement. The Employee Engagement Index was also one of the Corporate KPIs for 2013.



Key issues identified from the 2013 Employee Engagement survey include:

- Working environment
- Leading position of organization
- Total rewards
- Growth opportunities

In 2014, there is a plan to separately communicate the findings by functions together with to initiate improvement plan upon the results.

## WHY DO YOU WANT TO WORK WITH THAIOIL GROUP?


Thaioil Group values the creation of home-like workplace, with the leaders as a role model in establishing an environment of friendly work, enthusiasm, creativity and value for different ideas. At Thaioil Group, we respect each other and do not place prejudice or discrimination to others, with POSITIVE as our corporate value and it is in the heart of all employees at every level. Thaioil Group also has a tradition of building workplace relationships as part of one big happy family through several company activities, such as the Songkran Water Blessing Ceremony for elders; Thaioil Group New Year Party etc., as well as activities especially for employees' families, such as the TOP Group Summer Camp. Thaioil Group does not only provide our employees with remuneration packages and career opportunities to prove ourselves as an employer of choice, but we also offer friendship, family and understanding so that our employees will walk together with us.



# OCCUPATIONAL HEALTH AND SAFETY

**6.5** million 

Working hours of employees and contractors without lost time injuries

**0** Case 

Chemical spills during production process which affect people, community or equipment above the accepted limit.

## SAFETY COMMITTEE

Thaioil Group's Occupational Health, Safety and Environment Committee was established to take responsibility for providing a safe working environment for all employees, developing safety policies and procedures for the work place, providing safety equipment, training employees in safe work practices, and conducting regular inspections and investigations.

“SAFETY BEGINS WITH YOU.” IS THE WHOLE-HEARTED RESPONSIBILITY OF ALL WORKERS IN THAIOIL GROUP. ALONG THESE 53 YEARS, THAIOIL GROUP HAS TAKEN THE SAFETY FIRST AS A SERIOUS DUTY. WE MOVE FORWARDS WITH EFFICIENT MANAGEMENT SYSTEM AND QSHE (QUALITY, SAFETY, OCCUPATIONAL HEALTH AND ENVIRONMENT) THAT HAVE BEEN OUR STRONG FOUNDATION FROM THE BEGINNING TO ENSURE TRUST AMONG OUR STAKEHOLDERS. WE DENY THE SUCCESS DERIVED FROM AT LEAST ONE INJURIES.

**2014 PLAN**

To improve and enhance the Safety, Security, Occupational Health and Environment Management System in compliance with the 5-year roadmap.

To improve and enhance safety leadership in the workplace.

To improve and enhance process safety by focusing on additional leading indicators.

To integrate crisis and emergency management.

**SAFETY COMMITTEE**

1 employer representative as the chairman of the committee



4 supervisor representatives as the members



1 professional safety officer as a members and secretary



5 employee representatives (50% of all committee members) elected by the committee appointed by the company



Thaioil Group has developed safety policies, procedures and work insructions as well as Thaioil's term of emtloyment (Blue Book), Chapter 11. The Blue Book has been certified by both the organization and the Labor Department. All employees must comply with prescribed practices and procedures when starting work and are required to report all potential hazards and dangers to their supervisor.

## OCCUPATIONAL HEALTH AND SAFETY PLAN

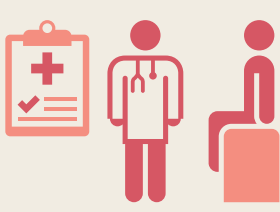
Our Group has developed the Occupational Health and Safety Plan with both short-term goals (1 year) and long-term goals (5 years). The performance indicators have been set and communicated to all people concerned with their implementation in the following areas:

1. Safety, security and environment management  
“Safe White Green” for employees and contractors
2. Safety leadership
3. Occupational health management
4. Process safety
5. Crisis and emergency management

We have implemented our Work Process Improvement (WPI) for the development and enhancement of safety management in the following procedures:



## EMPLOYEE HEALTH PROMOTION



Thaioil Group promotes a proactive approach to **occupational health** management. Health risk assessments are part of our standard occupational health and safety management system. Exposure assessments are used to identify and assess employee health risks and develop appropriate exposure control measures, identify work activities that may be at risk, and measure and assess risk factors so as to review existing preventive measures. We also carry out regular checks on employees' health to detect any signs of harm.

The health of employees is monitored during the spread of infectious **diseases** such as Bird Flu, influenza, etc. by assessing work areas regularly. We disseminate the appropriate information to all employees who are at risk of exposure to the diseases when performing their duties in high risk areas, such as employees in charge of business development who need to travel overseas.





Our Major Activities in 2013:

HEARING CONSERVATION PROGRAM

No employees in our Group have ever suffered from Noise Induced Hearing Loss (NIHL). However, in order to prevent and reduce possible occurrences of NIHL, we have developed the hearing conservation program. A noise contour map was produced from the results of our measurements and assessments, and the sources of noise were then managed. Warning signs are posted when the noise levels in the workplace are greater than 80 dB(A). All employees and contractors are encouraged to wear hearing protectors when working in the process areas and to take hearing test for the prevention of early stage hearing loss. From this program, the risk of NIHL will be further reduced in the future.

OFFICE ERGONOMICS ATTENTION



Office workers who use computers for a long time without taking breaks are potentially exposed to ergonomic stress and office syndrome, and their work efficiency can be affected accordingly. Occupational health specialists and physicians have assessed the ergonomic risk factors of all at-risk groups; made recommendations on rearranging their workstations, office equipment, and positions; and advised them to take frequent breaks from their work activities.

Thaioil Group provides a safe working environment so that all our employees remain in a good mental and physical state, which in turn leads to work effectiveness and efficiency. The Group's business operations continue to operate sustainably in the long term. In the past 53 years, based on the assessments of occupational health physicians, not one Thaioil employee or contractor has suffered from occupational injury or illness.

FIT FOR WORK PROGRAM



Our Group focuses on making sure the physical state of our employees is fit for work. We have assessed high risk work practices, such as working in confined space, working at height, etc. We plan to assess the employees who have health problems such as high blood pressure, diabetes, heart disease, etc.; those who are undergoing medical treatments but able to continue working; and employees who are overweight with a BMI (Body Mass Index) higher than the approved standard. These measures can reduce the risk of accidents caused by health problems.

SAFETY



Thaioil Group places great emphasis on safety in the organization. Personal safety is of major concern to us and this lead to the Group's safety culture which ensures that our business will continue to operate in the long term.

Our major safety activities last year were as follows:

SAFETY LEADERSHIP PROGRAM

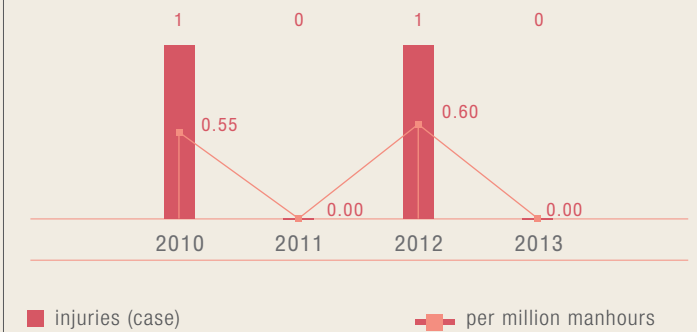


Safety leadership program aims to develop and promote safety leadership and maturity in the workplace for all employees and contractors under the principles of the Group's safety culture.

In 2012, we outlined a framework for developing and promoting safety leadership in our Safety Leadership Manual for the Workplace. This year our Group is focusing on communication and implementation of the framework through the following activities:

- Safety Leadership Training for Thaioil group's employees
- Safety Leadership Events
- Management walk and talk
- Potential Incident Report (PIR) to promote employee awareness and accident prevention

TOTAL RECORDABLE INJURIES-EMPLOYEE



LOST TIME INJURIES-EMPLOYEE



	2010	2011	2012	2013
Number of injuries (case)	0	0	0	0
Lost time injury frequency rate (per million manhours)	0.00	0.00	0.00	0.00

From our continuous improvement and monitoring in 2013, the rate of employees' total recordable injuries was reduced from 0.60 to 0.00 and there were no employee lost time injuries.

### “SAFE WHITE GREEN” PROJECT



The Safe White Green Project aims to develop and promote the management of safety (Safe), security (White) and environment (Green) in cooperation with our contractors so as to achieve the missions and objectives of the Thaioil Group. All supply chain operations shall be safe and free from drugs and illegal items, and shall not affect the environment or cause problems for the communities surrounding the refinery. The following strategies are implemented:

1. CEO communicates the Safe White Green policy to the top management of all contractor companies.
2. The top management of all contractor companies expresses their intention of implementing the policy and developing their own Safe White Green policy in compliance with our policy.
3. The Safe White Green policy is developed into the action plan which is put into practice in the relevant areas or departments.
4. We set the Leading Indicators to measure the policy's efficient implementation.
5. We monitor and improve the results on a regular basis.

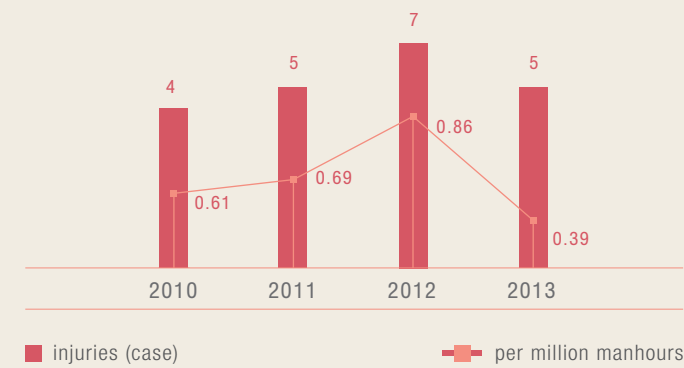


With these activities, Thaioil group's business can continue to operate safely in the long term, free from drugs, illegal acts and environmental impacts.

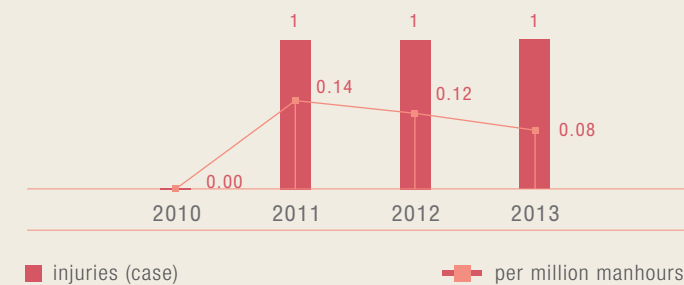
Employee participation:

1. Follow the practices and regulations in connection with safety.
2. Check the work environment and equipment regularly and report problems which may cause injury, affect the environment, or involve illegal activities for immediate solution.
3. Report problems or make recommendations in connection with the safety, security and environment; implement problem solutions and preventive measures to ensure that the incident does not occur again.
4. Avoid the use of illegal drugs and engagement in illegal acts.
5. Reduce waste or garbage at the point of generation, sort and separate waste properly, and focus on environmental benefits.

### TOTAL RECORDABLE INJURIES-CONTRACTOR



### LOST TIME INJURIES-CONTRACTOR



From our continuous improvement and monitoring in 2013, the rate of contractors' total recordable injuries was reduced from 0.86 to 0.39 and the rate of contractors' lost time injuries was reduced from 0.12 to 0.08

### ENHANCEMENT OF PROCESS SAFETY PHASE 2

Last year Thaioil Group established 'Thaioil Group Operation Excellence Management System (TOP Group OEMS)' which Safety is one of the elements in "Security, Safety, Health and Environment (SSHE)," resulting in a significant review and revision of Safety, Health and Environment Management Manual to be complied with OEMS's requirements. We focused on enhancing safety management in our production processes which is taken as key performance indicator in department level.

In the past year, we found zero oil and chemical spills in any processes which can cause effect to people's health, the environment, property and community (as defined in Tier 1 and Tier 2 of API RP 754 standard)

### EMERGENCY AND CRISIS RESPONSE PHASE 2



We reviewed and revised the Emergency and Crisis Response Manual to cover potential emergency scenario. The roles and responsibilities of our security officers were reviewed in compliance with

the new regulations. We trained the emergency response and firefighting teams. We checked and maintained the fire protection equipment to be in ready-to-use condition. We held crisis and emergency plan drills in different levels to practice all newly planned procedures, such as Table Top Exercise and Emergency Exercise, etc. With all of our people now better prepared to face a range of emergencies with the necessary well-maintained equipment, they are fully-prepared to respond to emergencies efficiently and safely.





# WE

## PEOPLE'S WELL-BEING



### OUR COMMUNITIES AND SOCIETIES

- COMMUNITY DEVELOPMENT
- IMPACT ON COMMUNITY, ENVIRONMENT AND HEALTH
- CORPORATE SOCIAL RESPONSIBILITY



### OUR CUSTOMERS

- CUSTOMER RELATIONSHIP MANAGEMENT
- CUSTOMER PRIVACY




### SUPPLY CHAIN MANAGEMENT

- RAW MATERIALS AND TRANSPORTATION
- SUPPLIER AND CONTRACTOR MANAGEMENT
- PRODUCT RESPONSIBILITY

## VALUE OUR STAKEHOLDERS' VOICES.

OUR CUSTOMERS, BUSINESS PARTNERS AND COMMUNITIES ARE ONE OF OUR KEY STAKEHOLDERS WHO SHARE GOALS AND ASPIRATION WITH US TO BUILD THE SUSTAINABLE BUSINESS TOGETHER AS WELL AS TO CREATE VALUES TO THE SOCIETIES WHERE WE OPERATE.

# OUR COMMUNITIES AND SOCIETIES

2,347  households

and 8 public service buildings

Benefit from Renewable Energy for Community and Energy Efficiency Projects

THAIOIL GROUP COMMITS TO SUSTAINABLE COMMUNITY DEVELOPMENT TO GAIN TRUST AND SOCIAL LICENSE TO OPERATE BY CREATING VALUES TO LOCAL COMMUNITIES AND TO THE SOCIETY IN ORDER TO CREATE MUTUAL SUSTAINABLE GROWTH TOWARDS INDUSTRY, ENVIRONMENT AND COMMUNITIES. WE FOCUS ON PROMOTING LIFE QUALITY IN THE COMMUNITIES WHERE WE OPERATE BY ENCOURAGING PEOPLE WELL-BEING IN TERMS OF HEALTH, EDUCATION AND POTENTIAL SKILLS, AND ALSO FOCUS ON DEVELOPING AND PROMOTING THE USE OF RENEWABLE ENERGY BY PRODUCING CLEAN ENERGY FOR THE REMOTE COMMUNITIES WHERE THERE IS NO ACCESS TO PUBLIC UTILITIES.

>50,000  persons

Benefit from community relation projects and services in Thailoil Group Health and Learning Center for Communities

97.81%  Community Satisfaction Score

## 2014 COMMUNITY DEVELOPMENT PLAN

- Community health survey project (FAP 1)
  - Ban Chak Yai Jean Community
  - Ban Khao Nam Sub Community
- Metabolic screening project (FAP 2)
  - Talad Ao Udom Community
- Elderly Care (FAP 3)
  - Ban Thung and Ban Laem Chabang Community
  - Ban Ao Udom Community
- Thalassemia or carrier screening project (FAP 4)
  - Wat Manorum Community
- Drug use monitoring project
- Dentistry and oral health project
- Laem Chabang youth development project for rope skipping championship
- Science camp for children living in the vicinity of the refinery
- Youth leadership development project for the environment

## INITIATIVE PROJECT

- Initiation of crab bank project, Ban Ao Udom Community

## 2014 CORPORATE SOCIAL RESPONSIBILITY PLAN

- Um Phang – Energy Sufficiency City in honor of H.M. the King, Tak Province (continuing)
- Biogas production from rubber sheet production waste and household organic waste, and hydroponics systems (Phase 2), Mak Noi Island, Phang-nga Province (continuing)
- Coral farming and rehabilitation of coral reefs at Si Chang Island, Chonburi Province (continuing)
- Hydropower plant at Ban Mae Jo Community, Chiang Mai Province (organic agriculture development and community forest rehabilitation)

## INITIATIVE PROJECTS (UNDER FEASIBILITY STUDY)

- Canal water for sufficiency economy project (Phase 3) in Buriram Province
- Ecological system development project in Khao Pu Bai, Chonburi Province
- Project in collaboration with PTT Group including the establishment of higher education institution and science school in Rayong Province

Thailoil Group believes that the strength and self-dependence of the community and society are key factors for our sustainability. Corporate Social Responsibility (CSR) is one of the key missions of Thailoil Group. Our CSR programs can be divided into 3 levels as follows:

- Production process management in compliance with environmental policy and sustainable refinery energy (CSR in Process)
- Corporate Social Responsibility for communities in the vicinity of our refinery (CSR for Community)
- Corporate Social Responsibility for society at the national level (CSR for Society)

Thailoil Group encourages our employees to participate in activities and projects that benefit society so as to promote the spirit of volunteering and share our CSR policy among all stakeholders in order for them to understand and engage in the same CSR practices continuously and systematically.

In 2013, Thailoil Group invested around 47 million baht in livelihood development projects for communities surrounding our refinery as well as for communities in remote rural areas. We successfully achieved the business objectives and needs of the community and society.







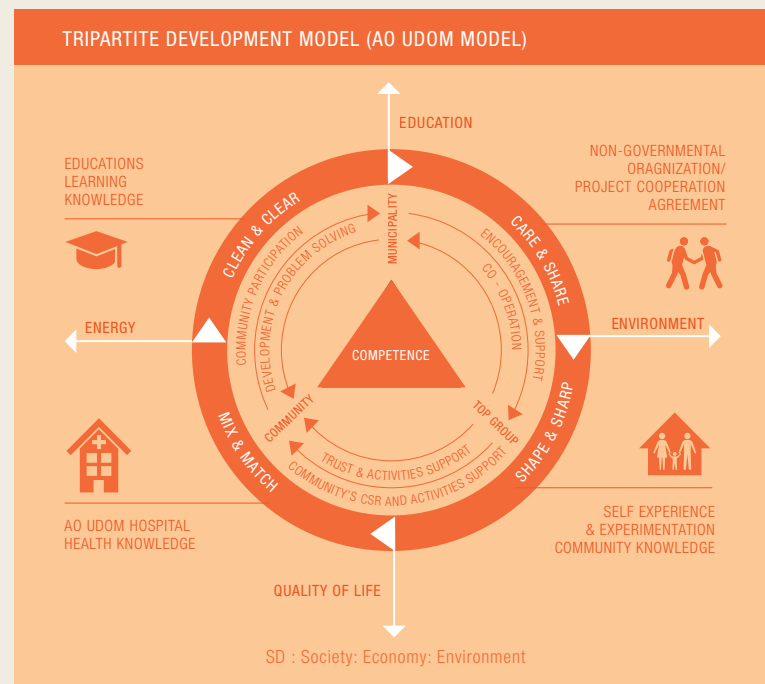
## DEVELOPMENT OF THE COMMUNITIES IN THE VICINITY OF THAIOIL GROUP'S REFINERY



For more than 50 years, Thailoil Group has recognized the importance of learning and responding to the needs and expectations of the 7 communities in the areas where we operate. While operating our business and expanding project developments, we have supported and organized a variety of activities that promote environmental improvement, education, health, local arts and community culture.

### PROMOTION OF SUSTAINABLE DEVELOPMENT IN THE COMMUNITY

Thailoil Group has initiated the Principle of Tripartite model, or Ao Udom model, to set the framework and strengthen the cooperation between Thailoil Group, local communities and local government offices. A regular monthly meeting is held for the 3 sectors with the involvement of community leaders and committee members; the Public Health and Environment Office, the Social Welfare Division, Laem Chabang Municipality; and representatives of Thailoil Group. The objectives are to exchange ideas and find solutions for the issues that are relevant to the development of the community, as well as to settle any complaints that the community may have.



In addition, Thailoil Group has established the guidelines for community development based on the Public Office's guidelines for economic and social development and has created projects that address the needs of the local people. These projects have been developed from discussions that took place in the Principle of Tripartite meetings to ensure that the community is fully aware of each project's benefits and is ready to cooperate with the local public offices for project development.

## 2013 MAJOR COMMUNITY DEVELOPMENT PROJECTS AND ACTIVITIES IN SUMMARY

### PUBLIC HEALTH AND COMMUNITY LIFE QUALITY DEVELOPMENT PROJECT



Thailoil Group believes that a healthy community is a key priority because it brings about a better quality of life for the people who live there. Since 2010, Thailoil Group and the communities surrounding our refinery

established the **Thailoil Group Health and Learning Center for Communities**. Over 140,000 people have used the public library, dental clinic, multi-purpose community area, Buddhist shrine, and recreation and exercise area. Young children, students and adults of all ages have taken the opportunity to use the center. In addition, as we focus on community health, we have established the Community and Preventive Medicine Project. The Thailoil Community Health and Learning Center for communities demonstrates how a business and its surrounding communities can coexist peacefully and in harmony with each other.

### COMMUNITY AND PREVENTIVE MEDICINE PROJECT



In 2013, the Principle of Tripartite comprising representatives of the Thailoil Group, a network of 7 communities, and public offices such as Laem Chabang Municipality, Laem Chabang Hospital and Village Health

Volunteers (VHV) developed the **proactive medicine project**. A community health survey was conducted under the Family and

Community Assessment Program: FAP 1. Fourth year students from the Faculty of Nursing, Burapha University were assigned to conduct the community health survey at Wat Manorum and Ban Chak Yai Jean Communities. Family data and community maps were made and recorded in electronic data files. Activities were organized to solve local health problems and develop the Wat Manorum and Ban Chak Yai Jean Communities. Most of the activities were related to the control and prevention of pests, such as mosquitoes, ants, rats, cockroaches, etc. Simple but effective techniques were demonstrated to the communities, such as rat poisoning oleander, cockroach control herbs, etc.



The family data files have been analyzed and organized in order to plan behavior change for improved health. Activities have been held to reduce risk factors for diabetes, high blood pressure, and obesity (FAP 2). All people

over 35 years old with risk factors have been diagnosed, monitored and screened. A "Health Promotion" event was organized to share useful knowledge and promote physical activities such as the long stick exercise, yoga, and Qi Gong, while health care handbooks for high blood pressure prevention have been distributed. In addition, the health problems of the elderly in the communities, those aged 55 years or older (FAP 3), have been diagnosed by the Faculty of Pharmacy, Silpakorn University. People aged 15–35 years old in the Ban Thung and Ban Laem Chabang Communities received Thalassemia or carrier screening (FAP 4) in cooperation with the Thalassemia Center, Siriraj Hospital and Laem Chabang Hospital. Accurate DNA blood tests were taken, and the results were used to analyze the risk factors of developing cancer over the next 5-10 years. This project has been very successful in providing great benefits to health care and family planning in the local communities.

Last year, Thailoil Group made a financial contribution to the construction of a 5-storey emergency building for Laem Chabang Hospital to provide emergency response services for the area. The building is expected to be completed in 2015.



## COMMUNITY HEALTH PROMOTION PROJECT



Thaioil Group and Laem Chabang Hospital have joined forces to provide dentistry and oral treatment services for students in Grades 1-6 at 8 schools surrounding the refinery and developed a **Dental Health Project for the Surrounding Schools**. We have provided funds for **Proactive Health Promotion for Surrounding Communities** from June 2010 so as to strengthen the efforts of community health and medicine promotion. We have also developed a “Vibrant Communities” project with physical activities such as aerobics, long stick exercises and yoga, while a playground and exercise equipment have also been provided for local residents to use at the Thaioil Community Health and Learning Center.



Another health initiative supported by the Thaioil Group is the **Rope Skipping for Heart Project**, which aims to promote good health, reduce the risk factors of heart disease and increase the sense of unity in the community through group skipping activities. Last year, Thaioil Group and the Heart Foundation trained 80 teachers and students in Advanced Rope Skipping for Heart at the Thaioil Community Health and Learning Centers and 8 surrounding schools. Thaioil Group also held

a Rope Skipping Championship in Chonburi to recruit qualified people for the National Rope Skipping Championship Royal Cup, with approximately 400 people participating in the competition. Thaioil Group covered all travel expenses for the national competition, and representatives of local schools won 10 of the 20 categories.

## EDUCATION AND LEARNING SUPPORT PROJECT FOR COMMUNITIES



In 2013, Thaioil Group and a number of employee groups such as the Thaioil Refinery Workers Union, Thaioil Savings Cooperative, Senior Employees Club, Thaioil Alumni and Employee Volunteers Association, supported education on a regular basis in the form of **Thaioil Scholarships** for students in Laem Chabang Municipality. A total of 217 scholarships were offered for primary, secondary, and university level students. The Graduates for Hometown program included a number of special scholarships, including scholarships for nursing students to study a Bachelor of Nursing degree at Burapha University and work as professional nurses at Laem Chabang Hospital, while there were also scholarships for the Automotive Innovation Project of Kasetsart University, Sri Racha Campus.

In addition, Thaioil Group established the Living Library and developed a number of projects and courses for local community members, including the Watercolour Painting and Craft Project, English for Kids at the Thaioil Community Health and Learning Center, the Rope Skipping Training Project for students in surrounding schools, the Biogas Production Project for villagers, the Biogas Production Project for the Community at Wat Mai Noen Payom School, and a Science Camp Project. The students and children received prestigious awards from these project developments. Students from 8 different schools were awarded a total of 10 Royal Cups and 103 medals in all categories of the 7<sup>th</sup> Rope Skipping Championship Royal Cup 2013 held by Thai Heart Foundation under Royal Patronage.

## ENVIRONMENTAL PROJECT



Every year, Thaioil Group develops environmental projects for H. M. the King and H. M. the Queen on the auspicious occasion of the royal birthdays.

With the support of 7 surrounding communities, Laem Chabang Municipality, neighborhood schools and Ao Udom fishers, we organized the Ao Udom Revival Project, which involved several releases of Blue Swimming Crabs into Ao Udom; the Ecological System Development Project, a nature surveying mission at Khao Pu Bai; and the Green Communication Project. We also jointly established the **Coordination Center and Environment and Community Relations Committee** in cooperation with various departments from the refinery and the community relation section for the development of proactive measures and a 24-hour operation plan.

## RELIGION, CUSTOMS AND CULTURE PROJECT



Thaioil Group has always valued community activities which promote the preservation of cultural traditions and major Buddhist festivals in the communities where we operate. Cooperation with the communities includes exchanges of ideas, discussions, planning and implementation. The activities organized by the Thaioil Group and Community Committee include the **Praying and Meditation Project** held monthly on the 14<sup>th</sup> day of the waxing moon at the Buddhist Shrine in Thaioil Community Health and Learning Center where a statue of Buddha Rattana Mongkol Sakol Prachanartmune is located, the **Candle Offering Project for 9 Temples** in Laem Chabang in which around 700 people from the communities participated, and the **Songkran Festival** in the communities where we operate. In addition, we participated in reviving a traditional folk dance by supporting the activities of the Laem Chabang Folk Dancing Group as part of our policy of preserving cultural traditions.

## COMMUNITY COMMITTEE POTENTIAL DEVELOPMENT PROJECT

Thaioil Group is fully aware of the importance of nurturing knowledge and skills in local communities to support the development of society, the environment, the economy, religion and culture. The “Community Leader” serves as an opinion leader and coordinator between the community and the refinery; therefore, the Community Committee Potential Development Project has been developed to visit other communities to exchange ideas, skills and experiences. This year, Thaioil Group will organize field trips for the Community Committee to Phitsanulok, Sukhothai, Nakhon Sawan and other nearby provinces for relationship development.



## RELATIONSHIPS AND PARTNERING PROMOTION PROJECT



During the “**Principle of Tripartite**” meetings of Thaioil Group, local communities and Laem Chabang Municipality in 2013, the “**Ao Udom Zero-Waste Community Project**” was developed. The Principle of

Tripartite managed the project systematically and a community environment fund was established for managing waste in the community. Other projects include Open House, Open Mind: Thai Youth at the Refinery; the Ethics Bank in Ao Udom Community; the Young Community Ambassadors; and Children and Student Development for Community Sustainability Management. These projects were managed at Thaioil Group Health and Learning Center for Communities in purpose of exchanging ideas and knowledge, participating and sharing.

Thaioil Group conducted a survey of economic, social and environmental problems in the community. About 400 students and teachers at Wat Laem Chabang School were suffering due to a shortage of water. In response to this situation, we developed the **Water Tank Project for Wat Laem Chabang School**. A water tank with a capacity of 13 cbm was built to improve life quality and well-being of the students and teachers there. The success of the project promotes strong relationships between Thaioil Group, our business partners, the community and local public office. With its value, Thaioil Group has planned to build water tanks for other schools in need as well.





COMMUNITY BULLETIN

The “Our Community” bimonthly bulletin provides information and updates on the activities of Thaioil Group as well as the local communities where we operate. The bulletin also promotes stronger relationships and understanding, and provides an opportunity for the community to exchange information or opinions with us.

IMPACT ON COMMUNITY, ENVIRONMENT AND HEALTH



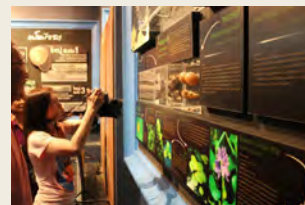
Thaioil Group believes that people engagement is very important for environment and community management. To prevent Thaioil Group’s operations from adversely affecting the environment and to develop environment sustainability management for the surrounding communities, we protect and monitor the quality of the environment in the areas where we operate, with a focus on air quality, seawater and underground water quality, and diversity of sea life. From our inspections, the environment quality meets the standards of Thailand. Apart from that, when a change in our operations from a new project or project expansion has the potential to have impacts on the environment, we conduct an Environmental Impact Assessment (EIA) to analyze possible positive and negative results from project development in 4 key areas pursuant to the Notification of Natural Resources and Environment and EIA guidelines of the Office of Natural Resources and Environmental Policy and Planning (ONEP) as follows:

1. Physical resources such as air quality, water quality, soil quality
2. Biological resources such as animals, plants or other living things
3. Human use values such as drinking water, water for household use, electricity, traffic
4. Quality of life in terms of economic, social and public health factors



To make an EIA report for each project, at least 2 formal meetings are held in order to listen to the opinions of all stakeholders. The meeting results are included in the EIA report and presented to Office of Natural Resources and Environmental Policy and Planning as well as all other concerned authorities. At the time of project implementation, Thaioil Group shall send its operating report to the Office of Natural Resources and Environmental Policy and Planning as well as all concerned authorities every 6 months throughout the term of the project so as to communicate all positive and negative results in the area to the stakeholders.

In 2013, Thaioil Group had 4 projects approved following the submittal of EIA reports. We are currently preparing EIA reports for 2 additional projects.



Thaioil Group has established the “Thaioil Environment and Community Relations Committee” comprising representatives of internal function in the refinery and the community relation function. The top management of operations serves as the Chairperson and is the authorized decision-maker. Thaioil Environment and Community Relations Committee Meetings are held each month.

In addition, Thaioil Group has established the Community Relations function to be responsible for working directly with the communities where we operate. Thaioil Group has also provided communication channels for receiving questions, suggestions, concerns, and complaints from the community through the community leader, through Thaioil community affairs staff, by complaint letter, and via a 24-hour hotline. Last year, we received 68 cases, only 1 of which was caused by Thaioil Group and for which corrective action was taken. All cases are stored in the central system for investigation and follow-up within 24 hours because cooperation is usually needed from several departments.

COMMUNITY DEVELOPMENT IN REMOTE AREAS OF THAI OIL GROUP



In developing “Remote Areas” or communities in remote areas with no access to public utilities, Thaioil Group, its alliances and specialists in various fields of expertise focus on developing and utilizing alternative energy from local natural resources as well as on promoting the optimization of resource utilization for sustainable development pursuant to the philosophy of sufficiency economy.

Thaioil Group encourages the participation of residents in the community in order to reduce the gap between urban society and rural society by utilizing local natural resources which require no investment. This is achieved by creating awareness of natural rehabilitation such as of local forests or water sources in accordance with local culture and tradition. The ongoing development process improves the life quality of people in the community by promoting the creation of an energy self-reliant community.

Thaioil Group has a Corporate Social Responsibility Policy and has just reviewed the Corporate Social Responsibility Strategy in 2013 as follows:

THAI OIL GROUP CSR POLICIES

1. Strive to develop the business’s sustainable growth with environmental stewardship and care for community safety and earnest support to society
2. Support and develop society by applying Thaioil’s extensive strengths, expertise, and experience in energy business to CSR projects
3. Implement CSR projects to benefit society, both at the community level (around the refinery) and at the national level (in localities without access to public utilities)
4. Focus on using natural energy sources instead of wasting them, under the Sufficiency Economy Philosophy of maximizing local resources

THAI OIL GROUP CSR STRATEGIES

1. Focus: project/activity that have high impact to the business
  2. Selective: Energy/Environment/Education/Quality of life
  3. Network/Collaboration: well-known institution and PTT group
  4. Participation: enhance stakeholder participation with focus on “AOU-UDOM Model”
- (Community–Thaioil–Municipality), CSR in Supply Chain (Customer–Vendor) and Employee Volunteer



## PARTICIPATION IN COMMUNITY DEVELOPMENT (COMMUNITY NEEDS ASSESSMENT)



**1. Community Needs Assessment (Public Hearings)** To explain and build collaboration, to understand community's uniqueness and competency, to know the demands or requirements in each community, to organize a public hearing with community leaders and folks.

**2. Community Potential and Basic Needs Assessment** To determine the community willingness and to respond to the community needs.

**3. Building CSR alliance with experience and expertise in CSR projects** To use the strength and energy knowledge in CSR project development in cooperation with the private development organizations and educational institutions that are specialized and accepted by the society such as the Energy for the Environment Foundation, Thaksin University, Phatthalung Campus, the Education & Public Welfare Foundation, the UNDP etc.

**4. Understanding community culture and beliefs (Do/Don't)** One of Thailoil Group's CSR commitments is to develop communities in remote areas to be models of energy self-reliance through the use of alternative energy and through forest and water resource management. In the process of this development, we encourage the communities to participate in the projects from the start and we regularly share

with them the knowledge they need to manage the projects by themselves. The project performance pursuant to the CRS policy is assessed by a third party company. After Community Needs Assessments, the following processes will be developed into projects:

- **Organize workshop on energy management** By allied representatives and employee volunteers who are specialized in energy.
- **Create systematic knowledge transfer** To establish the Community Committee, focus on self-management based on the community handyman principle and give knowledge to the communities.
- **Organize a public space to gather opinions** To listen to the opinions of experienced people in the communities and give knowledge to the communities.
- **Follow up and assess the project results periodically** To use assessment results to improve the projects.

Thailoil Group promotes the **"Volunteering Spirit"** of the employees to participate in the projects and activities for the good of society on a regular basis, and encourage all employees to initiate CSR activities through the **"Thailoil Group Employee Volunteers Fund"** so as to create awareness, promote the spirit of volunteering for society and develop teamwork skills and problem solving in a systematic framework.

## 2013 MAJOR CORPORATE SOCIAL RESPONSIBILITY PROJECTS AND ACTIVITIES IN SUMMARY



### "GREEN ENERGY MECHANISM" PROJECT

in cooperation with the Energy for Environment Foundation (EforE) and the Department of Alternative Energy Development and Efficiency (DEDE)

#### HYDROPOWER PLANT POWER GRID EXTENSION PROJECT AT HUAY POO LING COMMUNITY, CHIANG MAI PROVINCE

A grid was installed to expand the coverage of the power supply to 6 villages, totaling 236 households or over 1,000 people and 8 public places.

#### HYDROPOWER PLANT AT BAN MAE JO COMMUNITY, CHIANG MAI PROVINCE



A 35 kW Hydropower plant was developed and built from the Huay Mae Rerm Reservoir Project of H. M. the King's initiative. This project promotes electricity security for the community of 111 households as well as generating income from selling electricity back to the Provincial Electricity Authority. A small community enterprise has been set up in order to operate an electricity system and use part of the income to develop organic agriculture and promote the use of organic fertilizer and bio-pesticides. Activities have been organized for teenagers to preserve and rehabilitate the community forest.

#### UM PHANG – ENERGY SUFFICIENCY CITY IN HONOR OF H.M. THE KING, TAK PROVINCE



A Commemorative Project to celebrate the auspicious occasion of H. M. the King's 84th Birthday Anniversary and to improve the life quality of people in the community

in 4 key areas which are 1. Education, 2. Public Health, 3. Environment, and 4. Security. Thailoil Group has continued Um Phang – Energy Sufficiency City in honor of H. M. the King after the project started in 2012. We developed different types of renewable energy such as hydropower, biomass, biogas and solar cell, etc. We also promoted knowledge and understanding of using renewable energy produced in the community. The project implementation leads to public acceptance as an organization responsible for environment preservation. This project reduces the gap between urban society and rural society and promotes the establishment of energy self-reliant communities.

#### INTEGRATED HIGHLAND LIVELIHOOD DEVELOPMENT IN MAE HONG SON PROVINCE



Different types of renewable energy were developed in remote areas in cooperation with the United Nations Development Programme (UNDP), such as hydropower, biomass, biogas and solar cells. We also promoted sustainable energy and natural resource conservation. In 2013, a solar charge controller (Set 2) was installed at Ban Ruam Thai (Pang Ung) Community, Mok Jam Pae Sub-district and served 32 households.

In addition, local people were trained on "Solar Home Maintenance Techniques" at Mae Suad Sub-district. This workshop brought benefits to the villagers using solar home systems in the following 3 sub-districts:

- Tamloed Sub-district: brought benefits to 4 villages, 287 households
- Maeyuam Sub-district: brought benefits to 2 villages, 181 households
- Maesud Sub-district: brought benefits to 11 villages, 1,196 households



## RENEWABLE ENERGY PROJECTS IN COOPERATION WITH OUR ALLIANCES



**WASTE MANAGEMENT FROM RUBBER SHEET PRODUCTION WASTE AND HOUSEHOLD ORGANIC WASTE, MAK NOI ISLAND COMMUNITY, PHANG-NGA, WITH BIOGAS PRODUCTION SYSTEM AND TOXIC FREE HOME-GROWN VEGETATION FOR COMMUNITY HEALTH**



in cooperation with Thaksin University, Phatthalung Campus, Phase 1 (2012-2013). The biogas system was installed for 104 households which saved cooking gas costs of approximately 160,000 baht per year and reduced organic waste by about 130,000 liters per year. This project was expanded to include "Toxic Free Home-Grown Vegetation". The fermentation sludge from the biogas production system was used as organic fertilizer to reduce the use of chemical fertilizer in local farming. During Phase 2 in 2014, the system will be installed for 30 households. Upon completion of Phase 2, almost half of all households on the island will have the biogas system. In 2014, the new "Hydroponics" system will be added to cultivate toxic-free home-grown vegetables with the use of the fermentation sludge from the biogas production. From the success of this project, Mak Noi Island is seen as a "Southern Biogas System Learning Center".

## SUFFICIENCY ECONOMY PROJECT (CANAL WATER) IN BURIRAM PROVINCE



in cooperation with the Education and Public Welfare Foundation. We developed a natural water resource management system by building a water supply for agriculture pursuant to the sufficiency economy philosophy. The community leader and villagers were trained in water supply management and agricultural planning. In 2013, the project was developed in 3 villages. A 150-meter-long concrete drainage system was built at Ban Lim Thong-Thai Thong Community. The 1,350-meter-long Krok Ma Khuea Canal was built at Ban Nong Thong Lim Community. A 700-meter-long canal was extended from Ban Nong Ta Khian to Ban Chok Chai Community. The project brought benefits to 180 households and promotes the development of community potential and agriculture, especially crop rotation outside the regular planting season.

## ENVIRONMENTAL PROJECT

**CORAL FARMING AND THE REHABILITATION OF CORAL REEFS AT SI CHANG ISLAND, CHONBURI PROVINCE (CONTINUING OVER A PERIOD OF 5 YEARS FROM 2011-2015)**



in cooperation with the Department of Marine and Coastal Resources, the Aquatic Resources Research Institute, and the Faculty of Science, Chulalongkorn University. In order to increase the potential for coral farming and the rehabilitation of coral reefs, we built a coral propagation facility at Samaesan Island, Sattahip District in 2013. We plan to develop the coral propagation facility to become a marine ecosystem learning center for all people to take advantage of. Our primary focuses were on promoting knowledge regarding the rehabilitation of coral reefs and on strengthening the community. We organized an event at Si Chang and trained children on how to set up a junior marine club. We also plan to organize a field trip for the surrounding communities to observe the activities.

## CSR VOLUNTEERING ACTIVITIES WITH EMPLOYEE IN 2013



- Employee volunteering activities such as plastering the walls at the power plant, landscaping and building dams for local communities at the hydropower plant at Ban Mae Jo Community, Chiang Mai Province.
- Canal building activities (phase 2) donating fish species and seeds to farmers; employee volunteering activities include painting walls at Nong Talumpook Temple and the Canal Water for Sufficiency Economy Project in Buriram Province.

## CSR ACTIVITIES IN COOPERATION WITH STAKEHOLDERS IN 2013



Thaioil Group offered 102 scholarships for high achieving students from 16 educational institutions in Thailand for the development of human resources, the promotion of knowledge and ability, as well as the development of society and the nation.

- Thaioil Group offered 195 scholarships for Thai students at educational institutions in Laem Chabang Municipality and Sri Racha District in 2013 and 11 scholarships for educational institutions in the vicinity of the refinery.
- Thaioil Group and partner companies conducted corporate social responsibility activities in the CSR-DIW 2013 project for the construction of a water well for children at Wat Laemchabang School.
- Thaioil Group and customers released snappers into the sea at Ao Prao, Koh Samed, Rayong Province.
- Thaioil Group donated items to people suffering from fire disaster at Ban Maesurin Refugee Camp, Koonyuam District, Mae Hong Son Province.

## CSR THAIOIL GROUP EMPLOYEE VOLUNTEER FUND



In 2013, there were 26 employee volunteer projects approved by the Fund Committee. These projects promote the initiation of activities for the good of society and increase employees' awareness.

- Project for sponsoring children's day activities of Ruamjai 8640 Sri Racha Group
- Project for building toilets for Nongprue Prachasan School
- Project for developing society and promoting educational quality for Srisomboon Pattana School
- Project for developing education for Chumchon Wat Taprik School (Chariya Uppatham)
- Project for rehabilitating Koh Samed in Rayong from oil spills
- Project for developing education for Ban Thungna School, Nongped Sub-district, Srisawad District, Kanchanaburi Province
- Project for assisting 19 households of Thaioil Group's employees and family members from flood disaster in Thailand
- Project for providing clean drinking water at Ban Nongbon Tanchaopa School, Lamnangrong Sub-district, Nondindaeng District, Buriram Province

Thaioil Group's board of directors and chief executive officer realize the importance of CSR policy and strategy development. For this reason, we have established a department specifically to be in charge of the communities in the areas where we operate as well as remote communities. We develop CSR projects that allow communities to participate at the beginning. We cooperate with local public offices to transfer knowledge and inspire an ownership spirit among people in the local communities. In the end, the projects will continue even after Thaioil group leaves the areas.



# OUR CUSTOMERS



THAIOIL GROUP STRIVES TO ENHANCE THE RELATIONSHIPS WITH OUR CUSTOMERS THROUGH UNDERSTANDING THEIR EXPECTATIONS AND ADAPTING TO DRIVE THE CONTINUOUS DEVELOPMENT AND IMPROVEMENT OF OUR PRODUCTS AND SERVICES AS WELL AS WORK PROCESSES SO AS TO RESPOND TO OUR CUSTOMERS' NEEDS QUICKLY AND EFFICIENTLY FOR THE LONG-TERM BUSINESS CONTINUITY AND SUCCESS OF BOTH THAIOIL GROUP AND OUR CUSTOMERS. CUSTOMER SATISFACTION AND ENGAGEMENT LEVELS THUS HAVE BEEN ONE OF MATERIAL LEADING PERFORMANCE INDICATORS OF THAIOIL GROUP.

2014 PLAN

To improve grievance mechanism through I-Care system.

To provide training and cultivate awareness among employees in charge of customer service at all levels.

## CUSTOMERS' NEEDS RESPONSE



Thaioil Group values customers' voices and keeps responding promptly to their needs in terms of delivering the high quality products, before and after sales service, and the right price. Thaioil Group also has the **Customer Relations function** in purpose of listening to customers' opinions expressed through various channels, such as in face-to-face meetings with customers, through discussions with the relevant officer-in-charge, or by email: [crm@thailoilgroup.com](mailto:crm@thailoilgroup.com), facsimile, website, call center as well as communicating newsletters. Apart from that, we use annual customer satisfaction and engagement survey to gather comments or suggestions which will be collected, analyzed and acted upon to drive improvement.

In 2013, we received 78 complaints and suggestions concerning products and services by email and face-to-face discussion. All complaints were completely closed and continuous improvement is being taken.

## CONTINUOUS IMPROVEMENT

In addition to customer satisfaction and engagement which are the leading performance indicators for our organization, Thaioil has set a number of commercial indicators, such as increased sales volume, number of new customers, number of complaints and suggestions, and number of factory visitors. Monthly functional meetings are held to monitor the results with the concerned departments e.g. production unit. Besides, Commercial Management Committee (CMC) meetings are presided over by the Group's Chief Executive Officer and held to review the progress and obstacles of development and improvement. Thaioil also cooperates with the Thailand Productivity Institute in order to observe the prevailing guidelines of other industries and apply those guidelines to the Company as well.

E-ORDERING PHASE II

In 2013, Thaioil developed E-ordering Phase II which focuses on increasing the number of lorry loading customers. This system reduces transaction errors, saves time, and provides convenient access for our customers through a user-friendly system.

## CUSTOMER SATISFACTION AND ENGAGEMENT

Thaioil and our affiliated companies conduct a customer satisfaction and engagement survey every year by a third party so as to ensure unbiased opinions are expressed by our customers. The survey covers 6 key areas:

- Satisfaction with the organization
- Product quality
- Operational services
- Technical services
- Transaction efficiency
- Product price.



The result of satisfaction and engagement survey in 2013 achieves an overall score of 89%, higher than the target of 87% and good performance compared to industry peers.

### CUSTOMER DATABASE SYSTEM

After successfully developing our customer relationship management system, Thaioil has established efficient customer data management and customer information security systems to catalog profile information, product demands, purchasing behavior etc. These data are stored in the database and the system then provides customers with a convenient channel of communication such as telephone to access information and data. The customers will receive better service because our system is updated regularly.

Thaioil has also developed customer data protection measures. Data level access control includes employees only being able to access information that their level of authorization allows and Thaioil assigns data level access control for all employees. The access authorizations are given and changed every 3 months or upon position change. Every data access authorization is stored in the system. To date, we have never received any complaints about customer data loss.

With its results, the Company has taken a continuous improvement on work processes through conducting workshops among concerned persons and customers in order to improve service efficiency and to keep commitment as well as to create awareness for employees on the importance of efficient responding to the customers' needs. In addition, we plan to continue enhancing our competitive advantage in market place by improving our logistics management standards.



# SUPPLY CHAIN MANAGEMENT

0.21<sub>vol</sub>



Volume of crude oil loss during marine transportation

THAIOIL GROUP FOCUSES ON MANAGING MATERIAL RISKS IN OUR SUPPLY CHAIN IN ORDER TO REDUCE OUR ENVIRONMENTAL IMPACTS AND GENERATE BENEFITS FOR THAIOIL GROUP AND OUR BUSINESS PARTNERS FOR THE SUSTAINABLE DEVELOPMENT OF SOCIETY.

2014 Plan

- CSR in Supply Chain Project of Thailoil Group was initiated in 2011 and has run continuously in purpose of:
  - 1) Encourage the contractors and suppliers in Thailoil Group's supply chain to be part of direct and indirect development of society, local communities and the environment, as well as in self-development pursuant to the international standards of corporate social responsibility.
  - 2) Promote and increase the potential for corporate social responsibility of the contractors and suppliers in Thailoil Group's supply chain.
  - 3) Promote a strong corporate image and collaboration based on the concept of collaborative sustainable growth.
- Develop policy to communicate Supplier Code of Conduct pursuant to the Corporate Governance guidelines for business responsibility, ethics, fairness, transparency and accountability, and to strengthen relationships with business partners and suppliers in the supply chain for sustainable growth.
- Develop a plan for promoting and strengthening relationships with the contractors and suppliers in the supply chain. This is one of the strategic plans of Thailoil Group's purchasing and procurement policy, although the management and development techniques will vary depending on the types of contractors and suppliers.
- Implement and enhance feedstock co-loading product, co-sell, swap products with neighboring refineries for cost benefits.

Thailoil Group is fully aware of the opportunities and risks in the supply chain process, ranging from crude oil suppliers, ships birthing at Thailoil's port, business partners and contractors transporting goods and raw materials, and customers purchasing goods and services from Thailoil in Thailand and in foreign countries. Therefore, efficient and integrated supply chain management is of major importance to Thailoil Group.

## RAW MATERIALS AND TRANSPORTATION



### CRUDE OIL SUPPLY

Thailoil Group purchases crude oil from international oil companies e.g. the U.S., Europe, Singapore, and commits not to acquire crude oil from boycotted countries. Thailoil Group has established a crude oil purchasing process and database so as to ensure the quality, meet the requirements and identify the source of all crude oil purchased.

In addition, Thailoil Group updates our crude oil procurement plan on a monthly and yearly basis in order to respond to market demands, crude oil prices and crude oil quality. In 2013, Thailoil Group purchased more than Baht 300 billion of crude oil.

### ENERGY CONSUMPTION FOR TRANSPORTATION

The marine transportation of crude oil for Thailoil's refining process requires high fuel consumption in addition to the fuel required in the production process. For this reason, Thailoil Group has developed a logistics management system for transporting raw materials via both Thailoil Group's ships and those of our contractors. Under this system, Thailoil Group adjusts the ship speed in each schedule in line with the current demand for crude oil.

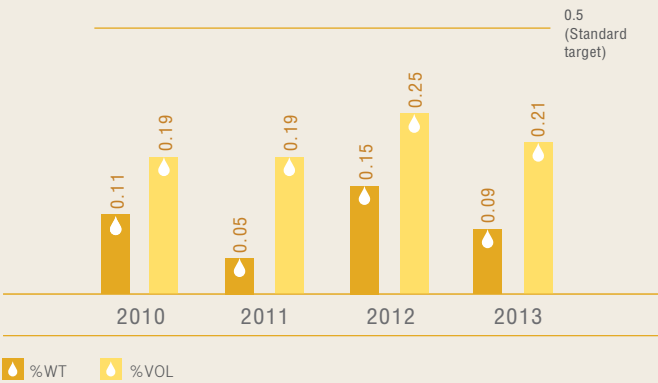
For 2013, the fuel consumption for marine transportation was about 2,800 tons per sailing (40-45 sailings per year) or a total of 2,844,355 liters, equivalent to 113,120 GJ, which generated 218,879 tons of carbon dioxide equivalent.

In 2012, Thailoil Group initiated the Feedstock Co-loading Project with other oil companies both in Thailand and in foreign countries because sometimes a ship used for transporting Thailoil's crude oil is not fully loaded, so other companies' crude oil can be co-loaded to achieve maximum efficiency. From this, Thailoil Group's cost was reduced by approximately Baht 100 million in the past year.

### CRUDE OIL LOGISTICS MANAGEMENT

To develop transportation efficiency, Thailoil Group monitors loss during marine transportation (Ocean Loss) which is a key performance indicator. In 2013, the Ocean Loss Index was 0.09% by weight or 0.21% by volume, which was lower than the control value prescribed at 0.5% in the same industry. In 2014, Thailoil Group's targeted Ocean Loss Index is 0.20% by volume.

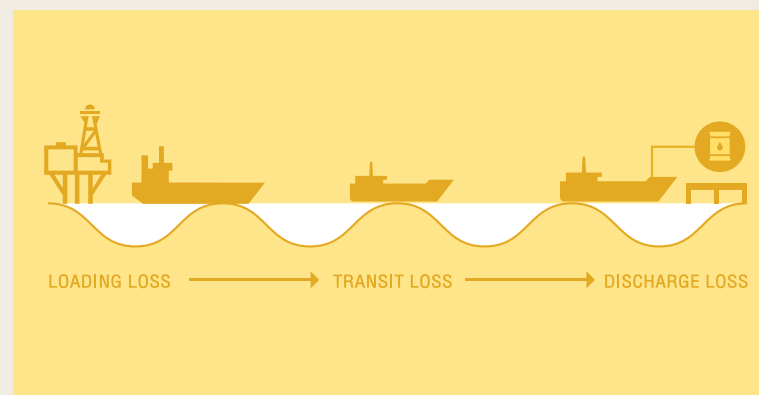
OCEAN LOSS INDEX





The Ocean Loss can occur during 3 main processes:

- Loading loss while transferring crude oil from port to ship (Loading Loss)
- Transit loss between the origin and destination points (Transit Loss)
- Discharge loss while loading crude oil from tanker to storage tank (Discharge Loss)



#### IN 2013, THAI OIL GROUP ESTABLISHED THE FOLLOWING PROJECTS AND ACTIVITIES TO PREVENT OIL LOSS:

- **Crude Online Sampler**-an automatic sampling system enables the accurate properties analysis of the crude oil.
  - **Crude Oil Washing (COW)**-a system whereby oil tanks on a tanker are cleaned out to reduce ocean loss.
  - **Improvement of work process to minimize crude oil loss** while loading crude oil from tanker to storage tank.
  - **Random inspection of process when loading crude oil from tanker** to storage tank to maintain compliance with the process pursuant to international standards.
  - **Oil Movement Improvement Project** by placing valves and their positioning system along the pipeline route so as to avoid errors when loading.
  - **Installation of pump for line packing after obtaining long residue** of Thai Lube Base Public Co., Ltd. (TLB) and long residue used as a reinforcing agent of Thai Tokai Carbon Product Co., Ltd. (TCP) so as to reduce oil contamination and loss during transportation.
  - **Study of temperature gauge installation on oil receiving pipeline from buoy SBM-2** so as to measure temperatures accurately for the calculation of crude oil volume received.
- Since 2006, Thailoil Group has assessed the quality of all tankers (Ship Vetting) pursuant to the International Convention for the Prevention of Pollution from Ships in terms of prevention of water pollution from oil spills, prevention of water pollution from hazardous chemical transportation, and control of waste discharged from ships into the sea.

## SUPPLIER AND CONTRACTOR MANAGEMENT

### SELECTION OF SUPPLIERS AND CONTRACTORS

Thailoil Group has reviewed the management process of suppliers and contractors for efficiency. Thailoil Group conducts systematic screening and evaluation of suppliers and contractors. As part of the evaluation process of all suppliers and contractors, all supporting documents in connection with the management of environment quality and safety as well as occupational health must be submitted to Thailoil Group in order to be checked for compliance with the law, e.g. labor law, environment law, and all regulations and rules which cover human rights and management systems. Thailoil Group has established the Integrated Management System (IMS) and Enhanced Safety Management pursuant to the international management standards and Occupational Health and Safety Management Systems (TIS/OHSAS 18001).

However, before any supplier or contractor can be included in Thailoil Group's Approved Vendor List, verification is required. Their performances shall be reviewed on a yearly basis pursuant to Thailoil Group's standards.

In 2014, Thailoil Group plans to establish and communicate the **Supplier Code of Conduct** for clarity and transparency in business operations pursuant to the Corporate Governance principles in relation to supply chain management.

#### THAI OIL GROUP ESTABLISHES INDICATORS OF ENVIRONMENTAL, SOCIAL AND CORPORATE GOVERNANCE SO AS TO EVALUATE SUPPLIERS' CSR IN THE "CSR IN SUPPLY CHAIN" PROJECT AS FOLLOWS:

- 1) Develop supply chain vendor list, Tier 1-which means a vendor with a direct agreement with Thailoil Group.
- 2) Assess negative impacts on society and the environment.
- 3) Prioritize significances
- 4) Select a vendor from the prioritization results.

#### Assessment Criteria

1. The value of the vendor's products and/or services is significant compared to the total purchasing value which means that the value of the products and/or services should account for top 80% of the total purchasing value.
2. The vendor's products and/or services are necessary and critical for the production process, and Thailoil's business would be adversely affected without the vendor. Critical products and/or services are divided into 3 groups as follows:
  - i Catalysts
  - ii Chemicals for the process
  - iii Other process materials e.g. gas or water, required for the processes.
3. The vendor's products and/or services cannot be substituted or provided elsewhere.

From the assessment of suppliers which had significant impacts on the business of Thailoil and its affiliated companies as stated in the above criteria, there were 170 qualified suppliers and those suppliers were included in the supply chain Vendor List, Tier 1, and the suppliers were selected from the prioritization results as stated above.





Thaioil Group has assessed the risks potentially posed by suppliers and contractors to the environment, society and corporate governance (ESG) caused in the supply chain process. The major identified potential risks are contractors' safety when working in our areas and reputational risk in case of contractors' non-compliance with the law. However, Thaioil Group is now developing risk management in the supply chain which shall be presented in the future.

RESULTS OF POTENTIAL RISK ASSESSMENT	NUMBER OF SUPPLIERS	%
Safety Risk	21	28
Reputational Risk	4	5

THAIOIL WAS AWARDED CSR-DIW IN SUPPLY CHAIN ADVANCE LEVEL 5



In 2013, Thaioil Group participated in “Corporate Social Responsibility-Department of Industrial Works” or “CSR-DIW Advance 5” in cooperation with 2 business alliances—Air Liquide (Thailand) Co., Ltd. and Eastern Water Resources Development and Management Public Co., Ltd. —in order to develop appropriate Corporate Social Responsibility Guidelines. Members of the community and Thaioil’s employee volunteers built a “Water Tank with a Capacity of 13 cbm

for Wat Laem Chabang School”. Before the project implementation, Thaioil and our business partners held meetings to discuss the project development with representatives of Wat Laem Chabang School and the local community with the aim of improving the life quality of people in the community. All projects implemented by Thaioil and communities throughout the period reflect the sustainable coexistence of the business and the communities. It was the aim of Thaioil to develop the life quality and wellbeing of people in the community, and to help children with health problems caused by water shortages. The participation of the community and of relevant public offices was encouraged pursuant to the requirements of CSR-DIW Advance 5. **Thaioil Group is 1 of 7 factories that has been granted with CSR-DIW Advance 5 Award, which is the highest award of CSR-DIW.** Thaioil also received a **CSR-DIW Award in recognition of being an organization in compliance with the prescribed standards for a continuous period of time.**

THAIOIL GROUP’S PRODUCT RESPONSIBILITY

Thaioil is the largest petroleum refinery in Thailand. In 2013, Thaioil had a refining capacity of 279,940 barrels per day, or about 26.6% of the nation’s overall refining capacity, which is 512,570,000 GJ of energy or 38,210,634 tons of carbon dioxide equivalent. Our major product is base oil to blend with natural fuel for the production of biodiesel and gasohol at a rate of 110,745 barrels per day.

Thaioil Group’s products help reducing greenhouse gas emissions throughout their lifecycles, the biodiesel, gasohol and ethanol release fewer greenhouse gases than fossil fuels. The products sold in 2012 and 2013 were compared below:

ALTERNATIVE PRODUCTS	UNITS	2012	2013
Volume of Gasohol sales	Million liters	737.9	1,065
Volume of Biodiesel sales	Million liters	91.38	94.10
Volume of Base oil sales to blend with natural fuel	Million liters	5,440	5,246

Thaioil Group’s Ethanol Business

Thaioil Group has established Thaioil Ethanol Co., Ltd. to produce biofuel as an alternative energy made from renewable raw materials which will replace non-renewable fossil fuels and reduce greenhouse gas emissions that lead to an increase in global temperatures. Ethanol business produces pure ethanol to blend with gasohol base oil for gasohol production. At present, there are 3 production plants processing fuel from sugarcane and cassava with an investment cost of Baht 1,660 million. In 2013, the ethanol sales were 187 million liters and the greenhouse gas emission rate was lower than other fuels at approximately 56%.

Thaioil Group has developed projects to develop a wide variety of high quality, environmentally-friendly products such as a project to produce EURO IV specification oil products, which was initiated in 2007. The project was extended to produce 95-octane and 91-octane gasoline pursuant to EURO IV specification whereby the sulfur content is 10 times lower. In the past year, 130,732 barrels per day of fuels refined by Thaioil were in compliance with the EURO IV specification.

In order to gauge the demand for products and determine which of those products will be developed, Thaioil provides a communication channel for customers via the Customer Relations Section so as to be in a position to respond to the demands of customers and the market as quickly as possible.

Thaioil Group and Mitsui & Co., Ltd. jointly invested over Baht 12 billion in an LAB (Linear Alkyl Benzene) production plant incorporating the latest UOP innovation – the world’s most advanced and environmentally-friendly technology. LAB is a key raw material for use in cleaning products and cleaning agents. In 2012, the demand for LAB in the world market was around 3.2 million tons per year at a growth rate of about 2-3% per year, or about 70,000–100,000 tons per year, with the highest growth rate being in Asia.

This year, the joint venture represents a major project involving cooperation between Thailand and Japan. This project will create more jobs and enhance economic growth by replacing Baht 3.5-4.0 billion worth of LAB import per year and generating additional income at least Baht 6 billion per year. The project can enhance Thailand’s competitiveness for achieving a leading position when entering into the ASEAN Economic Community (AEC) and strengthen the good relationship that has existed between the two countries for a long time.





# WORLD

## ENVIRONMENT WELL-BEING



### ENVIRONMENTAL MANAGEMENT

- Emission Control
- Effluent and Waste Management



### ENERGY EFFICIENCY AND CLIMATE CHANGE

- Energy Efficiency Improvement
- Climate Change Risk Assessment



### OIL AND CHEMICAL SPILL PREVENTION

- Spill Response
- Maritime Disaster Prevention Measures



### WATER MANAGEMENT

- Water Supply
- Water Risk Management
- Consumption and Quality

## EMBRACE THE WORLD.

THE ENVIRONMENT IS OUR HABITAT GIVING US RESOURCES AND SERVICES WHICH THAI OIL GROUP ASPIRES TO MAKE THE WORLD THE BETTER PLACE THROUGH ENERGY EFFICIENCY IMPROVEMENT AND CONTINUOUS IMPROVEMENT OF THE WAY WE MANAGE OUR ENVIRONMENTAL IMPACTS.



# ENVIRONMENTAL MANAGEMENT

## 0 Case

Environmental management incidents



DRIVING ENVIRONMENTAL PERFORMANCES THROUGH THE ENVIRONMENTAL MASTER PLAN WITH AN INTEGRATED MANAGEMENT SYSTEM CONSTITUTES A SYSTEMATIC MECHANISM FOR MANAGING RISKS AS WELL AS ISSUES CONCERNING QUALITY, SAFETY, OCCUPATIONAL HEALTH AND ENVIRONMENT. SUCH AN ENVIRONMENTAL FOCUS CREATES CHANCES FOR IMPROVEMENT OF THE GROUP BY STARTING AT IDENTIFYING PROBLEMS AND REGULATIONS, EVALUATING THE CONFORMITY WITH RELEVANT REGULATIONS, AND CONDUCTING INTERNAL AUDIT FOR CONTINUOUS IMPROVEMENTS TO ACHIEVE LONG-TERM SUSTAINABILITY.

### 2014 PLAN

Setting aims for environment related work (continued)

Creating a system for the management of environmental data (continued)

Implementing researches on flow directions and the quality of soil and underground water in the second phase (2012-2014)

Developing an air pollution management system for the refineries of Thailoil Group

Integrating waste management

Examining development programs for tracking the carbon footprint of Thailoil Group

As stipulated in its mission, Thailoil Group adheres firmly to its responsibility to society and creates policies for quality, security, safety, occupational health, environment, energy management and social responsibility of Thailoil Group. This is associated with integrated management systems, which are in line with various standards (ISO 9001, TIS/OHSAS 18001 and ISO 14001) for the management of quality, safety, occupational health and environment. This constitutes a framework for environment related work under which the Thailoil Group can carry out resource management efficiently. It also facilitates the systematic management of the potential impacts of its operations. All environments related actions

are revised so that guidelines for improvements can be set. This is carried out by executives of the Thailoil Group on a yearly basis.

In the last year, Thailoil Group has reformed the internal structure of the enterprise, moving an environmental management department to be under quality management, occupational health and safety department. The department can carry out their operations more effective. In addition, the department can link environmental management plan with other operations, such as occupational health and safety department.

The policy and details of management system can be found at [www.thailoilgroup.com/en](http://www.thailoilgroup.com/en)



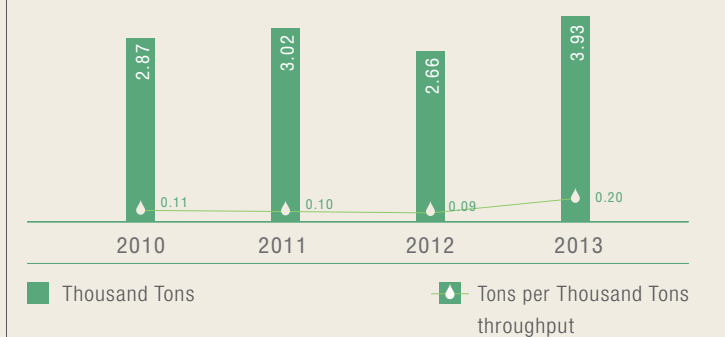
## EMISSION CONTROL

### OXIDES OF NITROGEN AND SULFUR DIOXIDE

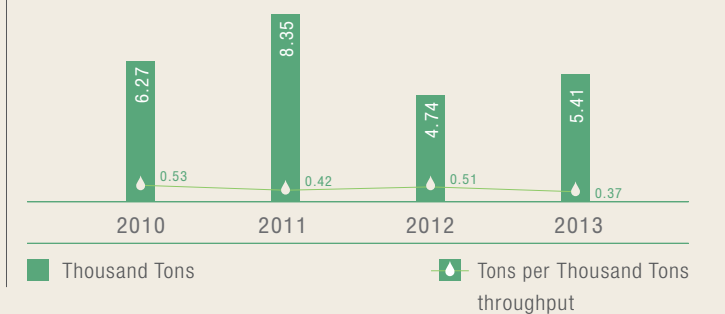
Since 2012, Thailoil Group has changed and improved heat exchangers and burners to ultra low NOx Burners. A total of 362 ultra low NOx Burners, which can fire natural gas, are now in operation. This investment of more than Baht 1,860 million was made in order to decrease the amount of oxides of nitrogen released to atmosphere from direct combustion.

In 2013, however, emissions of oxides of nitrogen and sulfur dioxide increased in comparison to 2012, even though the efficiency of the burners had been improved. The increase was due to changes in the ratio of fuel types used in the production process to maintain a balance between competitiveness in business and energy security.

### OXIDES OF NITROGEN

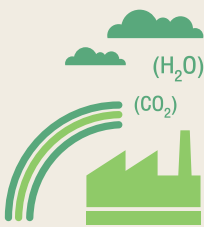


### SULFUR DIOXIDE





VOLATILE ORGANIC COMPOUNDS



Thaioil Group has implemented programs to reduce the amount of volatile organic compounds emitting from production processes through the use of biofilter. The system eradicates volatile organic substances in the atmosphere with aerobic bacteria and facultative bacteria. It is associated with the decomposition of volatile organic compounds and the transformation to Carbon dioxide (CO<sub>2</sub>) and water (H<sub>2</sub>O) emitted to the atmosphere. In experiments with this system, results show that in some sources, the concentration of volatile organic compounds could be reduced by more than 99 percent.

In addition, Thaioil Group has implemented follow-up programs to check ambient air quality in the surrounding area of Thaioil Group in comparison with standard values. Parallely, the development of systematic diagnosis of factors affecting the dissemination of air pollutants has been developed. Therefore, air quality management can be made in time.

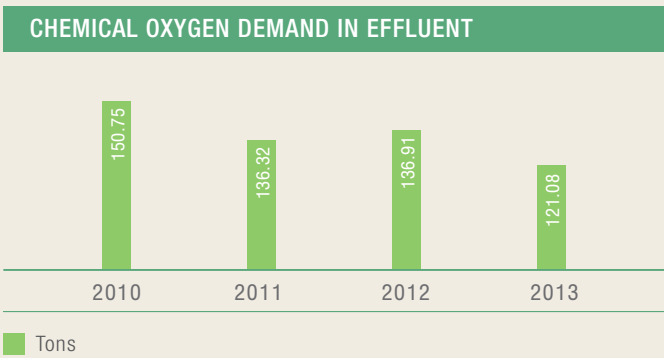
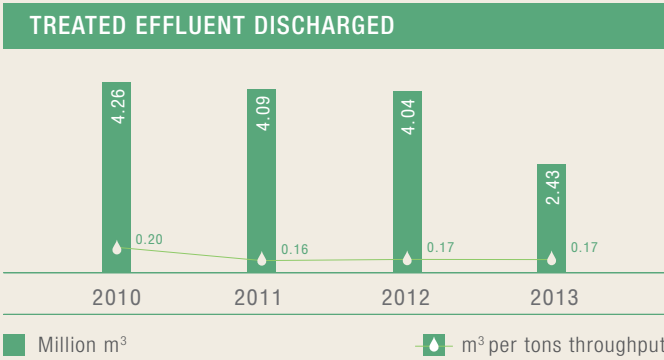
EFFLUENT AND WASTE MANAGEMENT

TREATED EFFLUENT DISCHARGED

Thaioil Group is currently studying the use of treated effluent in order to minimize discharge and maximize efficiency of resource used.

CHEMICAL OXYGEN DEMAND IN EFFLUENT

Thaioil Group measures quality of effluent by online Chemical Oxygen Demand (COD) before discharge to the environment. By this we can improve the efficiency of effluent treatment system.



WASTE DISPOSAL

Thaioil Group has implemented waste hierarchy system for waste disposal management by focusing at minimization of waste generated from operations as first step, followed by waste separation, reusing and recycling. The remaining waste is further disposed off by landfills. Waste hierarchy system allows maximum use of resource in line with environmental missions and policies of Thaioil Group.

In addition, we adhere to the waste management policy that aims as corporate target of “zero waste to landfill” by 2020. Currently, studies and researches are being carried out on this issue by all departments concerned. Details of the studies will be presented in 2014.



# ENERGY EFFICIENCY AND CLIMATE CHANGE

**~14,500 tons**  
of carbon dioxide emission reduction from energy efficiency improvement and hydrocarbon loss prevention projects



THE USE OF FUEL FOR THAI OIL'S OPERATIONS IS THE KEY CONTRIBUTING FACTOR OF GREENHOUSE GAS GENERATIONS. IN RESPONSE TO THIS, THAI OIL GROUP HAS DEVELOPED PLANS TO CONTINUOUSLY IMPROVE ENERGY CONSUMPTION EFFICIENCY TO REACH THE TOP QUARTILE POSITION BY 2018 AND TO MAINTAIN OUR EXCELLENCE IN THE COUNTRY AND THE REGION.

## 2014 PLAN

To set up an energy conservation and oil loss prevention Community of Practice

Project for Communication and knowledge sharing in energy savings

Thaioil Group believes that climate change may affect competitive advantage in the future in terms of fuel prices, control measures or government support, natural disasters and changing climate. Thaioil Group has assessed the climate change risk and identified the requirements for energy efficiency development. We aim to reduce Energy Intensity Index (EII) by 1–1.5 per year in order to reach the Top Quartile position by 2018.

## CLIMATE CHANGE RISK ASSESSMENT

In 2012, Thaioil Group and external specialists studied and assessed the possible impacts from climate change and domestic fuel price fluctuations, and there were no findings suggesting any likely significant impact in the near future.

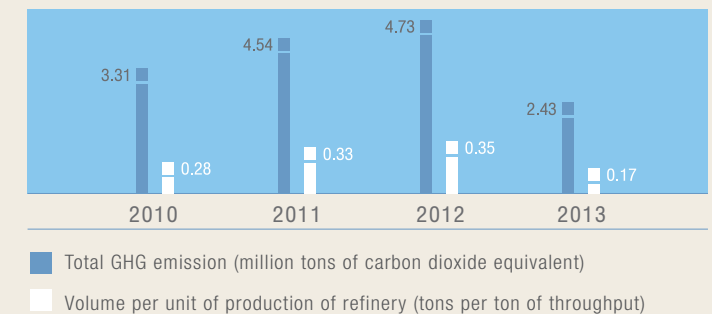
In addition to engaging in continuous energy efficiency development which can reduce energy consumption, Thaioil Group

has also developed measures to reduce the risks which may impact oil prices or to the control of energy consumption which produces high volumes of greenhouse gases, such as the installation of 362 dual oil and gas firing burners or 81% of the total burners in the refinery.

However, Thaioil Group has established guidelines for greenhouse gas reduction and efficient energy consumption by realizing the necessity of addressing the issues of global warming even though it is not predicted to have any direct impacts in the near future. We also closely follow the United Nations Framework Convention on Climate Change (UNFCCC) and participate in activities that will promote the use of mechanisms and guidelines for greenhouse gas emission management in Thailand.

Thaioil Group has implemented projects such as the reduction of greenhouse gases in our production processes by increasing energy efficiency, turning waste heat into electricity etc. Similar activities of our business partners include the transportation of products by low fuel consumption vehicles etc. In addition, Independent Power (Thailand) Co., Ltd. has been separated from Thaioil Group; therefore, the Group's direct (Scope 1) and indirect (Scope 2) greenhouse gas emissions were reduced by 50% or about 2 million tons.

## GREENHOUSE GAS EMISSIONS



## ENERGY EFFICIENCY IMPROVEMENT

Thaioil Group manages energy efficiency through the Energy and Loss Committee which consists of representatives from all relevant departments including the operation process and management. The Committee is responsible for managing energy for the group, developing an energy efficiency master plan, establishing measures to conserve energy and prevent oil loss, monitoring results against identified targets, and establishing energy efficiency projects. In addition to reducing greenhouse gases from combustion, the energy efficiency has brought about reductions in production costs as well. The Committee regularly reviews and revises the master plan in order to ensure it suitable with domestic and global energy situations.

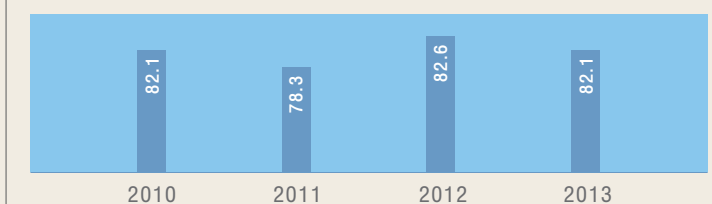
In 2013, Thaioil Group has implemented the following energy conservation activities:

- **Crude Distillation Unit 2 (CDU-2)** maintenance as planned in May in order to improve heat exchanger efficiency for energy saving and highest production capacity.
- **Thermal Cracking Unit (TCU)** maintenance as planned in May in order to improve heat exchanger efficiency.
- **Reducing steam usage at Crude Distillation Unit 1 (CDU-1)** by not operating gas oil dryer which leads to medium pressure steam saving of 5 tons per day.
- **Flue gas heat recovery at High Vacuum Distillation 3** by increasing Boiler Feed Water flow to Air Pre-heater.
- **Convection bank tube replacement at High Vacuum Unit 2 (HVU-2) furnace** in order to increase heat transfer efficiency and reduce fuel consumption.
- **Reducing overhead pressure of Isomerization column** in order to reduce steam consumption.
- **Reducing pressure in gas separator at HDT-3** in order to reduce energy in distillation tower.

- **Crude Distillation Unit 3 (CDU-3)** applying Energy Management System: ISO 50001 to existing energy management with plan to extend certifications to other production units at Thai Lube Base Public Co., Ltd. and Thaioil's affiliates.

From the above implementations, Thaioil Group could save up to 234,943 GJ of energy and reduced operating costs by Baht 95 million, leading to the Energy Intensity Index (EII) of 82.1 compared to the target of 81.0. It represented an improvement on the EII of 2012 due to reduced production volume at the end of 2013 and production unit maintenance, planned or unplanned, which led to a greenhouse gas emission reduction to 14,503 tons of carbon dioxide equivalent.

## ENERGY INTENSITY INDEX (EII)



Thaioil Group received the PTT Best Practice Platinum Award, one of the Best Practice Awards of PTT Group, for using steam in furnace at CDU-3 for the highest optimization. Because Crude Distillation Unit 3 reduced the steam usage in its furnace, this solved the problems of distillation temperature, increased the high-value jet fuel production, reduced the low-value naphtha production and reduced steam costs, generating additional profits of approximately Baht 204 million per year.



# OIL AND CHEMICAL SPILL PREVENTION



**Oil and chemical spills cases from the process which affects the environment**

THAIOIL GROUP ENSURES THAT ALL SHIPS BERTHING AT THAIOIL'S PORT OR BUOY MOORING FACILITY MEET INTERNATIONAL STANDARDS AND OPERATE SAFELY WITHOUT OIL OR CHEMICAL SPILLS AT SEA.

## 2014 PLAN

Invite oil spill management specialists (Oil Spill Response Limited) from Singapore to audit Thail's management of oil spill preparedness.

Oil and chemical spills are material factors to the sustainability of the petroleum industry. Any large quantity of oil and chemical spills or continuous leakages will have an impact on living organism, human health, the economy and the community in the affected areas. Thail Group focuses on spill prevention together with the preparedness for crisis management and response measures.

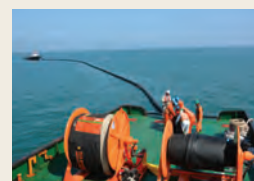
## CONTINGENCY PLAN



Thail Group has a full and comprehensive test of oil spill contingency plan every year. In the past year, the contingency plan was rehearsed 11 times at corporate level. The contingency plan includes ensuring full understanding of everyone's roles and responsibilities, response actions, and problem solutions at Oil Spill Table Top Exercise level.

The drills were conducted at the actual locations where Thail Group trained the crews on the ships and officers at the port on how to lay oil booms. The drills were also conducted in collaboration with the Oil Industry Environmental Safety Group Association in Sri Racha (IESG Sub Sri Racha) with PTT and Esso.

## OIL OR CHEMICAL SPILL RESPONSE



To ensure the efficiency of oil and chemical spill response in a timely manner, Thail Group has developed a set of response measures such as preventive action and oil spill removal plan at corporate level.

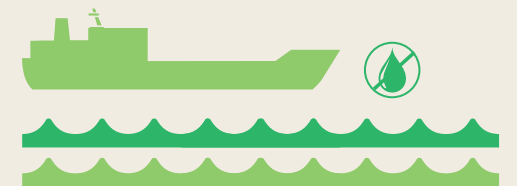
In addition, Thail Group has established good relationships with specialists e.g. Oil Spill Response Limited (OSRL) from Singapore, who can provide assistance with and make recommendations on oil spill crisis; for example, in case of oil spill, OSRL can send its specialists to the affected location within 10 hours after receiving the incident report.

## MONITORING AND REVIEW OF SAFETY PROCESS

In order to ensure efficient oil spill prevention, at least once per year, Thail Group reviews and revises its Emergency Manual: QMOS-SSM-01 to cover Emergency and Crisis Management: QMOS-SSM-01. The roles and responsibilities of emergency duty personnel are reviewed regularly and continuously. The occupational health, safety and environment inspection is made by the PTT Group Security, Safety, Health and Environment (SSHE) Auditor.

**“From 2008 to 2013, Thail Group has no oil and chemical spill incidents at our port and buoy mooring facility. This information has been verified by a third party. Remaining incident-free indicates that we can achieve our objectives and strategies efficiently and continuously in accordance with international standards on the prevention of oil and chemical spills released to the environment.”**

## MARITIME DISASTER PREVENTION MEASURES OF THAI OIL PUBLIC COMPANY LIMITED



In order to prevent oil spills at sea during ship loading operations, Thail Group has developed a set of maritime disaster prevention measures. The measures include risk assessment, engineering accident prevention during oil pumping, operational accident prevention, accident prevention from ship collisions and during oil pumping, and response to terrorist attacks and oil spills. These measures are updated and informed to all employees concerned on a regular basis.





# WATER MANAGEMENT

**~60 ppm**

The COD level in our wastewater is less than the level prescribed by the Ministry of Industry

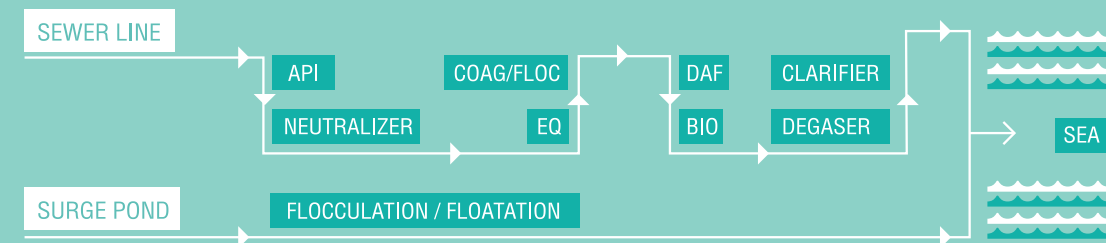
THAIOIL GROUP EMPHASIZES THE IMPORTANCE OF EFFECTIVE WATER MANAGEMENT AT ALL TIMES SO THAT THE PRODUCTION PROCESS CAN RUN CONSTANTLY WITH NO ADVERSE EFFECT ON THE ENVIRONMENT OR ANY STAKEHOLDERS. THAIOIL GROUP ENSURES THAT ALL WATER DISCHARGED BACK INTO THE ENVIRONMENT MEETS THE LEVEL PRESCRIBED BY LAW.

## 2014 PLAN

To study the use of treated wastewater for tank calibration.

To study the use of treated wastewater for watering trees outside the refinery.

## THE LIFE-CYCLE OF WATER MANAGEMENT



Thaioil Group implements water management throughout the life-cycle. All strategic plans, systems and projects are reviewed regularly to ensure the most efficient water usage. Thaioil Group has also implemented strategies to prevent the risk of water supply shortages for our production processes.

## WATER SUPPLY

Raw water consumed in utility systems, production processes, and other activities of Thaioil Group are supplied from 3 sources.

- 1.) Bang-pra Reservoir** The Royal Irrigation Department grants us permission to use water from the Bangpra Reservoir. The capacity of this reservoir is 117.4 million cubic meters. The raw water consumed from this source by Thaioil Group accounts for 1.4% of total water consumption.
- 2.) Nong-kor Reservoir** is under the management of the Eastern Water Resources Development and Management Public Co., Ltd. The capacity of the reservoir is 21.0 million cubic meters. The raw water consumed from this source by Thaioil Group accounts for 7.1% of total water consumption.
- 3.) Seawater** Thaioil Group has 6 desalination units at the refinery in Sri Racha, Chonburi. The treated water is supplied to boilers (Boiler Feed Water) for producing steam. In 2013, the water volume obtained from the desalination system achieved 10,000 cubic meters per day.

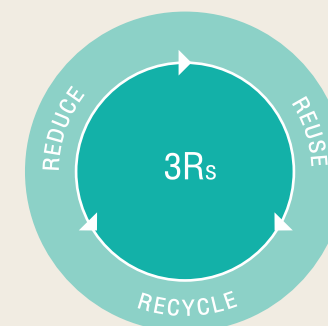
These three water supply sources are managed by third parties such as the Royal Irrigation Department and other water management companies. Therefore, Thaioil Group's water consumption from these sources does not affect other water consumers and the neighboring environment.

## WATER RISK MANAGEMENT

Thaioil Group considers water risk management as a corporate risk. The water crisis management and emergency response procedures was developed to cope with water supply shortage.

In addition, Thaioil Group has conducted water sufficiency assessments for 1 year, 3 years, 5 years and 10 years by both internal functions and an independent third party company.

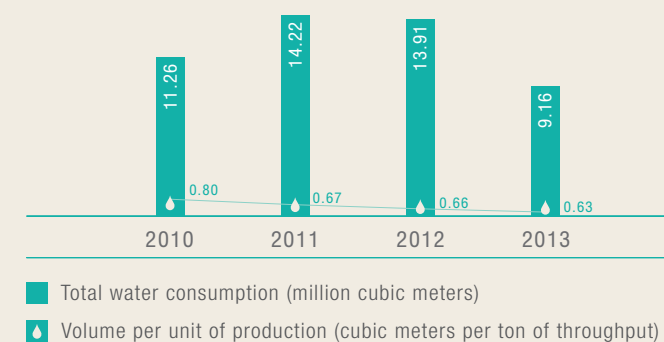
## 3Rs STRATEGY



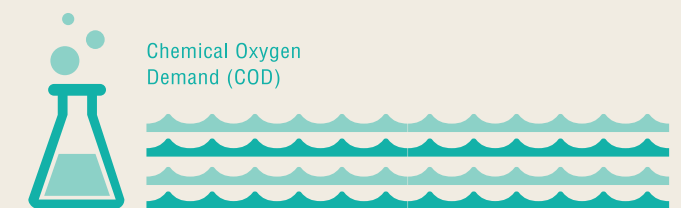
3Rs (REDUCE, REUSE, RECYCLE)

Thaioil Group has successfully implemented the 3Rs (Reduce, Reuse, Recycle) strategy to reduce water consumption. Consequently, in 2013, around 3.9% of water withdrawn from natural sources was minimized. In addition, a water reuse project : Reverse Osmosis (RO) is on approval process.

## WATER CONSUMPTION STATISTICS 2010–2013



## REPORT ON WATER CONSUMPTION AND WATER QUALITY



Thaioil Group submits a report on water consumption to management level every month in the area production unit meeting. Water consumption quantity is monitored daily, while the water level of reservoirs is tracked every working day.

In addition, the quality of treated wastewater is inspected weekly by an internal function and monthly by a third party company. The Chemical Oxygen Demand (COD) level in wastewater is monitored 24 hours, and then it is reported directly to the Department of Industrial Work. In 2013, the average COD level was 60 ppm, which is half the level of 120 ppm recommended by the Ministry of Industry.

The volume of effluent discharged into the sea was 2.43 million cubic meters per year. We contract a third party company licensed by the public office to monitor environmental and surface water quality in neighboring areas, as well as plankton levels in the sea. The results are then reported to the Office of Natural Resources and Environmental Policy and Planning. The findings show that the surface water quality meets the level prescribed by law with no significant environmental impact.

In addition to the water management inside the company, Thaioil Group cooperates with third parties in both the private and public sectors, including local communities, the Royal Irrigation Department for the 9th District, the Eastern Provincial Waterworks Authority and other companies in the PTT Group to develop an effective water consumption plan that ensures other parties are not affected by our operations. As part of this commitment, all our present and future water consumption needs are estimated and the optimum water supply volume is allocated to each parties.

# PERFORMANCE SUMMARY



## I

ECONOMIC PERFORMANCE		UNIT	2010	2011	2012	2013
Economic Value Generated						
Total revenues	Million THB		324,352	448,773	451,659	418,514
Operating cost	Million THB		307,710	422,360	432,312	397,556
Employee wages and benefits	Million THB		2,573	3,407	2,796	2,841
Payment to providers of capital <sup>(1)</sup>	Million THB		6,146	7,809	7,603	9,337
EBITDA	Million THB		17,381	28,760	20,350	22,361
Net profit	Million THB		8,956	14,853	12,320	10,394
Total assets	Million THB		147,148	154,568	170,676	208,519
Total liabilities	Million THB		71,578	69,534	79,952	113,681
Shareholders' equity-net	Million THB		75,570	85,034	90,724	94,838
Earnings per share	THB/Share		4.39	7.28	6.04	5.09
Return on equity	%		12.20	18.50	14.00	11.20
Return on assets	%		6.30	9.80	7.60	5.50
Market capitalization	Million THB		159,632	119,342	137,702	114,752
Code of Conduct						
Code of conduct violation	Case		0	0	0	0
Number of employees who have completed code of conduct training <sup>(2)</sup>	%		-	90	92	90
Grievance about Code of Conduct						
Total number of grievance about code of conduct through formal grievance mechanism	Case		0	0	0	0

Remarks: <sup>(1)</sup> Payment to providers of capital incudes dividend and interest.  
<sup>(2)</sup> Thaioil Group has started to collect training hours of E-learning program. In 2011, code of conduct topics covers human rights and anti-corruption that are reviewed training contents in 2014.

SAFETY PERFORMANCE		UNIT	2010	2011	2012	2013
Occupational Health and Safety <sup>(1)</sup>						
Near miss	Case		2,118	1,420	2,438	1,722
Absentee rate (Employee)	Day/Million manhour		0.89	0.71	1.31	1.09
Total recordable injuries case (Employee) <sup>(2)</sup>	Case		1	0	1	0
Total recordable injuries case (Contractor) <sup>(2) (3)</sup>	Case		4	5	7	5
Total recordable injuries rate (Employee) <sup>(2)</sup>	Case/Million manhour		0.55	0.00	0.60	0
Total recordable injuries rate (Contractor) <sup>(2) (3)</sup>	Case/Million manhour		0.61	0.69	0.86	0.39
Lost workday case (Employee)	Case		0	0	0	0
Lost workday case (Contractor) <sup>(3)</sup>	Case		0	1	1	1
Lost time injury frequency rate (Employee)	Case/Million manhour		0	0	0	0
Lost time injury frequency rate (Contractor) <sup>(3)</sup>	Case/Million manhour		0.00	0.14	0.12	0.08
Occupational illness frequency rate (Employee & Contractor)	Case/Million manhour		0	0	0	0
Fatality (Employee & Contractor)	Person		0	0	0	0
Total process safety case in level 1 and level 2 <sup>(4)</sup>	Case		0	0	0	0

Remarks: <sup>(1)</sup> Thaioil Group follows standard statistical reporting of PTT Group in accordance with Occupational Safety and Health Administration (OSHA)  
<sup>(2)</sup> TRIC and TRIR data does not include accidents categorized at the first-aid level.  
<sup>(3)</sup> Occupational safety and health reports are broken down to employees and contractors in order to illustrate social responsibility of Thaioil Group to operational contractors.  
<sup>(4)</sup> Thaioil Group reported process safety in accordance with API RP 754 standard.

PEOPLE PERFORMANCE		UNIT	2010		2011		2012		2013	
			Male	Female	Male	Female	Male	Female	Male	Female
Employee										
Total number of employee	Person		1,089		1,089		1,158		1,282	
• Male	Person		872		848		885		955	
• Female	Person		217		241		273		327	
Number of employee by region										
• Chonburi	Person		-	-	-	-	-	-	917	211
• Bangkok	Person		-	-	-	-	-	-	36	115
• Others	Person		-	-	-	-	-	-	2	1
New employee hired										
Total number of new employees hired	Person		7	14	127	59	59	42	87	64
• Below 30 years old	Person		7	12	30	22	49	35	82	54
• 30-50 years old	Person		0	2	90	36	10	7	5	10
• Over 50 years old	Person		0	0	7	1	0	0	0	0
Total new hire rate	% of total employee		0.80	6.45	14.98	24.48	6.67	15.38	9.11	19.57
Employee turnover										
Total turnover	Person		5	9	113	40	3	7	24	13
• Below 30 years old	Person		3	6	15	5	1	5	9	4
• 30-50 years old	Person		1	3	91	33	2	2	3	8
• Over 50 years old	Person		1	0	7	2	0	0	12	1
Turnover rate	% of total employee		0.57	4.15	13.33	16.60	0.34	2.56	2.51	3.98
Voluntary resignation	Person		-	-	-	-	-	-	11	13
Parental leave										
• Employee entitled to parental leave	Person		537	217	516	239	518	273	517	327
• Coverage	% of total employee		61.58	100	60.85	99.17	58.53	100	54.14	100
• Employee taken parental leave	Person		14	6	20	4	17	3	19	6
• Employee returned to work after parental leave	Person		14	6	20	4	17	3	19	6
Average training hours <sup>(1)</sup>										
Average training hours for all employees	Hour/Person/Year		123	91	82	79	95	79	92	124
• Average hours of training for executives <sup>(2)</sup>	Hour/Person/Year		16	0	53	21	71	0	15	0
• Average hours of training for management <sup>(3)</sup>	Hour/Person/Year		110	98	107	92	96	106	97	94
• Average hours of training for non-management employee	Hour/Person/Year		125	91	80	76	95	74	92	130
Gender Diversity										
• Total number of executives <sup>(2)</sup>	Person		10	1	6	1	5	0	7	0
• Total number of management <sup>(3)</sup>	Person		75	30	82	37	87	38	90	48
• Total number of non-management employee	Person		787	186	760	203	793	235	858	279
Grievances about human resources										
Number of grievance about human resources	Case		0		10		1		3	
• Number of grievance addressed	Case		0		10		1		3	
• Number of grievance resolved	Case		0		10		1		3	

Remarks: <sup>(1)</sup> Data exclude paid educational leave provided by the organization.  
<sup>(2)</sup> Executives include CEO, president, executive vice president, and assistant executive vice president.  
<sup>(3)</sup> Management includes vice president, division manager, and section manager.





WE

SOCIAL PERFORMANCE	UNIT	2010	2011	2012	2013
Society and community development					
Total investment for society and community development <sup>(1)</sup>	Million THB	47	93	72	47
Products and Services					
Customer satisfaction <sup>(2)</sup>	%	87	90	93	89
Supply Chain Management					
Local purchases and services in the area <sup>(3)</sup>	Million THB	-	-	-	13,470
New suppliers that were screened using criteria for labors and safety	%	-	-	-	54.30

Remarks: <sup>(1)</sup> In 2012 and 2013, budgets were high due to social assistance for Thailand flood and supporting the construction of Laem-chabang hospital.  
<sup>(2)</sup> In 2013, performance complied the target at 87%. Boundary of Customer satisfaction covered all customers each year.  
<sup>(3)</sup> "in the area" means domestic since Thailand does not clearly break down economics, politics or people.

WORLD

ENVIRONMENTAL PERFORMANCE		UNIT	2010	2011	2012	2013
Refinery Throughput <sup>(1)</sup>						
Refinery throughput	Metric Ton	13,589,950	14,737,892	14,575,951	14,455,228	
Energy Management and Greenhouse Gas <sup>(2)</sup>						
Total energy consumption	Million GJ	58.66	85.90	89.89	35.14	
• Natural gas	Million GJ	29.11	60.62	65.42	10.66	
• Fuel oil	Million GJ	4.97	6.98	3.91	5.35	
• Fuel gas	Million GJ	23.76	17.50	19.86	18.28	
• Coke	Million GJ	0.79	0.79	0.69	0.83	
• LPG	Million GJ	0.01	0.01	0.00	0.00	
• Diesel	Million GJ	0.01	0.01	0.02	0.02	
• Gasoline	Million GJ	-	-	-	less than 0.01	
• Ethanol	Million GJ	-	-	-	less than 0.01	
Electricity purchased	Mega Watt	2,381	2,381	859	212	
Refinery energy intensity	GJ /Ton	2.46	2.15	2.14	2.43	
Total direct and indirect greenhouse gas <sup>(3)</sup>	Million Ton	3.31	4.54	4.73	2.43	
Refinery greenhouse gas intensity	Ton /Ton	0.28	0.33	0.35	0.17	
Air <sup>(4)</sup>						
• Nitrogen oxide (NOx) emission	Thousand Ton	2.87	3.02	2.66	3.93	
• Sulfur oxide (SOx) emission	Thousand Ton	6.27	8.35	4.74	5.41	
• Volatile organic compound (VOC) emission	Thousand Ton	-	-	-	1.10	
• Particular matter (PM) emission	Thousand Ton	4.24	3.99	6.59	6.87	

WORLD

ENVIRONMENTAL PERFORMANCE	UNIT	2010	2011	2012	2013
Water <sup>(5)</sup>					
• Total water consumption	Million M3	11.26	14.22	13.91	9.16
• Industrial water supply	Million M3	4.99	8.09	8.04	3.14
	Million M3/Ton	0.37	0.55	0.55	0.22
• Seawater consumption	Million M3	6.27	6.13	5.87	6.02
• Recycled Water	Million M3	0.66	0.70	0.65	0.65
• Wastewater released to environment	Million M3	4.26	4.09	4.04	2.43
Biochemical Oxygen Demand (BOD)	Ton	33.30	33.00	35.00	25.97
Chemical Oxygen Demand (COD)	Ton	150.75	136.32	136.91	121.08
Total oil and grease	Ton	4.46	3.07	3.93	3.75
Total suspended solids	Ton	48.90	41.04	37.93	33.36
Waste Disposal by Type					
Total hazardous waste disposal	Ton	3,633	5,327	5,363	5,554
• Landfills	Ton	256	256	149	31
• Recycle	Ton	855	758	909	4,967
• Recovery	Ton	2,698	4,569	4,135	0
• Others	Ton	79.63	0	319	557
Total non-hazardous waste disposal	Ton	1,196	1,014	972	1,449
• Landfills	Ton	199	420	279	715
• Recycle	Ton	641	101	327	87
• Recovery	Million Ton	17	13	22	34
• Others	Million Ton	340	480	345	613
Oil and Chemical Spill					
Significant oil and chemical spill	Case	0	0	0	0
Legal Compliance					
• Fines for non-compliance with environmental laws	Million THB	0	0	0	0
• Number of non-compliance with environmental laws	Case	0	0	0	0

Remarks: <sup>(1)</sup> "Refinery Throughput" means crude and other feedstocks  
<sup>(2)</sup> The energy consumption and greenhouse gas emission were significant reduced since Independent Power (Thailand) Co., Ltd was separated from Thaioil Group.  
<sup>(3)</sup> Thaioil Group follows standard statistical reporting of PTT Group in accordance with WBCSD GHG Protocol  
<sup>(4)</sup> Thaioil Group do not purchased ozone depleting substances including CFCs, HCFCs, halons, and methyl bromide.  
<sup>(5)</sup> Data exclude portable water consumption which has very small volume compared to water consumption in production process.



# AWARDS AND RECOGNITIONS



## INTERNATIONAL LEVEL



- Member of Dow Jones Sustainability Indices as a global sustainable organization in oil and gas producer industry

By: Dow Jones Sustainability Indices (DJSI)



- Level A of information disclosure in the sustainability report in accordance with Global Reporting Initiative (GRI) version 3.1

By: The Global Reporting Initiative (GRI) organization



- The Assets Excellence in Management and Corporate Governance 2013 at Gold level

By: The Assets magazine from Hong Kong



- The Best Investor Relations in Sector Energy-South East Asia

By: IR Magazine South East Asia Awards & Conference 2013 at Singapore



- Thai Oil Public Company Limited is the only company of the region to receive the Alpha Southeast Asia 2013 Awards in both regional and national levels for 2 consecutive years,

- The Strongest Commitment to Sustainable Energy in Southeast Asia
- The Strongest Adherence to Corporate Governance
- The Best Strategic CSR

By: Alpha Southeast Asia magazine



- Asian Company Secretary of the Year 2013 Award in Corporate Governance
- The Best CSR from Asian Excellence Recognition Awards 2013

By: Corporate Governance Asia Magazine



- Thai Oil Public Company Limited was ranked 38<sup>th</sup> in Asia and 136<sup>th</sup> in the world

By: Platts: Top 250 Global Energy Company Rankings

## NATIONAL LEVEL



- Zero Accident Awards 2013

By: Ministry of Labour



- The 6<sup>th</sup> Thailand Energy Awards 2013 in renewable energy and recycled energy unrelated to off-grid system in the biogas project at Mak Noi Island, PhangNga

By: Department of Alternative Energy Development and Efficiency, Ministry of Energy



- Sustainability Report Award for excellence in disclosing ESG (Environment, Social and Governance) information in the sustainability report

By: Thai Listed Companies Association



- SET Awards 2013-Top Corporate Governance Report Awards
- Best Corporate Social Responsibility Awards
- CSRI Recognition Award 2013

By: Stock Exchange of Thailand



- CSR-DIW (Corporate Social Responsibility, Department of Industrial Works) 2013
- CSR-DIW Advance 5 (CSR-DIW in Supply Chain)
- CSR-DIW Continuous Award

By: Green Industry Promotion and Development Office, Department of Industrial Work

### Business Membership in Associations for Sustainable Development

ASSOCIATIONS	YEAR OF MEMBERSHIP
Petroleum Institute of Thailand	2006
Thailand Business Council for Sustainable Development (TBCSD)	2006
Thai Environmental Corporation Foundation	2009
CSR Club-Thai Listed Companies Association	2012



## LRQA Assurance Statement

### Relating to Thai Oil Public Company Limited's environmental and social indicators within the Sustainability Report for the calendar year 2013

This Assurance Statement has been prepared for Thai Oil 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 Thai Oil Public Company Limited (TOP) to provide independent assurance on the environmental and social indicators within its Sustainability Report 2013 ("the Report") to a limited level of assurance using LRQA's verification procedure. LRQA's verification procedure 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 TOP's operation and activities in Chonburi, Thailand, including four subsidiary companies and specifically the following requirements:

- Evaluating the reliability of data and information for the selected environmental and social indicators: EN3, EN8, EN 15, EN 23, EN 24, LA6 and LA9
- Reviewing whether the selected environmental and social indicators within the Report have taken account of:
  - GRI G4's Sustainability Reporting Guidelines, and
  - GRI G4's Oil and Gas Sector Disclosures.

Our assurance engagement excluded TOP's operations and activities outside Chonburi, Thailand and the data and information of its suppliers, contractors and any third-parties mentioned in the Report.

LRQA's responsibility is only to TOP. LRQA disclaims any liability or responsibility to others as explained in the end footnote. TOP'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 TOP.

#### LRQA's Opinion

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

- Met the requirements above
- Disclosed reliable performance data and information for the selected environmental and social indicators
- Covered all the environmental and social issues that are important to the stakeholders and readers of this Report.

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 LRQA's verification procedure. The following tasks though were undertaken as part of the evidence gathering process for this assurance engagement:

- Assessing TOP's approach to stakeholder engagement to confirm that issues raised by stakeholders were captured correctly. We did this by reviewing documents and associated records.
- Reviewing TOP's process for identifying and determining material issues to confirm that the right issues were included in their Report. We did this by benchmarking reports written by TOP and its peers to ensure that sector specific issues were included for comparability.
- Auditing TOP'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 facility at Chonburi to sample evidence for the selected environmental and social indicators to confirm its reliability.

Note: LRQA did not verify the data back to its original sources, nor did it assess the accuracy and completeness of the data reported by individual locations.

#### Observations

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

- **Stakeholder Inclusivity:**  
We are not aware of any key stakeholder groups that have been excluded from TOP's stakeholder engagement process. TOP has stakeholder engagement processes which collect the views and expectations of stakeholders. Stakeholders' concerns are then considered by TOP when setting their sustainability strategies and roadmap.
- **Materiality:**  
TOP has processes in place for identifying and evaluating their material issues which are determined by a set of risk criteria. We are not aware of any material issues concerning TOP's environmental and social performance that have been excluded from the Report. However, we believe that future Reports should disclose detailed accounts of TOP's management approach to addressing material issues, particularly on climate change. This account should also disclose the challenges and progress made in performance.
- **Responsiveness:**  
Although TOP has processes and communication channels in place to respond to stakeholders, we believe that future Reports should explain in detail how TOP engages with its different stakeholders groups; for example - employees, local communities, subcontractors' families, customers and suppliers. This detail should also explain how each stakeholder group relates to TOP's sustainability strategies.
- **Reliability:**  
Although TOP has data management systems, implementation of these systems is variable across facilities. TOP should consider establishing comprehensive reporting procedures for data collection, quality assurance, control and security processes at each facility.

#### 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 TOP and as such does not compromise our independence or impartiality.

Signed:

Dated: 22 February 2014

Nit Tanasuthiseri  
LRQA Lead Verifier  
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SPECIFIC STANDARD DISCLOSURES					
DMA and Indicators	Page Number (or Link)	Identified Omission(s)	Reason(s) for Omission(s)	Explanation for Omission(s)	External Assurance
CATEGORY: ECONOMIC					
MATERIAL ASPECT: ECONOMIC PERFORMANCE					
G4-DMA	23-24				-
G4-EC1 OGSS	76, 78, Annual Report 157-158				-
G4-EC2 OGSS	70				-
G4-EC3	Annual Report 206-207				-
G4-EC4	Annual Report 250-251				-
MATERIAL ASPECT: INDIRECT ECONOMIC IMPACTS					
G4-DMA OGSS	44, 48, 63				-
G4-EC7 OGSS	45, 78				-
G4-EC8 OGSS	45, 48, 63				-
CATEGORY: ENVIRONMENTAL					
MATERIAL ASPECT: MATERIALS					
G4-DMA	70-71				-
G4-EN1 OGSS	78				-
G4-EN2		Percentage of materials used that are recycled input materials	The Standard Disclosure or part of the Standard Disclosure is not applicable	Although used oil is recycled into the process, the percentage is low compared to our overall throughput as our core business is currently petroleum refining. However, we will report this data if our business is shifting more on petrochemical industry.	-
MATERIAL ASPECT: ENERGY					
G4-DMA OGSS	70-71				-
G4-EN3	78				Total energy consumption p.82-83
G4-EN4	63, 78				-
G4-EN5 OGSS	71, 78				-
G4-EN6	71				-
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G4-EN8 OGSS	79				Total water withdrawal by sources p.82-83
G4-EN9 OGSS	74				-
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MATERIAL ASPECT: EMISSIONS					
G4-DMA	66, 70				-
G4-EN15 OGSS	71				Total direct greenhouse gas emissions p.82-83
G4-EN16 OGSS	71				-
G4-EN17 OGSS	63				-
G4-EN18 OGSS	71				-
G4-EN19 OGSS	70				-
G4-EN20	79				-
G4-EN21 OGSS	67-68	Quantity of volatile organic compounds (VOC)	The information is currently unavailable.	Thaioil Group is in the process to improve VOC management and monitoring system. The information will be available in 2015.	-

DMA and Indicators	Page Number (or Link)	Identified Omission(s)	Reason(s) for Omission(s)	Explanation for Omission(s)	External Assurance
MATERIAL ASPECT: EFFLUENTS AND WASTE					
G4-DMA OGSS	66				-
G4-EN22	68, 74-75, 79				-
G4-EN23 OGSS	69, 79	Segregation of routine waste from non-routine waste	The information is currently unavailable	Thaioil Group is in the process to improve waste management system. The information will be available in 2015.	Total waste generated p.82-83
G4-EN24 OGSS	72,79				Oil and chemical spills p.82-83
G4-EN25		Percentage of waste shipped internationally	The information is currently unavailable	Thaioil Group is in the process to improve waste management system. The infoamation will be available in 2015.	-
G4-EN26	75				-
G4-OG5		Volume and disposal of formation or produced water	The Standard Disclosure or part of the Standard Disclosure is not applicable	Not applicable to non-exploration and production company	-
G4-OG6	78				-
G4-OG7		Amount of drilling waste and strategies for treatment and disposal	The Standard Disclosure or part of the Standard Disclosure is not applicable	Not applicable to non-exploration and production company	-
MATERIAL ASPECT: PRODUCTS AND SERVICES					
G4-DMA	63				-
G4-EN27 OGSS	63				-
G4-EN28		Percentage of products sold and their packaging materials that are reclaimed by categories	The Standard Disclosure or part of the Standard Disclosure is not applicable	Our primary products are refined petroleum and lube base oil which feeds directly into customers' tankers or comes in bulk container. Therefore, it is not material to track this data in the context of Thaioil.	-
G4-OG8	63				-
MATERIAL ASPECT: COMPLIANCE					
G4-DMA	66				-
G4-EN29	23, 79				-
MATERIAL ASPECT: TRANSPORT					
G4-DMA	59-60				-
G4-EN30	59-60				-
MATERIAL ASPECT: SUPPLIER ENVIRONMENTAL ASSESSMENT					
G4-DMA	61-62				-
G4-EN32	61-62				-
G4-EN33	61-62				-
MATERIAL ASPECT: ENVIRONMENTAL GRIEVANCE MECHANISMS					
G4-DMA	50				-
G4-EN34	50				-

DMA and Indicators	Page Number (or Link)	Identified Omission(s)	Reason(s) for Omission(s)	Explanation for Omission(s)	External Assurance
CATEGORY: SOCIAL					
SUB-CATEGORY: LABOR PRACTICES AND DECENT WORK					
MATERIAL ASPECT: EMPLOYMENT					
G4-DMA OGSS	30-31				-
G4-LA1	77				-
G4-LA2	33-34				-
G4-LA3	77				-
MATERIAL ASPECT: OCCUPATIONAL HEALTH AND SAFETY					
G4-DMA OGSS	36-37				-
G4-LA5	34, 36				-
G4-LA6 OGSS	76				Contractors LTIFR, Employee LTIFR p.82-83
G4-LA7		Workers with high incidence or high risk or diseasese related to their occupation	The Standard Disclosure or part of the Standard Disclosure is not applicable	Thaioil has very low incidence and occupational disease which do not indicate which occupation possess higher risk to incidence or occupational disease.	-
G4-LA8	34, 37				-
MATERIAL ASPECT: TRAINING AND EDUCATION					
G4-DMA	31-33				-
G4-LA9	32, 77				Average hour of training per employee and by employee categories p.82-83
G4-LA10	31-33				-
G4-LA11	30				-
MATERIAL ASPECT: SUPPLIER ASSESSMENT FOR LABOR PRACTICES					
G4-DMA	61-62				-
G4-LA14	61-62				-
G4-LA15	61-62				-
MATERIAL ASPECT: LABOR PRACTICES GRIEVANCE MECHANISMS					
G4-DMA	34				-
G4-LA16	34, 77				-
SUB-CATEGORY: HUMAN RIGHTS					
MATERIAL ASPECT: ASSESSMENT					
G4-DMA	52				-
G4-HR9	52				-
MATERIAL ASPECT: SUPPLIER HUMAN RIGHTS ASSESSMENT					
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MATERIAL ASPECT: HUMAN RIGHTS GRIEVANCE MECHANISMS					
G4-DMA	46, 50				-
G4-HR12	46, 50				-
SUB-CATEGORY: SOCIETY					
MATERIAL ASPECT: LOCAL COMMUNITIES					
G4-DMA OGSS	46, 48, 52				-
G4-S01	46, 52				-
G4-S02 OGSS	52				-
G4-OG10	52				-
G4-OG11	None				-

DMA and Indicators	Page Number (or Link)	Identified Omission(s)	Reason(s) for Omission(s)	Explanation for Omission(s)	External Assurance
MATERIAL ASPECT: ANTI-CORRUPTION					
G4-DMA OGSS	25-27				-
G4-S03		Total number and percentage of operations assessed for risks related to corruption and significant risk identified	The information is currently unavailable	Anti-corruption policy is issued in 2013 which the program to support the policy will be implemented in 2014	-
G4-S04		Communication and training on anti-corruption policies and procedures	The information is currently unavailable	Anti-corruption policy is issued in 2013 which the program to support the policy will be implemented in 2014	-
G4-S05	23				-
MATERIAL ASPECT: PUBLIC POLICY					
G4-DMA OGSS	29				-
G4-S06	29				-
MATERIAL ASPECT: COMPLIANCE					
G4-DMA	28-29				-
G4-S08 OGSS	76				-
MATERIAL ASPECT: SUPPLIER ASSESSMENT FOR IMPACTS ON SOCIETY					
G4-DMA	61-62				-
G4-S09	61-62				-
G4-S010	61-62				-
MATERIAL ASPECT: GRIEVANCE MECHANISMS FOR IMPACTS ON SOCIETY					
G4-DMA	50				-
G4-S011	50				-
MATERIAL ASPECT: EMERGENCY PREPAREDNESS					
G4-DMA OGSS	41				-
MATERIAL ASPECT: ASSET INTEGRITY AND PROCESS SAFETY					
G4-DMA OGSS	41				-
G4-OG13	41				-
SUB-CATEGORY: PRODUCT RESPONSIBILITY					
MATERIAL ASPECT: CUSTOMER PRIVACY					
G4-DMA	56-57				-
G4-PR8	57				-
MATERIAL ASPECT: FOSSIL FUEL SUBSTITUTES					
G4-DMA	63				-
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UNITED NATIONS GLOBAL COMPACT PRINCIPLES (UNGC)			
Human Rights	Principle 1	Businesses should support and respect the protection of internationally proclaimed human rights	Page: 34-35, 52-53, 61-62
	Principle 2	Businesses should make sure that they are not complicit in human rights abuses	Page: 61-62
Labor	Principle 3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining	Page: 34-35
	Principle 4	The elimination of all forms of forced and compulsory labour	Page: 34-35
	Principle 5	The effective abolition of child labour	Page: 34-35
	Principle 6	The elimination of discrimination in respect of employment and occupation	Page: 34-35
Environment	Principle 7	Businesses should support a precautionary approach to environmental challenges	Page: 66-75
	Principle 8	Undertake initiatives to promote greater environmental responsibility	Page: 66-75
	Principle 9	Encourage the development and diffusion of environmentally friendly technologies	Page: 66-75
Anti-corruption	Principle 10	Businesses should work against corruption in all its forms, including extortion and bribery	Page: 24, 29





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