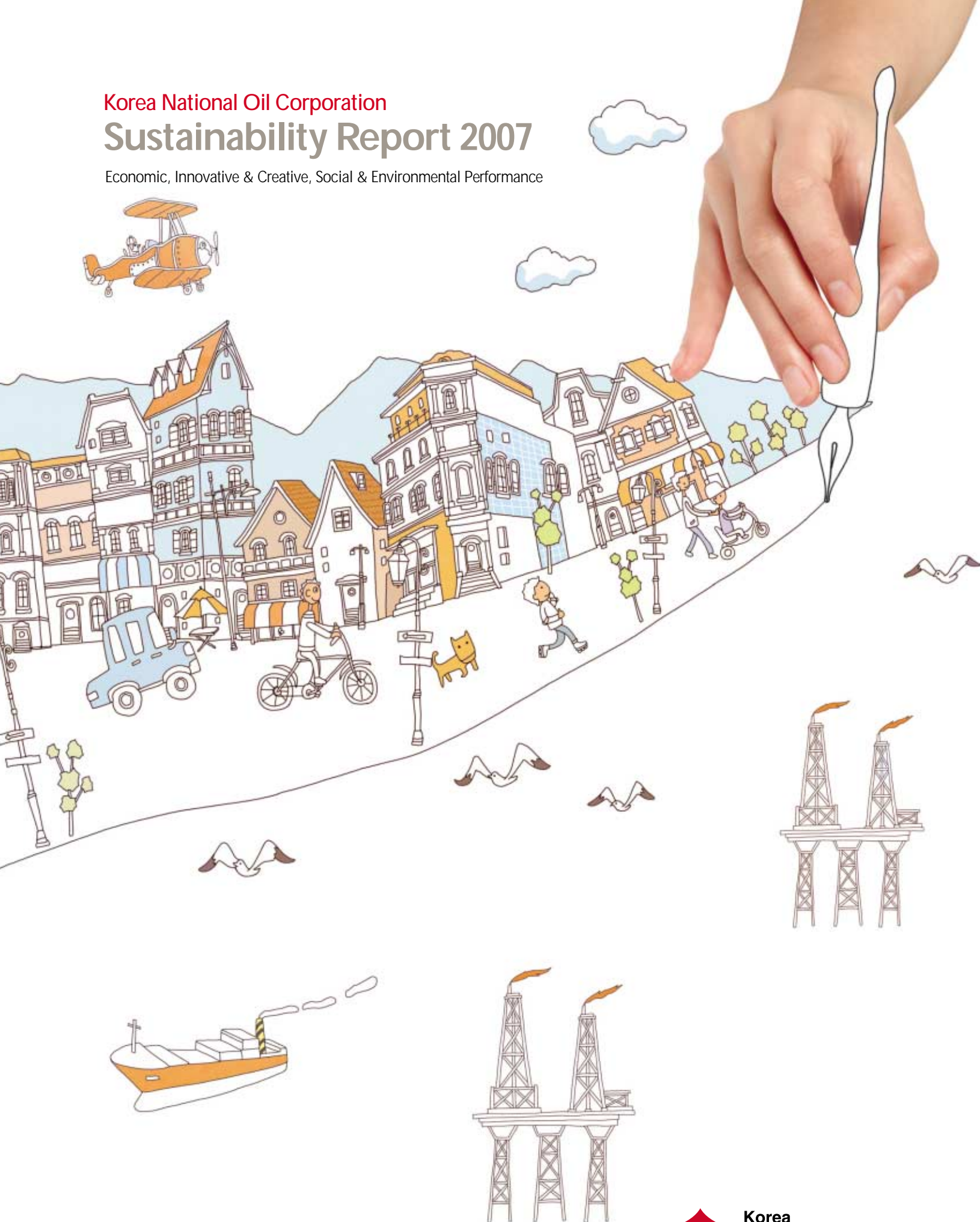


Korea National Oil Corporation

# Sustainability Report 2007

Economic, Innovative & Creative, Social & Environmental Performance



**Korea  
National Oil Corporation**



# Report Information

## KNOC Sustainability Report 2007

### GRI G3 Guideline Application

KNOC publicly declares that this KNOC Sustainability Report satisfies all requirements for an 'A+' rating under the GRI G3 Guidelines' Application Level grid. The Institute for Industrial Policy Studies (IPS), a third-party independent report assurance agency, has confirmed the appropriateness of this 'A+' rating.



### Characteristics

KNOC's first sustainability report covers economic, social, environmental values and innovative & creative value. To ensure the credibility of the report, the results of the third-party assurance are provided.

This sustainability report is published both in Korean and English, and also available for downloading at the KNOC homepage. To aid readers' understanding of the information contained herein, a summary of this report has also been published. Henceforth, KNOC will publish its sustainability report every year.

### Standards and Criteria

This report has been prepared in accordance with the Global Reporting Initiative (GRI) G3 Guidelines and BSR\*(B.E.S.T. Sustainability Reporting) Guidelines. Additionally, industry-focused guidelines (Oil and Gas Industry Guidance on Voluntary Sustainability Reporting) introduced by IPIECA\*\* and API\*\*\* were used as reference.

\* BSR: B.E.S.T. Sustainability Reporting (Sustainability Reporting guidelines for Korean enterprises)  
 \*\* IPIECA: International Petroleum Industry Environment Conservation Association  
 \*\*\* API: American Petroleum Institute

### Scope and Period

Performance from January 2004 to June 2007 was covered to enable time-series trend analysis. In cases where data collection was impossible or the relevant business began operation after 2004, reasons are provided and performance for the relevant period is assessed. The unit of currency used in this report is the Korean Won (KRW). Sustainability performance covered by this report is limited to the head office, domestic branches and offices. Performance of overseas branches and offices will be covered in future reports.

### Additional Information

If you would like additional information on this report or have any questions, please contact the following:

Homepage: [www.knoc.co.kr](http://www.knoc.co.kr)  
 E-mail: [sustainability@knoc.co.kr](mailto:sustainability@knoc.co.kr)  
 Phone: 031-380-2694, 2697  
 Fax: 031-386-8767  
 Responsible Department: Management Innovation Dept., Innovation Management Team

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# Our Stakeholders

## in Korea National Oil Corporation

The key stakeholders of KNOC are groups that influence KNOC's business activities. We have considered mutual interests and transactional relations in selecting them. Our key stakeholders consist of five groups – Employees, Customers, Partner Companies, Local Communities and the Environment – with which KNOC pursues sustainable management. KNOC also makes an effort to reflect stakeholder opinions in its business activities and to provide value and satisfaction.

### Executive & Employees

Employees are the internal stakeholders of the Corporation, and they are engaged in various activities to improve the credibility and satisfaction levels of KNOC. Every year, the level of Executive & Employees satisfaction with respect to work, their department, organization, systems, and corporate culture is surveyed for improvement. Moreover, open dialogue channels, family-friendly management, respect for human rights, Executive & Employees welfare programs, etc. are used to give motivation and increase employee morale.

### Customers

In our oil development business, KNOC regards everyone from domestic oil users to overseas development participants as our customers. In the area of oil stockpiling, our customers are state enterprises of oil-producing countries, major international trading companies and domestic refineries. In the petroleum information business, our customers are members of KNOC's oil information services. In the loan business, our customers are domestic oil development companies. In the oil prospecting business, drill ship operators are defined as customers. Through careful customer segmentation, KNOC strives to maintain high levels of customer service.

### Partner Companies

Unlike regular manufacturers, public corporations do not have actual business partners, but rather parties to contract who are managed and treated as major customers. These contracting parties include companies involved in transactions for construction, services, purchases, outsourcing, procurement, etc. Throughout the entire process from bidding to after-sales service, the principles of transparency and mutual benefits are observed. KNOC conducts activities that support the technology development and growth of small and medium-sized enterprises, and also maintains fairness and consistency in its dealings with partner companies.

### Local Communities & NGOs

Domestic and overseas local residents, social groups, environmental groups, governments and public agencies are included in this category. KNOC strives to maintain sound relations with them through voluntary activity groups, complies with local laws and regulations, and reinforces transparency and ethical management through an employee integrity pact, public disclosure, and ethics education. KNOC will become a public corporation that listens to local communities and NGOs.

### The Environment

Acknowledging the importance of and need for environmental management, the Corporation sees the environment as a stakeholder and listens to opinions on environmental protection activities, environmental targets and performance management, key environmental issues, etc. Through our dedication and active efforts, we seek to implement environmental management throughout our organization.

### Key Issues

About This Report

Company Overview

Corporate Vision & Strategies

Our Role in the Oil Industry

Efforts toward Sustainable Management

Economic Performance

Economic Vision & Plans

Growth Potential, Profitability, Public Good, Financial Highlights

Innovative Management

Creative Management

Customer-focused Management

Executive & Employees-focused Management

Partner-focused Management

Ethical Management

Management for Local Communities

HSEQ System

Environmental Management Status

Environmental Management Efforts

Ethics Charter



● : Relevant

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# Imagine our **future** 10, 20 or 30 years from now

Since its establishment in 1979 to stabilize the demand and supply of oil, KNOC has successfully promoted domestic and overseas oil development and stockpile business, thereby playing a pivotal role in securing national energy resources and developing domestic industry. Despite recent instability in the oil industry environment and continued high oil prices, KNOC maximized domestic and overseas oil development and utilization of stockpiled resources, registering sales of KRW 918.1 billion and an operating profit of KRW 325.9 billion in 2006. In 2007, KNOC demonstrated its financial stability by receiving credit ratings of "A" from S&P and "A2" from Moody's, grades higher than Korea's sovereign rating.



## CEO's Message

### KNOC's Commitment to Sustainability

# We're working for a Brighter, Warmer, more Dynamic World

Dear KNOC Stakeholders,

Since its establishment in 1979, the Korea National Oil Corporation (herein after "the Corporation") has fulfilled its mission as a government enterprise responsible for the energy sector, including the oil development business, oil stockpiling business, and others, ensuring the stable demand and supply of oil. Up until now, the Corporation has mainly focused on the stabilization of domestic energy resources and oil industry development. However, recognizing the difficulty of evaluating the true value of a corporation based solely on economic performance, we felt the need to introduce sustainability management. With the average lifespan of a successful enterprise being only 30 years, the yardstick for evaluating superior enterprises focuses on how long it can be sustained. Now, as the paradigm for corporate management advances from profit creation to sustainability, we at KNOC ask ourselves itself whether the Corporation can earn the recognition and trust of the public and stakeholders not only for economic profits, but also for ethical management and social responsibility.

**Striving for Sustainability** | In line with the demands of this era, the goals of enterprises in the 21<sup>st</sup> century are profit creation, ethical and transparent management, mutual prosperity with stakeholders, and sustainability by minimizing its impact on the environment. Given our grave responsibility for the stable energy supply and demand of this country, sustainability is particularly crucial in the case of KNOC. We have demonstrated our commitment to fulfilling our social responsibility by voluntarily joining the UN Global Compact in August 2007, and we have implemented sustainability management strategies like "Challenge 20-50."

**Securing Growth Engines** | First, we are making continuous efforts to secure growth engines by developing oilfields. In this regard, KNOC has established the mid- to long-term "Challenge 20-50" (USD 2 bil. in operating profits, reserves of 2 bil. barrels, sales of USD 5 bil. by 2015) strategy in line with domestic continental shelf business and overseas oil development activities. With the aim of establishing a cooperative business approach to securing a stable energy development and supply network, we launched the "Energy Industry Overseas Exploration Association" in 2006. Through this innovative collaborative approach, we were able to obtain mining rights to Canadian BlackGold Oilsands

(0.2 bil. barrels) and Nigerian deep-water fields (2.3 bil. barrels), beating out fierce international competition. KNOC launched Korea's first oilfield development fund from which we earned a profit in 2006, while also pioneering new energy business areas such as high added-value GTL technology development and next-generation gas hydrate research. By continuously developing and securing oil fields, KNOC aims to achieve 28% crude oil self-development rate by 2016, gain energy security, and resolve instabilities in oil supply and demand.

**Pursuing Transparency and Ethics** | Second, in view of the higher standards of ethics that government enterprises must strive for, KNOC is pursuing an ethical management roadmap taking us to 2010. We implement ethical management by complying with ethical standards in management activities and by ensuring co-existence with our stakeholders. Our ethical management roadmap outlines three stages: proliferation, actualization and value strengthening. As of 2007, we are in the second stage. In the proliferation stage, we laid the groundwork by enacting an ethics charter, providing training, introducing an ethical management report & reward system, reflecting ethics in performance evaluations, etc., so that employees can fully understand the concept of ethical management. In the current stage, we are trying to create an optimal ethical management structure for a government enterprise by revising various codes of conduct, and ethical management protection and reward guidelines.

KNOC promotes transparent and smooth relations with stakeholders in and outside of Korea. To reinforce employees' capabilities, we intensively nurture expert talent, and to improve work-life balance, we have introduced family-friendly management. Moreover, considering the supplier-centric nature of this industry, we carry out targeted, differentiated customer management for general and business-specific customers. Under the slogan "Developing Hope, Accumulating Happiness, and providing Trust" KNOC seeks to improve customer value and to expand communication. We intend to grow together with stakeholders in a sustained manner by identifying their needs through active communication and by immediately responding to complaints.

**Minimizing Environmental Impact** | Third, KNOC carries out environmental management in order to actively protect the environment and to hand down a clean environment to the next generation. We are continuously introducing new construction methodologies for

The growth engine of KNOC is innovation and creativity. By providing innovative systems for processes, corporate culture, business practices and IT, we aim to nurture a culture of voluntarily innovation. In November 2005, in acknowledgement of our successful completion of ERP Phase 1, KNOC was awarded the "Korea Digital Management Innovation" grand prize in the Public Enterprise category by the Ministry of Commerce, Industry and Energy. In order to instill an enterprise-wide culture of innovation, we are actively introducing systematic innovation processes and techniques.

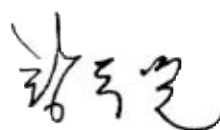
environmentally friendly construction of oil stockpiling facilities. At the same time, we try to minimize the impact on the environment by reducing flaring, preventing drilling noise, minimizing leaks through regular checkups, etc. We have exceeded our energy usage reduction targets every year, and as a result, KNOC energy personnel received citations at a joint government energy conservation promotion event in June 2006. The purchase of eco-friendly products has more than doubled in the same period. KNOC is making continuous investments in environmental protection and eco-friendly facilities, with total investment increasing 10% over the previous year.

Given that the oil development and oil drilling business is by its nature a "high environmental impact" industry, it requires more efforts and attention. As the risks of global warming are visibly apparent through climate accidents and natural disasters, we are well aware of the urgency to deploy more organized and systematic countermeasures as a pre-emptive response to global problems. Therefore, KNOC will strengthen environmental task force activities, set clear objectives and establish short- & long-term strategies. Since it will require the efforts of more than a single department to produce visible results from environmental management, we will continue to invest in education so that the recognition of environmental management is spread enterprise-wide and takes root as part of our corporate culture.

**Becoming a "Good Neighbor"** | Lastly, we practice "sharing management" to make contribution to society. KNOC is increasing employment opportunities for the physically challenged and donations to local communities. In addition, we operate petroleum E&P scholarships, blood donations, campaigns to help the less fortunate of our community, sisterhood arrangements, and support for child-headed households. In 2006, to raise funds for these programs, KNOC introduced a matching grant system whereby the Corporation matches voluntary donations made by employees. Overseas, our community welfare activities include building schools in Vietnam and donating wheelchairs in Kazakhstan. Some 470 employees created the KNOC Volunteer Service Team in order to carry out our philosophy of sharing in person. In the future, KNOC promises to perform more systematic social contribution activities so that they can have the maximum synergy effects.

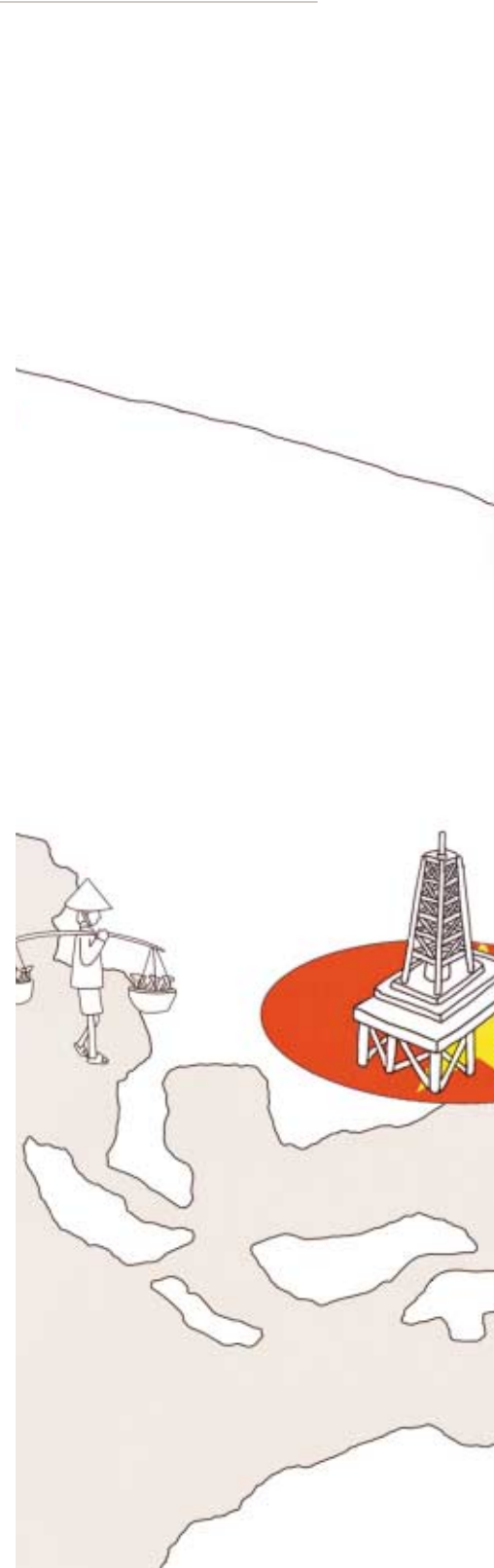
**Forging a New Path** | With the publication of our first sustainability report, KNOC demonstrates its commitment to sustainability management. We are well aware that we have more work ahead of us than behind us. We humbly accept our current level and plan to reinforce sustainability strategies, with relevant departments working to implement more systematic and concrete sustainability management throughout the organization. Moreover, in order to realize our vision of a "Brighter, Warmer, more Dynamic World," KNOC will pursue an ideal balance of economic, social, innovative & creative and environment values, addressing any shortcomings we find and publicizing the results annually in a transparent and honest manner. I hope that you will take an ongoing interest in the small but enthusiastic efforts of KNOC to make this a brighter, warmer, more dynamic world.

Thank you.



Sep. 2007

President & CEO Hwang Doo-Yul







# Korea National Oil Corporation Introduction

## Company Overview

## Current Organization of KNOC

Founded in 1979 as a part of the nation's drive toward energy self-sufficiency, Korea National Oil Corporation (KNOC) is a state-owned oil company which contributes to the nation's economic development by securing petroleum resources. Its major areas of focus are: exploration and development, both at home and abroad; petroleum stockpiling/leasing; construction and operation of petroleum facilities; and providing technical support and information services for energy-related sectors.

In addition to its headquarters in Anyang, the Corporation has nine domestic petroleum stockpile offices, 13 overseas offices, four construction offices, and a domestic gas field office. KNOC contributes significantly to the nation's oil industry by operating the Donghae-1 gas field, participating in 27 E&P projects in 14 countries, and operating stockpile facilities containing 121.0 million barrels of petroleum

### KNOC in Brief

Total assets	KRW 8,428.8 billion
Capital	KRW 3,964.5 billion
Sales	KRW 918.1 billion
Reserves	553 million barrels (37 million barrels domestically and 516 million barrels overseas)
Production (annually)	12.5 million barrels (crude oil), 380,000 tons (LNG)
Goals by 2015	Reserve of 2.0 billion barrels and a daily production of 0.4 million barrels
Stockpile facilities	121.0 million barrels
Stockpiles	103.4 million barrels (including 27.6 million barrels in joint stockpiling business)
Overseas networks and businesses	27 businesses in 14 countries (as of June 2007)
Drilling ship	"Doo Sung" (Korea's only semi-submersible drilling unit)
No. of petroleum information service users	100,000 persons
Executives & employees	1,137 persons (as of June 2007)
Branches and offices	Nine petroleum stockpile offices, four construction offices, two overseas branches, 11 other overseas offices, and a domestic gas field office
Credit ratings	A (S&P), A2 (Moody's) (as of July 2007)

(As of December 31, 2006)

## History of KNOC

1978~1999	2000~2004	2005
Dec. 1978 Promulgated Korean National Oil Corporation Act	Sep. 2000 Discovered large-scale petroleum in Block 15-1 off Vietnam	Feb. 2005 Began exploration at Zhambyl Block in Kazakhstan
Mar. 1979 Established Korea Petroleum Development Corp. (PEDCO)	Aug. 2002 Announced development of Block 15-1	Mar. 2005 Discovered additional petroleum and gas at Donghae Gorae-8 structure
Jun. 1980 Established Petroleum Stockpile Plan I	Mar. 2002 Held groundbreaking ceremony for Donghae-1 gas production facility	Apr. 2005 Signed Production Sharing Contract (PSC) on Yemen Block 70
Jul. 1981 Opened offices in Guri and Ulsan	Nov. 2003 Held ceremony for crude oil production at Vietnam Block 15-1	Aug. 2005 Completed aboveground tanks for the Seosan Stockpile Base
Dec. 1987 Discovered gas on Korea's continental shelf	Jul. 2004 Commenced gas production at Donghae-1 gas field	Aug. 2005 Signed MOU with Iraqi Petroleum Department for technical support
Feb. 1990 Established Petroleum Stockpile Plan II		Aug. 2005 Secured rights on two deep-water oil fields in Nigeria
Jul. 1995 Completed Korean Oil Development Center		Oct. 2005 Obtained "A" credit rating from S&P and "A3" rating from Moody's
Jul. 1995 Established Petroleum Stockpile Plan III		Nov. 2005 Inauguration of the 9 <sup>th</sup> CEO, Hwang Doo-Yul
Jul. 1998 Discovered Donghae-1 gas field		Nov. 2005 Completed the first phase of ERP project
Jan. 1999 Changed company name to Korea National Oil Corp. (KNOC)		Dec. 2005 Signed Share Purchase Agreement on Kamchatka Block in Russia
		Dec. 2005 Signed PSC on Yemen Block 16



## 2006



## 2007. 6

Feb. 2006 Discovered additional 10 billion cubic feet of gas layer at Donghae Block 6-1  
 Mar. 2006 Signed PSC on Oil Prospecting Licenses (OPL) 321 and 323 in Nigeria  
 Mar. 2006 Signed Strategic Alliance Agreement (SAA) for joint stockpile projects with Sonatrach, Algeria's national oil company  
 May 2006 Signed MOU with the UAE for joint stockpile projects  
 Jun. 2006 Completed the Geoje Petroleum Stockpile Base with a capacity of 48 million barrels  
 Jul. 2006 Discovered additional oilfield at Kazakhstan ADA Block  
 Jul. 2006 Acquired Canadian BlackGold Oilsands  
 Aug. 2006 Signed Production Sharing Agreement on the Uzbekistan Aral Sea gas field  
 Oct. 2006 Began joint stockpile projects with Kuwait  
 Nov. 2006 Held completion ceremony for gas production facility at Vietnam Block 11-2  
 Nov. 2006 Signed exploration rights agreement at South Karpovsky gas field in Kazakhstan  
 Nov. 2006 Launched Oilfield Development Fund I  
 Dec. 2006 Signed Petroleum Exploration Project at Kamchatka onshore mining field in Russia

Feb. 2007 Signed joint exploration agreement with Woodside Energy of Australia  
 Mar. 2007 Signed MOU with China National Petroleum Corporation (CNPC)  
 May 2007 Signed MOU with Pertamina, Indonesia's national oil company  
 May 2007 Opened office in Canada

# Korea National Oil Corporation Introduction

## Company Overview

## Major Businesses

### Overseas E&P

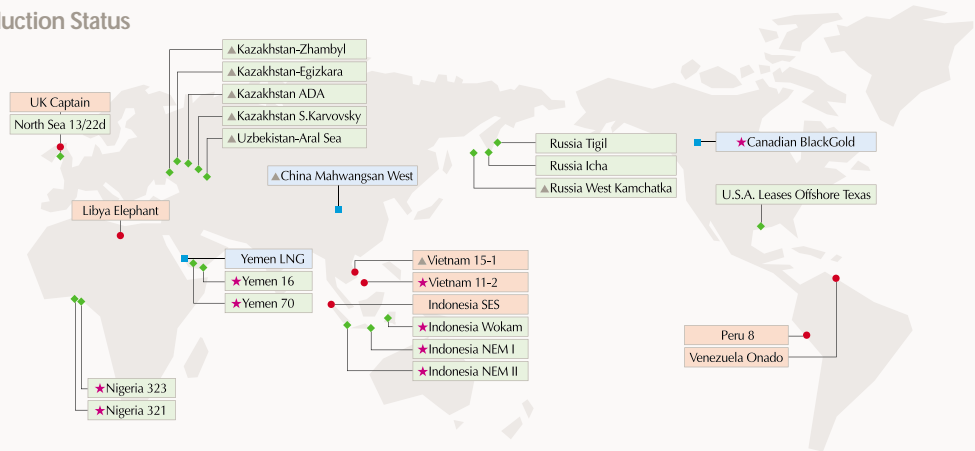
In order to achieve the government's goal of increasing the nation's oil self-sufficiency rate to 28% by 2016, KNOC adopted the government funding system for overseas petroleum development in 1984 and began guiding private companies to tap into global markets in 1990. Currently, the Corporation directly operates in nine oilfield blocks including Vietnam Block 11-2. In addition, KNOC focuses on six key regions: Northeast Asia, Southeast Asia, the Middle East, West Africa, the Caspian Sea, and the Americas. We are committed to becoming a world-class company that will produce 0.4 million barrels of oil a day by 2015 through expanding E&P activities, diversifying into new business opportunities including oilsands, gas-to-liquid (GTL) technology and gas hydrates, and by strengthening strategic alliances with other oil producing nations.

\*GTL (gas-to-liquid) technology is a next-generation refinery process for clean energy, converting natural gas into fuel and petrochemical products.

### Overseas Exploration & Production Status

(As of June, 2007)

- Production Block: 7
- Development Block: 3
- ◆ Exploration Block: 17
- ★ Operation Block: 9
- ▲ Joint Operation: 8



### Continental Shelf Exploration

KNOC has led the way in Korea's continental shelf exploration since the mid-1980s, when international major players dominated oilfield development. In 1998, KNOC discovered 250 billion cubic feet of natural gas at the Donghae-1 gas field, followed by the B5 layer (31.6 billion cubic feet), the Gorae-8 structure (25.0 billion cubic feet), and the Gorae-15 structure (10.0 billion cubic feet), making Korea the world's 95<sup>th</sup> oil-producing nation. In 2004, oil production at the Donghae-1 gas field commenced. The daily average production capacity is 50 million cubic feet of natural gas and 1,000 barrels of condensate (a low-sulfur crude oil). The import-substitution value of this liquefied natural gas deposit is expected to exceed USD 2.5 billion. KNOC will continue to pursue exploration activities in the highly-promising structure of Block 6-1 and the southwestern sea, and joint exploration activities in the deep waters of the East Sea by partnering with major foreign-based oil companies. We also plan to commercialize gas hydrates, the ultimate "next-generation" energy source, by 2015.

### Continental Shelf Exploration by Block

Basin	Block	Block Size(km <sup>2</sup> )	Geophysical Surveys (L-km)	Drilling (Borehole)
West Sea	Block 1	36,460	8,520	1
	Block 2	39,433	35,468	4
	Block 2-2	422	—	1
	Block 3	41,427	8,193	—
South Sea	Block 4	43,073	12,781	1
	Block 5	30,103	11,995	4
	Block 6-2	11,688	12,786	2
East Sea	Block 6-1	12,918	130,189	23
JDZ	Korea-Japan Joint operation	82,557	54,840	7
Others	Other areas in West and East Sea	—	2,585	—
Total		298,081	277,357	43

## Petroleum Stockpile

Playing an essential role in the nation's economy, our petroleum stockpiling operation contributes enormously to the stabilization of Korea's petroleum supply and ensures that the government's petroleum stockpile policies and goals are met. As a result, KNOC has developed facilities with a total capacity of 121.0 million barrels at nine bases, including Ulsan, Geoje, Yeosu, and Seosan, where 103.4 million barrels (75.8 million barrels for KNOC and 27.6 million barrels for joint stockpile) of crude oil are currently stored. The Corporation plans to increase the volume of its stockpile facilities to 146 million barrels by 2009 and to store 141 million barrels of oil by 2010.

With our introduction of a "dynamic" stockpiling strategy, which considers both the nation's security and economy, we can focus on maximizing profitability through international joint stockpiling business and oil trading. Furthermore, we are working to strengthen relationships with neighboring countries in order to make Korea a hub for petroleum logistics in Northeast Asia, while developing a world-class petroleum stockpile system through cost savings for facilities operation, completion of an advanced storing/shipping system, and strict observance of environmental safety guidelines.

## Construction of Stockpile Facilities

KNOC has constructed and operated stockpile facilities since the early 1980s. At every stage, from the establishment of planning, surveys, designing and construction through to trial runs, we are committed to ensuring safety management and using environmentally friendly technologies. Moreover, we support local residents' understanding of the regional development of stockpile bases. Through these efforts, we are enhancing our competitiveness in the stockpile facilities construction business.

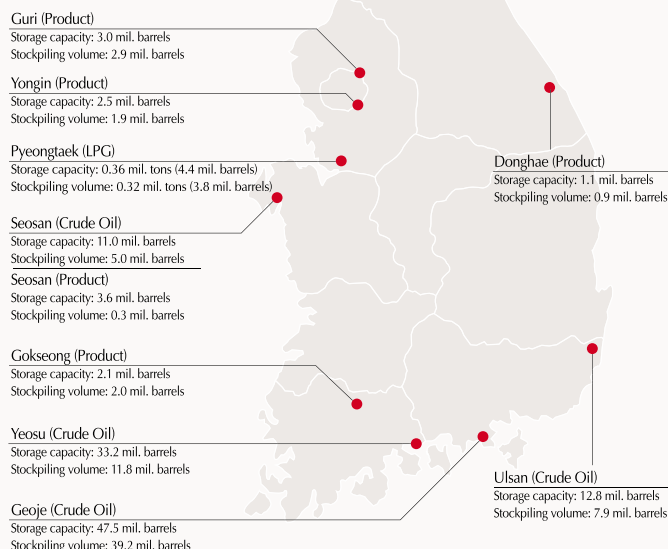
We provide logistics and actively participate in construction projects for oil storage facilities with private Korean companies in countries such as China, India and Vietnam, where petroleum demand is rapidly increasing in the wake of strong economic growth.

## Offshore Rig Operations

"Doo Sung," the nation's only semi-submersible drilling unit, built by Daewoo Shipbuilding Co. in 1984, has been successfully deployed at 97 wells (as of June 2007) in Korea as well as Alaska, China, Vietnam, Malaysia, and Indonesia. By acquiring an International Safety Management (ISM) Code, an ISO 9001 Certification and an International Ship and Port Facility Security (ISPS) Code, the unit has met increasingly stringent safety regulations and requirements. Additionally, the unit has been hailed throughout the world market for its efficiency and safety, including receiving a certificate for nine consecutive years of accident-free operation from the International Association of Drilling Contractors (IADC) in June 2005 as a result of KNOC's preemptive HSEQ (Health, Safety, Environment & Quality) activities.

Due mainly to the worldwide difficulty in charter for such ships, we have secured a stable volume of operations by reinforcing linkages with domestic operations. We also try to diversify our businesses, including those connected with overseas block operations by the means of hull and equipment improvements to satisfy the needs of the international drill ship market.

## Petroleum Stockpile Status by Base (As of June, 2007)



## Construction of Stockpile Bases

Classification	No. of Bases	Storage Capacity (in million barrels)			Total
		Crude oil	Product	LPG	
In Operation	9	104.5	12.3	4.4	121.2
Under Construction	(3)	23	1.8	—	24.8
<b>Total</b>	<b>12</b>	<b>127.5</b>	<b>14.1</b>	<b>4.4</b>	<b>146.0</b>

\* Figures in parentheses indicate expanded construction of existing bases

## Capability of "Doo Sung"

Ship type	Semi-submersible drilling unit
Onload capability	4,000 tons
Deep water accessibility	100~1,500 ft (approx. 30~450 m)
Maximum drilling capability	25,000 ft (approx. 7,500 m)
Maximum velocity resistance	110 knots (approx. 200 km/hr)
Maximum wave height	100 ft (approx. 30 m)
Maximum the number of passengers	104 persons (based on berths)



# Korea National Oil Corporation Introduction

## Company Overview

### Petroleum Information Services

Speedy and accurate information on petroleum is crucial when dealing with unpredictable and fluctuating global market conditions. As one of its core responsibilities, KNOC gathers, analyzes and evaluates related information and makes it available to over 100,000 users, including governmental organizations and other public institutions, enterprises, energy-related entities, and the general public.

As an authorized survey institution for petroleum supply, demand and pricing information, we are committed to offering in-depth, practical, timely, and reliable information to our customers via various communication channels, including periodicals and Petronet, the nation's sole petroleum information portal website. ([www.petronet.co.kr](http://www.petronet.co.kr))

### SAER Administration

In 1995, the government created Special Accounts for Energy and Resources ("SAER") in order to stabilize energy supply/demand and pricing, thereby improving efficiency in energy-related operations. The Corporation is in charge of SAER income collection, expenditure and settlement, asset management, as well as management and operation of oil price buffer reserves in accordance with the Special Accounting Provisions of the Ministry of Finance and Economy. Furthermore, KNOC borrows money from the government to support energy-related projects, including domestic and overseas petroleum E&P projects and construction of city gas supply pipes; it allocates these funds to end-users in the form of loans. We do our best to improve financial support and customer satisfaction.

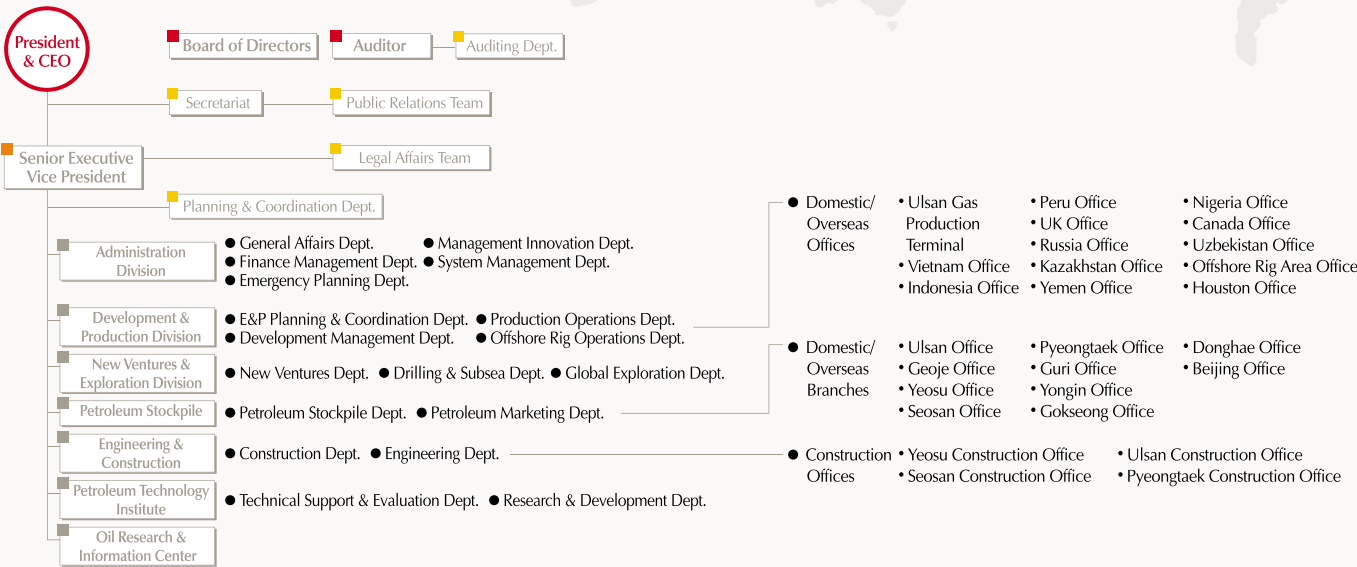
## Organization

KNOC is composed of a main office (including 4 divisions, a unit for new ventures, a institute, a center, and 20 departments,) nine petroleum stockpile offices (including the Guri office), one domestic gas field office, four construction offices (including the Yeosu construction office), and 13 overseas branches. As of the end of 2006, the Corporation had 1,137 employees including 99 executives, 369 office workers, 391 engineers, 225 field engineers, and 53 special government service officials.

### Overseas Network



### Organization Chart





# Affiliates

KNOC has invested in seven companies which are mainly engaged in production oilfields and block development, supply ship operations, and oil pipeline projects to run its oil business smoothly. The Daehan Oil Pipeline Corporation is committed to the stabilization of petroleum product distribution, while KOL focuses on the production and operation of the Donghae-1 gas field.

\* KCCL (Korea Captain Company, Ltd.)  
 \* KNOCSL (KNOC Sumatra, Ltd.)  
 \* KNOL (KNOC NEMONE Ltd.)  
 \* KNTL (KNOC NEMTWO Ltd.)  
 \* KSLOC (Ningxia KNOC Samsung Lantian Oil Development Co., Ltd.)

Company	Major business	Assets	Ownership
Daehan Oil Pipeline Corporation	Construction/operation of oil pipelines	KRW 835.3 bil.	3.7%
KOL	Supply ship operation & Catering services	KRW 11.4 bil.	30.0%
KCCL	Operation of UK Captain oilfield in the North Sea	USD 271.07 mil.	94.9%
KNOCSL	Participation in exploration at the Indonesia SES Block (non-operational)	USD 70.17 mil.	100.0%
KNOL	Indonesian subsidiary for block operations (in accordance with Article 13 of Indonesia Oil and Gas Law)	USD 16.31 mil.	100.0%
KNTL	Indonesian subsidiary for block operations (in accordance with Article 13 of Indonesia Oil and Gas Law)	USD 17.04 mil.	100.0%
KSLOC	Joint venture with Ningxia <b>난천물자공사</b> for energy resources development in China	USD 12.54 mil.	44.0%

# Corporate Governance

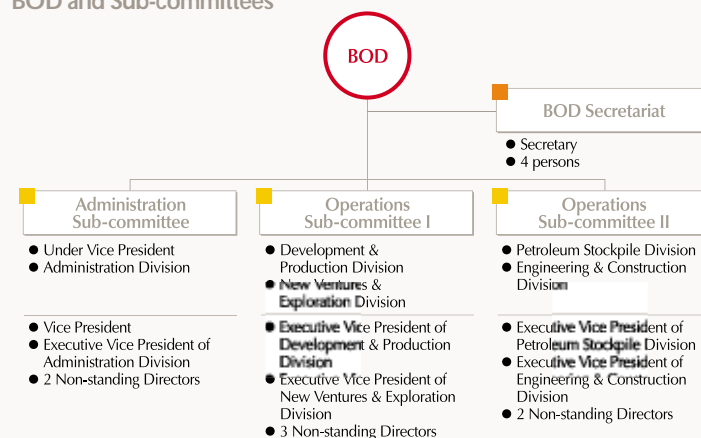
## Board of Directors

Our Board of Directors (BOD) plays a pivotal role in corporate value creation and our commitment to social responsibility as a state-owned company. As a part of the government's corporate governance innovation plan in the public sector, we aim to provide a rational BOD system under the Act on the Operation of Public Enterprises since April, 2007. Our Board is comprised of six standing directors and seven non-standing directors. Constituting more than half of BOD members, our non-standing directors ensure efficient checks and balances on the management activities of internal executives. Furthermore, the Corporation introduced a BOD secretariat in June 2006 to handle specialized duties, while three sub-committees to support the activities of the Board were also created.

## Board of Directors

Classification	Name	Position
Standing directors (6 Inside directors)	Doo Yul Hwang	President & CEO
	Moon Kyu Suh	Senior Executive Vice President
	Sung Ki Hwang	Executive Vice President for Administration
	Bum Suk Poo	Executive Vice President for Development & Production
	Shik Heo	Executive Vice President for Petroleum Stockpile
	Yong Ho Cho	Executive Vice President for Engineering & Construction
Non-standing directors (7 Outside directors)	Song Ki Kim	Professor of Business in Seoul National Univ.
	Oon Hak Song	Director of Management Supporting Office of Gachon Univ. Gil Medical Center
	Chung Whee Yeo	Adviser of Vitzrosys
	Jong Chan Lee	Representative attorney at law of ACE Law Group
	Bong Seok Choi	Professor of Law in Dongguk Univ.
	Won Seuk You	Attorney-at-law of Seoulun Law Corporation
	Yeon Cheon Oh	Professor of Administration in Seoul National Univ.

## BOD and Sub-committees



Furthermore, we encourage non-standing directors to participate in KNOC management in various ways. In June, 2007, we amended a list of issues to be discussed by the Board of Directors, fully reflecting internal/external business conditions. The participation rate of directors has increased due to our rational approach, including ensuring the meeting agenda is appropriately apportioned and the Board's meeting schedule is arranged in line

## Support for Non-standing Directors

Support	Details
Orientation	Visiting domestic/overseas workplaces and receiving Report of Operation reviews to better understand KNOC's activities and expertise
Special homepage for the Board of Directors	Providing diverse real-time management information
Consultation system with the CEO	Providing direct communication channels between non-standing directors and the CEO
Pre-meeting for BOD meeting agenda and BOD's consideration for next meetings	Supporting wide-ranging discussion of topics and preventing emergency meetings
Non-standing Directors meeting	Strengthening relations among non-standing Directors

# Korea National Oil Corporation Introduction

## Company Overview

with the schedules of each director. Every year, the Board of Directors provides their annual reports and plans for the coming year. We also strengthen the deliberation of the Board by providing continual feedback for discussion topics at Board meetings. Through endless efforts to vitalize and raise the provide of the BOD, KNOC is moving closer to our vision of a world-class state-owned oil company that contributes to ensuring the nation's stable petroleum supply and demand.

### BOD meeting & Decisions

Year	No. of BOD meetings	BOD participation ratio	Non-standing directors participation ratio	No. of decisions	Details
2004	10	96%	95%	16	16 Decisions (including acquisition of Samsung Corporation's stake in Vietnam 11-2 Block) 7 Reports (including report on oil hedging for UK Captain Block) 6 Current Issues (including reports on stored oil purchase in 2004 and hedging activities for oil price fluctuation)
2005	11	91%	93%	27	27 Decisions (including sale of KNOC's stake in Indonesia exploration block) 8 Reports (including report on Russia's West Kamchatka Block development plan) 3 Current Issues (including disposal of unusable land near Yongin Office)
2006	13	92%	95%	36	36 Decisions (including PSC agreement on Nigeria deep-water exploration block) 5 Reports (including introduction of Oilfield Development Fund) 10 Current Issues (including exploration plan on U.S.A. Leases Offshore Texas)

### Executive Recommendation Committee

Candidates for executive positions are recommended by the Executive Recommendation Committee, which is comprised of members from outside the Company in accordance with the decision of the Board under the Act on the Operation of Public Enterprises. As stipulated by the Act, the Executive Recommendation Committee is formed two months in advance, prior to the completion of an executive's term of office. Furthermore, one of the outside committee members is selected by an additional independent committee comprised of representatives of employees. After the formation of the Executive Recommendation Committee, the application, screening, and recommendation of candidates can begin. While there is open recruitment for CEO candidates, the committee decides upon recruiting methods to fill other executive positions.

Our executives are rewarded through a performance-based compensation system. The level of incentive bonus is evaluated based on the manual for the evaluation of management contracts assessing economic, social and environmental performance by calculating the difference between results and goals in the areas of finance, customers, innovation and training.

### Sustainable management and evaluation

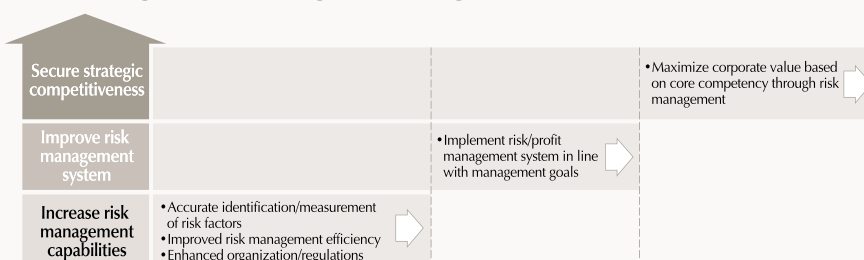
KNOC operates numerous committees to bolster the efficiency of management and reward systems. The Open Public Enterprise Committee was initiated to improve our services and increase customer satisfaction. Through the Ethical Management Committee and the Anti-Corruption Committee in charge of reviewing decision-making processes at the highest level, we ensure that our major strategies are carried out with integrity. For transparent and accurate information disclosure, we also formed the Information Disclosure Evaluation Committee. Meanwhile, KNOC is committed to supporting our communities through our Volunteer Management Committee. We will also introduce a committee to analyze our sustainable management performance from economical, social and environmental perspectives.

## Risk Management

### Risk Management System

Through the Enterprise risk management systems linked to our management goals, we strengthen our risk management capabilities over the short term and maximize in corporate value over the long term. To complete the Enterprise risk management system, we are making efforts to nurture risk management experts through recruitment and training programs in line with our mid-and long-term risk management strategies.

#### Mid-and Long-term Risk Management Strategies



In March 2006, we enacted Risk Management Regulations, which are mostly related to risk management topics concerning enterprise-wide and individual risk management organizations, and formed a Risk Management Committee to manage financial risks. Risk Management Committee meetings were held five times during 2006. Furthermore, a sub-committee of the Risk Management Committee was introduced in February 2007 to carry out a comprehensive inspection of the financial impact of all new development projects.

### The Enterprise Risk Management System



\* E&P: Exploration & Production

### Financial Risk Management

To maintain financial soundness during business expansion, VaR measurement (F/X & interest rates), limit analysis (monthly), and EaR information (oil price, F/X & interest rates) are provided to management via the Executive Information System (EIS) on a real-time basis. In addition, a prevention-oriented credit risk management system has been implemented for real-time credit information searches, thereby strengthening linkages with loan risk management.

#### Financial Risk Management

Risk Management	Details
F/X risk	<ul style="list-style-type: none"> <li>F/X loss limit / Equity capital ratio: 1.2%</li> <li>Improved reliability &amp; profitability by reducing risk factors</li> </ul>
Interest risk	<ul style="list-style-type: none"> <li>Monthly measurement with interest risk management system</li> <li>Liability structure optimization with interest fluctuation</li> </ul>
Oil price risk	<ul style="list-style-type: none"> <li>Eliminate market fluctuation risk by fixing stockpiled oil purchase price</li> </ul>
E&P risk	<ul style="list-style-type: none"> <li>Investment portfolio optimization through allocation</li> </ul>
Credit risk	<ul style="list-style-type: none"> <li>'CRETOP' service system (real-time corporate credit information service) introduced</li> <li>'K-SRM' system (real-time credit reviewing)</li> </ul>

### Non-financial Risk Management

For additional risks that can occur due to business expansion, we classify and manage risk factors according to business, disaster, PR, and dispute, and emphasize prevention and preparation foremost among risk management activities. We also manage our disaster risks according to Health, Safety, Environment & Quality (HSEQ) standards, particularly in relation to petroleum development, stockpiling, and facility construction. To minimize risks to the nation's crude oil supply, we cooperate with other government bodies via various channels.

#### Non-financial Risk Management

Risk Management	Details
Business risk	<ul style="list-style-type: none"> <li>Environmental risk: oil price &amp; petroleum supply and demand, overseas political instability, etc.</li> <li>Strategic risk: Oil development fails including unprofitable block purchase, sudden reduction in crude oil / gas production volume</li> <li>Operational risk: Leaking confidential information, inefficient decision-making process</li> </ul>
Disaster risk	<ul style="list-style-type: none"> <li>Natural disaster risk: Serious disaster caused by typhoon, storm, flood, earthquake, etc.</li> <li>Man-made disaster risk: Fire &amp; explosion, overseas terrorist attack, kidnapping, etc.</li> </ul>
PR risk	<ul style="list-style-type: none"> <li>Issues: Negative media, hostile public opinion</li> <li>Crisis: Downgrade of corporate image, business bankruptcy &amp; curtailment</li> </ul>
Dispute risk	<ul style="list-style-type: none"> <li>Competitor conflict: Oil company M&amp;A, Oil development consortium, etc.</li> <li>Interest dispute: Restructuring, public-sector privatization, etc.</li> </ul>

### Establishment and Improvement of Contingency Plan

KNOC has developed a contingency plan, a scenario-based management risk strategy for business environmental changes. In this scenario, oil price & F/X rate fluctuations, oilfield E&P plans, and government support are seen as potential risk factors. We have established improvement plans which consider general, positive and negative criterion, and analyze the potential for continual business expansion and profitability growth.

In the short term, we plan to continue to bolster production volume from blocks and expand stored oil trading & stockpile facilities, while over the long term we plan to purchase promising blocks to raise our drilling success ratio, and diversify into new business areas.





## Management Strategies

In line with our vision of becoming a world-class state-owned oil company and leading the nation's quest for energy self-sufficiency, we establish 10-year long-term plans and strategic targets are reviewed and supplemented every five years in response to changes in business environment and government goals.

Under our "Challenge 20-50" strategy, KNOC aims to grow into a globally competitive state-owned oil enterprise with USD 2.0 billion in operating income and USD 5.0 billion in total sales by 2015. We also plan to pursue a balance between generating profits and serving the public interest.

We developed our goals and action plans toward sustainable and responsible management after considering many factors including ethics, customer satisfaction, and innovation. To realize this goals, we separated operational strategies from functional ones to systematize operations by focusing more on oilfield development, stockpiling and new businesses.



### Management Strategies

Vision

Strategic  
Goal

Strategic  
Direction

**"Become a world-class state-owned oil company,  
leading the nation's quest for energy self-sufficiency"**

### Challenge 20-50

Increase petroleum  
development to  
expand supply volume

Strengthen oil  
management via  
stockpiling and  
relevant operations

Create new business  
opportunities with  
next-generation  
energy resources

Enhance corporate core  
competency based  
on innovation



# Korea National Oil Corporation Introduction

## Our Role In The Oil Industry

### KNOC's Role In Oil Industry Development

In response to the oil crises of the 1970s, the government promulgated the Korean National Oil Corporation Act in 1978 to establish the Korean National Oil Corporation (KNOC), improve the petroleum distribution system, and secure the nation's oil supply. In the following year, the Korea Petroleum Development Corporation (renamed the Korea National Oil Corporation in 1999) was founded, dedicating itself to developing a comprehensive and systematic approach to efficient energy policy. Since petroleum resource development requires vast investment over a lengthy period to secure the nation's oil supply and continued economic development, petroleum stockpiling is controlled by the state-run KNOC, while crude oil purchases, refining processes, and petroleum product distribution are conducted by private companies. KNOC also provides a complete service for industry development by connecting our major operations (petroleum E&P, stockpiling, and distribution structure optimization) with other services, including financial support for private enterprises through our petroleum industry fund operations, oil-related information services, and up-to-date petroleum development technologies.

Since international oil prices have risen by over USD 60 per barrel in 2007, major players in the oil industry have been working to improve the reserve-to-production ratio based on their ample funds and advanced technologies, while China and India have joined international competition in petroleum resource development. Because of this, businesses focusing on alternative energy resources have become more important. Domestically, since overseas petroleum resource development has become a premier topic, the government has strengthened overseas expansion and contingency plans. To keep pace with these changes in the market, KNOC is striving to sharpen our competitiveness and capability in the nation's quest for energy self-sufficiency.

### Energy Security

Established to secure the nation's oil supply, KNOC has played a major role in stabilizing the domestic energy industry as the only state-run oil company in Korea.

#### Energy Security by Petroleum Development

The Corporation has identified and focused on six key strategic regions according to their potential for oil investment and development opportunities: They are West Africa (including Nigeria), the Middle East (including Yemen), the Caspian Sea region (including Kazakhstan), Northeast Asia (including Russia), Southeast Asia (including Vietnam), and the Americas (including Canada). Particularly, there are tremendous opportunities for raising the oil supply in promising areas, such as the Kazakhstan, Uzbekistan, and Azerbaijan Exploration Blocks in the Caspian Sea, Nigeria's deep-water oil fields, Yemen in the Middle East, and West Kamchatka in Russia. Furthermore, we continue to invest in additional areas including Nigeria's deep-water oil fields and Canada's oilsands, which have newly emerged because of the current high oil price. In February 2006, the Energy Industry Overseas Exploration Association was formed by state-owned energy-related companies, resource development companies, construction companies and financial institutions for the purpose of active energy resource development abroad by creating win-win situations among the participating companies. As a member of this association, KNOC seeks more opportunities to expand into promising oilfields through cooperative resource development projects with other businesses such as power generation facilities, plants, and shipbuilding. One example is the success of this approach was the securing of rights to two deep-water oil fields (Nigeria OPL 321 and OPL 323) in cooperation with other Korean energy-related companies.

#### Energy Security through Petroleum Stockpiling

Operating nine oilfield blocks with a total capacity of 76 million barrels, KNOC is prepared to minimize the impact of oil crises, particularly a shortage in petroleum supply. Meanwhile, we have purchased 3 million barrels at their lowest price due to oil price downturns with our accurate and timely analysis of oil price trends. To keep up with the constant upward trend in oil prices, we have expanded international joint stockpiling business with other state-owned oil enterprises, major oil companies, and traders, replacing strategic petroleum reserves through stored oil purchases. International joint stockpiling is also useful for utilizing vacant storage space. According to government petroleum stockpiling plans, by 2010 joint stockpiling will account for 40 million barrels among the 141 million barrels of total storage volume in order to upgrade the government's stockpile standards, enhance cost savings and accomplish stockpile goals sooner. Furthermore, KNOC has contributed to the stabilization of the both domestic and global petroleum supply and prices by releasing stored oil in a timely and efficient manner during the Gulf War, as well as after Hurricane Katrina struck. During winter, the Corporation has also released stored kerosene to overcome fuel shortages.

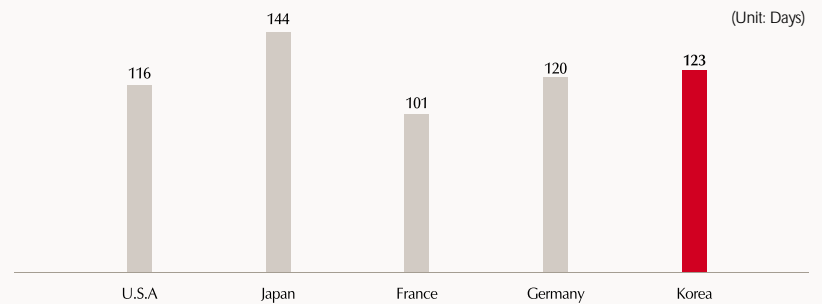
We will dedicate ourselves to economic stockpiling and the improvement of petroleum security by developing an oil logistics hub and thereby securing a large volume of petroleum. In 2005, we became confident as to our potential as an oil hub from the macroscopic perspective as a result of research on Korea's role in the activation of petroleum logistics in Northeast Asia. We also completed tankage business research in 2006, which was primarily focused on adequate facilities, location, and influence inspections.

In addition, we continuously reinforce our antiterrorism activities and defense systems to protect our stockpile facilities under the Mid-and Long-term Stockpile Bases Defense Improvement Plan since July 2006. We have classified our facilities according to geographic location and enhanced our defense facilities and equipment, while also strengthening our relationship with the military. We have tailored our defense strategies on a regional basis according to the geographical features of each stockpiling facility. We have also established a five-year plan to upgrade our antiterrorism defense systems.



### Petroleum Reserves

International Energy Association (IEA) calculated standard  
(Korea: As of June 2007, Others: As of March 2007)



### Energy Security through Petroleum Information Service

KNOC provides accurate information through the International Oil Price Experts Association, composed of 12 companies including government bodies, the public sector, private R&D centers, regional professionals on the Middle East and security experts, in order to make mid-and long-term oil market forecasts through international oil market trend analysis, and to increase confidence in international oil market and price predictions.

Every week, petroleum supply & demand statistics and product price information are published to support government policy and the nation's oil security. Furthermore, we implemented an Early Warning System (EWS) in 2004 in order to effectively respond to oil market changes. Our EWS model has been recognized for its reliability as it was the only EWS which had been announced to the press among five models (for such sectors as raw materials, oil price, real estate, labor and foreign exchange rates) which were created as per the government's policies for risk management systems. In July 2005, we upgraded our system to enhance its rapid response to changes in market conditions, and strengthened our efficiency and expertise through education for system operators.

In addition, we completed the Total Overseas Information System, an integrated management system, to analyze and report overseas oil market information, and we plan to establish a database of industry statistics. We are also looking forward to accessing high-quality information through active participation in international petroleum security organizations, including the International Energy Agency (IEA), APEC, ASEAN + 3 (Korea-China-Japan), and the World Petroleum Congress, and implementation of global information channels.

# Korea National Oil Corporation Introduction

## Efforts toward Sustainable Management

# Sustainable Management Organization

Under the supervision of the Administration Division, sustainable management is practiced enterprise-wide, including all teams from each division, as well as our domestic and overseas branches and offices. Our organization strives to consider all aspects of sustainable growth, including the economy, innovation, creativity, ethics, customer satisfaction and social responsibility, as well as the environment.

Our Innovative Management Team, a special unit under the Management Innovation Department, focuses on sustainable management and is in charge of clarifying and promoting sustainable management goals within the Corporation by gathering opinions from stakeholders including customers, outside suppliers, and local communities.

Sustainable Management Organization



# Sustainable Management Goals & Implementation System

KNOC has established an action plan for long-term sustainable management objectives in conjunction with our corporate vision & strategies. Our sustainable management system takes into account all factors, including the economy, innovation & creativity, ethical management, partner companies, local communities, and the environment our as well as our customers, executives and employees. This is our pledge to our stakeholders to become a world-class, state-owned oil company leading the nation’s quest for energy self-sufficiency

Sustainable Management Implementation System

Sustainable Management Vision	“Become a world-class state-owned oil company, leading the nation’s quest for energy self-sufficiency”							
Sustainable Management Strategic Goal	Challenge 20-50							
Sustainable Management Areas	Economy	Innovation & Creativity	Customers	Executives and Employees	Ethics Management	Partner Companies	Local Communities	Environment
Sustainable Management Teams	Finance Management Dept. Finance Team	Management Innovative Dept. Innovation Management Team	Planning & Coordination Dept. Management Evaluation Team	Management Innovative Dept. Personnel Team	Management Innovative Dept. Innovation Management Team	General Affairs Dept. Contract Assets Team	General Affairs Dept. General Affairs Team	Risk Management Team
Sustainable Management Tasks	<ul style="list-style-type: none"> <li>Accounting transparency</li> <li>Measuring sustainable management performance</li> </ul>	<ul style="list-style-type: none"> <li>Internal process innovation</li> <li>New businesses expansion</li> </ul>	<ul style="list-style-type: none"> <li>Communication</li> <li>Customer information protection</li> </ul>	<ul style="list-style-type: none"> <li>Work/Life balance</li> <li>Education &amp; training and self development</li> </ul>	<ul style="list-style-type: none"> <li>Compliance and ethics</li> <li>Accounting transparency</li> </ul>	<ul style="list-style-type: none"> <li>Win-Win support</li> <li>Subcontractor fairness</li> </ul>	<ul style="list-style-type: none"> <li>Social contribution activities</li> <li>Regional communities needs</li> </ul>	<ul style="list-style-type: none"> <li>Health, Safety, Environment and Quality Management</li> <li>Climate change</li> </ul>

Stakeholders

• **Economy** | We create profits based on accounting transparency and improved financial structure, and we achieve sustainable management in the economic sphere with a sound financial structure.  
 • **Innovation & Creativity** | With the completion of innovation management systems, we nurture innovative corporate culture and pursue creative business solutions and markets.

• **Customer** | We make efforts to bolster customer satisfaction through services and communication, and protect customer information.  
 • **Executives and Employees** | Through providing a balance between work and life and education & training and self development, we enhance the satisfaction of our executives and employees.  
 • **Ethics Management** | With an upright and clear ethical mind, we voluntarily practice ethical management.

• **Partner Companies** | We create a win-win situation with our partner companies and support their business growth.  
 • **Local Communities** | We demonstrate our responsibility to local communities with volunteer activities and strive to understand their needs.  
 • **Environment** | In response to climate change, we implement environmentally-friendly systems and activities.





## Sustainable Management Performance

Indicators			2005 results	2006 results	2007 target
Economy	Financial	Credit ratings(S&P/Moody's)	A/A3	A/A3	A/A2
		BOD participation	91 %	92 %	98 %
		Dividend Payout	7.49 %	10.06 %	15 %
		Sales	KRW 956.8 billion	KRW 918.1 billion	KRW 779.4 billion*
		Net Income	KRW 279.5 billion	KRW 185.2 billion	KRW 80.6 billion(plan)**
		Debt-to-equity Ratio	77.55 %	72.40 %	86.80 %
		Production Volume (Domestic and Overseas)	16,266 thousand barrels	15,742 thousand barrels	15,853 thousand barrels
		Reserves	409 million barrels	553 million barrels	702 million barrels
		Stockpiles	92.39 million barrels	103.35 million barrels	107.00 million barrels
		Stockpile Facilities (Accumulation)	116.20 million barrels	121.00 million barrels	146.00 million barrels (by 2009)
		Duration Days of stockpiles	55 days	59 days	62 days
		Drilling operation days	358 days	297 days	285 days
Innovation & Creativity	Innovation	Gross profit from international joint stockpile	KRW 13.8 billion	KRW 26.4 billion	KRW 29.0 billion
		Management Innovation Achievement Ratio	100 %	100 %	100 %
		Overseas market penetration	14 countries	16 countries	15 countries
	Creativity	Projects participations	22 projects	30 projects	32 projects
		New blocks expansion	6 blocks	11 blocks	7 blocks
Society	Customers	R&D investment	KRW 59.98 million	KRW 85.35 million	KRW 203.03 million
		Public-service Customer Satisfaction Index(PCSI)	79 points	82 points	85 points
	Executive & Employees	No. of petroleum information service members	87,375 persons	99,900 persons	100,973 persons
		Education/training expenses(per person)	KRW 1.67 million	KRW 1.64 million	KRW 2.66 million
		Female employee ratio	1.2 %	1.2 %	1.2 %
		Engineering graduate recruitment ratio	58.0 %	72.0 %	Exceeding 50%
		Disabled employee recruitment ratio	1.1 %	5.3 %	Over 5%
	Ethics	Core HR cultivation ratio	75 persons	86 persons	95 persons
		Ethical management evaluation (by employees)	70 points	69 points	72 points
	Partner	Target ratio for purchase of R&D products	1.6 %	4.8 %	1.0 %
	Companies	SME support ratio	19 %	24 %	20 %
	Local	Donation	KRW 82 million	KRW 196 million	KRW 208 million
	Communities	No. of new CSR programs introduced	2 programs	2 programs	2 programs
Environment	Environ-mental	Gas fields	0.99 %	2.11 %	2.11 %
		Drill ships	1.31	0.67	1.97
		Oil Stockpile	N/A	N/A	N/A
		Bases construction	N/A	N/A	N/A
	Safety Accidents	Energy savings	2,577 toe	2,527 toe	2,607 toe
		Environmental-friendly purchase	KRW 53.8 million	KRW 175.6 million	KRW 497.0 million
		Environmental investment	KRW 3,246 million	KRW 4,900 million	KRW 5,390 million

\* Due to potential oil price and F/X rate fluctuations, 2007 targets have been revised. In particular, this reflects the reduction in sales from the Donghae-1 gas field despite higher production volume at Vietnam Block 11-2.

\*\* Net Income goal for 2007 is based on forward-looking financial statements

# Korea National Oil Corporation Introduction

## Efforts toward Sustainable Management

### UN Global Compact



한국석유공사  
Korea National Oil Corporation

#### Accession to the UN Global Compact

The UN Global Compact, a convention announced by former UN Secretary-General Kofi Annan at the World Economic Forum in January 1999, consists of ten principles in four areas (human rights, labor, the environment, and fighting corruption) to promote corporate transparency and social responsibility. In August 2007, KNOG announced that it had voluntarily acceded to the UN Global Compact, publicly committing itself to comply with the Pact's ten principles. We will henceforth disclose our status of observance of UN Global Compact Principles through timely Communication On Progress (COP) and sustainability reports.

■ : Reported   ■ : Partially reported   ☒ : Not reported   □ : N/A

Classification	Principles	Performance	G3	BSR	Page
Human Rights	1. Businesses should support and respect the protection of internationally proclaimed human rights	<ul style="list-style-type: none"> <li>• Education for executive &amp; employees / Partner companies</li> <li>• Human rights protection and ethical management education</li> <li>• Security-related employee education</li> <li>• Sexual harassment prevention education</li> </ul>	☒ HR1   ■ HR6 ☒ HR2   ■ HR7 ■ HR3   ■ HR8 ■ HR4   ■ HR9 ■ HR5	☒ PN2   ■ EM10 ☒ PN3   ■ EM30 ■ EM7   ■ EM31 ■ EM8   ■ CO2 ■ EM9	69~70, 77, 98~99
	2. make sure that they are not complicit in human rights abuses	<ul style="list-style-type: none"> <li>• Collective agreement</li> </ul>	☒ HR1   ■ HR8 ☒ HR2	☒ PN2   ■ EM31 ☒ PN3	70
Labor Standards	3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining	<ul style="list-style-type: none"> <li>• Established in 1988: 895 participants (78% of all employees)</li> <li>• Occurrence of labor disputes</li> </ul>	■ HR5 ■ LA4 ■ LA5	■ EM8 ■ EM12 ■ EM13	77~78
	4. The elimination of all forms of forced and compulsory labor	<ul style="list-style-type: none"> <li>• Compliance with domestic labor law, ILO, collective agreements</li> </ul>	■ HR7	■ EM10	70
	5. The effective abolition of child labor	<ul style="list-style-type: none"> <li>• Compliance with domestic labor law, ILO &amp; collective agreements</li> </ul>	■ HR6	■ EM9	70
	6. The elimination of discrimination in respect of employment and occupation	<ul style="list-style-type: none"> <li>• Disabled recruitment ratio</li> <li>• Female team leader promotion</li> <li>• Regional HR recruitment</li> </ul>	■ HR4   ■ LA13 ■ LA2   ☒ LA14 ■ LA10	■ EM2   ■ EM7 ☒ EM3   ■ EM17 ■ EM5   ■ EM27	69~70, 72, 74
Environment	7. Businesses should support a precautionary approach to environmental challenges	<ul style="list-style-type: none"> <li>• Non-financial risk management</li> <li>• HSEQ regulation document publish and amendment ratio</li> </ul>	■ 4.11	■ GR11	16~17
	8. Undertake initiatives to promote greater environmental responsibility	<ul style="list-style-type: none"> <li>• HSEQ process improvement</li> <li>• Global standard certificates</li> <li>• HSEQ document publishing and amendment</li> <li>• Environmental performance management</li> <li>• Greenhouse gas reduction (VOC system)</li> </ul>	☒ EN2   ■ EN21 ■ EN12   ■ EN22 ■ EN13   ■ EN26 ■ EN14   □ EN27 ■ EN18   ■ EN30	■ EV1   ■ EV17 ■ EV2   ■ EV23 ■ EV3   □ EV24 ■ EV4   ■ EV26 ☒ EV11   ■ EV27 ■ EV16	106~107, 109~113, 115
	9. Encourage the development and diffusion of environmentally friendly technologies	<ul style="list-style-type: none"> <li>• Energy conservation movement</li> <li>• Environmental investment expenditure</li> <li>• Global warming prevention efforts</li> </ul>	☒ EN2   ■ EN10 ■ EN5   ■ EN18 ■ EN6   ■ EN26 ■ EN7   □ EN27	■ EV4   ■ EV23 ■ EV5   □ EV24 ☒ EV11 ■ EV18	108~109, 113, 115
	10. Businesses should work against corruption in all its forms, including extortion and bribery	<ul style="list-style-type: none"> <li>• Employee integrity pact introduced &amp; agreed</li> <li>• Improved public good reporting system</li> <li>• Ethical management self-test</li> </ul>	■ SO2 ■ SO3 ■ SO4	■ CO5 ■ EM25 ■ EM26	86, 88~92



# Together With Our Stakeholders

## Reflection of Stakeholder Opinions

During the reporting process for our sustainable management performance, we collect and evaluate our stakeholders' opinions on related issues. In this report, our stakeholders are classified into groups who exert key influence on our sustainable management. We also conduct stakeholder surveys focusing on their understanding of sustainable management and their needs and expectations of the Corporation. In addition, with advice and suggestions from various teams of experts, including the government, NGOs and academic circles, KNOC defines its tasks and issues, while utilizing them for the development and introduction of strategies to enhance its policy implementation and build trusting relationships with stakeholders.

## Stakeholder Survey

During the stakeholder survey (from June 29 to July 20, 2007) conducted via telephone, mail, fax and e-mail, we focused on measuring the level of awareness of our sustainable management strategy among employees, customers, partner companies, local communities and NGOs. Based on 996 valid responses in total, practical information concerning KNOC's sustainable management status and issues facing the Corporation were collected. The survey results are provided in this report.

### Survey Outline

	Survey Group	Model	Valid Responses (Response rate)
● Executives & Employees	All executives & employees • Head Office • Branch/Office	HQ, Branches & offices, Executives & employees (excluding overseas)	719 (73.44%)
● Customers	KNOC's Customers	General customers & target customers by business	34 (40.96%)
● Partner Companies	Transaction & Business Partners	Transaction partners in construction, labor, purchase, foreign capital, funding, etc.	200 (50.25%)
● Local Communities	NGOs, academic/research institutes, associations, etc.	Opinion leaders from NGOs, academia, business, associations	43 (86.00%)

## Expert Interviews

Through interviews with five experts from various sectors, including government bodies, academic fields, the public sector, and NGOs in July 2007, KNOC gathered recommendations to improve future strategies and action plans. This report includes KNOC's responses to those recommendations and plans to implement them.



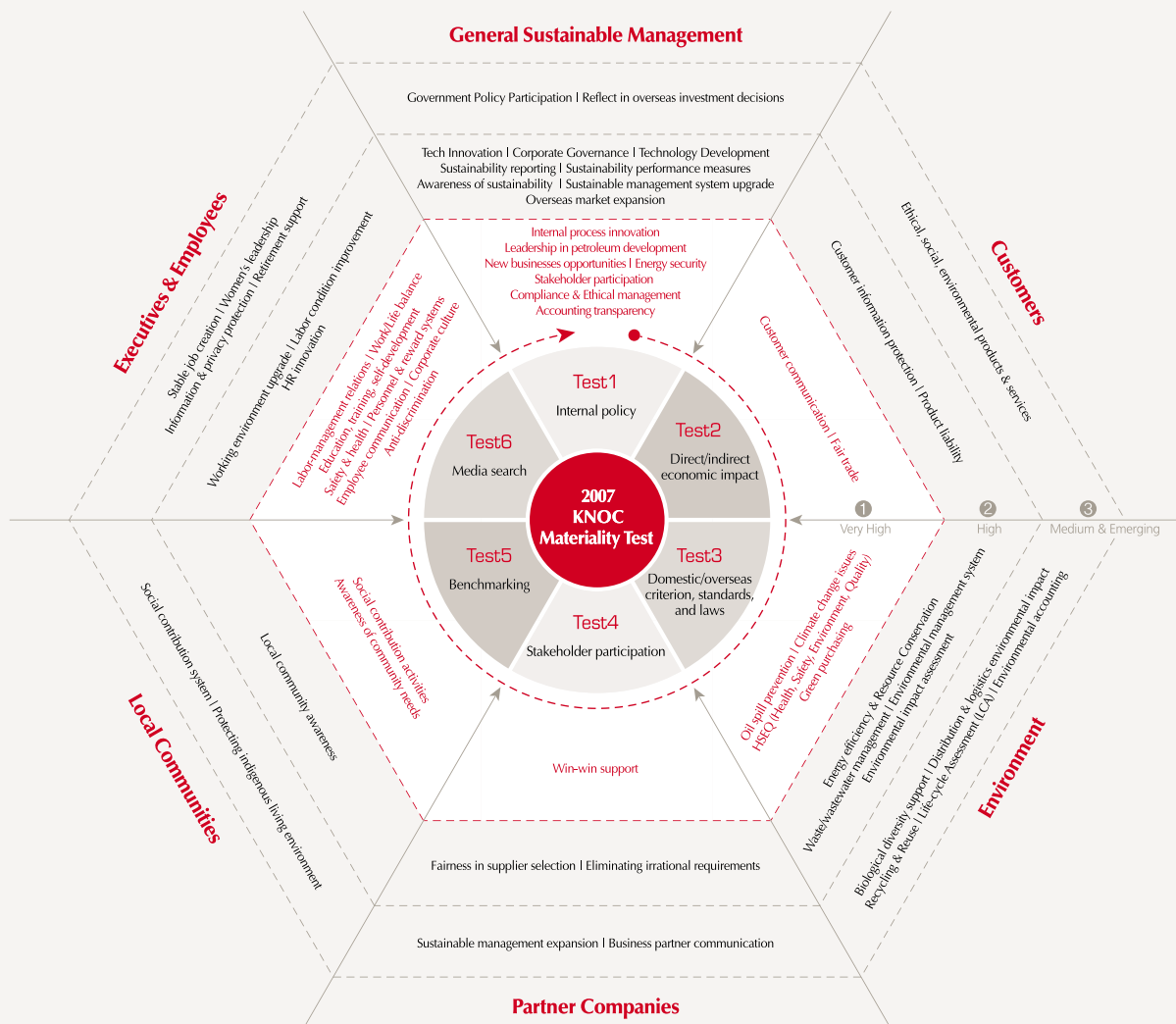
# Korea National Oil Corporation Introduction

Efforts toward Sustainable Management

## Survey on Key Sustainable Management Issues

### Materiality Test

Through a six-part materiality test, we analyzed key sustainable management issues and ascertained priorities among these issues. Key issues were selected according to their impact on internal KNOC policy, direct & indirect economic impact, and relevance to sustainable management and pertinent regulations & laws; through interviews with KNOC executives & employees, outside stakeholders and experts; through benchmarking of leading foreign companies; and through researching news articles from the past three years. Materiality test results of these issues are included in this sustainability report.



## Key Issues by Topic

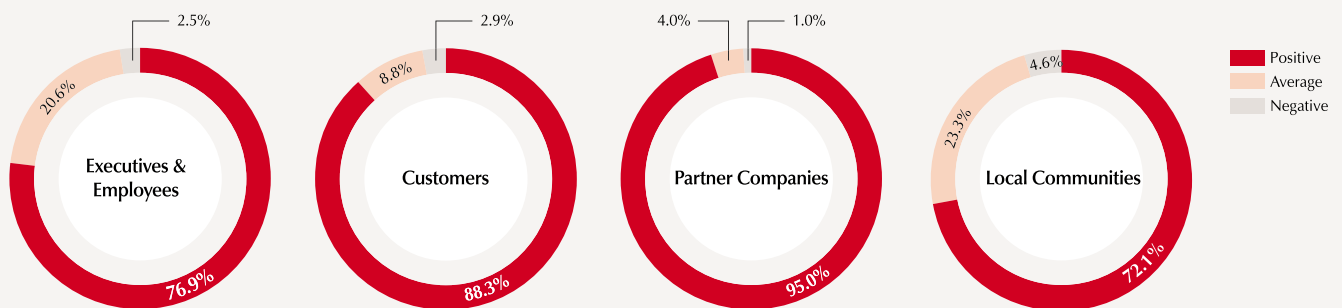
By classifying the key issues and topics of interest to stakeholders, we were able to apply that knowledge and use it to improve stakeholder relations. Information relating to these issues is included in this report.

## Key Issues by Topic



**Survey Results** According to stakeholders survey results, executives & employees (76.9%), customers (88.3%), partner companies (95.0%), and local committees (72.1%) have responded positively to KNOC's future sustainability plans. We will improve sustainable management with respect to economic, social and environmental aspects through systematic and attainable goals and policies. In so doing, we will realize sustainable growth which reflects the opinions of our stakeholders in our management decisions, and we will strive to understand their needs and expectations.

[ KNOC will continuously grow. ]



## Expert Interview

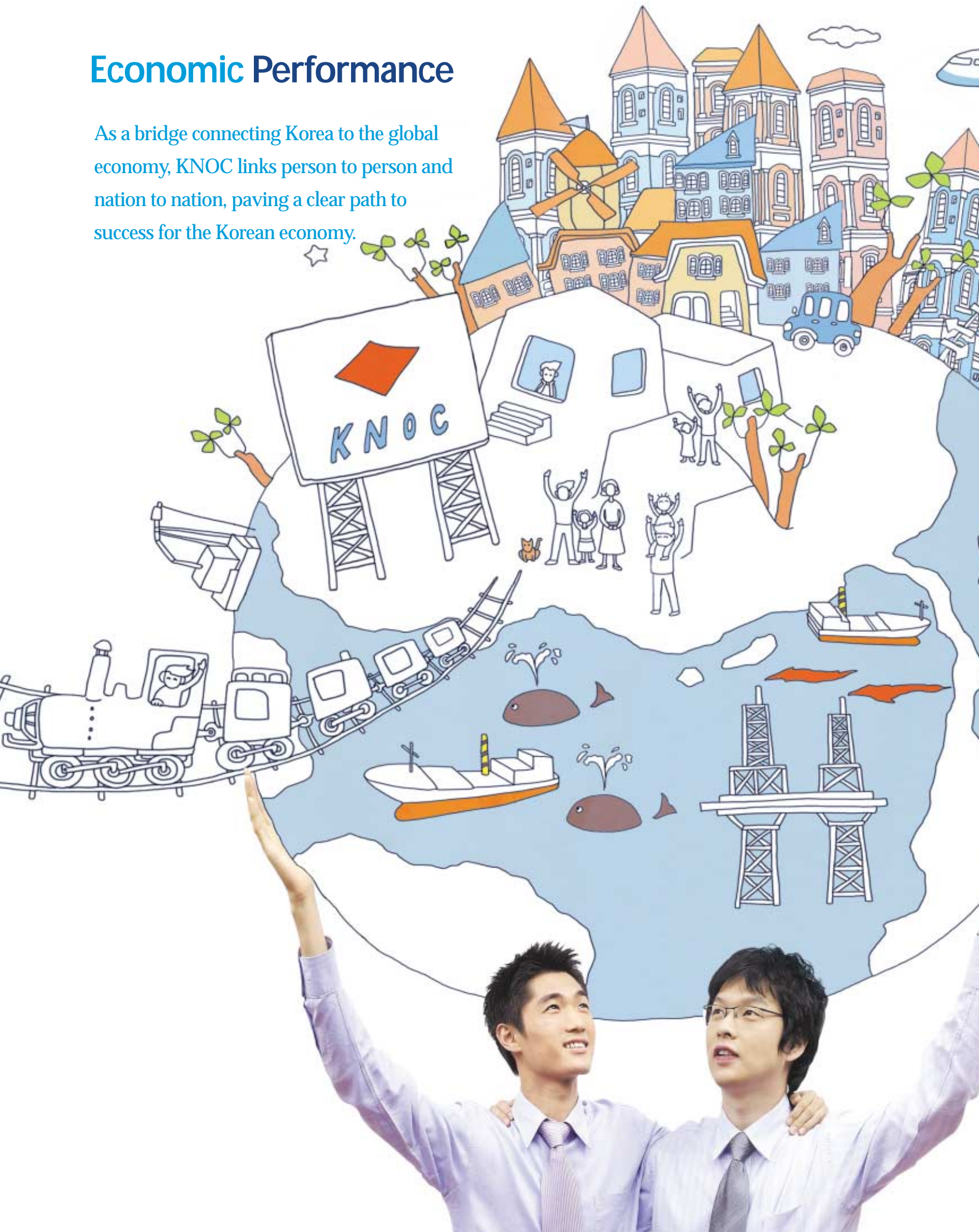
**Jung Dong-Young**  
Chief of Human Resources Division  
Ministry of Planning and Budget

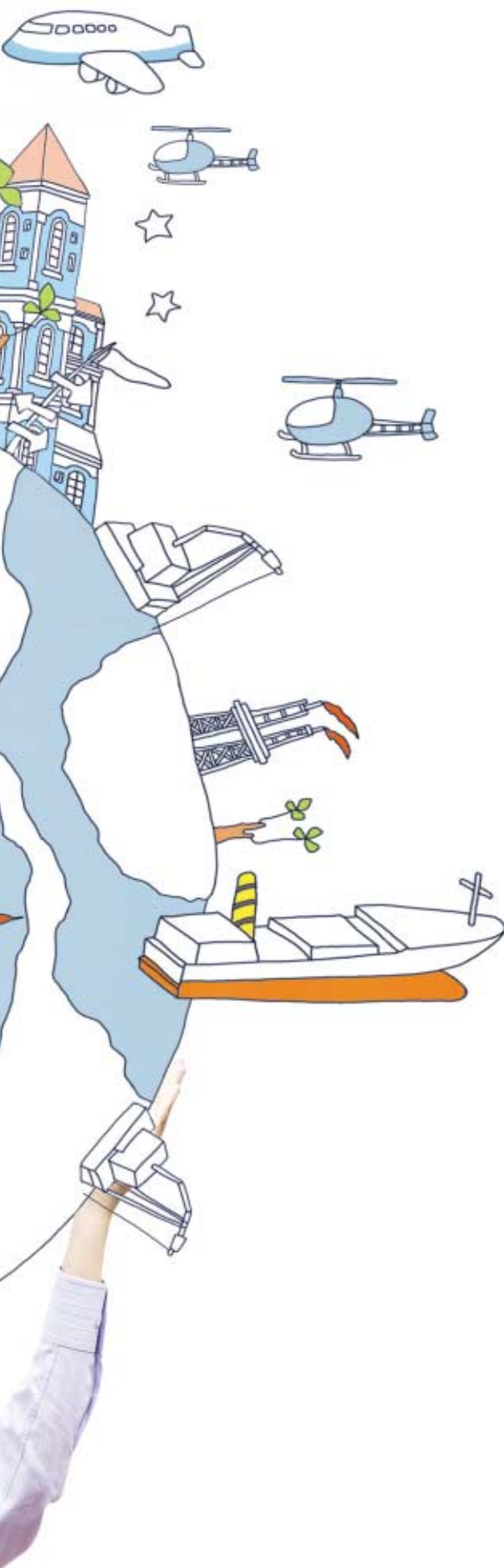
Sustainable Management Evaluation & Plan	KNOC's Response
Active communication with stakeholders is a large part of KNOC's sustainable management plans. The Corporation must maintain an amicable relationship with all stakeholders, including customers, partner companies, executives & employees, and local committees, to achieve positive results through a cheerful corporate culture, innovative working processes, and fair contract procedures. The Corporation is also responsible for securing the nation's petroleum supply as Korea's national oil company.	KNOC constantly carries out surveys in line with our proactive approach to stakeholder communication. Through various efforts up to now, we have concentrated on measuring the perception levels of our stakeholders including our employees, customers, partner companies, and local communities and gathering key points derived from them. From now on, we will utilize a systematic approach to collecting stakeholder opinions and adjust our internal policy to reflect them. We will also publish sustainability reports on a regular basis. We are committed to becoming a world-class energy company through global petroleum E&P, stockpiling and information services.



# Economic Performance

As a bridge connecting Korea to the global economy, KNOC links person to person and nation to nation, paving a clear path to success for the Korean economy.





# Key Economic Achievements

## 'A' and 'A2' Credit Ratings

By obtaining "A" and "A2" credit ratings from world-famous credit rating agencies S&P and Moody's, respectively, we have proven our readiness to enter the international financial market.

## Operational Growth

As of the end of 2006, we have secured 553 million barrels of petroleum and 316.6 billion cubic feet of natural gas, including the Rong Doi gas field in Vietnam's Block 11-2, Canadian BlackGold Oilsands, and deposits in Korea's continental shelf. Meanwhile, we generated a gross profit of KRW 26.4 billion from international joint petroleum stockpile projects.

## Economic Vision & Goals

Guided by the slogan, "Enhance earnings quality, minimize financial risk," we have developed mid-and long-term financial goals which consider growth and profitability, as well as the public interest. We also implemented an ERP system for financial management innovation.

## Fostering a Specialized R&D Unit

In February 2006, the Petroleum Technology Institute was inaugurated to strengthen R&D activities in line with our business environment and strategies. We have enhanced our oil E&P capabilities by increasing our investment to sales ratio, including an additional investment of KRW 8,535 million in the same year.

## Synergy Creation through Patents

KNOC promotes ideas and inventions through reward programs and generates added value by securing intellectual property rights through patent petitions and registrations. By doing so, we are contributing to the oil industry's activation and the nation's industrial development, while creating synergy effects.



# Disclosure on Management Approach

## Economic Performance System

### Vision & Strategic Goals

In order to become a world-class state-owned oil company and lead the nation's quest for energy self-sufficiency, We have set as our financial vision "Enhance earnings quality, minimize financial risk." We have also devised and implemented action plans based on mid-and long-term financial goals, appropriate monetary management and value creation.

### Policy

We have implemented an integrated financial management system which includes business environment analysis and scenario development to establish mid-and long-term financial goals. At the same time, our management goals can be revised through a strategic management plan simulation system. Furthermore, we continue to pursue efficient financing activities in order to attain our mid-and long-term growth targets through the use of advanced systems for new business opportunities, and establishing industry-driven business strategies and financial liability portfolio management to maintain credit ratings above the sovereign rating from international credit rating agencies.

### Intra-organizational Responsibility

- Finance Management Department: Overall financial framework established and managed
- Establish and operate Risk Management Committee and sub-committees: Overview financial impacts and manage risks with a focus on prevention

## Materiality Test

From the results of the materiality test provided by the 「IPS Materiality Test Model™」, we found that accounting transparency and leadership are crucial topics in the petroleum industry. Financial disclosure, performance analysis and sustainably managed overseas expansion are also of particular interest. More information on these issues is available in the report.



## Major Achievements and Action Plans

Category	Details	Major Achievements		Plans
		2005	2006	2007
Financial Management	Financial management innovation through ERP system	ERP Phase I	ERP Phase II	Standardizing block operation model
Accounting Transparency	Clear disclosure of financial information	2005 Annual Report	2006 Annual Report	2007 Sustainability Report
Resource Security	Vietnam Block 11-2, Canada BlackGold	409 million barrels	533 million barrels	702 million barrels
	Import-substitution effects from domestic continental shelf	-	USD 3.15 billion	USD 3.15 billion
	Joint stockpile business earnings	KRW 13.8 billion	KRW 26.4 billion	KRW 29.0 billion
	Stockpile facilities earnings	KRW 1.0 billion	KRW 3.5 billion	KRW 2.9 billion
	Drill ship operation income	KRW 16.9 billion	KRW 22.9 billion	KRW 31.8 billion
Long-term Investment	Nurturing R&D unit	-	Inauguration of Petroleum Technology Institute	Increased investment to raise core competence
	R&D investment-to-sales ratio	0.63%	0.93%	1.41%



## New Chapter in Donghae-1 Gas Field Story

In February 2007, KNOC discovered an additional natural gas layer containing an estimated 10.0 billion cubic feet in the Donghae Block 6-1 near the coast of Ulsan, following development of the Donghae-1 gas field in June 1998, the nation's first, and the Donghae Gorae 8 Structure in March 2006. The block's total reserve of natural gas is anticipated to be 100.0 billion cubic feet, which is equivalent to 114 days worth of gas usage for the entire Ulsan and Gyeongnam





region. Furthermore, KNOC signed a 50-50 joint mining contract with Woodside Energy of Australia, a major international oil company, for domestic continental shelf exploration. Under the contract, the two companies will further explore Donghae Block 8 and Block 6-1 following positive results of joint evaluation of existing data since March 2005. [February 2007]



## Vietnam Block 11-2 Developed by Korean Tech and Capital

For the first time in the nation's overseas gas field development history, Korea has developed an overseas gas field independently. Using solely Korean technology and capital, the Rong Doi gas field in Vietnam's Block 11-2 was developed and began production in December 2006, with the completion ceremony held a month ago. The Rong Doi gas field is a small to medium-sized gas field with reserves of up to 19 million tons of natural gas and 23 million barrels of condensate, which could produce up to 2,900 tons of gas and 4,200 barrels of crude oil daily for next 23 years. These amounts are respectively triple and quadruple the amounts of the gas and crude oil currently produced in the Donghae-1 gas field. As a result, the total sales of the gas field could reach USD 3.3 billion with a gross profit of USD 1.8 billion over the next 23 years. Of this, KNOC expects to see USD 1.6 billion in sales and a USD 500 million gross profit. KNOC, by obtaining sole operation rights, has led each step of the entire operation, including exploration, development and final production, based on years of experience and know-how in the petroleum development area. The nation also proved its competence in oil development when Hyundai Heavy Industries completed USD 210 million worth of construction of two core facilities. [November 2006]

## New Oilfield in Kazakhstan's ADA Block Discovered

KNOC secured additional reserves of about 20 billion barrels of oil with its discovery of a new oilfield in the Bashenkol structure inside the ADA Block in Aktobe, Kazakhstan in July 2006. When estimated reserves at three other promising structures in this block are factored in, total reserves are estimated to be about 170 million barrels of oil. This accomplishment was particularly meaningful for two reasons: first, it is the first successful result for a Korean company interested in Kazakhstan; secondly, it was finalized in a short period of time.

[July 2006]



## Extracting Black Gold from Sand

KNOC purchased a 100% stake in the BlackGold Oilsands fields of Alberta, Canada in July 2006. oilsands consist of a mixture of crude bitumen (a semi-solid form of crude oil), silica sand, clay minerals, and water. The bitumen surrounds micro particles of sand and makes up about 6-17 percent of the total. Since the oilsands are buried too deep below the surface for open-pit mining, in situ techniques were developed to recover them. Using drilling technology, steam is injected into the deposit to heat the oilsands lowering the viscosity of the bitumen. In doing so, we are able to combine mining and bitumen extraction into one procedure and thereby improve productivity. With record-

breaking oil prices over the last three years and downturns in the North Sea oilfield's production volume, international oil companies have begun focusing on oilsands development. Oilsands development is meaningful due to its economic value, particularly as the North American market's trading price range is currently from USD 35 to 40 per barrel. KNOC plans to begin full-scale construction of production facilities in 2008, producing up to 35,000 barrels of oil per day by 2010 while generating an estimated annual revenue of USD 0.5 billion, making it the nation's largest oil production project based on the ratio of investment. [July 2006]



## Economic Performance

### Economic Vision & Plans

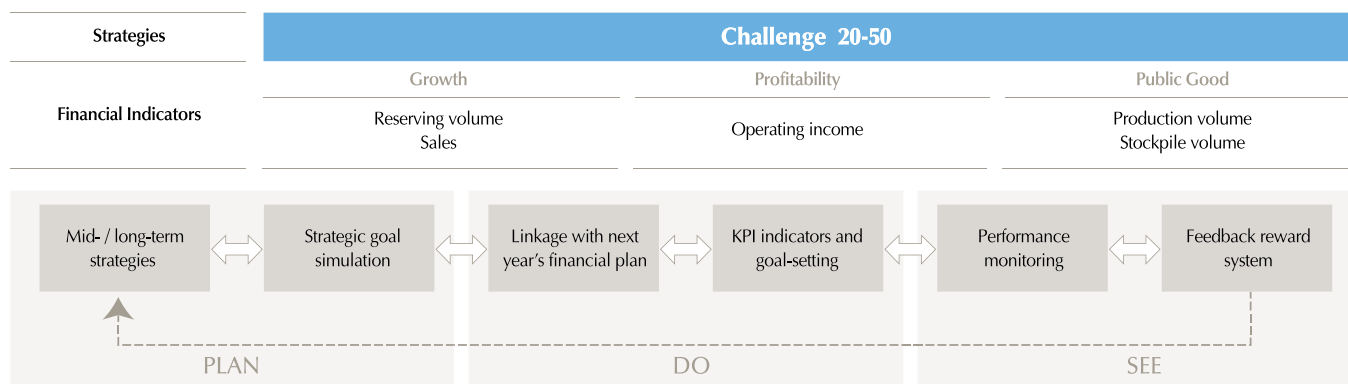
An aerial view of an offshore oil platform in the middle of a blue ocean under a blue sky with white clouds. The platform has several tall derrick structures. On the right side of the platform, there is a large, bright orange fire with thick white smoke billowing out into the sea.

To achieve our strategic goals outlined in “Challenge 20-50,” KNOG strives to respond effectively to market changes as we implement our economic vision of “Enhanced earnings quality, minimized financial risk.” We concentrate on financially sound, sustainable, long-term profit growth rather than short-term profits, while targeting the oil development business that is our core competence. To manage risk factors such as the vast investment required over a long period of time, a low success rate in development, and oil price fluctuations, we have implemented an enterprise-wide digital management system and integrated risk management system.

We also try to ensure the fruitful results of our investment and financial plans with optimal financial management. Our long-term and annual business goals are revised based on simulated financial impact analysis, which is related to oil and financial markets.

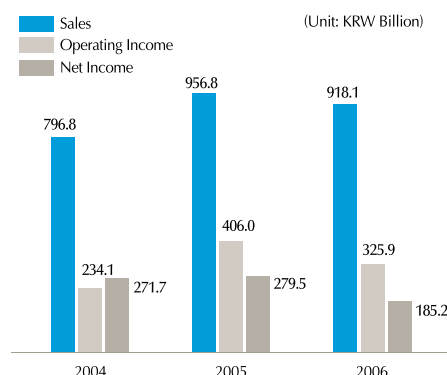
Through our integrated management system, we thoroughly manage each step, from planning to feedback and compensation systems, and systematize the work process into three stages: planning, execution and evaluation. Real-time monitoring is also regularly conducted.

## Integrated Management System for Mid- / Long-term Financial Plans



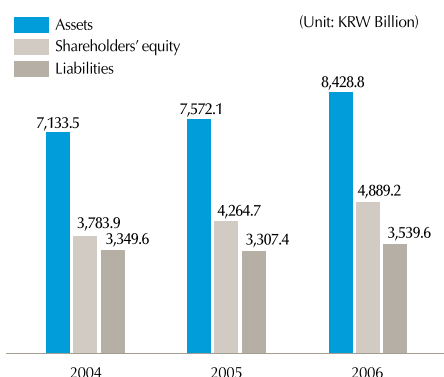
KNOC recorded KRW 918.1 billion in sales and KRW 325.9 billion in operating income through active exploration and development of new oilfields both at home and abroad, and by maximizing the utilization of its stockpile assets. Despite a downward trend in overseas production volume due to a gradual production reduction in existing production blocks (such as Vietnam's Block 15-1 and UK's Captain Block) and the operational closure of the Marib Reserve in Yemen, we earned a profit because of increasing world oil prices. In 2006, sales declined over the year due to a fall in earnings from support businesses to KRW 29.1 billion from KRW 63.6 billion in 2005, and net income also slid as a result of the reduction in government grants (KRW 34.5 billion) and losses from intangible asset reduction (KRW 44.4 billion).

### Sales, Operating Income, Net Income

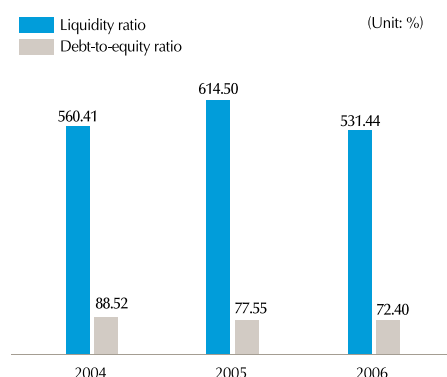


Our total assets amounted to KRW 8.43 trillion at the end of 2006, up 11% from the previous year. The primary reasons for this increase include rises in inventory assets due to purchases of stockpiled oil, tangible assets caused by the construction of more petroleum stockpile bases, and intangible assets as a result of overseas and domestic mine exploration, development and production block investment. Despite an increase in total liabilities, led by a rise in long-term current liabilities and liabilities related to Vietnam's Block 15-1 oilfield development fund, our debt-to-equity ratio fell by 5.15% to 72.40% from 77.55% the previous year. Capital stock, which is wholly owned by the Korean government, expanded as a result of additional investment in petroleum stockpile and other E&P projects.

### Assets, Liabilities, Shareholders' equity



### Liquidity ratio, Debt-to-equity ratio

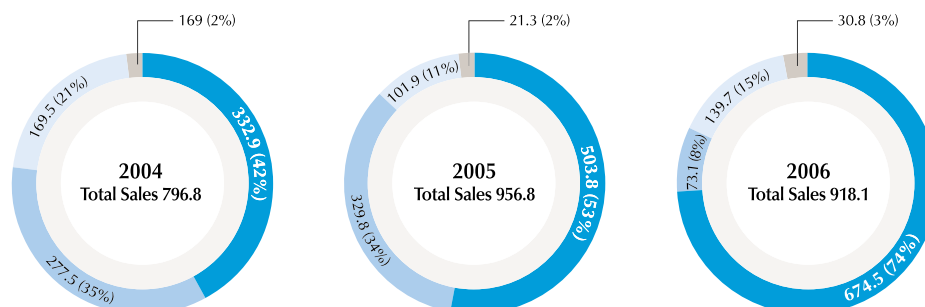


## Operational Results by Business

Operational Results by Business (% of total sales)

(Unit: KRW Billion)

- Petroleum Development
- Petroleum Stockpiling
- Loan Business
- Others

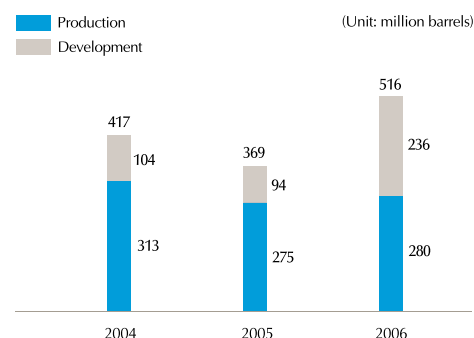


### Petroleum Development

#### Overseas Petroleum E&P

Since the mid-1990s, we have dedicated ourselves to exploration and production in order to ensure the nation's petroleum reserves. Of the 39 exploration projects around the world that we have participated in since then, five blocks (including Vietnam's 15-1 Block, Libya's Elephant Block, and Yemen's Marib Block) have been commercially successful. In 2006, we also secured reserves totaling 516.1 million barrels of oil, up 40% from the previous year, due mainly to acquiring Canadian BlackGold Oilsands fields, which contain 216 million barrels of oil, and additional reserve volume in Peru's Block 8. Currently, we are participating in the exploration of ten blocks including the UK's Captain Block and Peru's Block 8.

In Vietnam's Block 11-2, the first-ever overseas gas field development accomplished solely by Korean technology and capital, we forecast an annual production of up to 4.75 million cubic feet of natural gas and 1.53 million barrels of condensate over the next 23 years.



#### Overseas Petroleum E&P and Reserves

(Unit: 1,000 barrels)

Classification	Vietnam 15-1	UK Captain Block	Indonesia SES	Libya Elephant	Peru 8	Venezuela Onado	Vietnam 11-2	Marib LNG	China Mahwangsang West	Canadian BlackGold Oilsands	Total
2004 production	4,096	3,614	2,593	1,148	1,419	258	-	-	-	-	13,128
2005 production	3,683	2,668	2,126	2,448	1,270	229	-	-	-	-	12,424
2006 production	2,853	2,265	2,001	3,769	1,247	174	17	-	-	-	12,326
Reserves volume	91,485	16,968	22,351	50,744	16,037	7,621	74,536	19,631	708	216,000	516,081

\* Reserve volume as of December 2006

#### Continental Shelf Exploration

Since 1998, we have succeeded in discovering natural gas of a viable commercial value at the Donghae-1 gas field and the Gorae-8 Structure. By signing a joint mining contract with a major foreign oil company, Woodside Energy of Australia, in February 2007 for the purpose of East Sea deep-water exploration, we are able to create synergy by sharing by both operational risks and expenses, while generating approximately USD 7 billion in import-substitution effects if these operations succeed.

#### Additional Reserve Plan

Structure	Year discovered	Reserve volume (ft3)	Import-substitution effect
Donghae-1	Jul. 1998	250.0 billion	2.5 billion
B-5	May 2003	31.6 billion	0.3 billion
Gorae 8	May 2005	25.0 billion	0.25 billion
Gorae 14	Feb. 2006	10.0 billion	0.1 billion
Total	-	316.6 billion	3.2 billion





Furthermore, we recently began exploring the Gorae-14 Structure for additional reserves along with the Donghae-1 gas field, which will have an import-substitution effect of over USD 2.5 billion.

Exceeding our original production and supply volume targets for natural gas and gas hydrates, the Donghae-1 gas field has been operating very impressively. We have generated an additional KRW 4.0 billion in sales revenues, including KRW 0.2 billion in financial interest income from the difference between fixed and floating gas price rates for the last two years since August 2006, and KRW 3.8 billion from sales margins during price downturns.

#### Donghae-1 Gas Field Operation Results

Classification	2004	Goal	2005	Achievement ratio	Goal	2006	Achievement ratio
	Result		Result			Result	
Gas supply volume	7.3 bil. CF	17.4 bil. CF	17.7 bil. CF	102%	15.5 bil. CF	15.7 bil. CF	101%
Low-sulfur crude oil	44 thou. barrel	420 thou. barrel	391 thou. barrel	93%	326 thou. barrel	467 thou. barrel	143%
Sales	KRW 31.6 bil.	KRW 142.7 bil.	KRW 182.5 bil.	128%	KRW 129.6 bil.	KRW 167.8 bil.	130%
Production operating ratio	156 days	335 days	345 days	103%	321 days	336 days	105%

## Petroleum Stockpiling

### Stockpiling

Our petroleum stockpiling operations aim to serve the public interest and the nation's economic development, while we improve the oil purchasing process through diverse financial resources. In particular, we promote international joint stockpiling to improve the nation's preparedness in case of oil crises and to make stockpiling operations more economical. Consequently, we can strengthen the diversification of crude oil imports and strengthen resource diplomacy. To enhance the economic value of stockpiled assets and maximize profitability, we have concentrated on trading crude oil, petroleum products and LPG. Furthermore, we have recorded sales of KRW 14.4 billion from leasing our reserves of stored oil and storage facilities to private companies.

In 2006, we purchased a total of 3 million barrels of oil (including our own volume increase of 663,000 barrels at its lowest price level during the year, thanks to careful analysis of oil market price trends. It was also made possible due to the timely injection of our earnings into purchasing budgets in preparation for the upswing in oil prices. Through the stored asset leasing business (leasing petroleum reserves and stockpiling facilities), we recorded earnings of KRW 19.1 billion in 2004, KRW 36.6 billion in 2005 and KRW 40.8 billion in 2006.

### Stockpiling Business Results

(Unit: KRW billion)

Classification	2004	2005	2006
International joint stockpile volume	11.3 mil. barrel	19.9 mil. barrel	27.0 mil. barrel
International joint stockpile gross profit	8.5	13.8	26.4
Stored oil leasing income	9.6	21.8	10.9
Stored oil trade income	20.9	9.7	2.4
Facilities leasing income	1.0	1.0	3.5

\*Earnings from stored asset leasing business include earnings from international joint stockpiling projects and stockpiled oil & petroleum reserve leasing and stockpiling facility leasing.

# Economic Performance

## Growth Potential

### Construction of Stockpile Bases

We fully accomplished our 2006 operational goals for five stockpiling bases, including an underground stockpiling base in Geoje, underground storage caverns in Yeosu, a loading and offloading pier and other quay facilities in Seosan. We also operate nine petroleum stockpiling facilities with a total capacity of 121 million barrels. As a result of efficient operations in facility construction, we were able to cut KRW 10.0 billion (6% of our annual operating expenses in 2006), composed of KRW 9.5 billion from 58 improvements (including the selection of electronic power generation facilities in Vietnam's 11-2 Block, and process improvements at Goeje, Yeosu, Ulsan and Pyeongtaek offices) and KRW 0.5 billion from three additional work process improvements.

Targets & Results by Stockpile Bases (2006)

Category	Storage capacity (mil. barrels)	Process in 2006			Accumulated process ratio (%)
		Goal	Result	Achievement ratio	
Geoje Base	7.5	7.8	7.8	100.0	100.0
Yeosu Base	19.0	15.6	15.6	100.0	88.7
Seosan Base	14.6	13.4	13.8	102.8	91.7
Ulsan Base	6.5	25.2	27.1	107.4	34.9
Pyeongtaek Base	1.8	41.2	41.7	101.3	55.6

### Loan business

Due to the current upward trend in oil prices, our loan business has grown in importance as a means of financing more oil development projects and increasing the nation's energy self-sufficiency ratio. KNOC borrows from the government to invest in energy-related projects; it then allocates these funds to end-users in the form of loans. This is done to stabilize energy supply & demand and prices, and to carry out various energy and resource projects. In 2005 and 2006, we supplied KRW 210.1 billion and KRW 239.5 billion, respectively, for various projects including domestic and overseas petroleum development, urban gas piping and the construction of access roads to oil pipelines. We recorded a gross profit of KRW 11.0 billion in 2005 and KRW 9.3 billion in 2006 from these operations.

Loan-out Amount

(Unit: KRW billion)

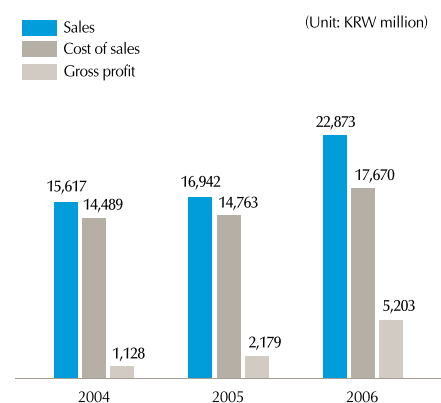
Classification	Annual Loan-out Amount			Balance of leasing amount at the end of 2006
	2004	2005	2006	
General oil business	70.0	23.0	21.0	1,645.7
Oil development business	207.8	187.1	218.5	537.1
Total	277.8	210.1	239.5	2,182.8

### Drilling Ship Operation

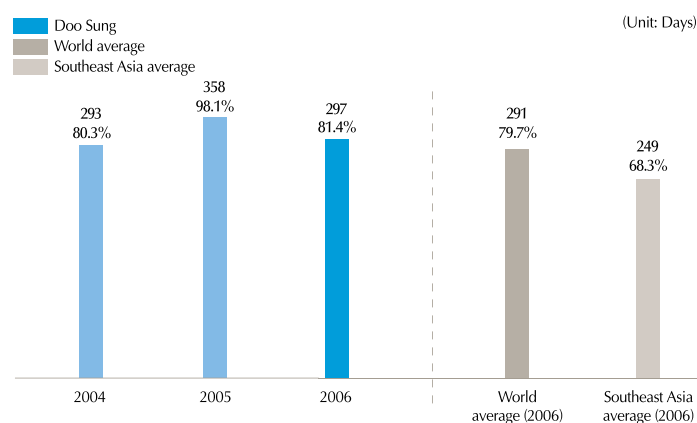
The "Doo Sung," the nation's only semi-submersible drilling unit, exceeds both the world average of 291 operational days and KNOC's goal of 280 days in overseas projects, while its utilization ratio stands higher than the world market average, owing to regular inspections and weekly maintenance work. KNOC recorded an operating income of KRW 5.2 billion in 2006, following KRW 2.2 billion in 2005 and KRW 1.1 billion in 2004, from its offshore rig operations. We have also upgraded our drilling ship operations with up-to-date equipment and expanded offshore rig operations into deep-waters including the Caspian Sea, while seeking cooperative arrangements with FPSO\* (Floating Production Storage and Offloading) vessels.

\* FPSO (Floating Production Storage and Offloading): A type of floating unit designed to produce, store, and offload oil or gas

Financial Results of Drill Ship Operations



Utilization Ratio of Doo Sung (2006)

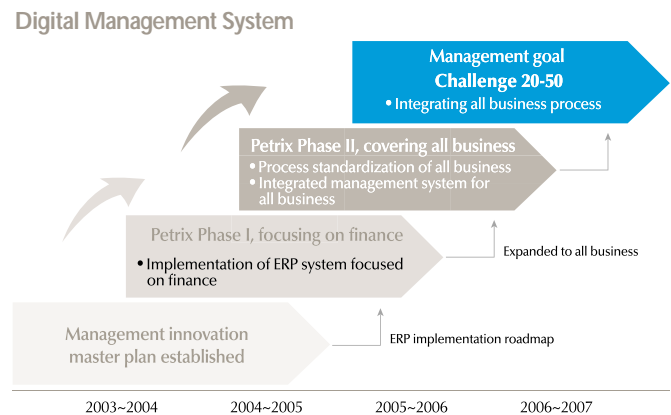


# Financial Structure Improvement

## Efforts To Improve Financial Structure

### Financial Management Innovation

We have adopted an Enterprise Resource Planning (ERP) system in order to reinforce core business growth, upgraded management levels and integrated all operations through business infrastructure innovation. Since the introduction of our ERP plan in 2003, we have completed Phase I (2004~2005: Preparation & Implementation) and Phase II (2005~2006: 2<sup>nd</sup> Preparation Period). Since September 2006, we have been implementing ERP II (logistics). In ERP II, we are currently strengthening our strategic decision-making support system by integrating the entire business process, including financing, accounting, funding, and personnel management, following ERP I which focused solely on financing. Consequently, we will build an advanced management system to help us grow into a world-class national oil company.



### Solid Capital Structure

Due to our petition for the expansion of government monetary support, regulations were amended to reclassify part of the transportation tax to be included into the Special Accounts for Energy and Resources (SAER). We plan to increase our capital adequacy ratio from the current 33% to 49% as a result of obtaining KRW 365.7 billion for petroleum stockpiling and KRW 354.7 billion for development in 2007 under the SAER, up from KRW 311.5 billion and KRW 164.5 billion, respectively, in 2006.

### Forecasting System Implementation

To respond to investment risk factors, we have implemented a mid-and long-term funding forecasting system in order to gauge the level of investment risk, provide management guidance, and minimize vulnerability from insufficient regulations. With this forecasting system, which provides real-time information for potential risks as well as sensitivity and probability analyses on risk variables, we can make the risk factors work in our favor and reconsider financial aspects of our investment decisions through its early-warning signal, thereby enhancing the transparency and rationality of our investments.

### Value-based Management Model

We have revised our methods for evaluating the cost of capital, which is an important element for EVA (Economic Value Added) measurements and petroleum development projects evaluation, in order to reflect the Corporation's role and situation. The cost of capital for KNOC is a weighted sum of the cost of equity and the cost of debt.

As a result of EVA measurements of stockpiling operations, the profit from sales and EVA of stored oil declined due mainly to downturns in our major revenue sources such as backwardation\*, despite our efforts to enhance the utilization of our stored assets. However, EVA for our entire overseas E&P operations has improved due to the rising sales volume of crude oil in blocks which we participate in.

\* Backwardation: A market condition in which a futures price is lower in the distant delivery months than in the near delivery months is called backwardation. Profits are made from the different between the over-evaluated near months' sell price and under-evaluated distant months' buy price.

# Economic Performance

## Profitability

### EVA Results

(Unit: KRW million)

Classification	Enterprise-wide		Development Business						Stockpile Business	
	2005	2006	2005			2006			2005	2006
			Overseas E&P	Gas Fields	Drill Ship	Overseas E&P	Gas Fields	Drill Ship		
NOPAT (Net Operating Profit After Tax)	291,978	203,684	152,602	62,330	895	194,242	54,222	1,228	68,745	△21,525
WACC (Weighted Average Cost of Capital)	7.31%	7.98%	7.31%			8.10%			7.71%	7.55%
IC (Invested Capital)	1,570,181	1,989,340	425,097	363,649	12,480	720,772	324,412	22,699	757,126	888,979
Cost of Capital	114,780	158,749	31,074	26,583	912	58,382	26,278	1,839	58,375	67,118
EVA (Economic Value Added)	177,198	44,935	121,528	35,747	△17	135,860	27,944	△611	10,370	△88,643

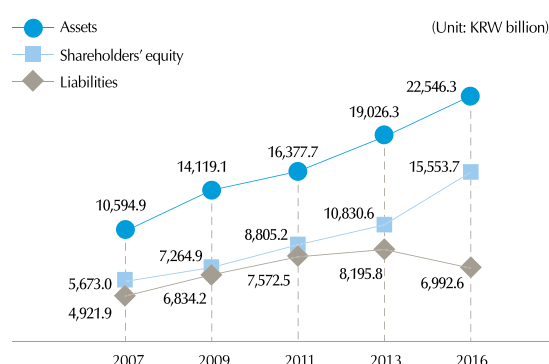
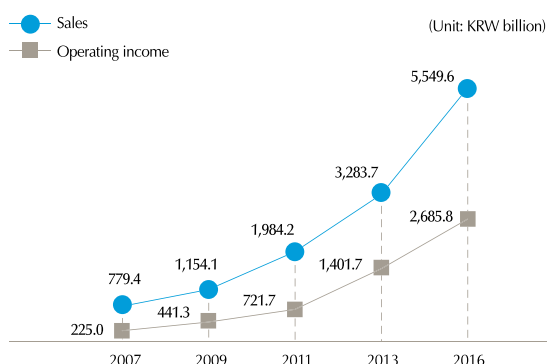
### Profitable Financial Perspective

By simulating the financial effects of industry changes, we have determined our annual expenditure on development block purchases (0.1 billion barrels per year from 2008 to 2011) to reduce financial risk, while bolstering production activity in newly discovered blocks to meet the government's long-term goals. Furthermore, we have established industry-oriented strategies by project and optimized our financial liability portfolio in terms of profitability and risk management, thereby maintaining sovereign-level credit ratings from international credit rating agencies.

For the purchase of new development blocks, we forecast a 10.9% investment return ratio and determine oil prices and investment amounts based on the Production Oilfield Model of the Ministry of Commerce, Industry and Energy (MOCIE). We also rationally reflect our oil price forecast for 2020 into the revision of the unit cost of block purchases. For exploration blocks, we expect a 21% exploration return ratio resulting from the 10.3% overall success ratio of the nation's exploration projects.

We also anticipate that our equity capital will be expanded further, due to growth in investment returns and operating income through active investment. Despite an upward trend in our debt-to-equity ratio until 2008 due to the surge in borrowings from active investments, we will strive to achieve a solid financial structure through accumulating investment returns and retained earnings from the following years.

### Forward-looking Financial Highlights





## Investment for Long-term Growth

### R&D Investment

From 1990 to 2006, we confirmed that consistent R&D activities are crucial for KNOG to become a world-class oil company. Through the completion of 95 assignments we have contributed enormously to petroleum development. With a total of 124 technology evaluations for new oilfields and support for 71 technology evaluations for participating oilfields, we have participated in 60 new oilfields while contributing to securing additional reserves.

We have also focused on forming a highly specialized R&D unit and linking our R&D activities with environmental changes and business strategies. To address this matter, the Corporation established the Petroleum Technology Institute in February 2006 to separate R&D activity from technical support. The Institute has been acknowledged as the nation's first full-fledged petroleum R&D center.

Furthermore, we have invested in nurturing professionals in core technology development, marketing-driven R&D, technical support optimization systems, and technical information systems implementation. We also provide a compensation system to reward superior performance through research workforce evaluations. To secure future growth engines, we expanded R&D investment and in 2006 alone, we supported 12 major R&D programs including 4-D seismic surveys.

### R&D Results

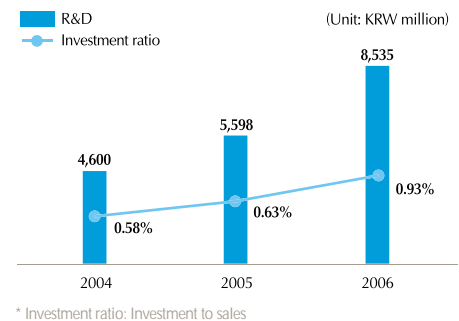
Year	2004	2005	2006
Individual Assignments	4	3	2
Group Assignments	3	8	10
Total	7	11	12

### Contribution to the Nation

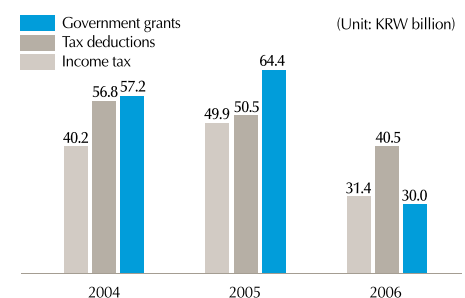
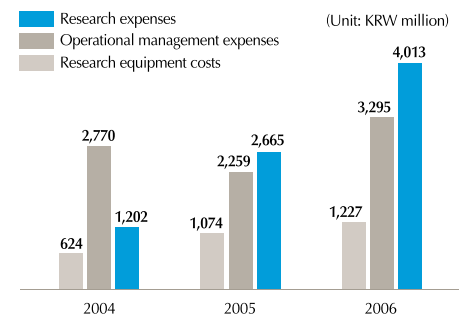
#### Government Grants and Corporate Tax

The Corporation receives government grants to manage stored assets, improve petroleum distribution systems, manage accounting on commission, and expand overseas E&P activities. Tax deductions include overseas tax payments, R&D personnel development, and R&D facilities investment. Corporate tax expenses have been reduced compared with the previous year due to the decline in sales.

### R&D Investment Amount and Ratio



### R&D Investments



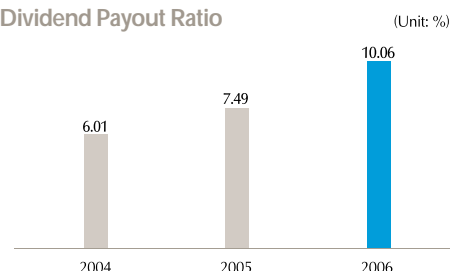
# Economic Performance

## Public Good

### Dividend Payout for Shareholders

To maximize value for our shareholders, we have increased the dividend payout ratio year after year. Total cash dividends were KRW 16,330 million in 2004, KRW 20,931 million in 2005, and KRW 18,633 million in 2006, while dividends as a percentage of net income have been 6.01%, 7.49%, and 10.06%, respectively. Since the Corporation is wholly owned by the Korean government, we are committed to the nation's economic development through our profitable operation and stable dividend payout.

### Dividend Payout Ratio



### Socially-responsible Investment

As a state-run enterprise, we will contribute donations and make investments to protect the environment in our role as a responsible member of the community. We will also devote ourselves to the nation's development by investing in employee welfare and further education to nurture our human resources.

### Socially-responsible Investment

(Unit: KRW million)

Classification	2004	2005	2006
Donations	6,386	16,466	13,461
Education & training	1,136	1,865	1,705
Environmental investment	1,520	3,246	4,900
Welfare activities	3,625	3,682	4,255

### Building a Primary School in Vietnam

We joined a cooperative project with SK to construct a primary school in Vietnam's Binh Thuan Province to commemorate oil production at Vietnam's 15-1 Block in 2003. We supplied USD 60,000 for the school's construction. Through providing financial and educational support to this underdeveloped region, we were able to contribute to Vietnam's economic development and promote a strong partnership with regional communities. As a result, KNOC received a Friendship Medal from the Vietnamese government in November 2006.

### Supporting Local Development near Stockpile Bases

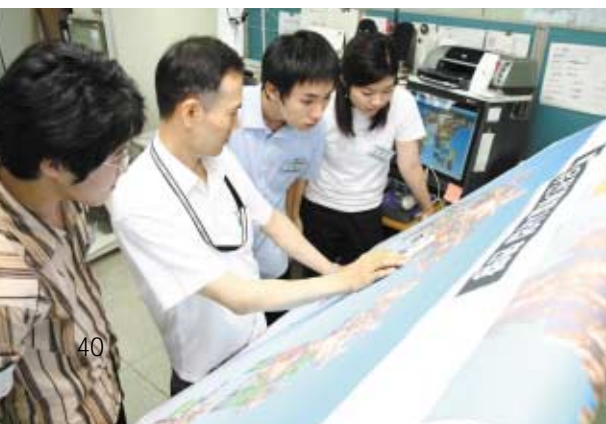
We are also committed to regional development in order to gain a better understanding of the local people. At the Seosan Base, we donated KRW 500 million from the regional development fund to the Daesan Town Committee for Prosperity in 2004 and supplied KRW 90 million for the Daejook Town Community Hall construction in 2005. At the Ulsan Base, KRW 700 million from the regional development fund was supplied to Onsan Town, while KRW 350 million was donated for scholarships and a senior citizens aid fund.

### Korea's First Military Service Alternative Enterprise in the Oil Sector

Our Petroleum Technology Institute has been committed to supporting master's and doctoral research activities in the oil development area while cultivating quality talent. In recognition of this, the institute was accredited as a Military Service Alternative Enterprise in November 2006 for the first time in the industry. As a result, we were assigned with five expert researchers with master's and doctoral degrees to work in the institute during their mandatory military service. We will vitalize oil development research including petroleum geology, geophysics, and production engineering. At the same time, we will provide active support to spur science & engineering research and strengthen capabilities.

### Utilizing Main Auditorium as Wedding Hall for Local Residents

KNOC, an agency dedicated to making meaningful social contributions to local communities, has utilized its main auditorium as a wedding hall since May 2006 for the welfare of local residents and our employees. Specifically, we provide efficient, high-quality wedding services for our employees (including retirees) and their families, local residents, and the underprivileged in conjunction with professional wedding companies.



## Brand Value

Although founded a relatively short time ago, in 1979, KNOG has become a well-recognized brand world-wide because of its impressive number of overseas projects and its contribution to the nation's oil supply and demand. In addition to this brand recognition, we will further strive to become a world-class state-owned energy company based on our competitive and creative corporate culture.

## Patents

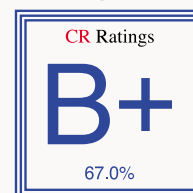
Classification	Title	Pending Date	Registration Date
Patent No. 167083	Underground oil storage system	Mar 8, 1995	Sep. 25, 1998
Patent No. 0259678	Televiewing inspection system for horizontal and diagonal drilling works	Oct. 31, 1997	Mar. 27, 2000
Patent No. 0332537	Method for supplying electric power for underground cavern excavation	Jul. 24, 1999	Apr. 1, 2002
New Device Patent No. 0272592	Packer for underground storage base water curtain	Dec. 31, 2001	Apr. 8, 2002
Patent No. 100743452	Blasting method for vertical holes with debris removal	Jun. 2, 2006	Jul. 23, 2007
Patent No. 100743453	Drilling method for vertical holes	Jun. 2, 2006	Jul. 23, 2007
Patent No. 100752243	Catalyst for Fischer-Tropsch treatment using by zirconia-alumina carrier and method for liquid hydrocarbon production from its synthetic gas	May 29, 2007	-
Patent No. 100752245	Method for liquid hydrocarbon production extracted from synthetic gas using by alumina-silica carrier and its catalyst	May 29, 2007	-

### Corporate Responsibility Risk Management Evaluation

While adopting a sustainable management system, we evaluated our operational risks and developed countermeasure plans devised in consultation with outside experts. As a result of the corporate responsibility (CR) assessment by DNV,\* we earned a rating of B+, indicating that we are able to understand and actively manage general CR risks. Our countermeasures consider all aspects of CR, including ethics, the environment, community, and employment to become a world-class petroleum company.

\* DNV (Det Norske Veritas) Certification: Founded in 1972, DNV Korea is the regional office of Det Norske Veritas (DNV) whose primary focus is on quality, environmental, and safety risk management.

CR Rating™



A+(>90%)	A(>80%)	A-(>70%)	<b>B+(&gt;60%)</b>	B(>50%)	B-(>40%)	C+(>30%)	C(>20%)	C-(>10%)	D(>0%)
Through effective management systems, the most important CR risks are recognized and actively managed.	General CR risks are recognized and managed.				Even though general CR risks are recognized by a risk management system, core risk factors and the rational interest of stakeholders is neglected.	Neither CR risks nor stakeholders are recognized.			

# Economic Performance

## Financial Highlights

### Summary of Income Statements

(Unit: KRW millions)

Classification	2004	2005	2006
Sales	796,812	956,791	918,133
Cost of sales	528,019	503,955	543,575
Gross profit	268,793	452,836	374,558
Sales and administrative expenses	34,701	46,816	48,621
Operating income	234,092	406,020	325,937
Non-operating income	171,464	125,924	132,117
Non-operating expenses	78,826	116,524	181,242
Ordinary income	326,730	415,420	276,811
Income before income taxes	326,730	415,420	276,811
Income tax expense	55,051	135,940	91,603
Net income	271,679	279,480	185,209

### Summary of Balance Sheet

(Unit: KRW Millions)

Classification	2004	2005	2006
Assets	7,133,479	7,572,130	8,428,825
Current assets	2,597,254	2,752,272	2,933,706
Fixed assets	4,536,225	4,819,858	5,495,119
Liabilities	3,349,582	3,307,431	3,539,664
Current liabilities	463,455	447,889	552,027
Fixed liabilities	2,886,127	2,859,542	2,987,637
Shareholders' equity	3,783,897	4,264,699	4,889,161
Capital stock	3,266,092	3,488,553	3,964,542
Capital surplus	24,954	24,954	24,954
Retained earnings	481,956	745,105	909,382
Capital adjustments	10,895	6,087	△ 9,717

### Key management indicators

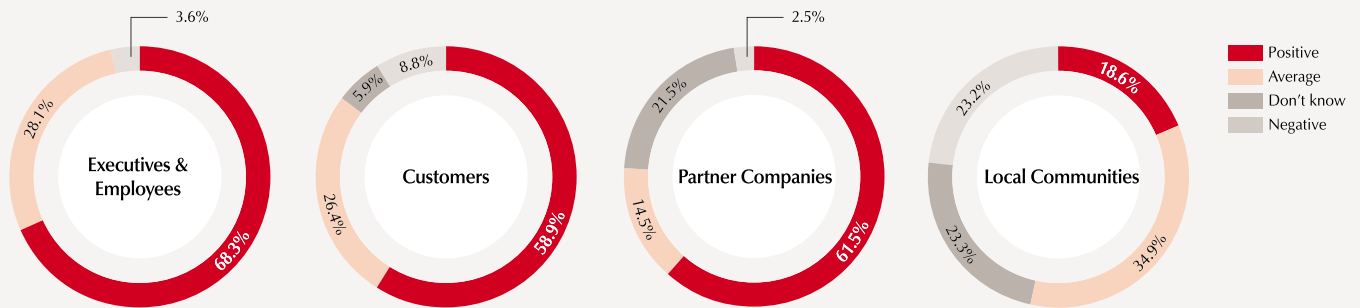
	Classification	2004	2005	2006
Stability	Liquidity Ratio (Quick ratio)	560.41%	614.50%	531.44%
	Debt-to-equity ratio	88.52%	77.55%	72.40%
	Borrowings-to-asset ratio	41.73%	39.15%	36.46%
Profitability	Sales-to-operating income ratio	29.38%	42.44%	35.50%
	Return on sales	34.10%	29.21%	20.17%
	Return on assets	3.81%	3.69%	2.20%
	Return on equity	7.18%	6.55%	3.79%
Growth & Activity	Sales growth rate	137.95%	20.08%	△ 4.04%
	Operating income growth rate	390.81%	73.44%	△ 19.72%
	Net income growth rate	200.12%	2.87%	△ 33.73%
	Total asset growth rate	8.91%	6.15%	11.27%
	Total asset turnover ratio	0.11%	0.13%	0.11%



## Survey Results

According to the results of the stakeholders survey on the Corporation's accounting transparency, the positive response ratios from executives & employees (68.3%) and partner companies (61.5%) were relatively higher than from the local committees (18.6%). Based on this result, we will focus on publicizing our financial information to our stakeholders, particularly local committees, through more diverse channels. Furthermore, we will seek more convenient ways to communicate our financial structure improvements, and utilize this sustainability report as the main channel for disclosure.

[ KNOC discloses accounting information to its stakeholders transparently and accurately. ]



## Expert Interview

MOCIE  
Jong-Chul Kim  
A Secretary at Industry  
Policy Team

Sustainable Management Evaluation & Plan	KNOC's Response
As petroleum exploration, development and production are its main tasks, KNOC should strive to explore additional oilfields and concentrate on creating profits from them.	In terms of growth, profitability and the public good, in setting our mid- and long-term financial goals, we are primarily concerned with improvements to our financial structure and optimizing our financial management system. In particular, we will focus on overseas oil development projects to secure sustainable profitability and implement an enterprise-wide digital management system and integrated risk management system to deal with risk factors in oil development operations. As a result of our efforts to locate additional oilfields, we secured oil and gas reserves in Canada, Nigeria, and Korea's continental shelf in 2006. In 2007, we are seeking to ensure our growth potential through acquiring production assets or the oil companies which possess them. By upgrading our internal systems and developing our core assets, we are establishing KNOC as a major state-run company which can optimize oil assets portfolio and execute E&P based on profits generated from our production assets.



## Introduced Oil Field Development Fund To Domestic Market

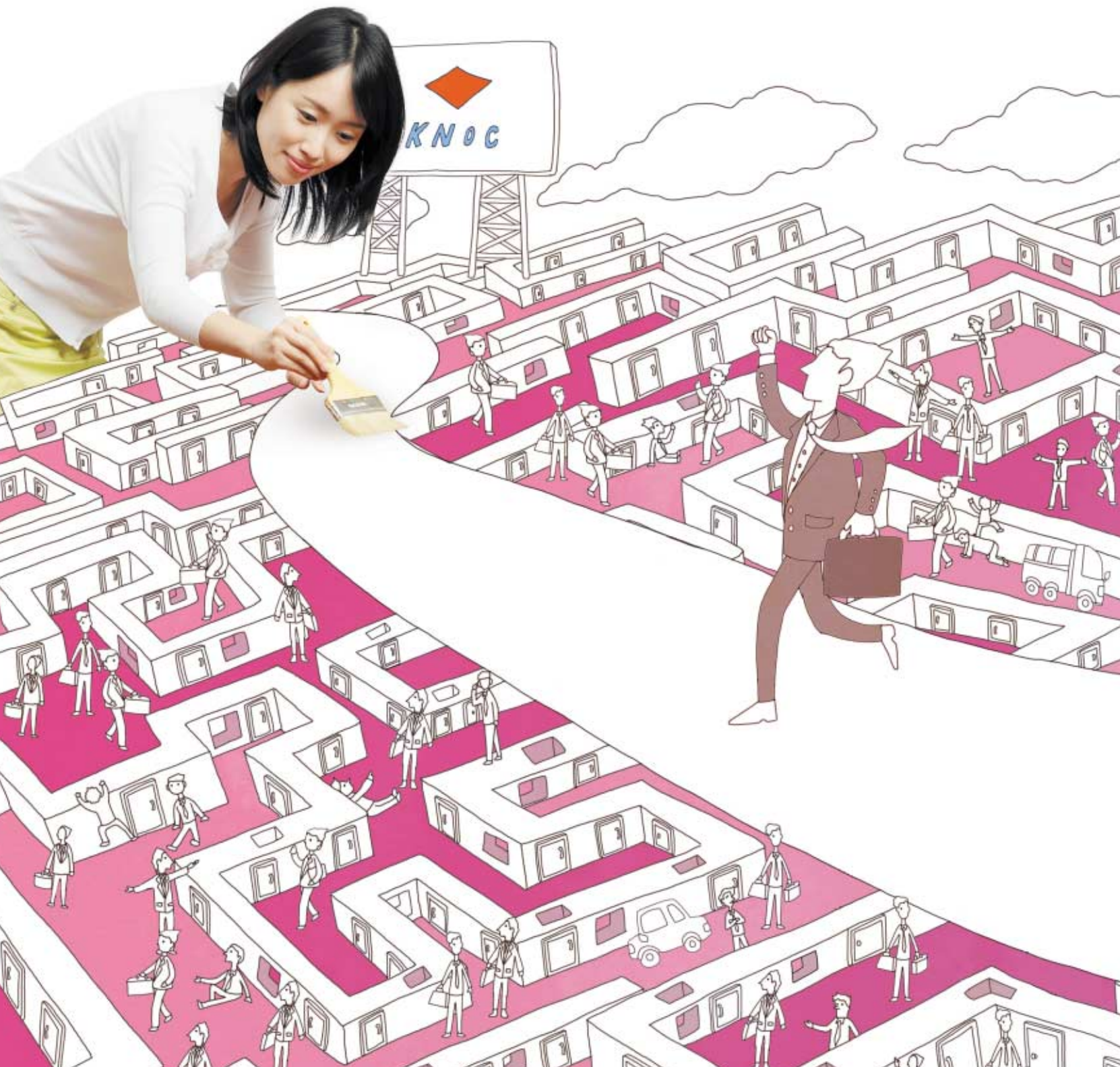
To achieve the government's goal of increasing the nation's oil self-sufficiency ratio to 18% by 2013, the government implemented a fund-raising system for an additional investment of KRW 16 trillion (based on the oil price of USD 40 per barrel) in 2005. In the following year, "The Oilfield Development Fund I" was introduced to utilize private liquid funds for overseas petroleum development projects.

With its success, we were able to overcome the uncertainty surrounding existing oilfields to some extent, and promote our overseas energy resource development activities with institutional investors as well as the general public, helping to induce subsequent funds. Through competitive bidding for selecting asset management company and public placement, we raised a KRW 13.6 billion Fund (107% of expected price). We also provided momentum for revising the Act on Overseas Resources Development Business, a legal device and system for the launch of subsequent Oilfield Development Funds.

– Special Unit for Oil Field Development Fund

# Innovative & Creative Performance

KNOC is guided by the spirit of innovation as we overcome market uncertainties and seek out “blue oceans” of opportunity and a brighter future.



A stylized line drawing of a city with various buildings, people walking, and cars. The drawing is in a simple, sketchy style with black outlines and some grey shading. It occupies the left side of the page, extending from the top to the bottom.

# Key Innovative & Creative Achievements

## E&P Cooperation System Created EIOEA

Organized in 2006, the Energy Industry Overseas Exploration Association (EIOEA) has become a role model for overseas resources development cooperation between the energy sector and infrastructural businesses.

## New Market Expansion

Thanks to careful market analysis and a non-conventional approach, KNOC acquired rights to Canada oilsands and Nigeria deep-water oilfields despite a competitive disadvantage.

## Korea's First Oilfield Development Fund Launched

To enhance Korea's self-sufficiency ratio and utilize the excess liquidity for overseas petroleum development projects, we introduced The Oilfield Development Fund 1 successfully to the domestic financial market and raised KRW 13.6 billion as result.

## Nurturing Innovative Corporate Culture

We foster an innovative and creative corporate culture through various employee programs such as "Idea Time" and "E-poster."

## Stockpiling Innovation through "New-START"

Through "New-START," a voluntary innovative movement implemented at all of KNOC's stockpile bases in 2006, we endeavor to develop a world-class petroleum stockpile system and nurture an enterprise-wide innovative culture.



# Disclosure on Management Approach

## Innovative & Creative Performance System

### Vision & Strategic Goals

With our innovative management vision of becoming "A clean, committed public enterprise," we are striving to become a world-class state-run oil company through petroleum development revitalization; core competency reinforcement via innovation; improved oil management capabilities; and expansion of new businesses. Additionally, we are fostering an enterprise-wide, innovation-driven corporate culture to increase efficiency.

### Policy

To realize our goals, we promote enterprise-wide communication and operate performance-based rewards systems. Furthermore, we strengthen our competencies through diverse technique & process innovation, including a voluntary innovation program at all stockpile bases, a "one person, one innovation" movement, and implementation of the Toyota Production System (TPS). Every year, all departments voluntarily set their own innovation objectives in terms of voluntary goals, government guidelines, and company standards.

### Intra-organizational Responsibility

- Innovation Inspection Team, Management Innovation Department: Manage innovation, personnel, and organizational functions in an integrated
- Select innovation monitoring teams and innovation activists

### Materiality Test

Through the "IPS Materiality Test Model™", it was determined that internal processes and new business development are the most important issues. In addition, technological innovation, new technology development, and overseas market expansion are of significant importance. Further related information is included in this report.



## Major Achievements and Action Plans

Category	Details	Major Achievements		Plans
		2005	2006	2007
Technique Innovation Results	Digital Management System through ERP System	Completion of Phase I (Financing) "Korea Digital Management Innovation Award" from MOCTE	Beginning of Phase II	Completion of Phase II (enterprise-wide)
	Management Innovation Movement	SEE-PLAN	New-START Introduction	New-START Implementation
Process Innovation	Innovation Program for Exploration Success	-	Kazakhstan ADA Block (20 million barrels of oil)	-
	Process Innovation and Supplement for Donghae-1	-	9 Processes, KRW 1.8 billion in cost-savings	-
	Corrosion Inspection Improvement for Tank Bottom Board	-	KRW 110 million in cost-savings	KRW 120 million in cost-savings
	Exudation Discharging System	-	Better Synergy Among Constructors, Manufacturers and KNOC	-
New Market and Business Expansion	Energy Industry Overseas Exploration Association	-	Received Korea Resource Economic Association's Energy Industry Grand Prize	Overseas Expansion Plan
	Canada Oilsands	-	Reserved 0.2 bil. barrels of oil	Development Plan, Environmental Impact Assessment
	Nigeria Deep-Water Block	-	Reserved 2.3 bil. barrels of oil	Geophysical Prospecting Data Analysis, Deep-Water Drilling Ship Manufacturing
	Donghae-1 Gas Field	Secured 35.0 bil. cubic feet of gas	Reserved 10.0 bil. cubic feet of gas	Geophysical Prospecting Data Re-Analysis, Production Drilling
	Introduction of Oil Field Development Fund	-	Raised Fund of KRW 13.6 billion by selling futures cash flow from Oilfield	Subsequent funds expand to new venture businesses & pension fund
	Gas Hydrates	-	Extraction of raw material	Commercial Production by 2015



## International Joint Stockpiling with Major Players

Since the first contract with Norway's Statoil in 1999, KNOC has laid the solid groundwork for a flourishing international joint stockpiling business. With these projects, we can create a new business model based on facilities leasing and storing oil-producing countries' crude oil while securing rights to purchase crude oil in a crisis. In partnership with Total S.A. in May 2005 following a contract with Sonatrach of Algeria, a non-Middle Eastern member of OPEC, KNOC completed a full lineup of joint stockpile contracts with state-owned oil companies in oil-producing countries, major oil companies, and oil traders. By contracting with one of world's six major oil companies, we also created an annual profit of KRW 4.4 billion and solidified an opportunity to revitalize Northeastern Asia's petroleum logistics through possessing non-Middle Eastern assets.

[May 2005]

## Implemented an Advanced Management Infrastructure, ERP





## The Energy Industry Overseas Exploration Association (EIOEA)

In 2006, the Energy Industry Overseas Exploration Association (EIOEA) was established by 24 leading energy-related entities including state-owned energy companies, resource developers and suppliers to bolster cooperative overseas energy development and business expansion. Due to the multifaceted energy development capabilities of EIOEC, KNOC has already secured new oilfields and expanded into related businesses such as construction of roads and power generation facilities.

In particular, we overcame “latecomer” disadvantages to succeed in securing two deep-water oil fields in Nigeria, while POSCO won a railroad modernization project worth USD 10.0 billion.

With successful cooperative overseas projects and cooperation with power generation concerns, the nation’s core competitiveness will be strengthened in bidding for projects in emerging countries such as China and India.

[March 2007]



In 2004, KNOC established a master plan for a digital management system to provide advanced management tools. In 2005, we completed the first ERP system, which focused on financial management. Before the end of 2007, we plan to begin the second phase of our enterprise-wide integrated system, which will include additional management areas. By the completion of our ERP project, we will manage real-time corporate-wide information gathered from a wide range of domestic stockpile offices, gas fields, drill ships and Vietnam 11-2 Block, and improve our information with advanced oil companies throughout the world.

As a result of our efforts in the first phase of the ERP project, we were chosen as “The Best Digitalized Administration in the Public Sector” at “The 6<sup>th</sup> Korea Digital Management Innovation Awards” co-organized by MOCIE and the Maeil (Daily) Business Newspaper. These awards have affirmed our efforts to provide new solutions in corporate information, and enhance transparency and innovation in management. We will gradually expand our ERP system to cover overseas E&P activities.

[March 2006]

## Innovative Brand Slogan Developed: “Thank 油 (Thank you) KNOC”



With the introduction of a new brand slogan, “Thank 油 KNOC,” the Corporation will dedicate itself to active management innovation. Along with our innovative management goal, “A clean, committed public enterprise,” the new brand slogan communicates our commitment to management innovation by minimizing the uncertainty in nation’s energy supply and ensuring people a secure life. In doing so, our Management Innovation Department, the first integrated unit overseeing personnel and organizational innovation in the public sector, is in charge of innovating management for KNOC to become a world-class state-owned oil company. It provides an integrated information system of core technology in order to define growth engines, implement a performance-based reward system, and strengthen core competence for maximum customer satisfaction.

[March 2007]

## KNOC CEO Hwang Doo-Yul Awarded Energy Grand Prize



At the 4<sup>th</sup> Energy Grand Prize awards on December 20, 2006, the Korean Resource Economic Association presented its Grand Prize to Hwang Doo-Yul, CEO of the Korea National Oil Corporation. CEO Hwang was acknowledged for his contributions to overseas resource development and the domestic energy industry. The Energy Grand Prize was created in 2003 to honor those individuals or groups who have helped elevate Korea’s energy sector to the level of advanced countries.

[December 2006]

# Innovative & Creative Performance

## Innovative Management

# Innovative Management Structure

### Innovation Promotion

KNOC set up an innovation management system to accomplish its strategic goal, “Challenge 20-50.” The Corporation nurtures a more voluntary, innovative culture through its efforts including soliciting internal suggestions and executing employee-driven innovations. Furthermore, a specialized team was formed to unify the innovation process, and an innovation competition has been held each year. To strengthen innovation capabilities, we adopted two education programs, the Master Innovation Course for managers and the Win-Win Innovation Course for Change Agents (CAs). These courses are held twice a year and have involved 114 people in total.

### CEO’s Innovation Leadership

The CEO makes efforts to strengthen KNOC’s innovation capabilities and implementation through communication and reorganization aimed at encouraging employees’ voluntary participation in innovation management consensus-building. The CEO takes an active interest in supporting innovation activities and disseminating the results throughout the organization.

CEO’s Innovation Activities

Classification	Activities
Discussion About Innovation	<ul style="list-style-type: none"> <li>• Innovation Process Agreement, Innovation Programs Participation (3 programs)</li> <li>• Special Lecture for Management Innovation Participation (2 lectures)</li> <li>• Outside Education for Innovation (61 hours at Wharton School of Management)</li> </ul>
Closer Bonds	<ul style="list-style-type: none"> <li>• Hiking Trips to Promote Innovation (monthly)</li> <li>• CEO Special Lectures via KNOC Open University, Oil School Lecture, Small group interviews (9 times)</li> <li>• Meetings with staff members (7 times)</li> </ul>
Innovation Strategy Performance	<ul style="list-style-type: none"> <li>• Promotion of employee ideas and suggestions</li> <li>• Active participation in digitalized management system (benchmarking other ERP systems, launching ceremony, etc.)</li> <li>• Outside activities (interviews, informal meetings, lectures, writing)</li> </ul>

### Innovation Goals & Activities

We set our innovation management vision as “A clean, committed public enterprise,” in conjunction with our strategic goal of “Challenge 20-50.” To achieve the goal, we revised our management innovation system and created a new brand slogan, “Thank 油 KNOC.” With our 2006 innovation goal, “Create and utilize innovation,” we enhanced our core competence enterprise-wide, increased process innovation and nurtured a voluntary innovation culture.

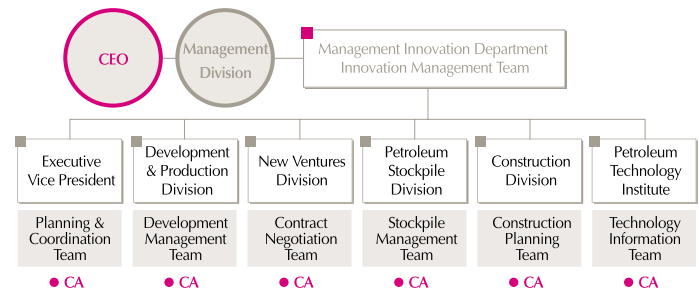
Innovation Goals & Activities

Innovation Goals	“A Clean, Committed Public Company”		
2006 Goals	Create & Utilize Innovation		
Innovation Topics	Explore Blue Oceans (Strengthening Core Competencies)	Develop Core Competencies (Process Innovation)	Customer Satisfaction/Ethical Management (Voluntary Innovation Culture)
Innovation Action Plans	1. New Markets      4. New Sources 2. New Models      5. New Cooperative Networks 3. New Areas	6. Nurturing Core HR 7. Performance-based Management 8. Core Technology Development	9. Transparent Ethical Management 10. Customer-tailored Contract System
Innovation Assignments	<ul style="list-style-type: none"> <li>• Carry out 52 assignments each department</li> <li>• Quarterly innovation inspections &amp; performance evaluation-based rewards</li> </ul>		

## Organization for Innovation

At KNOC, innovation is managed by 89 Change Agents (CAs) in seven innovation teams (one each for six divisions and an innovation specialized division). The Management Innovation Department is the hub of enterprise-wide integrated management in innovation, personnel and organization. The 8-member Innovation Inspection Team is composed of team leaders who are also in charge of identifying innovation issues, and monitoring and evaluating the innovation performance. CAs, recommended by the division, encourage other team members to voluntarily participate in innovation and collect employee suggestions regarding innovations.

### Organizational Innovation



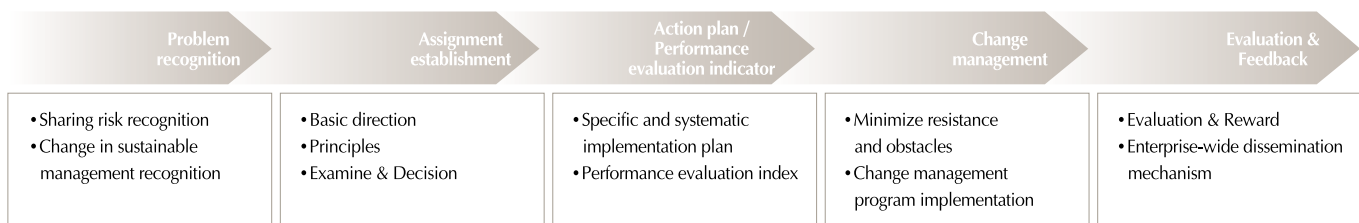
# Innovative Management System

## Process Innovation

Our innovation management is executed based on a systematic innovation process and diverse innovation techniques. Since our Innovation Success Story Book was published in 2006, we have encouraged better employee performance and promoted our innovation management techniques outside of the Corporation.

Our process innovation begins with the recognition of problems affecting the management and seeks solutions in terms of direction, principles, and evaluation. We also set up action plans and goals for change management. Through various evaluation and compensation systems, we look for an efficient way to share the plans and goals throughout the Corporation and encourage employees.

### Process Innovation



## Innovation Methodologies

### Digital Management System (ERP)

With our Enterprise Resource Planning (ERP) master plan devised in 2003, ERP Phase I focused on management plans, performance management, financing/managerial accounting, funding/risk management, and personnel management. In ERP Phase II, systems integration was expanded to our major businesses including overseas/domestic petroleum development, stockpiling and drill ship operations. ERP supports efficient decision-making through rapid and accurate information access. It will also facilitate information gathering on logistics and financing, and enable KNOC to establish standardized models for accounting systems of existing and additional block operations. We will complete ERP Phase II by December 2007, following Vietnam in July 2007, our HQ in September, and BW/EIS in November. We also seek to raise our Customer Satisfaction Index score by 10% following the system's launch. By 2008, we will complete a standardized model for block operations and gradually apply it to blocks in Yemen and Canada.

# Innovative & Creative Performance

## Innovative Management

After the completion of ERP Phase I in November 2005, KNOC received the “Best Digitalized Administration In the Public Sector” award in the 6<sup>th</sup> Korea Digital Management Innovation Awards organized by MOCIE. The award was received for our endeavors to provide various solutions in corporate information digitalization, improved transparency and competitiveness through management innovation.

### ERP Implementation Phases

ERP Implementation Phases	Status Analysis	To-Be Plans	System Establishment / Integrated Test	Cut Over & User Education / Stabilization
Change management phases	Step1	Step2	Step3	Step4
Objectives	Change environmental analysis and planning	Establishing and expanding change	Realization of change	Stabilization & Growth of Change
Core areas management	<ul style="list-style-type: none"> <li>Establishing direction and strategies of change</li> </ul>	<ul style="list-style-type: none"> <li>Starting visible change through consensus</li> <li>Specific plans for change</li> </ul>	<ul style="list-style-type: none"> <li>Realization of plans</li> <li>Actual change</li> </ul>	<ul style="list-style-type: none"> <li>Development of core competencies</li> </ul>
Major action plans	<ul style="list-style-type: none"> <li>Create action plan by case and phase</li> <li>Enterprise-wide promotion activities</li> </ul>	<ul style="list-style-type: none"> <li>Change management for divisions, departments, and teams relevant to ERP implementation team</li> </ul>	<ul style="list-style-type: none"> <li>Enterprise-wide change management</li> <li>Power users &amp; related cooperation</li> </ul>	<ul style="list-style-type: none"> <li>Enterprise-wide change management (continued)</li> <li>General users</li> </ul>
Project Management				
Communication activities				
	<ul style="list-style-type: none"> <li>Change Environment Analysis</li> <li>Establishing and sharing change direction</li> <li>Specific program for change management</li> <li>Enterprise-wide consensus through communication - Project launch ceremony</li> </ul>	<ul style="list-style-type: none"> <li>Change management activities aimed at change management personnel</li> <li>Workshops and seminars to spread “To-Be” models</li> <li>Create education strategies (Power users ? General users)</li> </ul>	<ul style="list-style-type: none"> <li>Power users PI/ ERP user education</li> <li>General user education plan</li> <li>Individual To-Be job role Role Alignment</li> <li>Enterprise-wide communication</li> </ul>	<ul style="list-style-type: none"> <li>User education led by power users</li> <li>Spreading PI/ERP Benefits</li> <li>Increasing PI/ERP adopters through various events</li> <li>Evaluation of change management</li> </ul>

\* PI: Process Innovation

### Petroleum Storage Base Management Innovation Movement

As a follow-up to our successful SEE-Plan I and II, which were voluntary innovation movements at all storage bases from 2002 to 2005, we initiated a new voluntary innovation movement, New-START, in 2006 and improved profitability in the government's stored oil management operations through technological innovation in the field.

Through the SEE-Plan, we conducted surveys on accident risk factors and formulated nine types of scenarios classified by disaster. Furthermore, we optimized stockpile facilities maintenance systems and obtained quality certificates for our facilities, as well as achieved a low-cost, high-return management system through reducing waste and manpower.

### Innovation Movement Comparison Table

Classification	SEE-Plan	New-START(Phase III)
	SEE-PLAN (Phase I)   Total SEE-PLAN (Phase II)	
Direction	• Hardware innovation (Enhancing operating plan)	• Hardware + software innovation (Corporate culture / capability improvement)
Innovation Areas	• Accident- and disaster-free safety management (Safety)	• Maintaining service-oriented mindset (Self-sacrifice)
	• Maximizing profitability and Optimizing cost structure (Economy)	• The world-best knowledge-based management (Top of the World)
	• “Lower cost with higher profit” system (Efficiency)	• Enthusiastic innovation practices (Aspiration)
Topics	• Scale-focused innovation (10 assignments)	• Creative activities (Reform)
Major Innovation Assignments	• 3D (Danger, Disease, Dirt) Zero	• Enhanced Teamwork (Togetherness)
	• Zero movement	• Quality-driven growth with selectively concentration (6 assignments)
	• Sharing outstanding and failed experience	• ECHO (Integrated Safety System) • PRO-3M*
		• Organizing innovation group linked with operations
		• Encouraging workforces

\* Expert cultivation system: “Professional of My site, My job, My facility.”

In New-START, the third phase of our voluntary innovation plan, we adopted the government's management innovation framework to efficiently manage government assets. There are five areas, including service-oriented operations and knowledge-based professionalism and competitiveness, to which we seek to apply technological innovation. In addition, we will continue to spread management innovation to promote socially responsible management, enhance objective feedback, and systemize management innovation. Utilizing individual management innovation, we also endeavor to provide a world-class oil stockpile system and foster an enterprise-wide innovative corporate culture.



## New-START Performance (In 2006)

S (Self-sacrifice)	ECHO safety system	E(efficiency)	8 innovations including usage of on-ground tank infrastructure as tank table
		C(Confidence)	5 innovations including risk surveys
		H(Health)	Improvement plan for reducing positive-finding rates after health inspections
		O(Optimization)	6 innovations including reconsideration of upgrading wastewater disposal equipment
	PRO-3M maintenance	Developing personality	16 innovations including personalized education
		Improving facility management	131 innovations including facilities research activities
		Enhancing facilities reliability	39 innovations including providing a standard manual for maintenance
T (Top of the world)	Duty-focus network	Research team	35 innovations including oil pipeline optimization TFT at Yongin branch and research teams for profitability & public interest at Geoje branch
	Elites in small number	HR system	16 innovations including HR network at Geoje branch
A (Aspiration)	Brain engagement	Innovation system	21 innovations including Yeosu branch "Innovation Cafe"
R (Reform)	Management innovation mind	Individual mindset	249 innovations including individual innovation for the entire workforce (Time, Health, Knowledge, Stress)
T (Togetherness)	Management innovation team	Tier-based operations	21 innovations including Management Innovation Leaders at Ulsan branch
	Cooperative channels	Strengthening channels with related institutions	46 innovations including a technology community (Caltex)

## Programs for Implementing Innovation

### ● BSC and MBO

We introduced a Balanced Score Card (BSC) system to provide and promote a clear strategic direction for our ultimate vision. Compared with the previous performance index which merely focused on the financial aspect, this new system was expanded to include customers, internal processes, education and growth. Furthermore, a Management By Objectives (MBO) system was also implemented to enhance individual performance in conjunction with organizational goals. Every KNOC employee creates their own four objectives along with a team Key Performance Indicator (KPI) following a discussion with supervisors. The MBO system also provides for annual performance management and self-evaluation. We strive to establish a performance-driven corporate culture by operating both MBO evaluation and BSC organization evaluation.

### ● Idea Time program

Idea Time is a program for developing creative ideas through discussion and fostering academic clubs and education programs in and outside the Corporation. In total, 10 outstanding ideas were awarded among 132 selected ideas.

### ● Work-out Program

Our work-out programs are aimed at slimming down our organization by eliminating unnecessary operations. By minimizing the decision-making process and the number of meetings, we try to execute our daily tasks in the most efficient way. Sixty-one operations were revised following work-out meetings held in February, May, August and November.

### ● e-Poster Competition and Best Copy

In 2006, an internal competition for e-Poster (internet advertisement) and Best Copy (corporate slogan) was introduced to attain paradigm shifts in management. Among 1,960 participants, 24 Best Copies were selected.

### ● Improved Suggestion System and Knowledge-Based Management System

To encourage and develop employees' fresh and creative ideas, outstanding suggestions are selected by 23 regular judges and 10 special judges and are disseminated throughout KNOC. The quality and practical usages of the suggestions have continuously improved year after year. In addition to our reward system for outstanding ideas, we also use them to obtain patents and develop core technologies.

## Suggestion Results

Classification	2004	2005	2006
Suggestion adoption rate	35%	26%	37%
Economic effect	KRW 19.5 billion	KRW 8.0 billion	KRW 8.9 billion

# Innovative & Creative Performance

## Innovative Management

## Innovative Performance

### Innovation Assignment Fulfillment

We have five assignments for our innovation management and a voluntary innovation activity called "One innovation for one division." In 2005, we completed five mid-and long-term innovation assignments (including operations, information, technologies, systems and HR) and 28 short-term assignments. Furthermore, in 2006, 36 voluntary innovation assignments, 36 government innovation assignments, and the five KNOC innovation management assignments were 100% fulfilled.

#### Five assignments for innovation management

Assignment	Effects
1 Strengthening the linkage and specificity of innovation system	-Pursue innovative activities systematically through reorganized innovation systems -Present KNOC's future with innovative management in a specific and accurate way -Publicize innovation performance and activities through innovation brands
2 Increasing the participation of CEO and other executives	-Improve innovation performance with voluntary and active executive participation -Strengthen trust & responsible management
3 Enhancing innovation reward system and innovation capabilities	-Encourage staff participation in innovation with tangible rewards for performance -Ensure open discussion and increase operational efficiency
4 Improving working processes	-Enhance flexibility and operational capability of the team system -Process work without delay and improve productivity through delegation of authority -Ensure ability- and performance-based personnel evaluations and capability-based assignment and operation of positions
5 Ethical management internalization	-Systemized ethics management system -Improve integrity and transparency in construction business through ethics education -Prevent corruption and nurture integrity through integrity pact for executives

### Process Innovation

#### Innovation Programs for Exploration Success

We actively continue to explore and operate oil blocks to obtain more petroleum reserves. The number of overseas exploration and drilling operations based on innovation programs aimed at enhancing exploration success ratios have increased year after year. In particular, we succeeded in securing an additional 20 million barrels of oil in the Kazakhstan ADA Block, which was a high-risk venture.

#### Innovation programs for exploration success

PLAN	Improvement of drilling location decision-making process	<ul style="list-style-type: none"> <li>At technology meetings with partners, KNOC's experienced engineers are dispatched to inspect and make recommendations on technology.</li> </ul>
DO	Enhancement of drilling decision-making support and team/manpower	<ul style="list-style-type: none"> <li>To prepare for the expansion of drilling operations, special units for drilling are integrated and the Drilling Operation Department was created.</li> <li>Enhance our drilling competitiveness and success rate through strengthened support for overseas drilling operations</li> </ul>
SEE	Upgrading of analysis process for drilling results	<ul style="list-style-type: none"> <li>To analyze drilling results, the Petroleum Development Technology Consulting Committee*, a task forced team, was formed.</li> </ul>

\* Petroleum Development Technology Consulting Committee was organized for examining/inspecting technological feasibility and consulting with management on important decision-making in domestic/overseas petroleum development operations.

#### Cost-savings from Process Innovation and Supplement of Donghae-1

To overcome operational problems experienced in the early stages of the Donghae-1 gas field development, we accumulated operational know-how and built up our expertise. Now, utilizing a Process Simulation Tool for risk-free and safe process innovation to deal with changing operational conditions, we have accomplished nine process improvements that garnered KRW 1.8 billion in cost-savings.

#### Improved Bottom Plate Corrosion Inspection for Above-ground Tanks

In 2006, a task force team comprised of experts from our Ulsan site, carried out bottom plate corrosion inspections, a task which used to be outsourced to outside organizations. We obtained technical manuals appropriate for our equipment, acquired technological know-how, purchased costly inspection equipment. With this autonomous corrosion inspection by the task force team, we were able to accumulate technology know-how, reinforce our talent pool, and we save KRW 110 million in annual expenditure.



### Improved Underground Storage Water Discharge System

At our Geoje and Yeosu storage bases, we made efforts to solve problems caused by water discharge pumping systems. We replaced our motor-driven pumps with hydraulic pumps because of motor insulation resistance problems. Due to this replacement, we save on maintenance fees while our partner manufacturers now have opportunities to sell this product.

## Corporate Culture Innovation

### Community-friendly Branch Office Culture

To generate corporate value through serving the public interest, our Geoje office devised a detailed innovation action plan and a mechanism for innovation consensus-building. An Operations Innovation Implementation Team was created to foster warm bonds with the community around the branch office, stakeholder-focused activities, and operational innovations in operations responsible to the local communities, helping KNOC fulfill our responsibility to society.

### Innovation Performance

Classification		2004~2005	2006
Community-friendly	Branch-community relations	Under dispute /conflict	Reconciliation / Cooperation - Invited local citizens and stakeholders (11 invitations, 217 persons) - Field trip to Yeosu Branch (200 persons)
	Public complaints	Not solved	Solved -10 discussions on solutions (early settlement)
	Support to the Regional reinforcements	-	200 persons
	On/offload number	1 time	19 times
Stakeholder-oriented	Invitation and discussion with heads of relevant institutions	-	12 meeting each (monthly) - Hae-song Meeting (Regional leaders' organization in Geoje City) - Geo-gong Thursday Meeting (Meeting of 7 local agency heads in Geoje City) - Il-woon Town local agency association
Operational Innovation	Organization and systemization of local network	Insufficient	Activation
	Guide for foreigners	HQ & professional interpreter	Branch employees

# Innovative & Creative Performance

## Innovative Management

### Operational Innovation

#### Strengthened Operative Business System for Overseas E&P

In February 2006, Energy Industry Overseas Exploration Association was formed by 24 companies including state-run energy companies, resource developers, and other energy-related business partners. The Association succeeded in ensuring two oilfields in Nigeria and oilsands in Alberta, Canada with reserves of 200 million barrels through joint research and information exchange among member companies. It also became a successful role model for joint overseas exploration between energy and infrastructural businesses, and SOC investment for the nation's energy resource development.

We also maintain substantial cooperative business relations with domestic and international financial institutions. Through a comprehensive overseas oil development support agreement with KDB in June 2006, not only was a credit line of USD 300 million agreed upon, but funding activities for additional oil development, financial consulting, information exchange and joint exploration are also anticipated.

#### Participated in International Oil/Gas Stockpile Facilities Construction Projects

Through technology lectures for foreign stockpile facilities operators, including those from China and India, KNOC demonstrated our accumulated know-how in the construction of underground stockpile bases. A number of opportunities exist for commercializing our technologies and vast experience, including buyer invitation meetings following technological support agreements, construction technology lectures, cooperation through ties formed with businesses in the field, and training international business experts.

### IT Innovation

#### Implemented Management System for Non-Operating Production Blocks

An efficient management system for non-operating production blocks is essential to KNOC's quest to become a competitive world-class national oil company. In 2006, we began fortifying internal quality management, an area that had been neglected during the period of expansion. We have completed Phase I (gathering block operators' experience to establish an innovation infrastructure), and Phase II of the final plan. We plan to conduct test operations of the system by 2008 through data collection and an integrated database system.

#### Petroleum Information Service Innovation

Our Petroleum Information Center reclassified our petroleum information analysis according to global regions, industries and companies, and deployed special teams to strengthen our analytical expertise. We also employed various means to improve customer service, including education, training and benchmarking. We now provide real-time petroleum product trend information by region and oilfield development investment strategies.





## Creativity Performance

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Armed with new ideas and challenges, KNOC is set to begin a new era in our history. Our focus in executing overseas petroleum projects was on fundraising and consideration of local conditions. Ultimately, we aim to create a new paradigm for petroleum development through securing Nigeria deep-water blocks and the Canada BlackGold block. Thanks to our successes in these endeavors, KNOC received "The 2006 Energy Industry Grand Prize" from the Korea Resource Economic Association.

### Petroleum E&P

#### Canada Oilsands

KNOC opened a new horizon in overseas oil development by acquiring Canadian BlackGold Oilsands blocks. Due to our disadvantage in competing for mining rights for oilsands, we followed an alternative approach to the bidding by carefully scrutinizing information on the status of competitors and on seller's needs using our own information networks and the assistance of private consultants specialized in the petroleum industry. We secured reserves of 200 million barrels of oil from the oilsands blocks and got a chance to raise our competitiveness in tar oil development.

#### Nigeria Deep-Water Blocks

By securing mining rights to deep-water oilfields in Nigeria (OPL 321 and 323), the first Korean drilling project in the upper part of Nigeria, we succeeded in our niche-market strategy to overcome the obstacles of oil resource development. With its estimated reserves of 2.3 billion barrels, the project is also a successful model of tailored investment and joint expansion, and it provides a new paradigm in energy supply-chain development via partnership between Korean consortiums and resource-rich countries.

#### Deep-Water Exploration in Korea's Continental Shelf

Following the start of exploration in the Continental Shelf in 1986, we failed to discover a gas field until 1994. Then, we shifted the focus of our exploration activities to non-transformed areas (Gorae Structure) and away from transformed areas (Dolgorae Structure), following comprehensive technology evaluations conducted in 1996. In 1998, Donghae-1 gas field was finally discovered at the first drilled well, followed by 35.0 billion cubic feet of natural gas at Gorae-8 Structure in March 2005 and 10.0 billion cubic feet of natural gas at Gorae-14 Structure in February 2006.

#### Independently Developed & Operated Gas Fields

We independently operate gas fields based on our accumulated know-how and technologies through joint operations with advanced foreign engineers. Assessing our independent capabilities, we improved operational conditions with flexible HR management. This enabled KNOC to save KRW 2.2 billion in manpower costs by substituting domestic for foreign workforces.

### Petroleum Stockpiling Operations

#### New International Joint Oil Stockpiling Businesses

In 2006, we boosted the number of contractors and volume of contracts thanks to a new partnership with the world-leading oil company, TOTAL S.A., and an expansion in operations with Sonatrach of Algeria. With our aggressive yet flexible negotiation approach, we obtained an agreement from Sonatrach to rent underground storage facilities despite a preference for on-ground storage. This resulted in securing an additional 2.2 million barrels in on-ground storage, and we persuaded Sonatrach to move product from Ulsan's on-ground storage to Geoje's underground storage, resulting in an increase from 2 million barrels to 4.6 million barrels in total. Through our contract with TOTAL S.A., we are revitalizing Northeastern Asia's petroleum logistics through the stockpiling of non-Middle Eastern assets.

# Innovative & Creative Performance

## Creativity Management

### Developed New Vertical Tunnel-Drilling Technology

KNOC developed a new vertical tunnel-drilling technology for underground base crude oil pipelines. We obtained two patents, for a drilling method for vertical holes and a blasting method for vertical holes with debris removal, which reduce construction time by 60% and construction expenses by 30%, while also enhancing environmental-friendly construction.

### Business Initiatives

#### Introduced Korea's First Mutual Fund-type Oilfield Development Fund

To help reach Korea's targeted energy self-sufficiency ratio, we introduced "The Oilfield Development Fund I" in November 2006 to utilize excess liquidity from the private sector for overseas petroleum development projects. Through the successful launch of the Fund, we partially hedged future business risks in production-stage oilfields, and expanded opportunities for investors and raised public interest in the energy sector. The Fund, which essentially transfers future oilfield earnings into the Fund itself, was established to invest assets from the southwestern area of the Black Lion Structure, Vietnam 15-1 Block (an oilfield KNOC had invested in), using an asset management company selected through competitive bidding. By introducing the "competitive bidding system," we raised KRW 13.6 billion (107% of estimated market price) from the Fund. This deal resulted in the creation of legal frameworks and systems through revision of the Act on Overseas Resources Development Business for the launch of subsequent Oilfield Development Funds.

#### High-Value-Added GTL (Gas-to-Liquid)

For small- and medium-sized gas field development projects, KNOC is focusing on developing Gas-to-Liquid (GTL), a next-generation clean energy resource. In line with the government's directives in this area as supervised by MOCIE, we engage in joint research in this new economic energy resource.

#### Gas Hydrate Development for Energy Independence

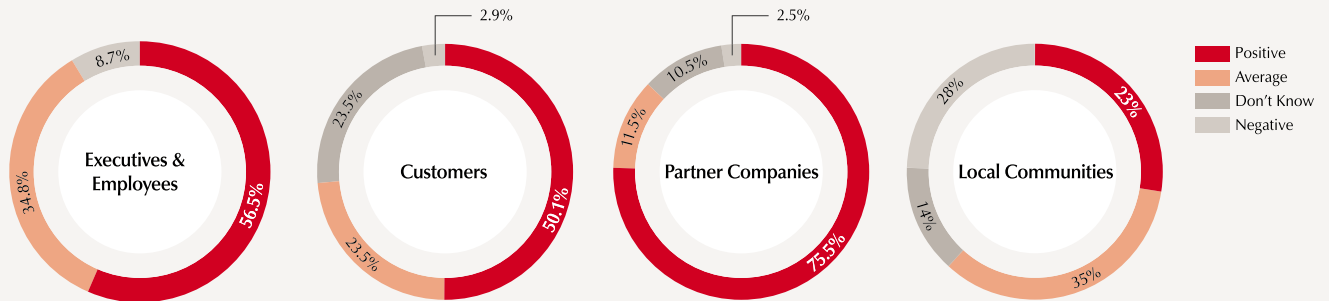
KNOC has conducted initial exploration in the deep-sea areas of Donghae for gas hydrates, a next-generation energy resource, and carried out full-scale exploration after confirming the possibility of their existence with an estimated reserve of 600 million tons. After obtaining basic data for exploratory drilling to confirm the existence of gas hydrates, we provided a framework to pursue the project. In June 2007, we succeeded in extracting gas hydrates in their natural state from the sea 135 km northeast of Pohang and 100 km south of Ulleungdo. Currently, we are pursuing the project in stages in consideration of geological disasters and environmental impact, with a target commercial production date of 2015.



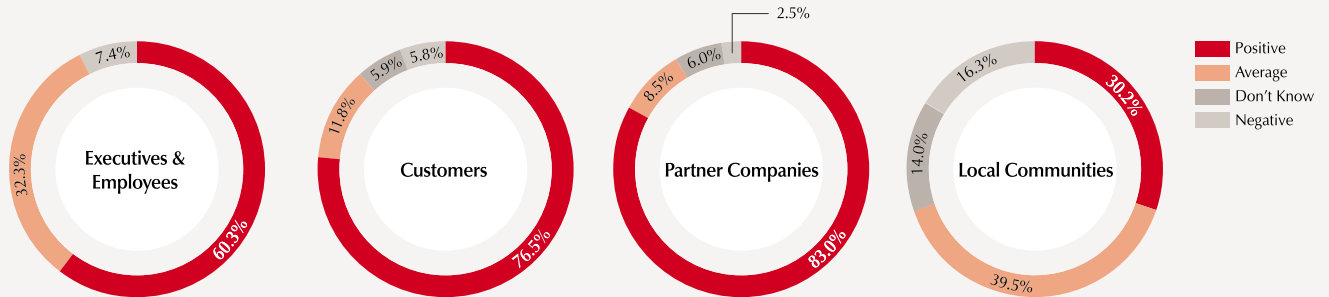
## Survey Results

The stakeholders survey on KNOC's direction and objectives in the area of innovation revealed positive response ratios from executives & employees (56.5%) and partner companies (75.5%), significantly above that for local communities (23.0%). Meanwhile, executives & employees (60.3%), customers (76.5%) and partner companies (83.0%) positively responded to our efforts in new market and business expansion, though local communities recorded relatively a lower recognition rate (30.2%). In view of the survey results, we will commit ourselves to nurturing an innovative and creative corporate culture by maximizing the use of HR, systems, and ventures in untapped markets and businesses, while disclosing and publicizing business information to our stakeholders.

[ KNOC has a clear direction and goals for innovation. ]



[ KNOC makes continuous efforts to expand into new markets and businesses. ]



## Expert Interview

MOCIE  
Jong-Chul Kim  
A Secretary at Industry Policy Team

### Evaluation and Suggestion for Sustainability

To become a globally competitive oil company, KNOC needs to grow based on nationwide recognition about the Corporation's role in securing energy supplies. Armed with an adventurous spirit, must sharpen its competitiveness with ceaseless management innovation.

### KNOC's Response

Our Corporation has successfully overcome and managed various difficulties and limitations thanks to our adventurous and creative spirit to become a world-class state-owned oil company. We nurture an innovative corporate culture to strengthen our core competencies, and we set and achieve voluntary innovation goals, government-selected innovation targets, and goals inherent in the Corporation's guidelines. To better manage our innovation strategies, we execute short-term assignments based on innovation strategies established through direct employee participation and promote enterprise-wide consensus-building through the introduction of innovation and transparent disclosure. Through management innovation via various employee-driven approaches including two workshops and two surveys, we will continue our march to be come a globally competitive oil company.



## Voluntary Innovation Movement at Stockpile Bases

Thanks to our past voluntary innovation movement at oil stockpile bases, we improved 3,378 risk factors and received verification of certificates for 898 stockpile equipment in 119 categories. We now need a new paradigm to satisfy the needs and demands of stakeholders for a world-class petroleum stockpile system. Our New-START program is based on years-long experience with previous innovation plans. It begins with changes in management and spreads throughout all enterprise systems, structures and programs. As a result of our New-START movement in 2006, we recorded 290 accident- and disaster-free loading/offloading operations (total 135.5 million barrels of oil). Meanwhile, 526 certificates in 52 categories were verified, and cooperative relationships with 28 institutions, including charities and neighboring oil refineries, were established.

- 9 Stockpile facilities



## Social Performance

Our constant efforts to ensure everyone's happiness is bringing our world one step closer to true happiness.







# Key Social Achievements

## Enhancement of Service Selection, User Convenience and Promptness

KNOC has constantly made efforts to enhance “Petronet”, a system developed to provide clients with reliable petroleum information, and as a result achieved a 15% increase in number of members to over 100,000 and a 13% increase in daily information accesses estimated to total over 27,000 hits.

## Cultivating Professional HR

We are developing professional human resources (HR) by introducing corporate-academia collaboration, a mentoring program, and systemizing career development programs such as the Oil Academy and Professional OJT. In addition, we have expanded petroleum development internships, petroleum development scholarships, the Oil Academy, and Professional OJT to activate studies in related fields and to encourage students who are the industry's core future human resources.

## Expanding Opportunities for SMEs

We encourage the participation of small & medium-sized enterprises (SMEs) in bidding by relaxing certain restrictions. During the bidding process we execute electronic contract negotiations and we announce the reserve price to the public in order to strengthen clarity and transparency.

## Enhancing Our Anticorruption Posture

In the year 2006, KNOC adopted the Staff Integrity Contract system which clearly defines obligations and responsibilities for staff members to meet anticorruption standards, and all seven board members entered this contract. In addition, we have strengthened anticorruption levels of our board members by enhancing internal monitoring and a two-strikes-and-you're-out policy (termination of position when prosecuted for more than two actions of corruption).

## Building a Primary School in Binh Thuan, Vietnam

In October 2003, KNOC started producing crude oil from the Vietnam 15-1 mining area. To strengthen our partnerships with local communities, we execute management policies that involve sharing. In 2004, KNOC supported the establishment of a primary school in the underdeveloped Binh Thuan region. As a result, KNOC received a Friendship Medal from the Vietnamese government.

# Disclosure on Management Approach

## Customer-focused Management

### CS Performance System

#### Vision & Strategic Goals

KNOC seeks to become a well-respected public enterprise by pursuing three main values: Developing Hope, Accumulating Happiness, and providing Trust. Creativity, the spirit of challenge, professionalism, and leading by example are our four main virtues. Under our customer satisfaction (CS) strategy, establishing a CS culture and strengthening CS capabilities are the main means of improving our corporate image. KNOC has set a CS strategy objective to achieve scores of 80 points on COI, 90 points on CSI, and 8 points on the Corporate Respect Index by the year 2010.

#### Policy

Through our Customer Charter which stipulates the content and method of providing services to customers, KNOC firmly pledges to ensuring high-quality customer service and consumer rights. Our Customer's Charter consists of announcements, general status, and project service fulfillment terms. KNOC also makes official announcements regarding service fulfillment achievements for each quarter in the customer participation bulletin board on our homepage.

#### Intra-organizational Responsibility

- CS Operations Teams: Five CS enhancement teams operate within each service section.
- Management Evaluation Team: Responsible for operations regarding customer satisfaction management.
- Open Management Committee: Responsible for strengthening customer satisfaction and service quality; professional evaluation of service improvements.

#### Materiality Test

According to the results of the "IPS Materiality Test Model™", customer communication is the most important issue, while product responsibility and customer information protection were also determined to be major issues. Information on these issues is included in the report.



### Major Achievements and Action Plans

Category	Details	Major Achievements		Plans
		2005	2006	2007
Customer Satisfaction Level	Customer Satisfaction Index (NCSI) Score	79 points	82 points	86 points
	Corporate Respect Index	-	6.3 points	6.8 points
Information Service Provision	No. of Petroleum Information Provisions	158 cases	200 cases	220 cases
	No. of Petroleum Information Service Members	87,375 persons	99,900 persons	100,973 persons
	No. of Daily Requests for Petroleum Information Service	24,000 cases	27,000 cases	27,350 cases
	No. of Oil Price SMS Service Users	382 persons	482 persons	460 persons



### KNOC Sets Customer Service Vision: "Developing Hope, Accumulating Happiness, and Providing Trust"

KNOC established its customer satisfaction (CS) management strategy under the guidance of the Korea Management Association (KMA) and held meeting to announce the strategy on August 14, 2006. Our Planning & Coordination Department gathered the opinions of personnel and interested parties through strategy workshops and surveys, and set "Developing Hope, Accumulating Happiness, and Providing Trust" as the company's CS vision. As our CS strategy goals, KNOC seeks to attain scores of 80 points in the Customer Orientation Index (COI) and 90 points in the Customer Satisfaction Index by the year 2010. We will strive to meet our goals by establishing a core strategy CS atmosphere, strengthening CS capabilities, and improving our corporate image.

[August 2006]



### Upgraded "Petroleum Technology Institute" Website Launched

In order to provide our customers with prompt and accurate petroleum technology information, KNOC created the Petroleum Technology Institute homepage in April 2004. The website contains information regarding R&D projects and achievements, data on academic activities and oil exploration information, and educational and oil exploration software data. KNOC will continue to play its role as an information-sharing window for all petroleum-related customers by providing up-to-date online content on oil technology research through the integration of KNOC's homepage, Petronet, and the online oil industry database, "Jip Hyun Jun." [April 2007]



## Customer Satisfaction Management

### Customer Classification

KNOC carries out various business operations such as the development and production of petroleum, oil drilling service contracts, and petroleum storage. Unlike other industries, our business is completely supplier-oriented, and thus we invest considerable time and effort in acquiring industry information that helps generate profits for domestic oil companies, supporting their participation in securing the nation's energy resources. Additionally, we are also a petroleum industry information provider and a lender of SAER funds for oil development projects. As mentioned above, KNOC executes a variety of business activities that require an extra level of care to ensure customer satisfaction in accordance with each respective area of business. In consideration of these businesses and their unique characteristics, we defined our customers, including core customers (oil development loan & petroleum information), by business line. From 2006, we categorize customers as oil development and petroleum stockpiling, and we tailor our services for them accordingly.

Customers in the petroleum development business range from domestic petroleum (gas) demanders to companies participating in overseas energy development participants. KNOC supports private-sector participation by providing customers with information on investment in promising oilfields and on technology. For petroleum stockpiling customers, KNOC plays a role of ensuring efficient energy security and distribution market stability by making use of oil storage facilities owned and operated by national companies of oil-producing nations, international oil majors, and domestic oil refiners. For energy development loan customers, KNOC extends government SAER funding for their participation in domestic petroleum exploration projects. We also provide accurate and prompt information to subscribers through Petronet and other online services. In our drill ship business, customers operate the drill ships themselves, while KNOC provides information and rents vessels to customers.

KNOC strives to satisfy the various needs of our customers with essential information, while guiding the balanced development of the oil industry.

### Customer Characteristics & Services (2006)

Business	Customer	Portion of Total Revenue	Service Provided
Petroleum Development	<ul style="list-style-type: none"> <li>Petroleum exploration participants (partners)</li> <li>Energy (gas) demanders</li> </ul>	74.12%	<ul style="list-style-type: none"> <li>Latest industry &amp; oilfield participation information</li> <li>Technical support &amp; training</li> <li>High-quality petroleum &amp; gas production, supply</li> </ul>
Petroleum Storage	<ul style="list-style-type: none"> <li>Petroleum stockpiling, storage facility rental companies</li> </ul>	4.80%	<ul style="list-style-type: none"> <li>Stockpiling, rental of storage facilities</li> </ul>
Loan Business	<ul style="list-style-type: none"> <li>Energy development loan recipients (energy development participants)</li> </ul>	10.50%	<ul style="list-style-type: none"> <li>Loans from gov't fund for energy &amp; resource development</li> </ul>
Petroleum Information	<ul style="list-style-type: none"> <li>Petroleum information subscribers</li> </ul>	0.02%	<ul style="list-style-type: none"> <li>Up-to-date oil information (price, demand/supply, E&amp;P)</li> </ul>
Drill Ship	<ul style="list-style-type: none"> <li>Drill ship operators</li> </ul>	2.49%	<ul style="list-style-type: none"> <li>Rental of Petroleum drilling ships &amp; related information</li> </ul>
Others	<ul style="list-style-type: none"> <li>FX, loan, subsidies (stockpiling business) firms</li> </ul>	8.06%	



# Social Performance

## Customers

### Customer Satisfaction Management System

#### Customer Satisfaction Management Strategy

Leading the effort to secure the nation's energy needs, KNOC provides customers the core CS values of "developing hope, accumulating happiness, and providing trust." Our vision is to become the most trusted public enterprise by the year 2010 by putting customers first and enhancing our corporate image. KNOC conducted surveys and interviews of staff members, management, and customers and in 2006 established our customer satisfaction management execution system.

To promote voluntary CS activities, we have arranged lectures for our employees to underscore the importance of customer-based work processes. We promote real-life customer satisfaction management by activating close communication between executives and employees.

Going forward, to foster a CS-focused climate we will strengthen our CS systems in 2007 through Voice of Customer (VOC) analysis and improved customer satisfaction testing methods. By 2008, CS core capabilities will be the primary focus of career development programs and CS expert fostering programs, and by 2010, we plan to create programs to enhance our global image and upgrade our corporate image through upgraded services.

#### Customer Satisfaction Management Strategy

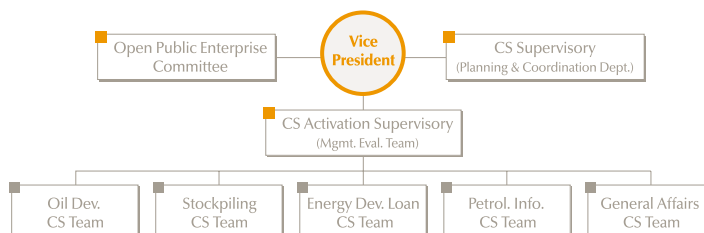
Customer Satisfaction Vision	Becoming Korea's Most Respected Public Enterprise			
Customer Value	Developing Hope	Accumulating Happiness		Providing Trust
CS Strategy Targets	By 2010	● COI* 80 points	● CSI** 90 points	● CRI*** 8 points
CS Strategy Direction	Cultivate CS Climate	Strengthen Core CS Competencies		Enhance Corporate Image
Strategic Action Plans	<ul style="list-style-type: none"> <li>• Activate organizational culture</li> <li>• Spur CS activities</li> <li>• CS leadership program</li> <li>• Improve CS evaluation system</li> </ul>	<ul style="list-style-type: none"> <li>• Skill development programs</li> <li>• CS specialist fostering programs</li> <li>• Improve customer point-of-contact process</li> <li>• Develop complaint resolution/early-response system</li> <li>• Build integrated customer management platform</li> <li>• VOC gathering/sharing mechanism</li> </ul>		<ul style="list-style-type: none"> <li>• Develop differentiated customer services</li> <li>• Devise strategic PR</li> <li>• Fortify global corporate image</li> </ul>
Shared Corporate Values	Creativity	Adventurism	Professionalism	Volunteerism

\* COI: Customer Oriented Index  
 \*\* CSI: Customer Satisfaction Index  
 \*\*\* CRI: Corporate Respect Index

#### CS Organization

The Planning & Coordination Department oversees KNOC's CS activities, the Management Evaluation Team is in charge of practical affairs, and there are five teams for each business area.

#### CS Organization





### ● Transparent Public Enterprise Committee

This committee collects opinions from customers to help KNOC enhance the level of customer satisfaction. The committee consists of seven external and five internal members. Records of the committee's regular meetings are made available to public via the KNOC homepage. In 2006, there were four committee meetings held which resulted in changes to CS education and systematic improvement in 2007 of the company's Voice Of Customer (VOC) analysis.

## Major Customer-related Policy

In every business and activity we undertake, KNOC fully respects the laws and customs of domestic and international trade. We put customer safety first and strive to provide fast and accurate information. Furthermore, we do not violate the advertising regulations of Korea Advertising Review Board. We respect our customers and protect their rights by fully complying with our Customer Charter and Service Performance Standards.

### Customer Charter & Service Performance Standards

The Customer Charter was enacted to guarantee customer service value and provision of high-quality public services, while Service Performance Standards have been promulgated to systematize customer service provision and inspection methods. Service Performance Service set forth standards to be achieved in basic services and business-specific services. Results of quarterly evaluations of our service performance records since 2004, including remedies & compensation for poor service, can be found on KNOC's homepage (<http://www.knoc.co.kr/>).

### Summary of Service Performance Standards

Area	Customer Services (Summary)
Customer-satisfying Service	<ul style="list-style-type: none"> <li>• Courteous customer treatment</li> <li>• Prompt, accurate responses to customer needs</li> <li>• Guarantee customers participate and voice their opinions</li> </ul>
Steady supply of petroleum through domestic/international E&P	<ul style="list-style-type: none"> <li>• Provide related information and host seminars</li> <li>• Joint E&amp;P of overseas resources with customers</li> <li>• Periodic gathering of customer opinions and reflecting them in service enhancement</li> </ul>
Safe, reliable drill ships	<ul style="list-style-type: none"> <li>• Drill ship information and contract guidance</li> <li>• International-standard vessels &amp; periodic safety inspections</li> </ul>
Stockpiled oil loan-out & oil storage facilities rental service	<ul style="list-style-type: none"> <li>• Provision of legal guidance &amp; application procedures</li> <li>• Provision of reserved oil upon demand</li> <li>• Annual workshop to gather customer opinions &amp; make according improvements to customer service</li> </ul>
Prompt & accurate petroleum information	<ul style="list-style-type: none"> <li>• Regular information provision</li> <li>• Extensive energy-related information provision</li> <li>• Expand choice of petroleum information range, price, use</li> <li>• Gather &amp; reflect customer opinions and improve services through customer center and customer visits</li> </ul>
Transparent financial support for energy-related business	<ul style="list-style-type: none"> <li>• Provision of budget and performance information</li> <li>• Provision of fund policy, application &amp; repayment information</li> <li>• Gather &amp; reflect customer opinions and improve services through customer presentations and visits</li> </ul>
Customer evaluation of services	<ul style="list-style-type: none"> <li>• Publicize quarterly results of Customer Charter &amp; Service Performance Standards</li> <li>• Improve problem areas &amp; conduct customer satisfaction studies</li> </ul>
Compensation for & remedying of poor service areas	<ul style="list-style-type: none"> <li>• Promptly remedy poor service areas and confirm results by phone or in writing</li> <li>• Handle customer opinions and complaints via VOC guidance</li> </ul>

# Social Performance

## Customers

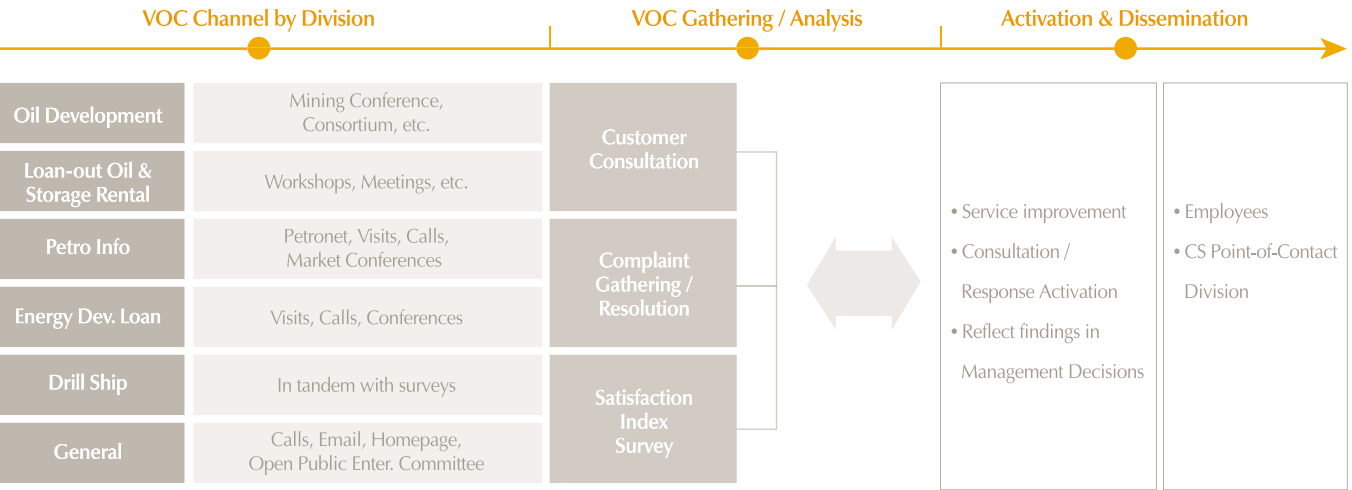
### Customer Satisfaction Management Activities

#### Voice of Customer (VOC) Improvements

Based on redefined customer categories beginning in 2007, KNOC has revamped its VOC gathering system, activating this key channel and sharing opinions. The General Affairs CS Team handles VOC for each division and returns feedback after ascertaining customer needs, thus preventing customer dissatisfaction through early awareness. Especially since 2007, we actively gather customer needs via email (Happy Mail) and by phone (Happy Call), utilizing these opinions to effect improvements. Data collected through our VOC system, internal CS monitoring, and satisfaction level tests is periodically reported in the Customer Charter, Service Performance Standards and the Public Enterprise Customer Satisfaction Index, and is disseminated company-wide through CS education programs.

In 2006, a total of 116 external opinions were collected via our homepage and over the telephone, of which 99 cases were inquiries, seven cases were complaints, and two cases were staff compliments. No cases of violation of customer privacy or security were reported. All opinions collected were processed within an average of 1.4 days, remedies were chosen to address complaints and reflected in management activities, and answers to frequently asked questions such as about the oil situation or business conditions were increased and improved. VOC feedback received through Petronet totaled 71 cases in 2006, all of which were processed within a three-day period. Since 2007, we have shortened processing times to within one business day.

#### VOC Operation System



#### VOC Operation Results

Category	2004	2005	2006
Customer service via homepage or phone	95	181	116
Petronet customer service	136	92	71
Customer suggestion	60	31	35
Total	291 case	304 case	222 case
Resolution Status	100% resolved in 5 working days	99% resolved in 3 working days	100% resolved in 3 working days

## Expanded CS Communication

KNOC seeks to fulfill our responsibility as a public enterprise by periodically providing petroleum-related information in a variety of formats. For this purpose, we created the “Energy Industry Overseas Exploration Association” to gather and analyze information for our customers, and we also provide customers with information on special energy development loans through business conferences and direct visits. In addition, through the Petronet oil industry network we have established a multidimensional information channel that comprises publications, seminars and lectures, and we are making keen efforts to provide worksite-oriented information via offline communication channels such conferences on the oil market situation.

KNOC reflects customers’ needs through ongoing improvements that make our service more convenient and ensure that we provide useful and prompt information. To assist customers’ participation in energy development projects, we created the Energy Industry Overseas Exploration Association in 2006, and also improved application procedures for special energy loan to ensure fairness in the granting of such loans. Furthermore, KNOC has terminated access charges for some information available via Petronet, while improving service quality by diversifying usage periods, offering discounts, and reinforcing the customer service center.

Thanks to these service improvement measures, the number of petroleum information subscribers grew 15% in 2006 to 100,000 members, up from 87,000 in 2005, and daily information access rose 13% over a year earlier to 27,000 inquiries. KNOC plans to expand constantly expand its growing customer roster by introducing SMS text messaging and email to relay information to subscribers.

## Customer Communication Channel

**Contents** (Redefined in 2007)

VOC Channel By Division	On-Line	Homepage VOC, Public Opinion, Public Complaint Report, Budget Mismanagement Report Center, Petronet VOC and Customer Monitoring Customer Complaint Rep. (080-009-7890), Open Public Enterprise Committee, Customer Satisfaction Survey (internal & government)
	Off-Line	
	Oil Development	Mining Conference, Consortium Conference, Business Meetings, Satisfaction Index Surveys
	Oil Stockpiling	Workshops, Conferences
	Petroleum Information	Int'l Petroleum Information Seminars, Conferences, Visits, Calls, etc.
	Energy Development Loans	Conferences, Visits, Calls, etc.
	Drill Ship	Satisfaction Index Surveys

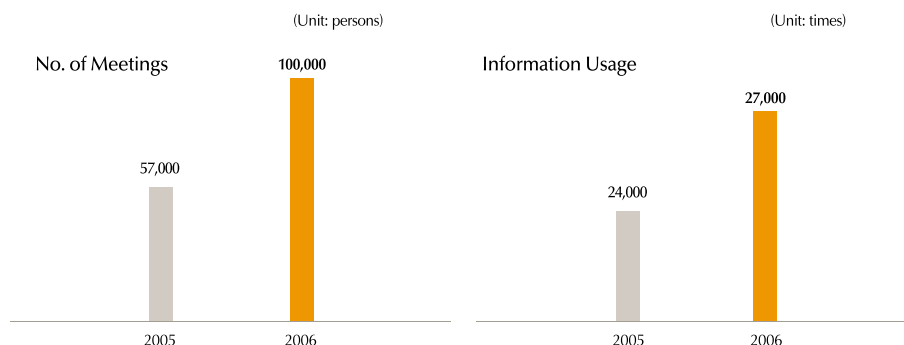
## Communication Via Conferences

(2005~2006)

Category	Target Customers	2005	2006
Int'l Petroleum Industry Seminar	Petroleum Info., Oil Development	–	57 cos., 120 ppl.
Oil Market Conference	Petroleum Info.	2 times 93 cos., 143 ppl.	1 time 50 cos., 87 ppl.
Energy Dev. Loan Conference	Energy Dev. Loan Customers	10 cos., 18 ppl.	9 cos., 18 ppl.
Oil Dev. Industry Trends Conference	Petroleum Info., Oil Development	–	1 time (New)
Int'l Oil Market Experts Assoc. Meeting	Petroleum Info.	6 times	9 times
Energy Industry Overseas Exploration Association	Oil Development	–	24 cos., 15 times (New)

## Petroleum Info Meetings & Information

**Usage (Daily)** (2005~2006)



\* 2005년부터 집계

# Social Performance

## Customers

### Major Customer Complaint Improvements

KNOC has diversified its services to include provision of government policy documents on industrial policy trends, and ensure subscribers receive prompt information such as oil price updates via mobile phone (SMS).

#### Improved Customer Complaint Status (2006)

Improvements	Main Contents	Details
More diverse information	• Free oil price news	• Int'l oil market trends, weekly oil focus, commentary, etc.
	• Gov't publications & trends	• Industry policy trends, daily raw materials prices, etc.
	• Economy & new industry info	• FX trends, Iran reports, etc.
	• Oil price updates via SMS	• 8:40 → 8:00 a.m.
Faster information	• Quick Petronet news	• 9:20 → 9:00 a.m.
	• Large-scale email solution	• 5-hour relay → 10 min.
		• Receipt verification, monitoring

### ● Increased Transparency, Accelerated Loan Examination

In 2006, through improved procedures for loan examinations we have increased transparency and fairness in the granting of loans for energy development projects. We reduced the number of KNOC members on the Energy Development Loan Review Committee from four to two, increased private-sector members from five to eight, and appointed an outside member as committee chair, thereby establishing private-sector-oriented loan review operations. The appointment of high-caliber private-sector members has resulted in improved professionalism in loan examinations and increased external trust. The chairman was appointed from a public member to reform loan examinations at a public perspective. Moreover, by holding regular loan examinations with economic and technological evaluations according to business field, private-sector companies have a greater opportunity to express their opinions.

### Creating a Customer-based Corporate Atmosphere

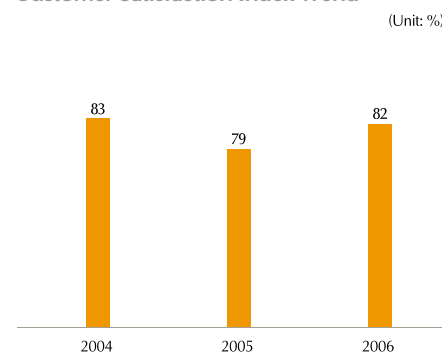
To improve our low satisfaction level in CS management as revealed in the Customer Orientation Index (COI) survey in 2006, executives & employees are actively reinforcing CS management through practical programs. Training and benchmarking programs were expanded to fortify CS management capabilities and cultivate a voluntary CS-oriented corporate culture, and Wednesdays were declared "Compliment Day" as a way to reward staff members who've received compliments from customers. KNOC's internal BBS and corporate homepage, as well as the BBS on Petronet, are all set up to receive compliments from employees and members of the public. A total of 40 employees received "compliment" rewards in 2006. Looking ahead, KNOC will continue to upgrade CS capabilities through complaint-handling and customer courtesy training and via online CS educational courses.

## Customer Satisfaction Index

The Customer Satisfaction Index (CSI) is conducted by the government and by individual organizations on their own. KNOC earned a rating of 82 points in the Korean government's NCSI in 2006, reflecting a 3-point increase over 2005 thanks to a higher score for social responsibility in line with our strengthened corporate image. We also strived to boost customer satisfaction through diversification and originality in our Petronet online petroleum information channel, hosting seminars for customers, and reflecting customer needs in system improvements.

In addition, as the NCSI does not include a section for the oil E&P industry, KNOC has conducted its own CSI and earned 82 points on this survey in 2006. Through this evaluation, we were able to identify and remedy sources of complaints by making our main business division of oil exploration more oriented and responsive to our customers. In the future, KNOC will strengthen CS employee education to upgrade the accuracy and promptness of our customer service.

#### Customer Satisfaction Index Trend



\* National Customer Satisfaction Index (NCSI): changed to PCSI (Public-service Customer Satisfaction Index) from 2007

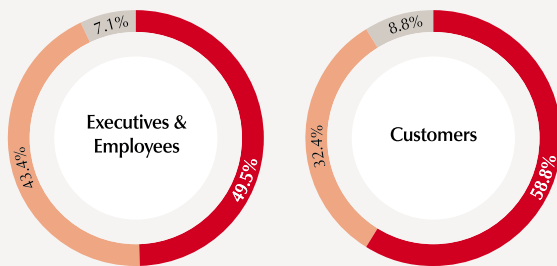


## Survey Results

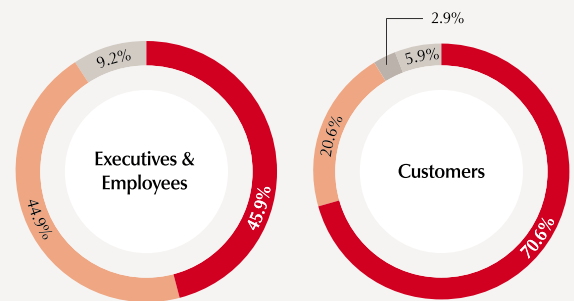
According to the results of a survey of KNOC executives & employees and customers, we have found that customers evaluated KNOC's CS activities relatively higher than did KNOC executives & employees. Customers gave positive evaluations of KNOC's efforts to adhere to regulations aimed at protecting customer information. Customers also showed a high 70.6% satisfaction level for KNOC's efforts to promote smooth communication. KNOC will constantly monitor CS activities to promote customer satisfaction and customer orientation among executives & employees.



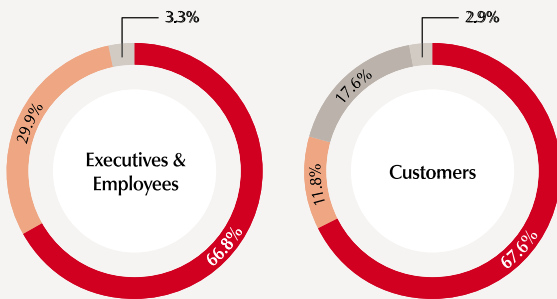
[ KNOC provides prompt, competitive information. ]



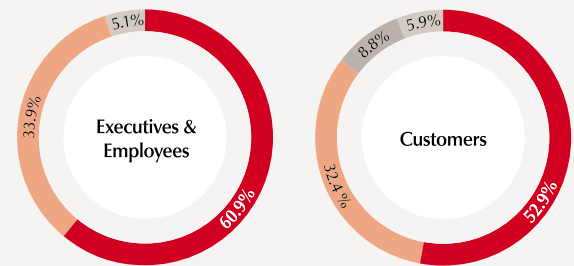
[ KNOC operates broad channels for communication with customers. ]



[ KNOC executives & employees comply fully with laws protecting customer information. ]



[ KNOC constantly improves systems for maximum CS in all business areas. ]



## Expert Interview

**Kim Jong-Chul**  
Assistant Director  
Industrial Policy  
Division  
Ministry of Commerce,  
Industry and Energy

Evaluation and Suggestion for Sustainability	KNOC's Response
It is our responsibility to support the participation of private-sector enterprises in the petroleum business. We must ensure that profits are shared fairly among private enterprises through cooperation or technology assistance, and set examples of mutual cooperation between big and mid-sized companies.	KNOC supports related private-sector enterprises by sharing technology and experience, as well as cost information, procedural assistance, human resource, and equipment through the "Energy Industry Overseas Exploration Association." Also, in 2006 KNOC provided a total of KRW 1.26 billion in funding for R&D investments, drill ship on-the-job training, seminars and oil development technology education. In the future, KNOC will lead the pursuit of energy resources in conjunction with its primary business, and encourage private-sector participation in the energy resource development business by providing information and analysis on promising oilfields.

# Disclosure on Management Approach

## Employee-focused Management

### Employee Satisfaction Management System

#### Vision & Strategic Goals

KNOC implements personnel, education and welfare policies in consideration of employees' need for work/life balance. Thus promotion & compensation systems are based on ability and performance, education systems foster capabilities, and welfare policies are designed to enhance the employee's quality of life. We emphasize cultivating global competitiveness through real-world worksite-oriented HR development, performance-driven cultivation of talent, and advanced training systems geared toward realizing future growth potential and sharing core values. With "Global People, Global Culture, and Global Systems" as our HR development strategy, KNOC is fostering core talent, disseminating core values as a global enterprise, and continuously implementing advanced employee training systems.

#### Policy

KNOC is in full compliance with Korean labor laws and standards and with International Labor Organization (ILO) conventions against child labor and forced labor.

#### Intra-organizational Responsibility

- Personnel Team: Manage company organizations- and personnel management-related operations
- HR Development Team: Take charge of education and training programs for the development of employee capabilities
- Welfare & Benefits Team: Take charge of employee motivation and improvement of welfare

### Materiality Test

According to the results of the "IPS Materiality Test Model™", top concerns included work/life balance; management/labor relations; on-the-job training, education and career development; safety and hygiene; compensation policy; employee/executive communications, corporate culture, and workplace discrimination. Other important issues included improved working environment, eradication of bad labor practices, HR reform, employment security, women leadership, employee welfare, employee information and privacy protection, and support for retired personnel. The contents of these issues are included in the report.



### Major Achievements and Action Plans

Category	Details	Major Achievements		Plans
		2005	2006	2007
Employee Education / Training	Total education hours & attendees (excludes new staff & promotion-based education)	26,417MD 4,109 persons	30,742MD 4,618 persons	37,932MD 6,279 persons
	Education hours & cost / employee	30.0MD KRW 1.86 mil.	31.3MD KRW 1.67 mil.	35.5MD KRW 2.66 mil.
	Oil Academy courses & attendees	5 courses / 90 persons	30 courses / 426 persons	27 courses / 462 persons
	Specialist OJT courses & attendees	3 courses / 10 persons	8 courses / 110 persons	14 courses / 72 persons
	Overseas study grant recipients	40 persons	54 persons	74 persons



### 28<sup>th</sup> "Mother's Room" Opened

In April 2006, KNOC opened its 28<sup>th</sup> "Mother's Room," a resting place for working moms, as a part of our family-friendly management policy. A previous hallway lounge was converted into a clean and cozy space for breastfeeding mothers and female employees. KNOC is planning on further expansion of its employee welfare facilities and programs to increase work efficiency and do its part to help resolve Korea's low birthrate. [April 2006]



### For Record-setting Yeosu Office, Safety is a 365-day Affair

Through strict safety management education, KNOC's Yeosu Office achieved 400 accident-free shipments and over eight disaster-free years (3,040 days). For their outstanding safety record, the branch staff were presented with a special award from KNOC headquarters on January 31, 2007. From the arrival of the first oil tanker in May 27, 1999 through January 22, 2007, Yeosu Branch Office was the first in KNOC history to achieve 400 accident-free shipments. Contributing to its success rate were stringent accident-prevention guidelines, thorough safety checks to uncover and defuse risk factors, education and training, and industrial safety and health activities. [January, 2007]



## Social Performance Executives & Employees

# Providing a Good Working Environment

## Composition of Staff

As of 2006, our domestic and overseas staff totaled 1,137 people whose average length of service is 11.2 years (male: 11.8 years; female: 7.2 years). The employment creation rate is 8.29%, which is higher than the mining industry average (1.49%), and the turnover rate is 0.97% which is lower than the mining industry average (1.57%).

KNOC fulfills its social responsibility as a public enterprise by carrying out balanced recruiting and management. We will continue to expand recruitment of a professional workforce in the petroleum exploration & development field.

Employees by Rank (2006)

(Unit: Persons)

	Total	Women	Disabled	Provincial
Executive	7	0	0	1
Senior manager	86	0	1	36
Office staff	370	72	10	106
Technician	394	24	4	209
Field technician	227	1	6	116
Special duty	53	39	1	6
Total	1,137	136	22	474

## An Equal Opportunity Employer

KNOC prohibits discrimination for reasons of gender, education, age, religion, origin, or physical disability in accordance with Ethical Principles (Article 20, Para. 21) and Personnel Regulation (Article 9). Opportunities for education and promotion are provided equally to all based on individual ability and character, and evaluations and compensation are determined fairly according to an employee's performance and achievements. Since 2004, KNOC has abolished academic and major-subject restrictions in the recruitment of new employees, and in 2006 we terminated the age restriction. In that year, we recruited a total of 113 staff members including 73 new employees. The hiring of women and applicants from provincial regions was high among our recruitment policy goals.

Composition of Workforce

(Unit: Persons)

		2004	2005	2006
Employees	Total Workforce	917	1,050	1,137
	Domestic	902	983	1,037
	Overseas	69	67	100
	Regular	917	995	1,084
	Contract	54	55	53
	Women's Administrator	0	0	2
	Job Creation Rate	9.2	8.1	8.3
Recruits	Avg. years of service	11yrs. 5mos.	11yrs. 4mos.	11yrs. 2mos.
	Total recruitment	102	92	113
	Women	16	14	18
	Disabled	1	1	6
	Provincial	29	41	52
	Engineers	53	58	72
	Turnover Rate	0.93	0.42	0.97

\* Job Creation Rate: (Given year's workforce - Previous year's workforce) / Previous year's workforce x 100

\* Turnover Rate: (Average monthly departures / Average workforce) x 100



## Social Performance

### Executives & Employees

#### Utilizing Female HR and Enhancing Convenience

KNOC has a female recruitment target policy in order to utilize female human resources and improve our HR competitiveness. KNOC's companywide gender ratio 88:12 (male to female), or 12.1%, lower than the 16.4% average for state-run organizations. However, with the launch of female recruitment targets, over 20% of office staff recruits were female in 2006, women made up 31% of all office positions, and have accounted for at least 30% of KNOC's office workforce for three consecutive years. Two women were promoted to manager in 2006, and the company has gone from four female department heads in 2005 to seven female managers and department heads in 2006. There are plans to further increase our female HR. KNOC also supports maternity leave and daycare center expenses to reinforce the government's fertility policies and motherhood. As part of this commitment, we operate "Mother's Rooms" for breastfeeding working mothers with infants in our office buildings.

#### Expanding Opportunities for the Disabled

Since 2003, KNOC has given extra consideration to disabled job applicants, and since 2005 we have increased the 5% evaluation credit to 10% in the written exams. From 2006 we have expanded opportunities for the disabled, maintaining a 5% minimum of total recruitment. In 2007, we recruited 22 disabled employees evenly among all departments and have complied with related legal standards.

#### Expanding Opportunities for Regional HR and Engineers

From 2003, we have set recruitment goals for regional HR targeting provincial universities, with such applicants constituting 20% of all new recruits since that year. In 2006, we expanded employment opportunities for applicants from provincial areas to 33%, or 24 out of 73 total recruits. To establish a reliable source of technical HR, KNOC consistently recruits applicants majoring in engineering, geology, and chemical manufacturing. Recruitment of engineering talent continues to expand, marking 52% in 2004, 63% in 2005, and 64% (72 persons) in 2006.

#### Respecting Human Rights

KNOC fully complies with Korea's labor laws and with ILO prohibitions against child labor and forced labor. There has been no violation in the history of our organization. In addition, we follow related legal standards on human rights and working environment as indicated in collective agreements. We hold educational sessions more than once a year on protecting the human rights of personnel. Human rights protection and ethical management education are featured in educational lectures for all new employees, in e-learning courses, and in security personnel workshops. Moreover, we focus on sexual harassment prevention, and since 2006, specific plans were established to form a healthy working environment. All personnel receive related educational sessions twice a year. Employees can receive consultation regarding labor regulations and human rights, and may report any matters of concern to the Grievance Committee located in the General Affairs Section or the labor union office.





# Core HR Development & Performance-based Personnel Management

## Fair and Professional HR Management

KNOC's two main HR objectives for 2006 were recruiting core HR with global competitiveness and ensuring performance-based HR management. To maintain professionalism and fairness in HR management, we are focusing on proper allocation and development of core HR, nurturing specialists, and promoting rational evaluation and compensation systems in three stages ending in 2015.

### Detailed Personnel Management Plans

Category	1 <sup>st</sup> Stage (2006–2008)	2 <sup>nd</sup> Stage (2009–2012)	3 <sup>rd</sup> Stage (2013–2015)
Core HR Development	<ul style="list-style-type: none"> <li>• Develop curriculum for each core business</li> <li>• Cultivate specialists via worksite learning</li> <li>• Furnish courses for self-directed learning</li> </ul>	<ul style="list-style-type: none"> <li>• Upgrade &amp; deepen core business curriculum</li> <li>• Operate specialized grad school to nurture experts</li> <li>• Systematize self-directed learning</li> </ul>	<ul style="list-style-type: none"> <li>• Cultivate global HR &amp; regional experts</li> <li>• Build training center &amp; cultivate in-house HR</li> <li>• Further develop self-directed learning</li> </ul>
Nurturing Specialists	<ul style="list-style-type: none"> <li>• Develop methods for selecting candidates</li> <li>• Continue recruiting expert, experienced people</li> <li>• Recruit from local area, at home &amp; overseas</li> </ul>	<ul style="list-style-type: none"> <li>• Introduce new recruitment techniques (Employee referrals etc.)</li> <li>• Devise ongoing recruitment system</li> <li>• Expand local recruitment</li> </ul>	<ul style="list-style-type: none"> <li>• Further improve recruitment techniques, headhunting, etc.</li> <li>• Expand online recruiting, incl. web-based interviews</li> <li>• 10% foreign recruits for overseas development HR</li> </ul>
Rational HR Allocation	<ul style="list-style-type: none"> <li>• Devise ability-focused HR deployment system</li> <li>• Expand in-house job posting system</li> <li>• Establish career development system</li> </ul>	<ul style="list-style-type: none"> <li>• Strengthen ability-focused HR deployment</li> <li>• Activate in-house job posting</li> <li>• Design career development system</li> </ul>	<ul style="list-style-type: none"> <li>• Further develop ability-focused HR deployment</li> <li>• Further develop in-house job posting</li> <li>• Further develop career development system</li> </ul>
Fair Evaluation / Compensation	<ul style="list-style-type: none"> <li>• Introduce coaching-type evaluation &amp; coordinate evaluation system</li> <li>• Introduce performance-based compensation system</li> <li>• Devise ability-based personnel operations</li> </ul>	<ul style="list-style-type: none"> <li>• Establish ERP-linked evaluation system</li> <li>• Further develop performance-based compensation system</li> <li>• Activate ability-based personnel operations</li> </ul>	<ul style="list-style-type: none"> <li>• Create total compensation system</li> <li>• Devise differentiated personnel system of core HR</li> </ul>

## Development of Core HR

KNOC has achieved both quantitative and qualitative growth in the development of HR by expanding infrastructure in 2005 and by adopting HR development systems in 2006. We devised a master plan for developing oil exploration specialists in July 2006, set specific goals for the systematic cultivation of core HR. In 2007, our main focus has been fostering practical specialists, new-generation management leaders, guided by our HR strategy of creating "Global People, Global Culture, and Global Systems."

### HR Development Goals & Strategies

HR Development Goals	Practical Experience-based Professional HR Global Competitiveness		
HR Development Direction	<b>HR Development in line with Long-term Plan to be Global Oil Company</b> Performance-based   Future Growth Engine   Core Value Sharing   Advanced HR Systems		
HR Development Strategy	<b>Global People</b> <ul style="list-style-type: none"> <li>• Practical experience-based</li> <li>• Core talent in core businesses</li> <li>• New-generation business leaders</li> <li>• Industry-Academia tieups for top HR</li> </ul>	<b>Global Culture</b> <ul style="list-style-type: none"> <li>• Share core values as global enterprise</li> <li>• Cultivate common capabilities (oil industry knowledge, int'l capabilities)</li> </ul>	<b>Global System</b> <ul style="list-style-type: none"> <li>• Advanced HR development systems</li> <li>• Strengthen education &amp; HR operation systems</li> <li>• Create full-time study programs (e-learning, self-study)</li> </ul>

# Social Performance

## Executives & Employees

### Education & Training

As KNOC's business has expanded, we have faced a growing demand for HR for practical, worksite tasks. Setting our 2006 education & training goal as "development of practical specialists, expansion of human resources, and strengthening of leadership & organizational capability," we created education/training programs to help us meet our HR goals in five areas: management, fieldwork, development of specialists, common duties, and corporate-academia collaboration.

We devised 30 courses including oil exploration at our Oil Academy-an increase of 25 courses from 2005-and have dispatched personnel for on-the-job-training (OJT) programs around Korea and overseas. In addition, we are acquiring advanced technology and knowledge by operating graduate school courses and overseas training programs. Employees were also enrolled in leading local CEO courses, job-based self-learning, business & foreign languages study, and other programs to strengthen leadership capabilities.

Thanks to the Oil Academy, specialist OJT, e-learning and others, overall education has increased 16.4% in 2006 compared to the previous year, marking 30,742 man days (MD). In 2007, 6,279 personnel will receive education in over 502 courses as part of our goal of "developing globally competitive specialists with practical capabilities." The total amount of education will mark a 23.4% increase to 37,932MD compared to the previous year.

### Education System

Category	Management Education			Job Education				Specialist Cultivation Education	Fundamental Education		Industry-Academia Courses
	Mgmt. Leader Education	Officer Education	Oil School	Specialist OJT	Oil Academy	Short-term External Education	Qualification Courses	Post-Graduate Study	Internationalization Education	Management Topics	Industry-Academia Course
Executives	CEO Course										
Dept. Heads	High-rank Exec. Course	New Team Leader Course	Advanced Team Leader Course	Domestic Specialist OJT	Overseas Specialist OJT	Oil Development Specialist Course	Management Support Fundamentals Course	Overseas Short-term Intensive Course	Domestic Short-term Intensive Course	Technical Qualification Course	Management Qualification Course
Team Leaders	Mid-rank Exec. Course	New Manager Course	Advanced Manager Course								
Managers		New Deputy Course	Advanced Deputy Course								
Deputies		New Staff Course	Advanced Staff Course								
Office Staff											

### Education Status & Plan

Category	Attendees	Scale		Cost	
		Total Education	Per person	Total Education	Per person
2005	4,109 persons	26,417MD	30.0MD	1,679 MKW	1.86 MKW
2006	4,618 persons	30,742 MD	31.3MD	1,640 MKW	1.67 MKW
Increase	+509 persons	+4,325 MD	+1.3MD	-39 MKW	-0.19 MKW
2007	6,279 persons	37,932 MD	35.5MD	2,851 MKW	2.66 MKW

\* Excluding level-specific education (new recruit, officer)

\* MD (Man Day) = Man(student) X Day(class day)

### Securing Specialists

KNOC provides internships and scholarships for college students in order to strengthen our recruitment base for securing outstanding HR. We have also added humanity and functionality aptitude examinations to our recruitment process to strengthen the integrity of our HR development policy.

## Career Development System

KNOC takes an aggressive approach to human & career development through step-by-step programs to attract and cultivate the best workforce possible. In the pre-employment stage, we support potential employees through Oil Development Scholarships and Oil Development Internships, and in 2006 we adopted a specialist research employee system. In the early training stage, we offer new employees specialized education to help them identify and develop their abilities via the Oil Academy and specialist on-the-job-training courses. Additionally, our newly introduced Mentoring Program also provides consultation and training for career development. As our employees become specialists in their fields, they are eligible for overseas postings and graduate school programs to further strengthen their work capabilities.

## Ability-based Post Assignment

Since 2004, we have conducted selective, ability-based personnel management, which has strengthened the operational status of divisions and enhanced professionalism companywide. We separated positions and ranks to promote efficiency in business operations, and we granted personnel management authority to 49 department managers in 12 divisions in order to foster responsible management. Moreover, we seek to elevate job satisfaction and promote reasonable HR management through the "Wish Personnel System," allowing employees to indicate which section they wish to move to. This boosts staff satisfaction as employees' personal capabilities and desires are respected. KNOC's Employee Satisfaction Index (ESI), which measures attitudes towards one's duties, division, organization, policy and corporate culture, has risen steadily from 60.3 points in 2004 to 61.8 points in 2005, and 64.6 points in 2006.

## Paths to Career Development

Pre-employment Stage	Employee Study Stage	Specialist Cultivation Stage
<ul style="list-style-type: none"> <li>Joint industry / academia programs (internship, scholarship, specialized research)</li> </ul>	<ul style="list-style-type: none"> <li>Specialized new-employee training</li> <li>Mentoring</li> <li>Oil Academy / Specialized OJT (entry-level)</li> </ul>	<ul style="list-style-type: none"> <li>Oil Academy / Specialized OJT (mid-level)</li> <li>Overseas research, graduate school programs</li> </ul>

## Fair Evaluations

KNOC executes performance-based HR management through fair and objective evaluations of employee performance. We were the first among domestic public enterprises to conduct multi-dimensional evaluations in 1997, the results of which have been reflected in performance ratings since 2002. To strengthen the fairness and reliability of evaluations, we have increased the weighting of multi-dimensional evaluations from 5% to 20% and increased the number of evaluators from five to 10, while expanding the scope to related divisions in 2006. We also have grade 4-8 personnel submit self-evaluations, and we include social and ethical references in our internal evaluations.

## Performance-based Compensation

KNOC has abolished all types of allowances in favor of an annual salary system. In 2003, we were the first public enterprise to introduce an annual salary system for all personnel including 230 field staff. This was followed in 2006 with deregulation of natural increases in basic annual salary so as to derive full benefits from the annual salary system. In 2007, we plan to begin linking our compensation system to HR management, organization and internal evaluations, and implement a differential salary system reflecting Management By Objectives (MBO) evaluations of manager-level staff and multi-dimensional evaluation results. Furthermore, we have expanded pay differentials by 10% and increased the number of pay levels from five to seven. Actual pay differential rates are expected to automatically expand further in line with increasing differences in basic annual salary. The weighting of internal evaluations will increase in HR management scores as compensation becomes increasingly linked to HR management. As basic annual salaries becoming increasingly linked to ability and performance, KNOC will expand its performance-based corporate culture through individual MBO.

## HR/Departmental/Internal Evaluation-linked Annual Salary

Evaluation	Evaluation System	Pay Basis
Personnel	Multi-dimensional Evaluation	Base Annual Salary (accumulative)
Internal	Individual (MBO) Evaluation	Performance-based Annual Salary
Evaluation	Department (BSC) Evaluation	(non-accumulative)

## Expanded Pay Differential Rates

Title	Before revision	After revision	Remarks
Department head	120%	130%	10% increase
Division head	90%	100%	
Manager and below	60%	70%	

## Social Performance

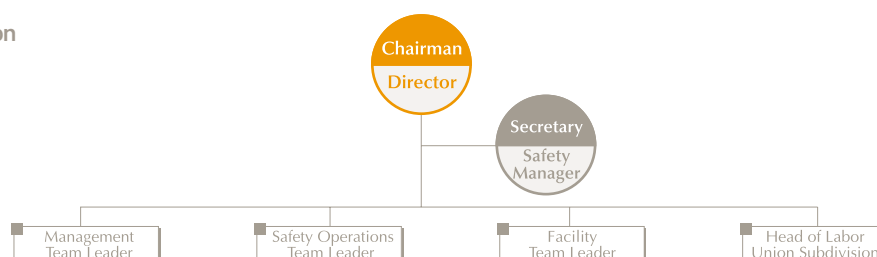
### Executives & Employees

# Employee Safety & Health Management

## Industrial Safety & Health Committee

The Industrial Safety & Health Committee is KNOC's main decision-making body responsible for the safety and working conditions of all personnel. This committee is composed of a chairman, committee members, and a safety manager, and meets monthly to carry out its mission. KNOC monitors the results of health examinations of all personnel and constantly improves working conditions as a part of its commitment to fulfilling ILO agreements.

### Industrial Health & Safety Committee Organization



## Industrial Accident Education and Management

Since 2006, health & safety education is provided via online and offline group courses, and the frequency of health & safety checks was increased from monthly to weekly. In addition, for the safety of all employees, we manage potential risks and risk factors with Integrated Oil Stockpile Information System (IOSIS). In addition, "Stockpile Welfare and Safety Management Procedures" are followed for daily safety management, and we manage potential accidents through observance of Article 33 of the Regulation of Audit Duties Detailed Enforcement Regulations (Reporting of Accidents). In the accordance with the Safety Management Base Act, our petroleum stockpiling and pier facilities are classified as special management items and treated with great caution. Furthermore, for un/loading operations at our storage bases, pre-tests for regular operations are conducted whenever hazardous or dangerous facilities are newly constructed or remodeled. There have been three minor accidents in the past three years, for which stringent countermeasures were taken and health & safety regulations strengthened to prevent future mishaps.

### Welfare and Safety Education & Other Educations

Year	Head Office	Storage Base	
	Welfare & Safety Education	Regular Education	Other Legally required Education
2004	2 times/3 hours 191 persons	1 per month/2 hours 240 persons	<ul style="list-style-type: none"> <li>Hazardous material safety manager education (Korea Fire Safety Association)               <ul style="list-style-type: none"> <li>Hazardous material safety manager, 19 persons (1 time /2 years)</li> </ul> </li> <li>Fire prevention manager education (Korea Fire Safety Association)               <ul style="list-style-type: none"> <li>Safety operation team leaders, 9 persons (1 time /2 years)</li> </ul> </li> <li>Commission education for management supervisor (Korea Industrial Safety Association)               <ul style="list-style-type: none"> <li>Safety operation team leaders, 9 persons (1 time /year)</li> </ul> </li> <li>Internal education for management supervisor (Internal)               <ul style="list-style-type: none"> <li>Safety operation team leaders, 9 persons (1 time/year)</li> </ul> </li> </ul>
2005	2 times/2.5 hours 134 persons	1 per month/2 hours 259 persons	
2006	2 times/1 hour 156 persons	1 per month/2 hours 250 persons	

## Safety Management Activities

### Gas Field Safety Management

KNOC field workers monitor gas fields for danger factors, utilizing suggestion boxes installed at key at worksites to prevent disaster before they occur have. This helped identify 78 out of 84 safety risks for early correction in 2006. We give "Safety Awards" to offshore platform workers for outstanding ideas improve safety management, and promote worksite safety through education of gas inspectors and public supervisors.

To cultivate a safety-first culture and a disaster-free workplace, we drew up basic safe environment plans in 2006, hold monthly HSE campaigns and provide safe environment education. Health education covers eleven topics including musculoskeletal disease and job stress, safety education includes 10 subjects such as preventing accidents at chemical plants, and in May 2006 KNOC published a book of oilfield safety regulations. As a result of these activities, our PSM\* rating has improved from Class M to Class S an evaluation by the Pusan Labor Office in October 2006. (\*Ratings order: P > S > M)



## Drill Ship Safety Management

KNOC acquired ISM Code verification from the International Maritime Organization in 1998, and retains it to this day. We hold daily safety meetings, weekly fire drills and fire-extinguishing practice, quarterly emergency evacuation drills, and oil spill drills. We maintain lower safety accident rates compared to the global average. In response to minor accidents, we strengthened safety measures and prevention methods.

### Development Business Disaster Rate

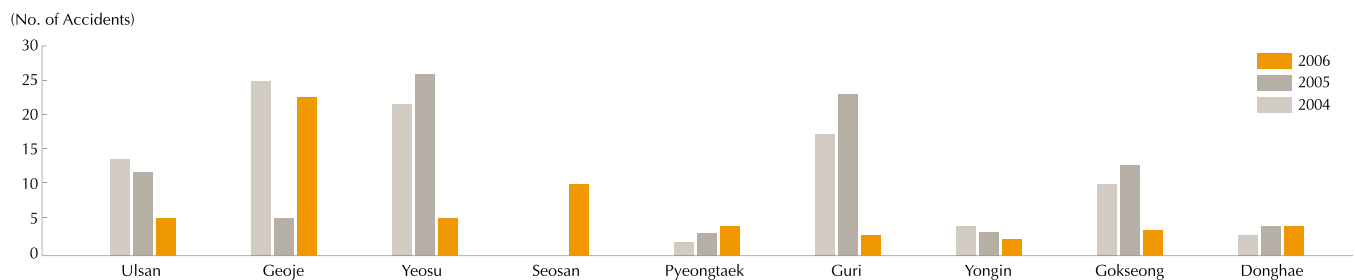
Category	2004		2005		2006	
	Target	Disaster / Accident Rate	Target	Disaster / Accident Rate	Target	Disaster / Accident Rate
Gas Field	–	14.19%	7.1%	0.99%	7.05%	2.11%
Drill Ship	2.10(2.21)	1.32	1.94(2.33)	1.31	2.10(2.19)	0.67

\* ( ) indicates global average accident rate

## Non-injury Accidents at Storage Bases

The incidence of non-injury accidents decrease from 89 cases in 2005 to 58 cases in 2006. Non-injury accidents occurring in the past three years, including unsafe behavior in low-height worksites, clutter leading to falls, collisions, and crashes, were reported and safety measures, education and regulations were strengthened to prevent their reoccurrence.

### Accidents by Stockpiling Facility



## Disaster Prevention at Storage Bases and Construction Sites

All personnel are participating in creating an ideal workplace environment through observance of the Korea Occupational Safety & Health Association's (KOSHA) "Worksite Disaster Prevention Standards." The "3D (Danger, Disease, Dirty) Zero" campaign at stockpiling facilities is taking place along with the integrated ECHO\* system (Efficiency, Confidence, Health, Optimization) which is designed to improve safety levels and prevent disasters. Information gathered from stockpiling facilities is optimized according to branch office performance, and feedback is disseminated and updated. As a result of our successful execution of the 3D Zero campaign and ECHO system, we realized accident-free, disaster-free workplaces at stockpiling facilities and construction sites. In recognition of our achievements in the field of safety, KNOC received awards from KOSHA and the Minister of Labor. Additionally, health inspections conducted biannually to gauge actual working conditions at construction sites turned up 17 matters which were all corrected, while the disease prevalence ratio declined from 36% in 2005 to 31% in 2006.

\* ECHO System: E(Efficiency), C(Confidence), H(Health), O(Optimization)

### Disaster-free Status of Stockpiling Facilities

(unit: number of accidents)

Branch Office	Guri	Ulsan	Geoje	Pyeongtaek	Yongin	Yeosu	Gokseong	Donghae	Seosan
Number of accident-free years	14	5	11	7	8	7	7	5	1

\* One accident-free cycle refers to a state with no accidents for a year

## Social Performance

### Executives & Employees

## Welfare System

### Employee Welfare Policy

KNOC cares about the health, happiness, and safety of employees and operates various welfare programs to improve their quality of life. Housing loans, condominium accommodations, and support for personnel dispatched overseas are just a part of this wide-ranging policy. KNOC executes a selective welfare policy to satisfy personal welfare needs.

#### KNOC's Employee Welfare Plan

Category	Main Contents	KNOC Employee Fund Operation
Basic Insurance	• Main insurance (health, national pension, employment/workers compensation)	
Applied to all employees	<ul style="list-style-type: none"> <li>• Home stability (home-buyer loans)</li> <li>• Education support (tuition for middle &amp; high school, loans for university)</li> <li>• Apparel (company uniform)</li> <li>• Holiday bus fare</li> </ul>	<ul style="list-style-type: none"> <li>• Home stability (home-buyer loans)</li> <li>• Livelihood stabilization loans</li> <li>• Congratulatory money</li> <li>• Scholarship for college-bound children</li> </ul>
Facilities	<ul style="list-style-type: none"> <li>• In-house cafeteria</li> <li>• Condominium &amp; holiday home</li> </ul>	
Support for overseas branches	<ul style="list-style-type: none"> <li>• Medical checkups</li> <li>• Home &amp; auto loans</li> <li>• Drill ship office welfare</li> </ul>	<ul style="list-style-type: none"> <li>• Airfare support for family crises</li> <li>• Lunch stipend</li> <li>• Overseas school tuition</li> </ul>
Selective welfare (individually designed)	<ul style="list-style-type: none"> <li>• Medical exams</li> <li>• Self-development &amp; daily living</li> </ul>	<ul style="list-style-type: none"> <li>• Medical treatment</li> <li>• Family welfare &amp; culture/living</li> <li>• Group insurance</li> <li>• Household security support</li> <li>• Usage of condominium</li> </ul>

### Retirement Benefits Plan

To support retired personnel, KNOC implemented a retirement annuity in compliance with government policies in 2006. Retirement grants support the stable life of retired former employees.

### Wage Peak System

To ensure employment stability and strengthen HR competitiveness, a wage peak system was introduced in 2006 through agreement between the management and labor union.

### Family Fellowship Management

All personnel should maintain a healthy, happy balance between work and life. KNOC supports family care through improvements in the work environment. Since 2006, employees at stockpiling facilities received such benefits as flexible working hours. Also, support is extended for family ceremonies and other activities to foster strong mutual bonds.

# Sound Labor-Management Relations

## Labor union

KNOC respects employees' right to voluntary association. We also respect their right to form a labor union and representative organizations. KNOC's labor union was established in 1988 and is associated with the Public Union of the Federation of Korean Trade Unions. We operate a union-shop policy, which automatically accepts a member as soon as they are recruited. In 2006, about 78% of all personnel, or 895 employees, were registered members of the labor union. Joint agreements are made every two years, and wage agreements annually. Through smooth communication between labor and management, we maintain healthy, cooperative relations.

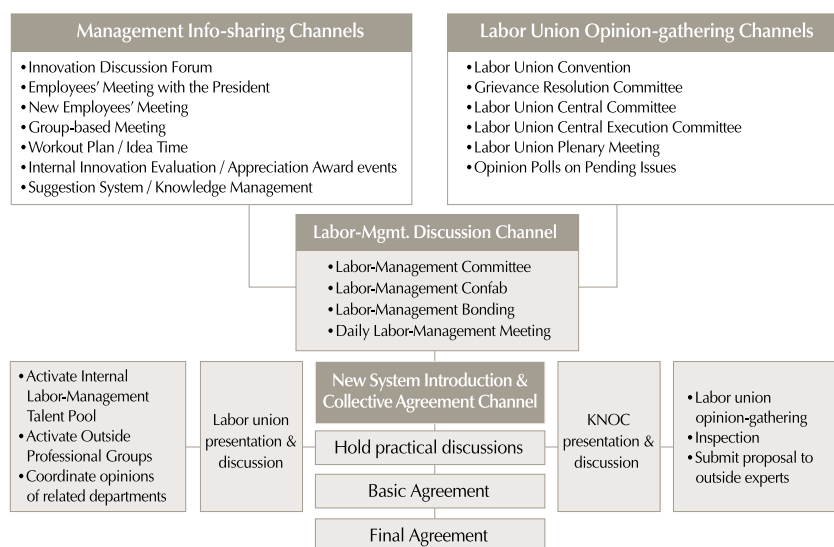
## Open Communication Channels

Labor and management reach mutual agreements through information- and opinion-sharing channels. Meetings are held every quarter to ensure close cooperation, and ongoing efforts are being made to improve labor-management bonds.

## Major Agreements

Year	Issues Negotiated
2004	<ul style="list-style-type: none"> <li>• 40-hour workweek introduced</li> <li>• Scope of union members expanded (non-union members included)</li> </ul>
2005	<ul style="list-style-type: none"> <li>• Agreement on social welfare activities (1 Wednesday/month)</li> <li>• Heads of branch offices may decide on 2 days/month</li> </ul>
2006	<ul style="list-style-type: none"> <li>• Annual wage negotiation shortened to 8 days (7 days for bargaining, agreement on 8th).</li> <li>• Through agreement on introducing elections of former union officials, retirement pension system and wage peak system, a wage agreement was reached in November</li> </ul>

## Dialogue Channel Outline



## Labor-Management Committee

The Labor-Management Committee is an official communication channel consisting of eight members from each side. Since 2004, the committee has convened quarterly. It promotes the growth of KNOC through participation and cooperation, while fully complying with related legal regulations.

## Major Agreements (2006)

Agreed Items	Major Contents	Results
New systems introduced	<ul style="list-style-type: none"> <li>• Retirement pension introduced</li> <li>• Wage peak systems introduced</li> </ul>	<ul style="list-style-type: none"> <li>• Notified Min. of Labor of retirement pension</li> <li>• Committee formed for introduction of wage peak system (Jan. 2007)</li> </ul>
Productivity improved	<ul style="list-style-type: none"> <li>• Integration of maritime employees</li> <li>• Introduction of flexible work hours for arrival/shipment work at branch offices</li> <li>• City travel stipends terminated</li> </ul>	<ul style="list-style-type: none"> <li>• Maritime employees integrated (June 2006)</li> <li>• Flexible hours for branch offices introduced (March 2006)</li> <li>• City travel stipends terminated (March 2006)</li> </ul>
Social welfare activities	<ul style="list-style-type: none"> <li>• Expansion of condominium timeshares</li> </ul>	<ul style="list-style-type: none"> <li>• Condominium timeshares expanded by six</li> </ul>
Stronger labor-management ties	<ul style="list-style-type: none"> <li>• Scheme devised to enhance labor/management relations</li> </ul>	<ul style="list-style-type: none"> <li>• Scheme to enhance labor/management relations implemented (June 2006)</li> </ul>

## Social Performance

### Executives & Employees

#### Labor-Management Conference / Administrative Affairs Conference

Through the Labor-Management Conferences, we discuss and settle key issues that arise, while the Administrative Affairs Conference is the ideal forum for addressing matters like wage agreements or newly introduced systems. Employee grievances are resolved through cooperation between headquarters and branch offices.

#### Grievance Resolution

To resolve employee grievances, KNOC operates a Grievance Committee. At our head office, representatives of labor and management have frequent meetings to ensure ideal working condition. The Grievance Committee consists of two senior KNOC officers and one union member. At branch offices, we hold quarterly meetings between the branch chief and union members. Unresolved issues are forwarded to the Labor-Management Committee.

#### Branch/Office Grievance Hearing & Employee Welfare Opinion Gathering (2006)

Entity	Contents	No. of Meetings
Jointly by Labor and Management	• Attendance of representatives & opinion gathering	2
Labor Union	• Branch office salary conference & grievance resolution	7
	• Employee welfare opinion sharing	
Employee Welfare Division	• Branch & office founding events	6
	• Branch office salary conference & grievance resolution	4
	• Employee welfare opinion sharing	

#### Forging Closer Labor-Management Bonds

To effectively disseminate the management's philosophy and policies, and to open various channels for smooth communication, KNOC strived to foster closer relations between labor and management in 2006. This means building trust by going one further to establish closer, friendlier ties and seeking to understand our employees' hardships.

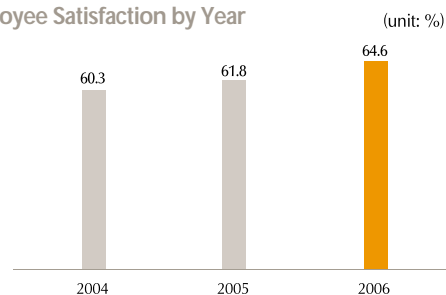
#### Daily Labor-Management Meetings

We hold daily labor-management meetings to share views on management conditions discuss the direction of the organization. We maintain a cooperative labor and management relationship by having a labor managers visit the union daily to discuss issues and negotiate demands.

## Employee Satisfaction

The Employee Satisfaction Index (ESI) examines staff sentiments on 62 items covering five categories?work, position, organization, policy, and corporate culture. For the year 2006, KNOC conducted an ESI survey (in January 2007) with 577 employees taking part. The score of 64.6 points was 2.8 points higher than in 2005. In line with efforts to cultivate a culture of appreciation and good rapport, a major improvement was seen in "satisfaction with internal relations," while moves to reflect individual suitability and desire in personnel decisions helped boost workplace satisfaction. KNOC will continue to raise employee satisfaction by maximizing development of staff competency and performance, creating a open corporate culture where all are free to share their opinions.

#### Employee Satisfaction by Year



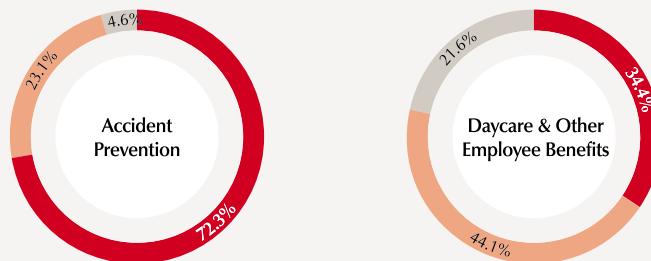


## Survey Results

The results of the survey showed positive evaluations of KNOC's employee welfare policies in the areas of safety & health, and for communication. In particular, our accident-prevention efforts received 72.3% positive responses. We have abolished discriminatory recruitment practices in terms of applicants' education, major subject and age, while concentrating on instituting fair evaluation and compensation policies.



[ Through stringent accident prevention, KNOC puts worksite safety first. KNOC provides a diverse range of employee benefits including daycare facilities and women's healthcare programs. ]



[ KNOC operates effective communication channels in order to response promptly to employee opinions. KNOC employees are provided adequate explanation of newly introduced policies and processes. ]



## Expert Interview

Lee Young-Joo, Ph.D.  
Petroleum and Marine  
Resources Division  
Korea Institute of  
Geoscience & Mineral  
Resources

Evaluation and Suggestion for Sustainability	KNOC's Response
<p>I believe that KNOC should lead the nurturing of oil-related specialists. The curriculum for petroleum science majors is being reduced in universities, and there is a rising need for post-recruitment education. If KNOC recruits specialists with a good grounding in the industry, universities will do more to support oil-related majors. I hope that KNOC will play a leading role in the cultivation of oil-related majors and human resources.</p>	<p>KNOC is involved in various joint industry-academia programs with universities that will promote petroleum-related studies. In the knowledge-based society of the 21<sup>st</sup> century, companies must compete to attract high-caliber talent. We are therefore exploring every possibility to support the development of HR and academic pursuits in this field, including internships for university students, joint research programs with universities, and dispatching our experts to lecture at schools. Our Oil Development Scholarship helps future petroleum specialists by lightening their financial burden. Post-recruitment education includes the Oil Academy, specialist OJT programs, and domestic &amp; overseas study. As a leader of the Korean oil industry, KNOC will remain committed to nurturing the talent our industry requires by providing financial and educational support.</p>

# Disclosure on Management Approach

## Partner-focused Management

### Mutual Cooperation System

#### Vision & Strategic Goals

KNOC operates various programs for shared success with small & medium-sized enterprises (SMEs). We have eased procedures and performance requirements for SMEs, maximized their participation in bidding, and supported their product and technology development, thereby aiding Korea's competitiveness. To support their growth, we have established SME product & technology product purchase targets.

#### Policy

KNOC pursues improved efficiencies through smooth communication with our partner companies. Also, we seek to provide greater convenience for our major customers partners through the establishment of an electronic contract management system and electronic VAT issuing. Since 2006, we have complied with the "Act on Promotion of Small and Medium-sized Enterprises" and have promoted product sales via the SME competition scheme, purchase ratio scheme, construction materials direct-purchase plan, and introduced a companywide scheme in April 2006 to maximize SME product purchases.

#### Intra-organizational Responsibility

- Contract Asset Team: A department in charge of contracts. The team manages affairs relating to partner companies.

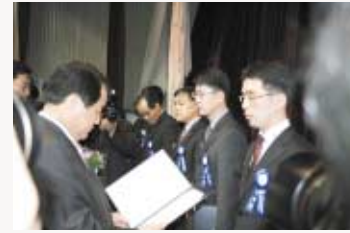
### Materiality Test

Results of the materiality test using the "IPS Materiality Test Model™" showed support for mutual cooperation/success as the most important issue, with fair selection of partners, eradication of unfair demands, promotion of sustainability of partners and communication also being key issues. All issues relating to mutual cooperation and support are included in the report.



### Major Achievements and Action Plans

Category	Details	Major Achievements				Plans
		2005		2006		2007
		Target	Results	Target	Results	
SME Support	SME product purchases	–	19%	20%	24%	20%
	Women-owned business support	KRW 184 mil.	KRW 230 mil.	KRW 47 mil.	KRW 1,495 mil.	KRW 801 mil.
	Tech development product purchases	KRW 37 mil.	KRW 70 mil.	KRW 99 mil.	KRW 238 mil.	KRW 36 mil.
	Disabled-made product purchases	–	KRW 2 mil.	–	KRW 4 mil.	KRW 7 mil.



### Prime Minister's Award Received at "6<sup>th</sup> SME Purchase Promotion Rally"

KNOC purchase managers received the Prime Minister's Award at the "SME Purchase Promotion Rally" held on December 6, 2006. The event is a valuable opportunity for SMEs to sell their products, for public corporations to buy high-quality products, and a yearly awards ceremony for purchase managers from public enterprises and product-supplying SMEs, serving to promote mutual survival and a Win-Win strategy. KNOC will continue to pursue shared growth with SMEs by increasing its purchase of their products and expanding their bidding opportunities. [December 2006]



### Joint Development of "Social Security Robot"

In June 2006, KNOC concluded a "Social Security Robot Joint Development" MOU to contribute to the domestic robot industry and social security. Through this MOU, KNOC expanded the original plans with the partner corporation from basic security-guard duty with the addition of fire-detection technology. From 2009 when prototypes are produced, we will install them at the Seosan Stockpile Base for a field test and further increase product quality for future sales. The market size for security robots for oil reserve facilities is estimated around KRW 100 billion in Korea and KRW 2,000 billion worldwide. [June 2007]



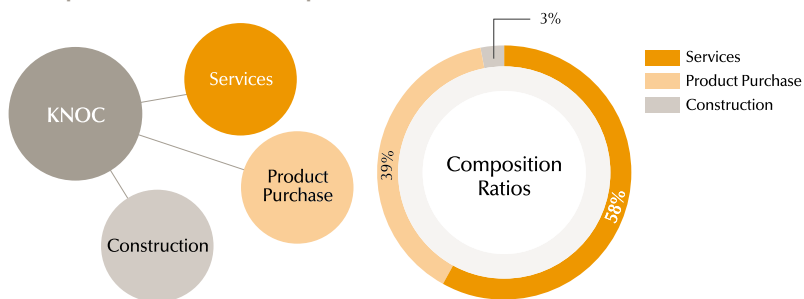
## Social Performance Partners

## 상생 정책

### Characteristics of Partner Companies

KNOC complies with fair competition guidelines in the three areas of construction, services, and purchases. From bidding to after-sales service, we maintain transparency in all procedures and transactions, thereby stimulating the national economy.

Composition of Partner Companies



### Sustainable Management of Partner Companies

Fair and equal opportunities are ensured in all of KNOC's business operations as a part of our Code of Ethics, Chapter 4, Article 19. We include the social and environmental performance of our partners in our selection process, and specific standards including these issues help the less privileged to build financial infrastructure and in turn develop our economy. Due to the characteristics of KNOC's business, construction accounts for 75% of all purchases, and many items we need are not produced by SMEs. Purchases from SMEs represent 24% of total purchases, but if construction-related purchases are excluded, this figure rises to 85%, illustrating our dedication to collaborate with and support SMEs.

#### SME Support (2005~2006)

(unit: KRW billion)

Year	Total Purchases (A)	SMEs		Storage Facility Construction		Non-construction SME Support	
		Amount (B)	Ratio (B/A)	Amount (C)	Ratio (C/A)	Amount (D=A-C)	Ratio (B/D)
2005	179.1	34.1	19%	126.4	71%	52.7	65%
2006	178.2	43.2	24%	127.3	71%	50.9	85%

Furthermore, we also provide ethical and environmental management support for our partners. In 2006, we provided ethical management education for partner companies in the construction sector, and in an ethical management activity survey of partner companies conducted in October of that year, KNOC scored a high 92% approval for compliance with regulations and 94% for the integrity of our employees.

# Social Performance

## Partners

### Improving Transparency of Contracts

#### Establishing Transparent Transaction System

As a part of 2<sup>nd</sup> Phase ERP execution plan, we established an electronic contract management system in August 2007. Through this establishment, we have switched from offline contracts to electronic authentication contracts, and electronic VAT receipt issuance, enhancing the convenience for our partner companies.

#### Improving Contract System

As the oil exploration business grows, so do the number of contracts KNOC processes. We carried out improvements in our contract system in 2006 to meet this demand. We specified regulatory articles in standard model contract examples, extending service categories to include general service and management service, and extended special conditions to general, design, and supervision. Through these adjustments, we are reducing dissatisfaction through immediate response to changes in business conditions such as revision of related laws.

#### Transparent Contract System

To prevent various sorts of corruption and eradicate unhealthy practices in business processes, we have adopted a transparent contract system since 2003. A transparent contract agreement must be submitted by bidders in the bidding process and mutual written promises are exchanged in the contract process. If violations are discovered, performance penalties are assessed (51%~100%) according to the severity of the violation.

### Expanding SME Participation

#### Expanding Bidding Opportunities

We eased performance requirements in May 2006 to promote fair competition and expanded bidding opportunities for SMEs. General competition has been converted to competitive competition by having at least five companies participate in each bidding, and giving reasonable time to prepare their bids. We fully comply with related legal regulations in our negotiated contract process. In 2006, negotiated contracts for two services were converted to competitive bidding.

#### Partner Company Advisory

We resolve issues by reflecting the opinions of our partner companies in our website (<http://www.knoc.co.kr>) and promote improvement of work efficiency through smooth communication.

#### Strengthening Authority of Contract Manager

We prevent dissatisfaction of partner companies by supporting the contract operations of stockpiling facility branch offices. To do this, we strengthened education for contract-related personnel and published helpful reference guides to assist thorough contract conclusion, and we hold offline courses on successful contract settlement.

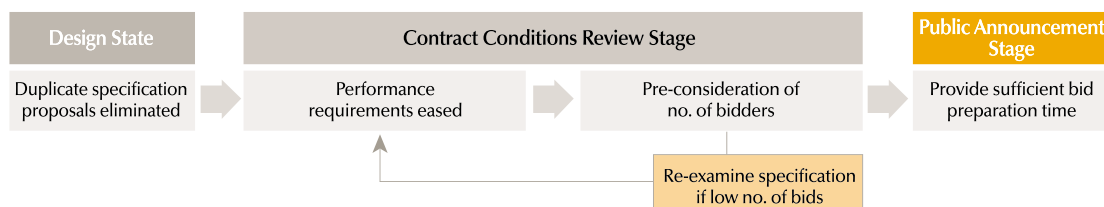
#### Integration of Contract Operations

We are centralizing our contract operations in an integrated contract operations division. In Stage 1 of this plan, we integrated domestic contract operations, and in Stage 2, due to begin January 1, 2008, we will integrate contract evaluation and conciliation function and personnel support for overseas contract operations. We expect strengthening of fairness, efficiency, and professionalism through synergy effects.

#### General Competition Expansion

Category	2004	2005	2006
Negotiated Contract	19 cases (45.2%)	17 cases (40.5%)	12 cases (31.6%)
Competitive Bidding	23 cases (54.8%)	25 cases (59.5%)	26 cases (68.4%)

#### Execution Flowchart





## Simplification and Transparency in Bidding Procedure

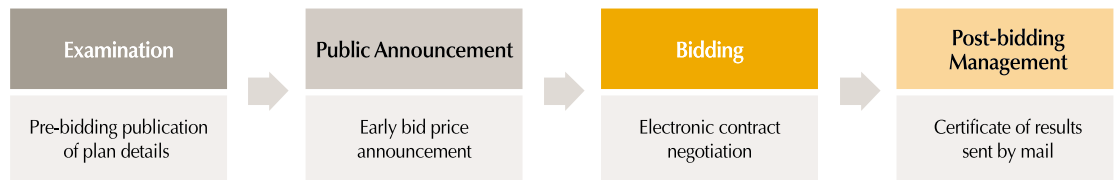
As the importance of ethical management grows, contract operations require more fairness and transparency in all procedures. KNOC improved its bidding procedures to help SMEs to reduce their cost of participating in bids.

In the examination stage, we converted the pre-announcement system from providing only service category and budget allowance to budget allowance, announcement schedule, specifications, and competitor information from September 2006.

In the announcement stage, we reveal selection process information to strengthen fairness and open basic price information to resolve difficulties in calculating estimated prices. As a result, the estimate range has narrowed, making it easier to calculate prices and ensure transparency in the bidding process.

In the bidding stage, online bidding was expanded and private contract methods have changed from field to electronic settlements since January 2006. In 2006, all 5 private contracts were concluded by electronic settlements. In addition, we put efforts to prevent corruption by minimizing offline interviews and reducing pre engagement costs. Since September 2006, we provided administrative convenience by issuing performance certificate by post.

Bid Flowchart by Stage



## Win-Win Programs for SMEs

### Supporting SME R&D

We aim to strengthen the technological capabilities of SMEs by substituting imports with domestic supplies. In 2005, the Yeosu Branch Office executed a flow meter prover enhancement project that ended successfully in April 2006, and this provided technical support for SMEs and saved us KRW 500 million in expenses. In addition, we concluded a technical support agreement in 2000 to substitute imported oil tank jet mixers with domestic alternatives. A total of 31 units were installed as of 2006 following successful product development, reducing our expenses by KRW 500 million.

### Supporting SME Growth

As a part of our compliance with the government's SME support policy, since 2006 we have operated an SME competition promotion scheme, SME purchase targets, and a construction materials direct-purchase plan as outlined in "Korea's SME product purchase promotion legislation."

We educate our personnel to fully cooperate with government policies and in April 2006 devised a scheme to expand our purchases from SMEs. In recognition of these and other efforts to foster SMEs, we received the Prime Minister's Award at the "SME Purchase Promotion Rally" in December 2006.

\*예정가격 결정의 기준이 되는 금액

# Social Performance

## Partners

### ● SME & New Tech Purchase Targets Met

From 2006, we are obligated to purchase from small & medium-sized enterprises (SMEs) except in special circumstances, and we have appointed officials responsible for SME affairs in each department. These SME managers identify reliable purchase sources and support actual purchases from SMEs. Such purchases in 2006 accounted for 24% of the total, exceeding the 20% goal. Excluding construction-related purchases, this percentage rises to 85%. In addition, KNOC supports strengthening of our partner's competitiveness through cooperation in R&D areas. Newly developed technology products are given priority in our purchase policy. In 2006, we set an internal goal of over 2% out of total SME purchase expenditure for new technology products, and achieved an overwhelming 5%. Ten new-technology product purchases were recorded in 2006, totaling KRW 238 million.

### ● Activating Competition Among SMEs

KNOC fully complies with Korea's Small-Medium Business Administration's policy of limiting competition for SMEs in 148 product areas, and therefore, excludes participation of large enterprises and promotes the participation of SME manufacturers. In 2006, a total of KRW 1,317 million in contracts (stockpiling security facilities, remote backup devices, electrical facilities at Yeosu Branch) were concluded with SMEs.

### ● Supporting Women-owned Companies

KNOC gives priority to companies operated by women, companies run by those with disabilities, and gender-balanced companies when selecting cooperation partners. We support female-owned companies in the purchase of merchandise, construction, and services, and achieved a total of KRW 1,495 million of such contracts, some 32 times our target of KRW 47 million for 2006. KNOC will continue to support female-operated companies.

### Target SME Purchase Ratio

(Unit: KRW Billion)

Category	2004	2005	2006
SME Purchase Amount (product/construction/service)	27.2	34.1	43.2
Total Purchase	181.3	179.1	178.2
Ratio	15%	19%	24%

### R&D Products Purchase Ratio

(Unit: KRW Million)

Category	2004	2005	2006
R&D Products Purchase Amount	3	70	238
SME Product Purchase Amount	5,840	4,453	4,965
Ratio	0.1%	1.6%	4.8%

### 2006 SME Products Purchase Results

(Unit: KRW Million)

Category	General Company Products	Women-owned Firms	Tech-Dev.	Total SME Products Purchases	SME Purchase Ratio
Products	4,676	51	238	4,965	75%
Construction	4,952	849	0	5,801	4%
Services	31,868	595	0	32,463	85%
Total	41,496	1,495	238	43,229	-

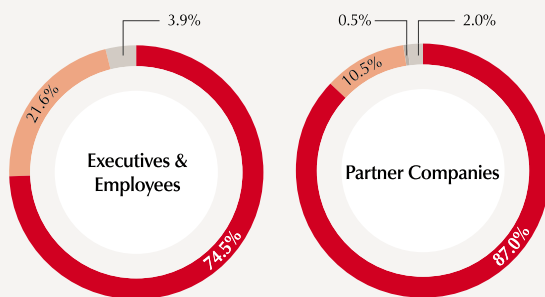


## Survey Results

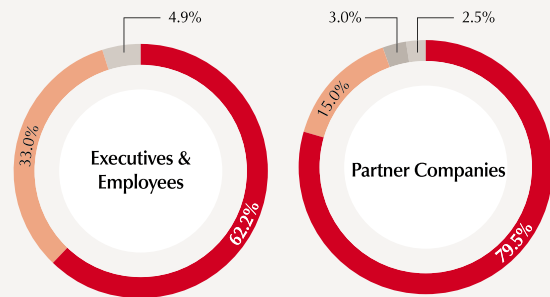
Results showed high approval rates for the fairness and transparency in selecting KNOC's partner companies, for our efforts to communicate with and support for our partners. The survey showed that KNOC and these companies regard each other as genuine partners, and we are constantly seeking new ways to provide support our partner enterprises' business stability and growth.



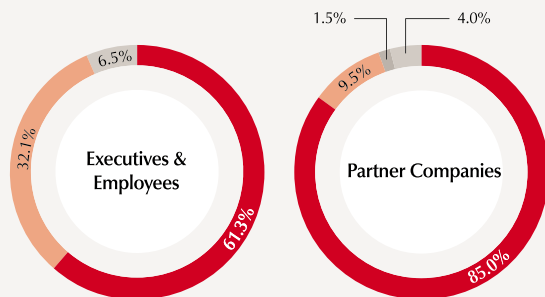
[ KNOC operates fair partner company selection procedures. ]



[ KNOC constantly listens to the opinions of its partner companies and strives to integrate those opinions into policy. ]



[ KNOC is a vital partner for joint development with partner companies. ]



## Expert Interview

Jung Dong-Young  
Chief of Human  
Resources Division  
Ministry of Planning and  
Budget

Evaluation and Suggestion for Sustainability	KNOC's Response
For KNOC to achieve sustainable management, it must respect related organizations. Through fair competition and contract operations, KNOC will receive trust and respect from its cooperation partners.	KNOC promotes mutual cooperation with and support for SMEs. We, unlike manufacturing companies, do not officially have cooperation partners. However, we view our contract partners as one of our major customers. Due to KNOC's characteristics, many items we require aren't produced by SMEs. Our purchases from SMEs in 2006 represented 24% of total purchases, and 85% when the construction sector is excluded. This is an indication of our eagerness to partner with SMEs. We are planning performance sharing policies that will further solidify the business stability and benefits for SMEs.

# Disclosure on Management Approach

## Ethical Management

### Ethical Management System

#### Vision & Strategic Goals

We have set as our ethical management vision becoming “a respected public enterprise that is faithful to the highest ethical principles and standards,” for which we have devised a three-stage roadmap ending in 2010. The first stage, ending in 2007, is the Proliferation Stage during which we will cultivate ethical management HR. Second, the Activation Stage until 2008 aims at bringing our ethical management systems up to global standards. The third and last stage, the Value Strengthening Stage, ends in 2010, before which time we will strive to become a widely respected public enterprise.

#### Policy

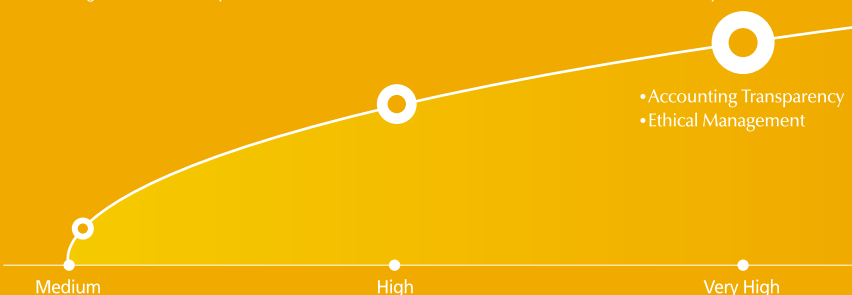
Ethical management activities are to be executed in accordance with KNOC's Ethics Charter, Code of Ethics and Ethical Guidelines promulgated in 2003. Ethical awareness is strengthened through reflecting changes in management environment in related regulations.

#### Intra-organizational Responsibility

- Management Innovation Department: In charge of ethical management and responsible for integrating changes in ethical management-related operations
- Ethical Management Committee: Primary decision-making organization for ethical management
- Audit Department: Evaluates and audits performance of anticorruption activities
- Transparency Committee: Forum for gathering and analyzing customer opinions
- Public Disclosure Review Committee: Body which examines public disclosure activities

#### Materiality Test

Results of the “IPS Materiality Test Model™” revealed that transparency in ethical management and accounting are the most important issues. The contents of these issues are included in the report.



#### Major Achievements and Action Plans

Category	Details	Major Achievements		Plans
		2005	2006	2007
Strengthen ethics awareness	Increase ethics managers	29 persons	36 persons	37 persons
	Improve internal & external whistleblower system	Max. reward KRW 3 mil.	Max. reward KRW 10 mil.	Max. reward KRW 10 mil.
	Strengthen ethical self-examinations	Biweekly	Weekly	Biweekly
Reinforce evaluation & compensation systems	Test compliance with Code of Conduct	10 persons	21 persons	Over 40 persons
	Feedback on ethical management survey	70 points	69 points	72 points
	Fortify ethical conduct	82 points	86 points	88 points
	Add internal evaluation indicator	Integrity Ratio	Integrity Ratio	Integrity Ratio, Ethical Management Ratio



### KNOC Committed to Clean, Honest Management

To establish a clean corporate culture, KNOC provides ethical education programs for our own staff and the personnel of our partner companies. We enforce a transparent contract system in all biddings and contract operations to prevent corruption activities. In addition, we have raised anticorruption levels through our whistleblower protection and reward system, assign joint responsibility for corruption, and have a two-strikes-you're-out policy (termination of job when prosecuted for more than two actions of corruption). Thanks to these efforts, we were selected as an excellent corporation in the Management Structure category in the 2005 Ministry of Commerce, Industry and Energy's Ethical Management Evaluation. In addition, we received positive evaluations for our board member integrity investigations conducted by Public Enterprise Clean Society Council.

[March 2006]



### Energy/Resource Industry holds “Clean Society” Ceremony

KNOC held a “Clean Society” agreement ceremony in October 2005 together with SK, GS Caltex, Samsung Corporation, and 25 other cooperative corporations. This agreement ceremony was an extension of the previous agreement to construct a clean society on last March 9, in which leaders of various social sections were involved. Our staff who participated in that day's ceremony took an oath and signed a pledge to fulfill an action charter and promised to aid in the construction of a transparent oil resource industry.

[October 2005]





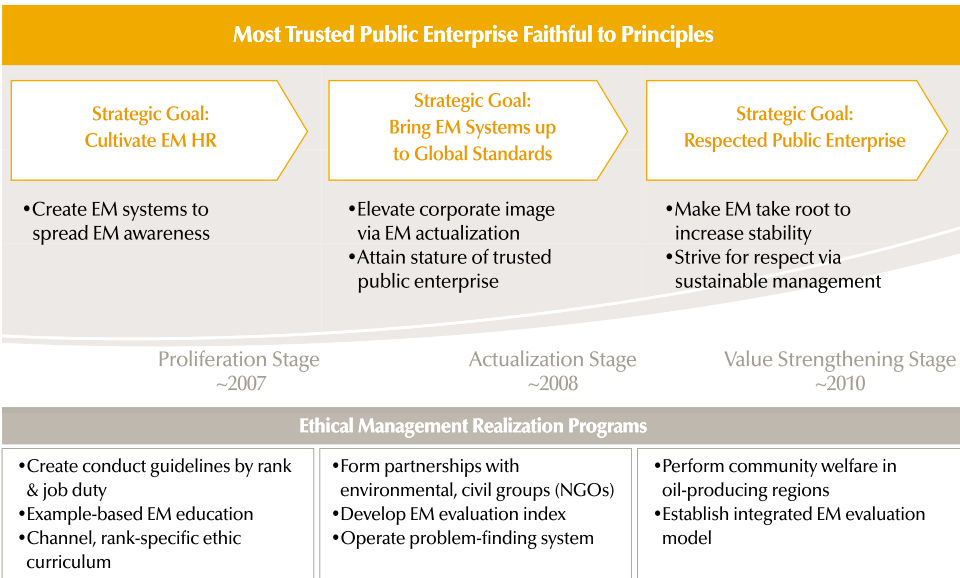
# Outline of ethical management

## Vision and Strategic Goals of Ethical Management

### Vision of Ethical Management

We have set our ethical management vision as “A respected public enterprise that is faithful to principles and standards.” In 2006, we established a three-stage roadmap and concentrated on spreading and activating ethical management, and will continue our efforts to achieve these goals. The roadmap for ethical management was established through status analysis and surveys, and fully reflected the opinions of interested parties. The first until 2007 is the Proliferation Stage, when we will strive to nurture ethical management HR, and the second Activation Stage, ending in 2008, aims to adopt global standards in KNOC’s ethical management system. In the third and last stage, the Value Strengthening Stage which concludes in 2010, we will take steps to elevate KNOC’s image as the nation’s most respected public enterprise.

### Ethical Management (EM) Strategies & Actualization Roadmap



# Social Performance

## Ethical Management

### Ethical Management Promotion Organization

To instill an ethical corporate culture and promote ethical management, decisions are made through the Management Innovation Department, Ethical Management Committee, Inspection Department, and Public Disclosure Review Committee. The Management Innovation Department is in charge of ethical management and responsible for integrated adjustment of ethical management-related operations. It was founded in July 2003 and consists of a chairman and members (less than 4 heads of departments), and an ethical management manager, and meets quarterly. The Ethical Management Committee is the supreme decision-making organization for ethical management. The Inspection Department evaluates and inspects performances of anticorruption activities. The Open Public Enterprise Committee convenes quarterly as a forum for reflection on customer opinions. The Public Disclosure Review Committee examines information disclosure activities.

### Ethical Management Organization



### History of Ethical Management

KNOC complies with relevant laws and regulations in all management activities to maintain transparency. In 2003, we implemented a basis for ethical management operations. In 2004, an ethical management manual was published and in the following year evaluation and rewards were strengthened through operation of a self-evaluation system. In 2006, we began executing companywide programs based on our ethical management master plan, and improving ethical management policies, while expanding education to the employees of our cooperation partners to share ethical management awareness.

### Main Ethical Management Activities

2003	2004	2005	2006
<ul style="list-style-type: none"> <li>• Ethical management forum held</li> <li>• EM educated from invited lecturers</li> <li>• Letter from CEO to all employees</li> <li>• EM organizational infrastructure created</li> <li>• EM proclamation ceremony &amp; pledge signing</li> <li>• Code of Ethics/Principles/Guidelines enacted</li> <li>• Integrity Pledge introduced</li> <li>• EM consultation/complaint/suggestion added to homepage &amp; Knowledge Center</li> <li>• EM online education launched</li> <li>• EM self-examination/evaluation model developed</li> </ul>	<ul style="list-style-type: none"> <li>• Ethical Management manual published</li> <li>• EM Master Plan devised</li> <li>• "Ethical Management Day" created</li> <li>• EM motto announced</li> <li>• EM casebook published</li> <li>• EM reflected in HR evaluations</li> <li>• Agreement with KICAC to serve as model EM enterprise</li> <li>• EM report/reward system introduced</li> </ul>	<ul style="list-style-type: none"> <li>• EM principles reviewed</li> <li>• Individual EM awareness self-exam system devised</li> <li>• EM manual reprinted</li> <li>• EM Officers appointed</li> <li>• EM Officers / "Clean Man" Workshop held</li> <li>• Energy Sector "Clean Society" Agreement signed</li> <li>• Ethical Management Grand Prize created</li> </ul>	<ul style="list-style-type: none"> <li>• EM Master Plan established</li> <li>• Letter from CEO to 182 partner companies</li> <li>• EM business cards for senior staff</li> <li>• Employee code of conduct revised</li> <li>• Whistleblower protection / reward guidelines devised</li> <li>• EM/Code of Conduct carefully perused &amp; oath pledged by all employees</li> <li>• Contract of Integrity for executives introduced</li> </ul>

# Ethical Management Drive Performance

## Establishing Ethical Management Policy

### Contract of Integrity for Executives

To strengthen penalties for corruption, KNOC adopted the Contract of Integrity for Executives, which clearly sets forth the obligations and responsibilities of executives to meet anticorruption standards, and all seven senior executives entered into this contract in 2006. Senior executives must comply with business transparency obligations or face financial penalties according to the severity of the violation. Retired senior executives are subject to punishment within three years from their retirement when they had been criminally charged for violating their obligations for integrity during their service.

### Improved reporting policy

KNOC's report compensation policy is designed to encourage voluntary whistleblowing by providing incentives. It consists of internal reporting and individual common interest reporting. Internal reporting is to reveal unethical misconduct of others, while voluntary reporting (Clean Reporting) focuses on self-evaluation. In 2006, we expanded the range of reward recipients from internal reporters only to external reporters and spurred whistleblowing through improvement of compensation procedures in October 2006.

Reporting Subject & Compensation	Category	Internal Reporting	Voluntary Reporting (Clean Reporting)
	Content	Reporting on others for ethical violations or wrongful disclosure	Disclosure of one's own ethical violations
	Subject of Reporting	Obtaining undue benefits through job-related extortion/provision of entertainment, abuse of position, impeding other staff from performing rightful duties, or other ethical violations	Receipt of money or gifts from outside
	Report Procedure	Report violation → Report confirmed (Auditor's Office) → Investigation (Auditor's Office) → Results notified → Compensation paid	Report violation → Report confirmed (Auditor's Office) → Auditing (Auditor's Office) → Results notified → Compensation determined (Auditor's Office) → Compensation paid
	Compensation	<ul style="list-style-type: none"> <li>Under KRW 1 mil.: KRW 500,000 + 50% of violation amount</li> <li>Over KRW 1 mil.: KRW 1 mil. + 10% of violation amount</li> <li>Incalculable Amount: According to relative importance, KRW 500,000, 2 mil. or 5 mil.</li> </ul>	200% of money/gift (min. KRW 100,000, max. KRW 2 mil.) - Excludes anonymous reports



Sustainability Report 2007



# Social Performance

## Ethical Management

### Ethical Management Education

#### Strengthening Ethical Awareness among Executives and Employees

We send monthly anticorruption awareness emails from the CEO to all personnel and provide online ethical management education, external and guest lecture courses, and workshops. Online education was provided only for senior-level personnel in 2006, but from 2007 we have expanded the scope to the entire organization, and implemented actual cases and ethical action education to improve performance levels.

Ethical Management Education for Executives & Employees

Course	Targets	2004	2005	2006
EM Officer Workshop	EM Officers	–	3 hrs. 40 min., 36 persons	4 hrs. 36 persons
EM Online Education	All Staff	146 persons	411 persons	167 persons
Invited Guest Lecturers	All Staff	3 hrs.	2 hrs.	2 hrs.
Example- & Discussion-based EM Education	Workshop Attendees	–	–	5 hrs. 114 persons

#### Strengthening Ethical Management Awareness for Partners

To share KNOC’s commitment to ethical management (EM), we support EM education for our partner companies. As a result of our efforts to prevent corruption between our staff members and construction partner companies, two EM education sessions were held for 297 field workers from five construction areas to prevent illegal activities and instill a whistleblower culture during 2006.

### Ethical Management Activity Monitoring

#### Conducting Self-Evaluation of Ethical Awareness

We are posting self-evaluation lists of every personnel in our K-Center (enterprise knowledge management system) to strengthen ethical awareness through self-conducted examinations. Self-evaluations shifted from biweekly in 2005 to weekly in 2006, and twice a week since 2007 to routinize examinations and spread awareness.





### Examining Personnel Compliance with Code of Conduct

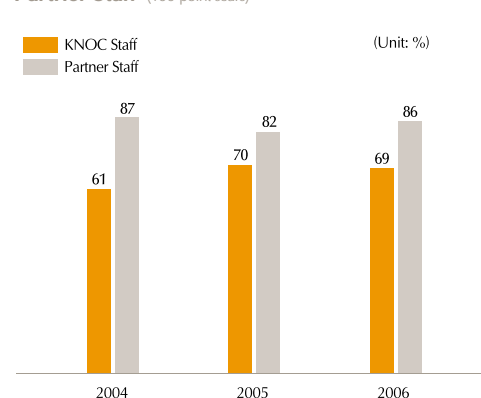
We have revised and strengthened our Ethical Code of Conduct to increase the level of compliance in daily business activities. Ten special and field inspections were held in 2006 targeting 21 personnel to ascertain their level of understanding and compliance, and analyze areas for improvement. In 2007, we have continued education for every staff member and revised our previous Code of Conduct to reflect recommendations by from the Korea Independent Commission Against Corruption (KICAC).

### Ethical Management as Measured by Survey

KNOC conducted ethical management and anticorruption surveys to gauge the status and improve awareness of our own personnel and that of our cooperation partners. The survey targeted 566 personnel including 182 staff from partner enterprises during 2004–2006. They scored 69 points, indicating that ethical management awareness and a responsive atmosphere has taking root, but actualization remains low. We will henceforth seek out the means to strengthen actualization of ethical management.

Survey results for employees of cooperation enterprises covering 19 categories showed a 4point increase from 2005, marking 86 points. The level of ethical management compliance and relative transparency received positive feedbacks compared to other organizations. Most survey participants agreed with the need for a transparent contract system, but acknowledgement of some policies such as an ethical management hotline was low. Therefore, we will promote our various EM policies through active communication.

**Ethical Management Survey of KNOC & Partner Staff** (100-point scale)



### Improved Ethical Management Evaluation & Compensation System

We have revised our ethical management evaluation index to strengthen systematic measures for evaluations and rewards. Our ethical management monitoring and performance reward system, which was found to be inadequate in 2006, was revamped to induce greater participation and actualization of ethical management. KNOC will continue to reward personnel who carry out ethical management according to an objective performance index.

#### Improvements in Ethical Management Evaluation Index

Category	Before	After	Evaluation Items & Weightings
Head Office Index	Integrity Compliance Level	Integrity Compliance Level	<ul style="list-style-type: none"> <li>• Uncovered by outside organizations (15%)</li> <li>• Voluntarily indicated (20%)</li> <li>• Voluntary execution of improvement tasks (30%)</li> <li>• Divisional education by division head (10%)</li> <li>• Clean Team operation &amp; activities (10%)</li> <li>• CEO combined evaluation (15%)</li> </ul>
Branch Office Index	–	Ethical Management Compliance Level (new)	<ul style="list-style-type: none"> <li>• Ethical management participation rate (40%)</li> <li>• Efforts to develop, voluntarily practice and expand ethical tasks (60%)</li> </ul>

# Realize Transparent Management

## Enhancing Transparency

### Law Abidance

All staff are fully aware and in conformity with anticorruption acts, Monopoly Regulation and Fair Trade Act Convention on Combating Bribery of Foreign Public Officials in International Business Transactions. In addition, all KNOC employees observe the Code of Conduct for Public Officials. While KNOC guarantees individual political freedom, in reference to Article 25 of the Code of Conduct for Public Officials: staff shall not receive money, political contributions or be party to any unreasonable political actions. In order to ensure a clean and transparent working environment, we fully observe the Code of Conduct for Public Officials in reference to Article 16: public officials are prohibited from receiving money or other valuables from individuals who are political figures in connection with his or her current public duties.

### Communication with Interested Parties

#### ● Active Public Disclosure

We are willing to increase transparency through active public disclosure of information on management status and improvements in business procedures. We provided information through “Allio,” KNOC’s integrated public announcement system, and via annual reports and roadshows for foreign investors. Seven roadshows were held in Hong Kong in 2005, and 14 in the UK and US in 2006.

#### ● External Report Management

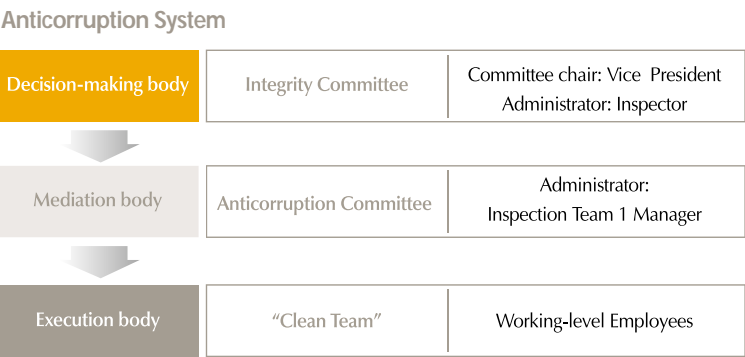
We have operated an Ethical Management Hotline in our K-Center (enterprise knowledge management system) since March 2007, and have not yet received reports targeting our personnel (as of June 2007). We will continue to monitor opinions from interested parties and protect reporters by safeguarding personal information and complying with informant protection laws. We conduct telephone and direct-visit consultations as part of our ethical management inquiries, with eight cases in 2005 and 23 cases in 2006.

### “Clean Society” Agreement

As a part of the “Clean Society” Agreement, KNOC regularly participates in related conferences. The Public Enterprise “Clean Society” Agreement Actualization Conference was established in 2005, consisting of an actualization conference and an execution committee. Through periodic meetings, important issues regarding the actualization of agreements are dealt with.

### Establishing Anti-Corruption Policies

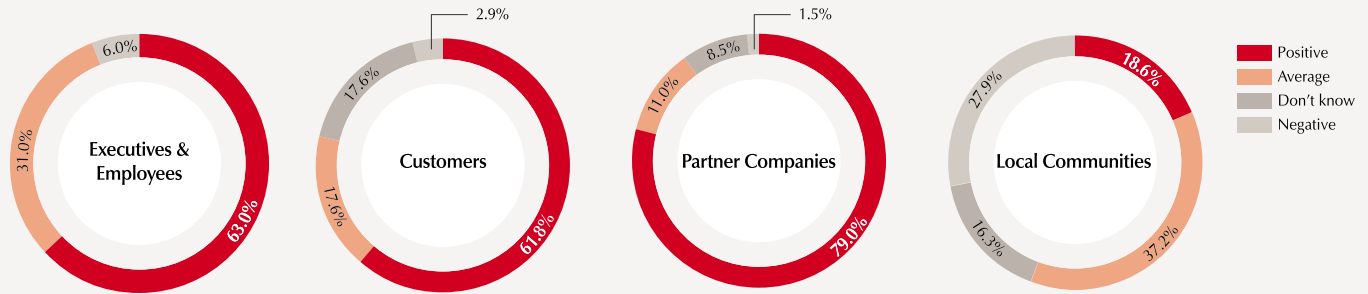
In order to strengthen anticorruption policy execution, we operate a full-time anticorruption organization. In 2006, nine anticorruption conferences and five business conferences were held, and monthly “Clean Team” operations were launched. To promote voluntary participation in this effort, we developed educational materials, strengthened anticorruption education programs, and upgraded report (whistleblower) policies. In addition, we are seeking to disseminate our anticorruption principles to interested parties outside of our own organization. In September 2006, an anticorruption education tour was held at nine KNOC branch offices and three KNOC construction offices.



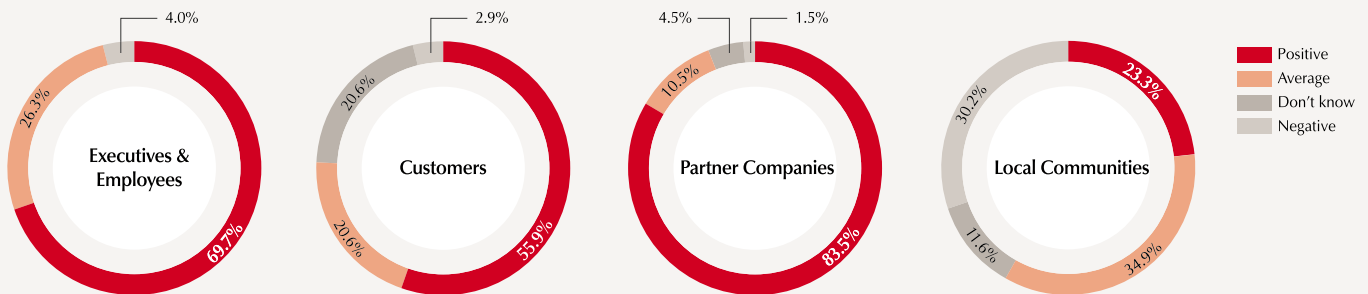
## Survey Results

In surveying interested parties, we received generally positive feedback from executives & employees and customers, though somewhat lower responses from the local community. Employees' level of compliance with ethical management principles and ethical awareness received relatively high ratings of 55.6% and 52.3%, and efforts to create an ethical corporate atmosphere garnered 58.1%. KNOC is expanding our efforts to share ethical awareness with our partner companies, and we will continue to spread ethical management awareness and activities aimed at the local community.

[ KNOC executives & employees are in full compliance with corporate ethics guidelines. ]



[ KNOC is striving to build an ethical corporate environment. ]



## Expert Interview

**Ra Young-Jae**  
Chief of Public  
Cooperation Team  
Korea Independent  
Commission Against  
Corruption

### Evaluation and Suggestion for Sustainability

As KNOC's main customers are not the general public, KNOC was not a target of our anticorruption evaluation. There is no external evaluation body, so evaluations can be conducted internally. But these must be honest and frank, not formalistic. KNOC should carry out voluntary evaluation programs and publicize the results, and look for areas that need improving.

### KNOC's Response

In August 2003, KNOC enacted its Code of Ethics that serve as standards for ethical conduct, and we have never violated any of our Code of Ethics or guidelines. We conduct ethical management surveys and anticorruption activities companywide, and we recognized from the 2006 survey results that there are areas we need to improve. KNOC is seeking ways to promote and strengthen voluntary participation of every staff member in this effort. Self-evaluations were held in 2005, and biweekly evaluations were increased to two evaluations per week from 2007. Also in 2006, we carried out 10 special & field surveys to gauge levels of ethical management understanding and compliance, and we subsequently strengthened relevant education & training. KNOC will continue to use objective self-evaluations in order to improvement of ethical management compliance.

# Disclosure on Management Approach

## Management for Local Communities

### Social Contribution System

#### Vision & Strategic Goals

KNOC's strategic vision in the realm of social contribution is "earning trust through management of sharing," whereby we pursue a "sharing management," social welfare, and environmentally friendly causes. Our enterprise-wide KNOC Volunteer Service Teams are the heart of our "good corporate citizenship" programs, which include helping the needy, contributing to rural communities, protecting the environment, and promoting academic culture.

#### Policy

We have concluded a voluntary pollution prevention and recovery agreement with the Ministry of Environment in 2006 as part of our efforts to stem environmental pollution in areas where we operate.

#### Intra-organizational Responsibility

- General Affairs Dept.: Social contributions
- KNOC Volunteer Service Team Management Committee: Composed of 5~10 departmental heads officer, the committee takes full charge of managing individual volunteer service teams in the head and branch offices.

### Materiality Test

Results of the materiality test using the 「IPS Materiality Test Model™」 show that social welfare activities and local community needs are the most important issues, with other major issues being the strengthening of local community understanding, social welfare execution, and preservation and respect for indigenous peoples. Contents of these issues are included in the report.



### Major Achievements and Action Plans

Category	Details	Major Achievements		Plans
		2005	2006	2007
KNOC Social Service Foundation	Service hours	—	3,250 hrs.	4,875 hrs.
	Participants	—	27 teams, 831 ppl.	31 teams, 1,080 ppl.
Social Contribution Activities	Donations	KRW 82 mil.	KRW 196 mil.	KRW 256 mil.
	Matching grants equal to donations by executives and employees (from Mar. 2006)	—	KRW 40 mil.	KRW 50 mil.
	Sister-organization support	5 organizations KRW 15 mil	5 organizations KRW 15 mil	5 organizations KRW 15 mil
	Child breadwinner support	3persons KRW 3 mil	3persons KRW 3 mil	5persons KRW 7.5 mil
Academic Culture Promotion	Petroleum grad student support	6persons KRW 18 mil	12persons KRW 42 mil	41persons KRW 106 mil
	"1 Company, 1 School" support	—	KRW 18 mil	KRW 20 mil



### Volunteer Service Team Shares Hopes & Dreams with Our Neighbors

KNOC launched the KNOC Volunteer Service Team in March 2006, in commemoration of the 27<sup>th</sup> anniversary of our founding. Volunteer service teams, in which almost half of our personnel are involved (27 teams, 457 members), reflect our strong desire to actualize "management of sharing" through systematic social contribution activities. Our volunteer teams mainly focus on supporting the neglected (child household heads, residents of old-age homes), social contributions through interaction with sisterhood villages, environmental causes like the "1 Corporation, 1 River" program, and promoting academic culture (scholarships for petroleum studies majors).

[March 2006]



### "Little Olympics for Big Dreams"

"Little Olympics for Big Dreams," the product of cooperation between KNOC and seven other public corporations, was held in Anyang City in May 2007. This jointly sponsored corporate social welfare activity is a new approach to community service which increases the synergy effects of combined sharing. A total of 172 children from low-income families were invited to take part in the "Little Olympics." We expect to see more corporations take part in joint social contribution movements like this one, centered on sharing love and caring.

[May 2007]





## Social Contribution for Local Communities

### Characteristics & Issues of Local Communities

As a conscientious corporate citizen and active member of the local community, KNOC seeks to contribute to the cultural and economic development of each locality and the nation at large. We express this commitment by supporting the neglected members of society, by promoting academic culture, and by helping to protect the environment as a part of KNOC's management of sharing and social welfare philosophy.

### Basic Direction of Social Contributions

In order for an enterprise to survive and prosper, it must fulfill its social responsibility that goes beyond financial contributions. KNOC believes that service to society should not be limited to one-off campaigns, but a sustainable expression of "sharing management." In continuation of our social contribution execution plans announced in 2005, KNOC established an organizational structure to solidify our commitment to bettering society through various types of "voluntainment." These include helping the neglected, contributing to local communities, protecting the environment, and promoting academic culture as a responsible public enterprise. In 2007, we conducted enterprise-wide volunteer programs, implemented a matching-grant scheme, increase interaction with our "sister" villages and schools, and strengthened partnerships with volunteer organizations.

#### Social Contribution Strategies

Social Contribution Vision	Trusted Public Enterprise with "Sharing Management"			
Values	Sharing Management   Public Welfare   Environmental Protection			
Execution Activities	Supporting the Needy	Contribution to Local Community	Environmental Protection	Academic Culture Promotion
	<ul style="list-style-type: none"> <li>• Assist society's neglected</li> <li>• Aid for military</li> <li>• Red Cross Bazaar</li> </ul>	<ul style="list-style-type: none"> <li>• Relief for disaster-struck areas</li> <li>• Sisterhood ties w/rural village</li> <li>• Sponsor regional events</li> </ul>	<ul style="list-style-type: none"> <li>• Anti-pollution works in stockpiling regions</li> <li>• "Adopt-a-River" program</li> <li>• Arbor Day tree planting</li> <li>• Mountain / Forest protection campaign</li> </ul>	<ul style="list-style-type: none"> <li>• Scholarships for oil studies majors</li> <li>• 1:1 sisterhood ties w/schools</li> </ul>

\* "Voluntainment" is a word combines Volunteer and Entertainment. It refers to volunteer works that can provide people with both entertainment and fruitfulness.

# Enterprise-wide Social Contribution Activities

## Achievements of KNOC Volunteer Operations

The KNOC Volunteer Service Team system was established in March 2006 to promote voluntary participation and enterprise-wide social contribution activities. Our volunteer teams chose “Oil Hopes and Dreams Together with our Neighbors” as their slogan and have begun carrying out various good deeds. The service team consists of 5~10 members and is under the supervision of the Operations Committee. The Operations Committee consists of 5~10 department managers. The General Affairs Department directs KNOC’s social contribution programs and integrates all activities at the head and branch offices.

The main service team is comprised of a total of 27 sub-teams (457 personnel as of 2006) and arranges contributions for welfare facility visits and environmental protection outings. As of December 2006, 831 personnel, or 73% of our total workforce, had spent 3,250 hours in carrying out volunteer activities. KNOC provides monthly support for related expenses and vehicles. Also, we have declared every third Wednesday as “KNOC Social Contribution Day,” and we accept volunteer hours as work hours. Participation is encouraged with rewards and compensation in line with performance.

### Volunteer Service Pledge

“We pledge to carry out the following in the hope of building a society of love and compassion through our combined volunteer work.”

- We will carry out volunteer service with modesty and a spirit of respect for life and our fellow man.
- We will perform volunteer service actively, with integrity and creativity.
- We will derive joy from performing volunteer service and not inconvenience or harm others.
- We will perform our volunteer service cheerfully and with thanks, seeking to make it part of our daily lives.

### Volunteer Service Foundation Organization

```
graph TD; FH((Foundation Head  
(President))) --- OC[Operations Committee  
• Committee Chair: Vice President  
• Committee Members: Departmental heads]; FH --- AFH((Assistant Foundation Head  
(Business Management Chief))); AFH --- AA((Administrative Assistant  
(General Affairs Chief))); AA --- BO[Branch Offices  
10 Teams]; AA --- HO[Head Office  
17 Teams];
```





### Publicizing Volunteer Activities via KNOC Bulletin Board

We provide status and other information regarding social contributions through our in-house intranet bulletin board. Our General Affairs Division uploads photos of volunteer activities, introduces nearby organizations and people in need of help, and provides updated information and yearly plans. We are at looking further ways to utilize our volunteer service team's homepage as a tool for information sharing.

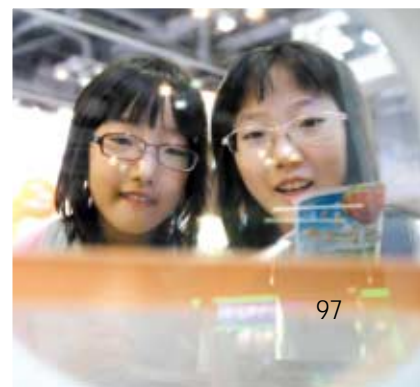
### Fund-raising Program

From March 2006 to December 2006, 605 KNOC personnel operated 803 donation accounts, accumulating a total of KRW 40.05 million for the "KNOC Volunteer Service Fund" and donating KRW 40.00 million to help the less fortunate in cooperation with Anyang City Hall. By implementing a Matching Grant scheme in March 2006, we are able to manage our charitable donations efficiently and transparently, and pursue sustainable management through sharing.

#### Charitable Donations

(Unit: KRW million)

Year	Donations	Remarks
2004	87.0	Supporting sister-relations & the needy
2005	82.0	Supporting sister-relations & the needy
2006	196.4	Supporting sister-relations & the needy – Includes E&P Scholarship (KRW 42 mil.)



## Social Performance

### Local Communities

#### Support for the Neglected and Local Community Contributions

##### Support Through Sisterhood Relations

Since 1980, KNOC has provided ongoing support to five welfare organizations and three households headed by children near our head and branch offices. In 2006, we provided quarterly financial support of KRW 3 million to sisterhood organizations including daycare centers, homes for the aged and rehabilitation facilities, and donated KRW 1 million to child-headed families, bringing total local-community donations thus far to KRW 72 million. In addition to regular donations, volunteers from the head office and branch offices also visited child-headed families or sisterhood organizations and carried out spontaneous welfare activities.

##### Contents of Sisterhood Support (2006)

Name of Organization		Function	Location	Participants	Established	Annual Donation
Sisterhood Entities	Sunghimwon	Orphanage	Yongin	46	May 16, 1980	KRW 60 mil. (3 mil./qtr./org.)
	Pyonghwa Orphanage	Orphanage	Anyang	97	Jan. 30, 1998	
	Kamcheonjang	Home for aged	Suwon	69	Feb. 15, 1996	
	Pyunganhome	Aged/Disabled	Icheon	38	Jan. 19, 2004	
	Subong Rehab. Cntr.	Disabled Rehab.	Suwon	38	Feb. 5, 1997	
Child-headed homes		Self-reliance support	Anyang	3	–	KRW 12 mil. (1 mil./qtr./org.)
Total Donations						KRW 72 mil.

##### Actualizing “Sharing Management”

We strive to make our society a better place to live by providing steady support to social welfare facilities. Ongoing voluntary social contributions by our staff include visits to sisterhood organizations, military bases, child-headed families, and local welfare facilities. Together with the Anyang Women's Volunteer Service Society and Food Bank, KNOC volunteer service members delivered ready-to-eat meals to student welfare facilities in Anyang in April 2006, and donated rice during school vacation.

Since March 2006, we have operated the “Oil Love Scholarship” program for students in areas near our stockpiling facilities, and donated KRW 6 mil. to educational organizations near our Pyeongtaek Office. Additionally, we participate in book-donation campaigns, charity races, blood drives, cultural experience programs for children of low-income families, and many other social welfare programs.





## Joint Activities with Professional Social Service Organizations

KNOC conducts joint social contribution activities in alliance with NGOs. In 2006, we supported Habitat for Humanity's "Love in Action" project, the Korea Energy Foundation's support of the needy, and Anyang City's "Little Olympics for Big Dreams" event. Also, in 2004 we donated KRW 10 mil. in relief aid to the Korean Red Cross following an explosion at North Korea's Ryongchon Railway Station, and we regularly take part in and donate proceeds from the Red Cross Bazaar. In 2007, KNOC is seeking to expand joint welfare activities with professional social service organizations, and will make an effort to diversify our social contributions.

## Joint Activities with Charity Organizations (2006)

Organization	Charity Event	Details
Korea Habitat	Love in Action	<ul style="list-style-type: none"> <li>• 35 volunteers ran in 1st Korea Habitat Marathon to raise funds for homebuilding (June)</li> <li>• 23 volunteers took part in Habitat's "Love in Action" construction program (Aug.)</li> </ul>
Korea Energy Foundation	Supporting the Needy	<ul style="list-style-type: none"> <li>• Participated in Energy Volunteer Service founding ceremony (May)</li> <li>• Repair &amp; replace heating systems for the poor in conjunction with Energy Foundation's 2007 plans</li> </ul>
Anyang Women's Volunteer Assoc. Center	Little Olympics for Big Dreams	<ul style="list-style-type: none"> <li>• Supported 172 children of low-income families with expenses, manpower (10 ppl.), vehicles (1 bus)</li> </ul>
Korean Red Cross	Blood of Love & Donation	<ul style="list-style-type: none"> <li>• Made annual donation (KRW 1 mil.)</li> <li>• Took part in 2006 Red Cross Bazaar, donated proceeds (Oct.)</li> <li>• Planned 2007 participation (Oct.)</li> </ul>

## "1 Company, 1 Village" Sisterhood Program

In line with our CEO's philosophy of supporting farming incomes through various programs, KNOC formed a "1 Enterprise, 1 Village" sisterhood relationship with Yongsomak Village near Wonju City in June 2005, lending a helping hand with seasonal chores like harvesting pumpkins and weeding. Beyond labor support, we also conduct direct trading and purchase food from the village, and arrange fieldtrips for residents to our stockpiling facilities. In 2006, 34 residents of Yongsomak visited the Guri Office and 30 residents visited our Geoje Office.

## Overseas Social Contributions

We plant to fulfill our corporate responsibilities abroad as well as at home by assisting economic development through expanded local employment purchases from local suppliers, and by strengthening cooperation through various social contributions. In Kazakhstan, we donated wheelchairs for the disabled and contributed to the construction of an elementary school in Binh Thuan, Vietnam.

## Consultation with Local Agencies & Communities

KNOC seeks to fulfill our responsibility for the safety and health of local residents and the development of their communities in relation to our development, construction and stockpiling business operations. For effective communication with local communities, we have established a consultation system, opening communication channels for resolving issues and mutual prosperity. In addition, each branch office participates actively in local events and festivals, while conducting educational for firefighting and disaster prevention.

### Consultation with Local Communities

Conference Name	Date Established	Members	Contents
"Pine Tree" Conference	1990s	53 org. heads, Geoje City	Local pending issues & win-win plans
Ilwoon-myeon Agency Heads Conf.	1980s	18 org. heads, Ilwoon-myeon	Local development plans
Seosan City Dev. Conf.	1996	40 org., Seosan City	Seosan area development grievances
Gokseong Soc. Found. Conf.	2002	Gokseong County org. heads	Internal organization exchanges
Yeosu Branch-Seogi Village Sisterhood Conf.	2004	Yeosu Br., Seogi Village residents	Annual meeting & cooperation
"Hyang-woo" Conf.	2005	25 org. incl. Pyeongtaek Maritime Affairs	Pyeongtaek development grievances
Pyeong-Sa Conference	2006	16 org., Pyeongtaek City	Pyeongtaek development grievances

## Social Performance

### Local Communities

#### Environment Protection Activities

We carry out environment protection activities in nearby mountains, rivers, and coastlines each “KNOC Social Contribution Day.” We plant trees on Arbor Day, expanded tree-planting events around branch offices, clean up rivers on “Water Day,” and donated KRW 30 million for flood recovery in the Gangneung region. Volunteer teams clean up areas around branch offices and nearby coastlines. Also, in December 2006 KNOC became the first public enterprise to conclude an agreement with the Ministry of Environment on preventing soil pollution.

#### Academic and Cultural Promotion

##### Petroleum E&P Scholarships

Since 2005, KNOC has sought to cultivate human resources in fields related to the exploration and production of oil through the petroleum E&P scholarships. As of 2006, KRW 60 million in scholarships had been extended to 18 students in master's and Ph.D. programs. In 2007, the number of recipients was expanded to 21, including graduate and undergraduate students in oil engineering and geology fields.

##### Petroleum E&P Internships

Every July since 2005, we have held two-week internships in order to strengthen our human resource infrastructure in the oil exploration and production area. Thirty university students received practical theory studies and OJT field education, and were dispatched to Donghae-1 gas field processing facilities and stockpiling facilities in Ulsan and Geoje to build experience. In 2007, we lengthened the internship to four weeks.

##### “1 Company, 1 School” Sisterhood Ties

KNOC established “1 Company, 1 School” sisterhood relations with Ulsan Technical High School. As part of this program, we provide students with actual test equipment and scholarships - a donation worth approximately KWR 18 million - as well as opportunities for field-experience training.

#### Academic & Cultural Support (2006)

Program	Recipients	Persons (times)	Details
Petro. E&P Scholarships	Graduates in Petro. Fields	12 persons(2 times)	KRW 42 mil.
Petro. E&P Internships	Uni. Resource/Geol. Majors	30 persons	Practical theory, field experience (2 wks.)
“1 Company, 1 School”	Ulsan Technical High School	–	Scholarships & equipment



## Survey Results

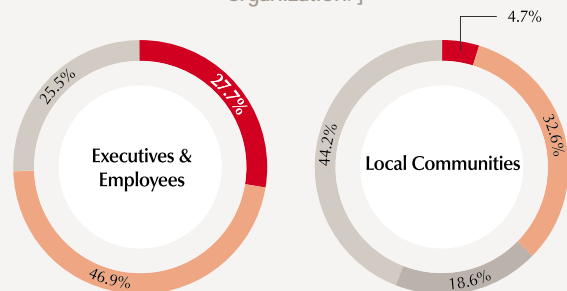
The survey showed a considerable difference in how KNOC's social contribution activities are viewed by employees and by local communities. In 2006, all our employees participated in the establishment of the KNOC Volunteer Service Team system, and we will try to increase public awareness through strategic PR efforts to make social contributions part of the KNOC core brand. We will also seek to improve evaluations of our commitment to the community by expanding scholarships and other benefits.



[ KNOC staff actively participate in social contribution activities. ]



[KNOC's social contributions are well known outside the organization. ]



[ KNOC makes an effort to reflect local community needs in its operations. ]



## Expert Interview

Jung Dong-Young  
Chief of Personnel Management  
Ministry of Planning and Budget

Evaluation and Suggestion for Sustainability	KNOC's Response
KNOC's oil stockpiling business cannot exist without the cooperation of local communities. KNOC must respond to the growing need for the establishment of a conflict-resolution system and a compensation system for the local citizens who are adversely affected by KNOC's business operations.	KNOC regards local residents our customers and we operate various win-win policies for shared prosperity with local communities. We support the underprivileged with scholarships and local events that will strengthen communication and warm ties. In addition, we compensate for losses to local fishing industries under the supervision of relevant specialist organizations. We also hold seminars with related organizations to enhance communication with local residents and reflect their opinions in our business operations. KNOC will do everything possible to achieve mutual development together with our local communities.



# Environmental Performance

We strive to create clean, environmentally-friendly energy that balances humans and nature and keeps the planet green and beautiful.





# Key Environment Achievements

## Optimal Operation of Health, Safety, Environment & Quality (HSEQ) System

Through diligent implementation of the HSEQ (Health, Safety, Environment & Quality) systems, KNOC achieved a no-disaster/no-accident record at most of our worksites, and by meeting all domestic and international standards, we have ensured the smooth promotion of key our businesses.

## Saving Energy & Resources

Despite the overall increase in equipment and facilities, education to raise energy-conservation awareness and the efficient management and operation of various energy equipment have enabled KNOC to reduce annual energy & resource consumption each year, meeting annual targets.

## Selected as Superior Energy-Saving Agency

Thanks to our efforts to raise awareness of and to practice energy conservation, KNOC was selected through government joint inspections as a superior energy-saving agency in 2006. In addition, personnel in charge of energy conservation received special commendation from the Minister of Commerce, Industry and Energy at the 28<sup>th</sup> energy conservation promotion event.

## Efforts to Protect Sea & Water Quality

In consideration of the impact our key businesses have on sea and water quality, KNOC sets strict internal targets and complies with them. Moreover, to prevent oil spills, comprehensive countermeasures for mooring oil tankers were announced in April 2007.

## Coping with Climate Change

Due to the mounting environmental problems of global warming and ozone layer depletion, KNOC shares awareness of the environmental pollution that can occur at the construction stage of storage bases and from storage facilities, and we study ways to make improvements on the environmental front.



# Disclosure on Management Approach

## Environmental Performance System

### Vision & Strategic Goals

As part of our corporate vision, KNOC established policy targets for our HSEQ (Health, Safety, Environment & Quality) system. By setting targets for prevention of life & property loss, environment protection, environmentally-friendly corporate management, and maximum compliance with of regulations and customer demands, KNOC is carrying out continuous improvements in environment processes.

### Policy

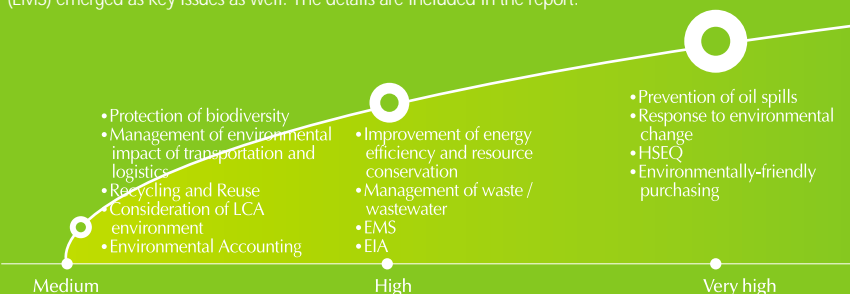
For effective implementation of our HSEQ system, KNOC has strengthened internal & external inspections and continuously published and revised HSEQ manuals, procedural manuals, and standard guideline plans. KNOC complies with the Framework Act on Environmental Policy, Clean Air Conservation Act, Soil Environment Conservation Act, Natural Environment Conservation Act, Water Quality Conservation Act and reinforced environment pollutant release standards, and carries out Environmental Impact Assessment (EIA) and post-EIA.

### Intra-organizational Responsibility

- Crisis Safety Management Dept.: A unit directly under the executive vice president and in charge of prevention of and follow-up measures for environment crises through the operation of environment organization and risk management.

### Materiality Test

As a result of the materiality test provided by the "IPS Materiality Test Model™", HSEQ, prevention of oil spills, environmentally-friendly purchasing, and response to climate change were found to be the most important issues. Improving energy efficiency and conserving resources, EIA, and Environmental Management System (EMS) emerged as key issues as well. The details are included in the report.



### Major Achievements and Action Plans

Category	Details	Major Achievements		Plan
		2005	2006	2007
HSEQ	Process improvement goals	87 cases	97 cases	49 cases
	International standards certification	ISO9001(Quality), ISO14001(Environment), KOSHA 18001, ISM/ISPS code(Ship safety/security)		
	Creation/revision of regulatory documents	61.9%	35.1%	48.5%
	Safety environment accidents	0 cases	0 cases	0 cases
Sea/Water Quality Mgmt.	Marine oil spills	-	-	Countermeasures for mooring oil tankers
Environment-friendly purchasing	Purchase of eco-friendly office supplies & products	KRW 54 mil.	KRW 176 mil.	KRW 497 mil.
Energy conservation	Energy usage	Electricity: 2,395 toe	Electricity: 2,344 toe	Electricity: 2,607 toe
Climate change response	VOC treatment facility	VOC incinerator & treatment plant installation		
Environmental investment	Environmental investment expense	KRW 3,246 mil.	KRW 4,900 mil.	KRW 5,390 mil.

## KNOC Chosen as "Superior" Energy-Saving Public Institution

KNOC's energy-saving efforts are becoming increasingly diverse. In 2006, we expanded the "Leave Your Car at Home Day" from the head office to the entire organization. Also, by designating "energy guards" for the head office and individual offices, the Corporation is leading the way to energy reduction via regular checkups and making conservation part of daily life. We encourage active participation by giving incentives to employees with superior energy guard awards. KNOC introduced energy-saving equipment in its



offices, operates a reduced number of elevators according to time slot, and carries out energy-conservation education and checks on stockpiling bases & construction offices. KNOC was selected as an “outstanding” energy-saving agency after the 2006 government joint inspection. In addition, KNOC’s energy personnel received a commendation from the Minister of Commerce, Industry and Energy at the 28<sup>th</sup> Energy-Saving Promotion Event. [December 2006]



## 3<sup>rd</sup> ISO14001 Environment Standards Certification Renewal

In order to continuously strengthen environmental management in oil development, oil stockpiling and base construction, KNOC underwent the renewal inspection by DNV on ISO 14001 environment standards. In this inspection, KNOC scored high marks for EIA and emergency situation preparation, and renewed its certificate for another three years after taking relevant steps for required improvements. [May, 2007]

## First Public Enterprise to Sign Voluntary Soil Pollution Prevention Pact

To prevent soil pollution caused by oil storage facilities and to voluntarily purify contaminated soil, KNOC concluded a “Voluntary Agreement to Prevent and Purify Soil Pollution” with the Ministry of Environment in December 2006. In addition to legally required inspections, KNOC agreed to implement soil pollution level inspections at all nine stockpiling facilities across the nation and ground tanks in gas fields every three years. If pollution levels exceed the provided levels, KNOC will establish a soil purification plan and follow it based on detailed exam results. Together with these steps, by gradually bringing underground pipes above ground, the fundamental source of oil leaks will be eliminated. This agreement is meaningful in that a government corporation with a vast quantity of oil storage facilities is voluntarily taking the leading role in preventing and remedying soil pollution. [December 2006]



## Yeosu Office Improves Expands Wastewater Treatment to Boost Water Quality

To better prevent water pollution, wastewater treatment facilities at KNOC’s Yeosu office have been expanded. Calculating the appropriate capacity for wastewater treatment facilities in view of the nature of seepage water at underground oil storage caverns and additional cavern construction at Yeosu Base, we enlarged wastewater treatment capacity to 2,600m<sup>3</sup>/d. Water discharged from Yeosu Base is maintained at a quality level of 5PPM, far below COD and BOD standards of 130PPM and 120PPM, ensuring strict environmental management with regard to local residents and the local environment. With this expansion in wastewater treatment capacity, KNOC has enhanced the stability of underground caverns and expects both smooth execution of joint stockpiling projects and improved pollution prevention in surrounding waters. [December 2006]





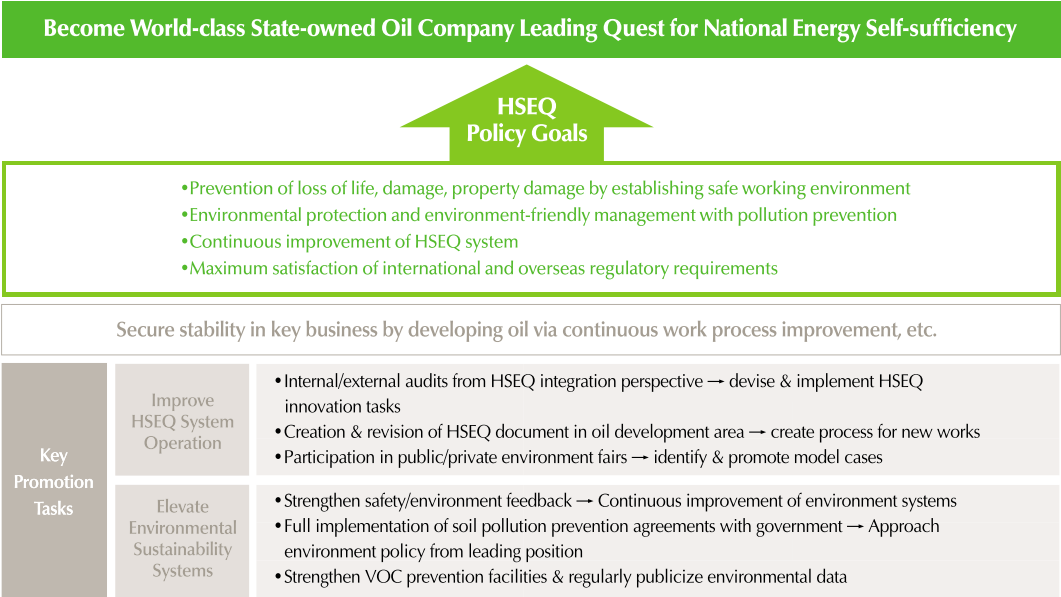


# HSEQ Overview

## HSEQ Goals and Operational Methods

KNOC is working to achieve our HSEQ system goals and promotion plans, while enhancing the systems’ appropriateness and effectiveness through periodically monitoring their implementation. In our key businesses, we apply ISO quality & environmental standards to earn customer satisfaction and execute environmentally-friendly management. KNOC also fully implements KOSHA 18001 standards at our stockpiling bases to ensure no-disaster/no-accident operations at worksites, while for the past 20 years we have successfully carried out exploration, production and drilling operations in compliance with petroleum-sector HSE standards.

KNOC aims to maximize compliance with requirements stipulated under safety and environmental regulations, sharing HSEQ policy goals with all employees and promoting environmental tasks by work unit to help prevent global warming and ozone depletion. Environmental representatives (“Key-man”) have been appointed at each worksite to enable KNOC to routinely monitor factors that could harm the environment and focus on efforts to prevent oil spills.





# Environmental Performance

## HSEQ System

### HSEQ Monitoring Activities

In the operation of its HSEQ systems, KNOC immediately corrects problems identified through internal inspections and external audits, and focuses on preventive measures so that similar problems do not reoccur. In 2006, a certification agency gave KNOC a good overall evaluations HSEQ systems, including systematic process management in Seosan Base construction, thorough preparation for emergency situations at Seosan Base, and others.

#### Internal/External Audit Results on HSEQ System

Classification	2004		2005		2006	
	Findings		Findings		Findings	
	Internal	External	Internal	External	Internal	External
Development	3 (4)	0 (0)	0 (11)	0 (1)	4 (18)	0 (0)
Oil Rig	7 (7)	4 (10)	5 (15)	4 (5)	2 (14)	7 (8)
Oil Stockpiling	10 (27)	2 (2)	23 (19)	0 (0)	8 (26)	0 (1)
Construction	8 (4)	1 (1)	0 (9)	1 (1)	3 (16)	0 (4)
Support	0 (9)	0 (4)	1 (6)	2 (1)	0 (6)	0 (10)
Total	28 (51)	7 (17)	29 (60)	7 (8)	17 (80)	7 (23)

#### Current HSEQ Certifications

Classification	Standard	Scope	Agency
Development/Stockpiling/ Construction	ISO9001 (Quality) ISO14001 (Environment)	Oil development, stockpiling & construction supervision	DNV* Classification
Oil Rig	ISO9001 (Quality) ISM/ISPS (Ship Safety/Security)	Marine oil/gas drilling	KR

\* DNV(Det Norske Veritas)

### HSEQ Document Operations

As of January 2007, KNOC possessed a total of 649 HSEQ documents relating to health, safety & environment requirements stipulated by domestic and overseas regulations, and documents on standards and procedures, guidelines, and environmental plans that reflect key business work processes. Systems & work process improvements are ongoing with 44.6%, 61.9% and 35.1% of regulatory documents produced or revised in 2004, 2005 and 2006, respectively. Manuals covering HSEQ policy and goals, documents on work processes, and guides detailing standard guideline plans all serve to ensure smooth execution of key businesses.

In 2006, KNOC integrated five documents, including "Chemical Management Procedures" relating to Donghae-1 Gas Field production, into "Health, Safety & Environmental Management Procedures" and increased HSEQ coverage to gas field production sites. For HSE documents needed to enhance capabilities in the oil development business, and to enhance the stability of our marine loading & unloading facilities amid rising joint stockpiling volume, KNOC will publish "Terminal Operation Guidelines" and others as we focus on improving loading & unloading facility-related processes.



## Environmental Performance

### Environmental Management Status

## Use of Raw Materials & Energy

### Major Energy Usage & Discharge

#### Total Water Resources

Due to the characteristics of stockpiling oil in underground caverns, the injection water used at KNOC's Geoje Base, Yeosu Base (incl. construction) and Guri Base comes from a variety of water resources, including dam water, industrial water, and natural spring water. Depending on the conditions of their location, some stockpiling bases also use residential water resources such as tap water or ground water. Total water usage in 2006 registered 749m<sup>3</sup>, a 3.6% decrease from 778m<sup>3</sup> in 2005. KNOC will endeavor to minimize water usage through the recycling and reuse of industrial water, ground water and tap water.

(Unit: m<sup>3</sup>)

#### Current Use of Water Resources

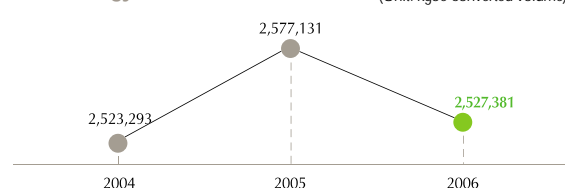
Classification	Annual Water Use			Source of Supply
	2004	2005	2006	
Storage Office	431,269	451,894	445,076	Dam water, Industrial water, Ground water, Tap water
Construction Office	299,668	301,935	278,814	Industrial water, Ground water
Gas Field Office	–	10,886	12,062	Tap water
Head Office	11,255	12,862	13,384	Tap water
Total	742,192	777,577	749,336	

#### Energy Use

KNOC conducts internal energy conservation awareness education and efficiently manages and operates all energy-consuming equipment in order to minimize causes of energy waste. By studying the previous year's energy usage and setting reduction targets for the current year, KNOC is seeing a downward trend in energy use centered around electrical power despite increases in facilities and equipment.

#### Total Energy Use

(Unit: kgoe-converted volume)



#### Energy Usage by Type

(Unit: kgoe-converted volume)

Classification	2004	2005	2006
Electricity	2,353,501	2,395,766	2,344,015
Oil	46,815	42,725	40,334
Gas	9,087	9,920	9,672
Medium-temp. water	113,890	128,720	133,360
Others	2,523,293	2,577,131	2,527,381

#### Energy Conservation & PR

All KNOC employees participate in energy conservation activities. An enterprise-wide energy conservation promotion committee meets quarterly, and an "energy guard" system has been created with awards given to exemplary employees. Energy-related educational and PR activities encourage staff participation and help to spread the spirit of and commitment to energy conservation. KNOC was selected as a "superior" energy-saving public corporation following the 2006 government joint inspections, and personnel in charge of energy affairs received a commendation from the Minister of Commerce, Industry and Energy at the 28<sup>th</sup> Energy Saving Promotion Event.

#### Energy Saving Activities

Classification	2004	2005	2006
Efficient Energy Use	<ul style="list-style-type: none"> <li>• Windshield glass: 19 places including main entrance</li> <li>• Automatic power-saving multi-cap installation for PCs</li> <li>• 1/2 of office lights: 1,500 lights off</li> <li>• 50% operation of elevators</li> </ul>	<ul style="list-style-type: none"> <li>• Energy-saving equipment: high-efficiency motors</li> <li>• Automatic light switch controllers: switch off every hour after end of business</li> <li>• "Leave Your Car at Home Day"</li> </ul>	<ul style="list-style-type: none"> <li>• Energy-saving equipment: high-efficiency fluorescent lamp stabilizer (442), Pyroelectric sensor in bathrooms</li> <li>• Utilization of summer electricity peak load management</li> <li>• Staggered elevator operation by time slot</li> <li>• Reduced detergents through improved tank-cleaning method</li> </ul>
Education & Promotion	<ul style="list-style-type: none"> <li>• Host energy-saving events</li> <li>• Guide and inspect energy savings</li> <li>• Implement thermal underwear campaign</li> </ul>	<ul style="list-style-type: none"> <li>• Korea Energy Management Corp. event participation</li> <li>• Energy usage section on homepage</li> <li>• Guide and inspect energy savings</li> </ul>	<ul style="list-style-type: none"> <li>• Monthly energy-saving events</li> <li>• Strengthened summertime energy-saving efforts</li> <li>• Guide and inspect energy savings</li> </ul>



# Environmental Management & Performance

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## Environmental Management

### Environmental Goal Management

KNOC clearly understands the environmental principles of the CEO and the environmental aspects of each worksite and their impact on the environment. To facilitate the implementation of environmental principles, KNOC establishes and implements detailed environmental goals and management plans. In particular, the “Annual Promotion Plan on Health, Safety and Environment HSE Plan” drafted by the Development Management Department reflects HSE problems and achievements of the previous year, and is implemented in phased, consistent manner. Thus far there have been no environmental accidents such as oil spills at any of KNOC’s domestic or overseas oil exploration or production sites. Also, the Petroleum Stockpile Department applies much stricter standards than stipulated by government regulations in areas of water quality, atmosphere, soil, and waste management.

### Environment Impact Assessment

KNOC makes ongoing efforts to forecast and analyze the potential harmful impact of domestic and overseas petroleum resource development, production, and stockpiling facility construction on the natural environment, the socio-economic environment, and our everyday lives, and strives to minimize this impact. Moreover, to gauge whether the initial environmental impact assessment has been properly carried out, KNOC conducts follow-up environmental studies on a periodic basis. The scope of environmental impact assessments encompasses the following: potential environmental factors (both positive and negative) in the past, present, and future; direct and indirect environmental impact factors; and incident/accident/emergency environmental impact factors. Specific environmental factors covered by the assessment include any material discharged into the water or emitted into the air, solid matter, waste, soil contaminants, usage of natural resources, visual disturbances, environmental factors caused by support operations, etc. Environmental impact assessments also measure pollution levels by testing water pollutants, air pollutants, waste, noise & vibration, and soil contamination.

## Environmental Performance

### Water Quality & Marine Management

KNOC’s petroleum storage bases and construction offices located throughout the country are making every effort to minimize water pollution by setting their own internal targets for water quality management, which is based on stricter standards than government regulations provide. Each worksite has a dedicated environmental supervisor who oversees the environment management organization, and the analysis of discharged water quality is commissioned to an independent expert agency to strengthen the credibility of assessment results. In 2006, BOD and COD levels at the Yeosu base exceeded its internally set targets momentarily, but this was only a temporary event, and KNOC will continue to balance out the aeration tank inflow to maintain water quality in a more stable manner.

In line with capacity expansion plans for our Yeosu stockpiling base, we estimated adequate equipment capacity for wastewater treatment in January 2006, and treatment capacity was expanded from 1,600m<sup>3</sup>/d to 2,600m<sup>3</sup>/d in 2007. Our newly established Seosan Office is continuously improving its wastewater treatment facility with the operation of a wastewater treatment oil skimmer.

# Environmental Performance

## Environmental Management Status

### Storage Base Discharged Water Quality Management

(Unit: ppm)

Category		Ulsan Office		Geoje Office		Yeosu Office		Seosan Office		Guri Office	
		Target	Max. level	Target	Max. level	Target	Max. level	Target	Max. level	Target	Max. level
BOD	2004	20	28.56	9	1.80	10	9.30	–	–	10	6.40
	2005	20	3.17	9	2.70	10	8.66	–	–	10	19.20
	2006	20	14.20	10	3.60	10	15.40	9	8.20	10	6.80
COD	2004	20	19.85	10	6.40	10	10.00	–	–	10	11.90
	2005	20	14.00	10	4.40	10	9.60	20	3.60	10	36.60
	2006	20	15.00	10	9.00	10	18.60	13	10.00	10	11.00
SS	2004	20	19.00	9	3.20	10	9.00	–	–	10	6.00
	2005	20	17.00	9	1.20	10	6.40	15	2.00	10	10.00
	2006	20	17.00	10	7.00	10	6.00	9	7.50	10	11.00
N-H	2004	3	0.80	1	0.90	1	0.70	–	–	1	0.80
	2005	3	2.90	1	1.00	1	0.87	1	0.50	1	0.90
	2006	3	2.60	1	0.20	1	0.90	3	0.60	1	2.40

### Construction Office Discharged Water Quality Management

(Unit: ppm)

Category		Yeosu Construction Office		Seosan Construction Office		Ulsan Construction Office		Pyeongtaek Construction Office	
		Target	Max. level	Target	Max. level	Target	Max. level	Target	Max. level
PH	2004	8.6	8.16	8.5	8.40	–	–	–	–
	2005	8.6	8.30	8.5	7.89	–	–	–	–
	2006	8.6	8.10	8.5	7.89	8.6	8.46	8.5	8.45
BOD	2004	–	–	10.0	9.1	–	–	–	–
	2005	–	–	10.0	9.8	–	–	–	–
	2006	–	–	10.0	9.7	3.0	2.0	8	7.90
COD	2004	90.0	1.28	4.0	1.60	–	–	–	–
	2005	90.0	3.60	4.0	1.7	–	–	–	–
	2006	90.0	1.50	4.0	2.0	90.0	2.60	10	9.34
SS	2004	80.0	27.20	10.0	7.00	–	–	–	–
	2005	80.0	17.20	10.0	9.00	–	–	–	–
	2006	80.0	11.90	10.0	9.60	80.0	18.50	8	5.12

### Marine Oil Pollution Accident

In December 2006, there was an oil leakage accident in the waters off Geoje Island. Strong tides caused sudden extreme tension, the mooring rope was severed, and the oil tanker was set adrift, spilling 345 liters of crude oil into the sea. We were able to minimize the oil spill by operating the Marine Breakaway Coupling (MBC), which protects the above-water hose, and initiating emergency separation of the line hose after the mooring rope was severed. We immediately reported the accident to local Coast Guard, municipal government and fishermen, who joined in with clean-up efforts.

### Comprehensive Measures in Tanker Mooring (April 2007)

#### Improved Equipment & Stricter Controls

- Create an enterprise-wide control system for potential marine pollution accidents.
- Improve mooring hawser operation guidelines.
  - Replacement period: 1.5 years → 1 year
- Strengthen early emergency control program at Geoje Office.
  - During shipping/arrivals, dispatch one additional response vessel.
- Strengthen terminal operation guidelines.
  - Integrate the Terminal Regulation and Letter of Protest Form.

#### Improved Manpower Management

- Clearly define the scope of excessive work for port officers.
  - Balance the workload for KNOC and vendor port officers.
- Introduce cargo safety system.
  - Prevent cargo safety accidents and docking disputes.
- Improve V management vendor staff management.
  - Increase vendor port officers from 1 to 2; strengthen training for vendor employees.



## Air Quality Management

With strengthened controls on air pollutant emissions, our offices in Geoje, Yeosu and Seosan are making efforts on various fronts to reduce such emissions. In particular, to gauge volatile organic compound (VOC) emissions and stabilize operational equipment, the Geoje base measured VOC levels 10 times at the worksite and 36 time in nearby areas during shipment & arrival of stockpiled oil. We also installed flare stacks\* and highly efficient VOC treatment facilities for odor reduction at Geoje and Yeosu bases in compliance with environmental laws and regulations, successfully reducing local community complaints about odor problems.

\* Flare Stack: Equipment for burning off gas in a combustion stack to adjust gas pressure in the oil storage facilities at stockpiling bases, turning such gas odorless and harmless before it is emitted into the air.

### Storage Base Air Pollution Management

(Unit: ppm)

Category		Yeosu Office			Geoje Office			Seosan Office		
Pollutant	Regulatory level	2004	2005	2006	2004	2005	2006	2004	2005	2006
Sulfur oxides (SO <sub>2</sub> )	0.05	0.0055	0.007	0.0046	0.0048	0.0058	0.0043	0.0064	0.0057	0.004
Nitrogen oxides (NO <sub>2</sub> )	0.08	0.017	0.018	0.015	0.016	0.015	0.0145	0.021	0.018	0.019
Carbon monoxide (CO)	9	0.58	0.72	0.58	0.47	0.42	0.38	0.58	0.51	0.40
Ozone (O <sub>3</sub> )	0.06	0.02	0.018	0.019	0.013	0.014	0.016	0.025	0.024	0.023
Volatile Organic Compounds (VOC)	–	N/A	N/A	N/A	N/A	1,285.8	6.9	N/A	N/A	N/A

Construction offices operate vehicle & tire washing facilities, water spray trucks, and noise & vibration control facilities to minimize fugitive dust occurring during construction, and measure levels of micro dust (high-volume air-sampling) and total dust (low-volume air-sampling) every quarter to ensure a clean, healthy work environment.

### Construction Office Air Pollution Management

(Unit: µg/m<sup>3</sup>)

Category		Yeosu Const. Office		Seosan Const. Office		Ulsan Const. Office		Pyeongtaek Const. Office	
		Target	Max. level	Target	Max. level	Target	Max. level	Target	Max. level
Micro Dust	2004	150	73.70	150	52.0	–	–	–	–
	2005	150	55.60	150	53.0	–	–	–	–
	2006	150	49.90	150	54.0	150	60.0	130	77.0
Total Dust Volume	2004	300	78.90	–	–	–	–	–	–
	2005	300	88.10	–	–	–	–	–	–
	2006	300	78.50	–	–	300	80.80	–	–

# Environmental Performance

## Environmental Management Status

### Soil Management

KNOC has incorporated a standardized worksite facility review process into operations guidelines in order to minimize soil pollution from oil facilities, performs daily inspections, provides ongoing environmental education at worksites, and carries out prevention activities to stop soil pollution before it occurs. KNOC also performs voluntary soil tests prior to official soil inspections mandated by the Soil Environment Conservation Act. Recently, soil tests were conducted for above-ground tanks at stockpiling bases and Donghae-1 Gas Field and nearby areas, with KNOC receiving an "Adequate" rating from an independent, professional soil-testing agency.

### Soil Test Results

Office	Tank	Test Results (Min. ~ Max.)			Test Items & Regulatory Limit
		2004	2005	2006	
Ulsan	Crude Oil #18	10~915	10~1,366	0~382	<ul style="list-style-type: none"> <li>• Crude oil, kerosene, light oil (TPH)               <ul style="list-style-type: none"> <li>– Warning level: 2,000mg/kg</li> <li>– Action level: 5,000mg/kg</li> </ul> </li> </ul>
Geoje	Crude Oil #4	–	–	0~109	
Yeosu	Crude Oil #3	–	320~424	–	
Seosan	Crude Oil #12, Kerosene #4, Light oil #6	–	Not found	–	
	Gasoline #2	–	Not found	–	<ul style="list-style-type: none"> <li>• Gasoline (BTEX)               <ul style="list-style-type: none"> <li>– Warning level: 80mg/kg</li> <li>– Action level: 200mg/kg</li> </ul> </li> </ul>
Yongin	Kerosene #2, Light oil #5	10~38	0~783	0~122	
	Gasoline #4	Not found	Not found	Not found	
Gokseong	Kerosene #2, Light oil #3	20~105	–	36~134	
	Gasoline #2	Not found	–	Not found	
Donghae	Kerosene #2, Light oil #3	–	Not found	–	
Gas field	Condensate #1	19~53	42~59	38~86	

### | Voluntary Agreement on Soil Pollution Prevention and Clean-up |

KNOC signed the "Voluntary Agreement on Soil Pollution Prevention and Clean-up" with the Ministry of Environment to facilitate the implementation of the Corporation's environmentally friendly management, and agreed to perform soil pollution tests of all above-ground tanks and nearby areas every three years. This is the first agreement signed by a public corporation on voluntary pollution tests, and it is expected to contribute to preventing oil leakage accidents at petroleum stockpiling facilities.

### Waste Management

Total volume of waste generated from stockpiling bases, construction offices, and gas fields in 2006 was 27,326,428 kg. A significant amount of construction waste was generated from the expansion of storage facilities, controlled waste was produced from open tanks at the Ulsan Office, and production facilities on offshore platforms produced the majority of waste oil at gas fields. Most of the waste was taken out, treated, or reused by professional waste treatment companies, and hazardous waste defined in the Basel Accord is thoroughly inspected and treated in accordance with international standards. To minimize the discharge of waste, KNOC will continuously pursue research and education on waste reduction.

### Waste Generation by Storage Base

(Unit: kg)

Category		Ulsan	Geoje	Yeosu	Seosan	Pyeongtaek	Guri	Yongin	Gokseong	Donghae
Controlled waste	2004	352,700	56,340	1,400	–	2,070	5,110	0	590	5,000
	2005	120,700	4,400	3,500	500	2,820	20,800	420	400	222
	2006	371,110	2,330	4,830	4,590	490	5,590	21,590	1,050	224
General waste	2004	85,480	8,300	8,760	–	1,200	15,200	0	5,900	2,090
	2005	468,170	12,300	1,740	50	5,670	18,590	13,500	9,120	2,420
	2006	57,190	10,540	530	10,633	8,700	14,145	30,870	1,260	9,227
Construction waste	2004	0	0	0	0	0	0	0	0	0
	2005	455,820	0	0	0	0	0	0	0	0
	2006	45,770	0	0	0	55,400	148,170	82,510	0	0
Total	2004	438,180	64,640	10,160	–	3,270	20,310	0	6,490	7,090
	2005	1,044,690	16,700	5,240	550	8,490	39,390	13,920	9,520	2,642
	2006	474,070	12,870	5,360	15,223	64,590	167,905	134,970	2,310	9,451

\* Construction waste was not measured in 2004, so annual construction waste volume varies widely from year to year. Going forward, waste volumes will be measured across all business areas.

## Environmental Performance

### Environmental Management Efforts

(Unit: kg)

#### Waste Volume by Gas Field / Construction Office

Category		Gas field	Yeosu	Seosan	Ulsan	Pyeongtaek
Designated waste	2004	-	6,890	22,000	-	-
	2005	131,385	23,650	11,240	-	-
	2006	112,750	11,860	8,430	5,420	854
General waste	2004	-	0	0	-	-
	2005	43,118	0	0	-	-
	2006	65,195	0	0	0	0
Construction waste	2004	-	112,030	2,832,000	-	-
	2005	0	2,172,500	10,414,390	-	-
	2006	0	1,792,740	17,373,570	3,211,640	3,857,220
Total	2004	-	118,920	2,854,000	-	-
	2005	174,503	2,196,150	10,425,630	-	-
	2006	177,945	1,804,600	17,382,000	3,217,060	3,858,074

#### Waste Oil Recycling

At Donghae-1 Gas Field, we have cut waste volume and waste treatment costs by recycling and selling condensate generated by marine platforms and ground terminals. KNOC expects to see approx. KRW 66 million won in annual revenues from sales of recycled waste condensate and the resulting lower waste treatment costs.

#### Energy Usage (2006)

Average volume generated / Year	Treatment cost savings / Year	Sales profit (assumes KRW 380 per liter)	Total profits / Year
146m <sup>3</sup>	KRW 10,2 mil.	KRW 55,4 mil.	KRW 65,7 mil.

#### Biodiversity Management

Geoje Office, one of KNOC's petroleum stockpiling bases, is situated on the eastern coast of Geoje Island across from Jishim Island, and it has a significant impact on the stability of the area's water resources and biodiversity. Also, as it is located in a designated "Clean Area" which is home to critically endangered otters, KNOC has performed regular environmental impact assessments with an emphasis on protecting the local ecosystem. To prevent the impact on the ecosystem from oil leakage and wastewater, KNOC is strengthening its preventive environmental protection activities. In the case of KNOC's construction offices near the Ulsan, Yeosu, Seosan, Guri and Gokseong stockpiling offices, even though there are no natural treasures or wildlife designated for regulatory protection in those areas, special care is still taken to ensure a clean environment for the protection and management of surrounding ecosystems.

#### Compliance

KNOC complies with relevant environmental laws and regulations including the Basic Environmental Policy Act, Clean Air Conservation Act, Water Quality Conservation Act, Natural Environment Conservation Act, and Soil Environment Conservation Act. KNOC regards environmental regulations as the minimum standards demanded by customers or stakeholders, and we enforce even stricter internal guidelines than those set by the government. We abide by the latest laws on health, safety and environment, and we use documents such as "Compliance Manual (GAP-26)" to identify regulatory requirements in a timely manner. There have been no regulatory violations in the past three years.

## Environmental Investment & Education

#### Environmental Investment

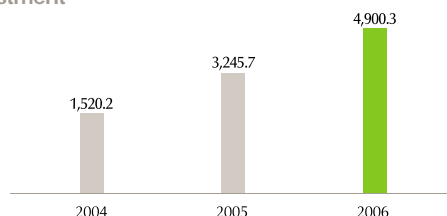
As environmental concerns grow, KNOC increases its investment in the environment. We are expanding our environmental protection investment in the areas of facilities & equipment, air & climate protection, wastewater, waste matter, soil, noise & vibration, species diversity, natural scenic preservation, R&D, environment protection activities, etc. KNOC's environmental investment in 2006 stood at KRW 4.9 billion, up 50.9% compared to previous year, with expenditures in air & climate protection facilities showing a marked increase. To treat VOC emitted from wastewater treatment facility at the Geoje Office, KNOC spent KRW 1.825 billion in on flare stack renovation, coverings for wastewater treatment facilities, bio filter installation. At the Ulsan

## Environmental Performance

### Environmental Management Efforts

Construction Office, KRW 1.38 billion was spent on construction of a wastewater treatment facility. In the future, KNOC plans to increase investments in atmosphere-related environmental efforts to reduce the greenhouse gas emissions and air pollutants produced from our operations.

#### Environmental Investment



(Unit: KRW Million)

Category	2004	2005	2006
Facility investment	521.4	1,103.0	3,239.0
Ordinary expense	998.8	2,142.7	1,661.3
Total	1,520.2	3,245.7	4,900.3

#### Eco-friendly Product Purchasing

KNOC chooses environmentally-friendly products when purchasing printers, toner, copying machines, etc. Vendors are screened to determine whether they have environment certificates and whether their products have been produced through environmentally-friendly processes, and KNOC plans to expand this eco-friendly product purchase to more office supplies.

**Eco-friendly Purchasing** (2005 ~ June 2007) (Unit: KRW Million)

Year	Amount	Items
2005	54	Printers, toner, photocopiers, copy paper, etc.
2006	176	Photocopiers, office furniture, computers, etc.
2007.6	352	Photocopiers, toner, chairs, copy paper, etc.

#### Environment Education

KNOC periodically provides basic environmental education covering environmental regulations, codes and guidelines pertaining to air, soil, water, ecosystem, waste and energy conservation. Environment officers appointed at each worksite provide site-based education on annual environmental management plans, operational plans and HSE topics of interest. Also, construction companies' environmental activities are regularly monitored to raise awareness on environment protection. Each worksite has emergency training scenarios in case of oil leakage or other environmental accidents, and emergency response drills are carried out to hone crisis management abilities. As a result of an accident in 2006, we disseminated equipment management guidelines on early response to environmental mishaps and oil leak handling.

In the gas field and drill ship area, we provide education & training required to carry out HSE tasks and operate a qualification-based education/training matrix that ensures any gap in environmental duties is filled regardless of a change in number of staff. Furthermore, to effectively identify risk factors at stockpiling offices, the safety & environmental experts from other bases confer and offer advice via a "Peer Risk Survey," facilitating environmental knowledge exchanges among KNOC's storage bases.

#### Main Environmental Education in 2006

Category	Course Name	Department	Period
Development	• 2006 Donghae - 1 Gas Field Environmental Management Plan	Gas field office	February
	• 2006 Donghae - 1 Gas Field HSE Plan	Gas field office	February
	• HSE Theme Training (Change Management Principles & Practice and 4 others)	Gas field office	Quarterly
	• HSE Campaign (MSDS handling tips and 12 others)	Gas field office	Monthly
	• 'Doo Sung' 2006 HSE Yearly Plan	Drilling site	February
	• Vessel Oil Leak Pollution Accident	Drilling site	Quarterly
	• Marine Safety & Environmental Education	Drilling site	Aug. - Dec.
Oil Stockpiling	• 2006 Storage Base Environment Management Plan	Storage base	February
	• Environmental Management and 3 others	Yeosu Office	Apr. ~ Nov.
	• Environmental Laws and Regulations	Seosan Office	August
	• Marine Pollution Control Practice and 2 others	Pyeongtaek Office	June, Dec.
	• Environmental Processing Training	Yongin Office	Mar., Nov.
	• Soil and Marine Pollution Prevention	Donghae Office	September
Construction	• 2006 Construction Office Environmental Management Plan	Construction Office	February

#### Education / Training Matrix

Category	Document Name	Remarks
Development	Gas Field Training Matrix (EHSEI-2501-EG)	Training institution included
	Drill Ship Training Matrix (RSI-2105)	



# Global Warming Prevention & Greenhouse Gas Reduction Efforts

## Greenhouse Gas Reduction

### Transportation

To minimize the environmental impact that may be caused during oil transport, KNOC performs preventive repairs and regular thorough inspections of relevant equipment, ensures total compliance with operational guidelines during shipments, and strives to prevent water pollution from oil leaks. We adhere to safety management policies in the operation of oil tankers and tank trucks to prevent any accidents. In addition, we implement a no-drive-day campaign to indirectly reduce greenhouse gas emissions whereby car owners leave their cars at home on certain days.

### Climate Change Awareness

Global warming and depletion of the ozone layer began to receive international attention from the late 1980s, and KNOC today promotes the reduction of nitrogen oxides, sulfur oxides, and VOC that may be emitted in the process of its main business activities of domestic & overseas oil development, petroleum stockpiling, and stockpile facilities construction. Following this, KNOC installed air pollution prevention equipment in consideration of various factors such as pollutant type, volume and environmental impact resulting from the construction of stockpile facilities. KNOC also believes that reducing its usage of raw materials, energy, and hazardous materials that indirectly affect climate change is an effective way to protect the environment.

### Global Warming Prevention Activities

To minimize air pollutants produced from the operation of stockpiling facilities, Geoje and Yeosu offices have been equipped with flare stacks, and KNOC is taking necessary steps to prepare for the introduction of domestic and overseas VOC regulations by reviewing its VOC treatment plant improvement plan for marine mooring facilities at storage bases. In 2004, Guri Office installed a gasoline shipping/receiving VOC incinerator with two bottom-loading arms. KNOC has also been actively introducing energy-saving equipment and promoting energy conservation campaigns on a regular basis.

KNOC is committed to taking a more proactive and aggressive approach to greenhouse gas and pollution control. Not satisfied with merely keeping pollution levels within regulatory limits, we will implement environmental policies based on sustainable development and voluntarily disclose our greenhouse gas reduction results to stakeholders.

### VOC Emission Control Measures for Each Office

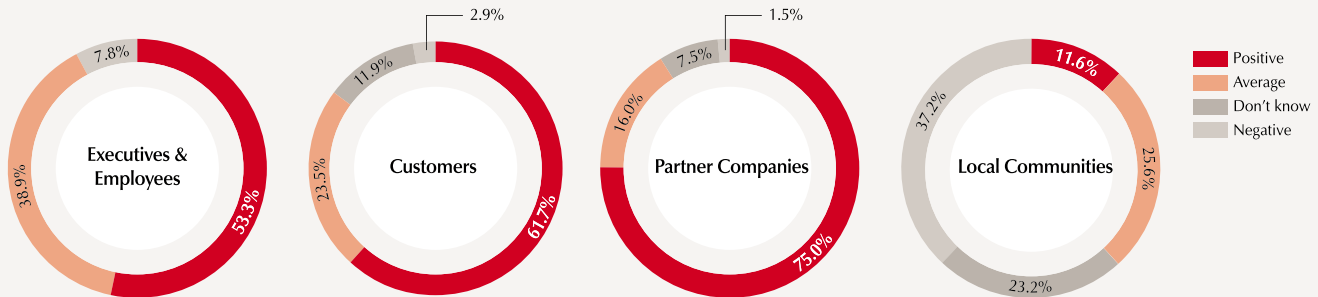
Office	Measure	Department
Yeosu	Store oil vapor emitted from ships in underground storage using gas pipes, or treat in existing incinerator	Scheduled to start in 2007
Gyeosu	Install VOC emission control equipment when installing fixed mooring facilities	-
Seosan	Install oil vapor processing incinerator	-



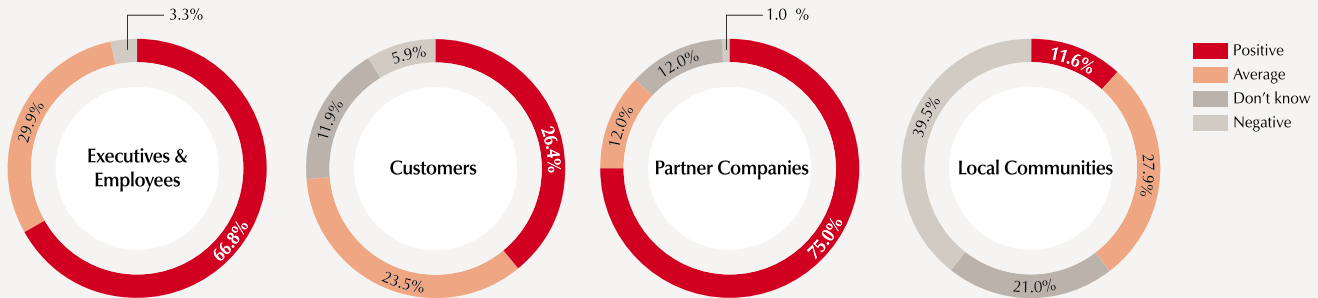
## Survey Results

The results of the stakeholder survey indicate that local communities (11.6%) have a lower awareness of energy & resource conservation than executives & employees (53.5%), customers (61.7%), and partner companies (75.0%). On the practice of environmental management, executives & employees (66.8%) and partner companies (75.0%) gave positive evaluations, while customers (26.4%) and local communities (11.6%) gave low evaluations. KNOC will actively participate in environmental activities in areas around storage bases and present diversified implementation plans and concrete environment performances for the preservation of natural environments. Also, we will make our best internal efforts to prevent environmental hazards that can be anticipated during the course of business activities.

[ KNOC employees are dedicated to conserving energy and resources. ]



[ KNOC practices good environmental management. ]



## Expert Interview

Lee Mi-Kyung  
Head of Planning &  
Coordination Office  
Korea Green Foundation

### Evaluation and Suggestion for Sustainability

KNOC needs to focus on environmental management since its business has a grave impact on the environment. Environmental management is a companywide management paradigm that depends on the CEO's commitment and awareness. Also, it should bear final responsibility for all impacts of the oil business. I think KNOC can play a role in establishing a framework for pollution reduction targets, saving energy in the energy transfer process, helping companies introduce energy self-generation systems, and supporting companies in their construction of "green buildings", and so forth. Moreover, the Corporation's profits must be used for recovery from environmental damage and protection of the environment. Also, efforts must be made to help offset climate change.

### KNOC's Response

In view of the environmental aspect of KNOC's business, we need to focus our human and material resources on air and water quality. To instill environmental management as an enterprise-wide paradigm, the CEO as well as the entire staff will continue to recognize its importance, and environmental experts will be fostered for each business division. As a state-run enterprise, we believe that conserving energy like oil and gas is the best means of environmental protection, and will strive to secure eco-friendly energy sources. We will improve the effectiveness of our activities to forestall global warming by bolstering awareness of the impact of climate change, and by establishing phased, area-based tasks. We will continue to increase our environmental investment to augment VOC treatment facilities and improve wastewater treatment facilities.



## Efforts to Prevent the Recurrence of Oil Spills

KNOC's Geoje Office and TOTAL of France have an international joint stockpiling agreement. In December 2006, oil from a tanker leaked into waters off the coast of Geoje Island due to the separation of a coupling hose while oil was being received from TOTAL. During unloading, two ropes connecting the oil tanker and buoy were cut due to strong waves, causing leakage of 345ℓ of oil. However, thanks to the prompt operation of a Marine Break-away Coupling device, we were able to prevent any grave damage. Geoje Office conducted oil-skimming operations using two of its own boats and vessels of the Tongyoung Coast Guard, the Korea Marine Pollution Response Corp. and local fishermen. Afterwards, Geoje Office monitored potential contamination areas and thoroughly surveyed the extent of the damage. In the future, the office will practice oil skimming in nearby waters, devise compensation measures for damages for the local fishing industry, and will review ways to improve oil loading & unloading to prevent the recurrence of oil spills. In addition, the office reinforced preventive measures and education on prompt response to oil spill accidents.

– Geoje Office

# Appendix

- Third Party's Assurance Statement
- Ethics Charter
- Awards (2004~2006)
- Membership in Associations and Organizations
- GRI / BSR Index
- Glossary
- Survey

# Third Party's Assurance Statement

## To the Management of the Korea National Oil Corporation Sustainability Report 2007:

The Korea Green Foundation (The Auditor) was engaged by the Korea National Oil Corporation (KNOC) to review information specified in its 2007 Sustainability Management Report (The Report) to provide independent third-party assurance on its contents. KNOC is responsible for the collection and presentation of all information within The Report as well as the maintenance of the underlying data collection system and internal controls. The key objective of our review is to provide independent assurance that all statements and data cited in The Report are free of material misstatement or bias and that the data collection systems used are robust. On the basis of the above, The Auditor presents the following third-party statement of assurance.

### Our Independence

The Auditor was not involved in the preparation of any part of The Report, and with the exception of this work has no other affiliation with KNOC that might compromise our independence or autonomy or place us under KNOC influence, therefore ruling out any possible conflicts of interest.

### Work Scope

In its 2007 Sustainability Management Report, KNOC describes efforts and progress made toward sustainability management as well as its plans for the future. The Auditor's review examined the following.

#### Reasonable assurance on whether:

the financial data specified under "Economic Performance" is properly derived from KNOC's audited Annual Reports for 2004 to 2006;

#### Limited assurance on whether:

the data specified under "Innovation & Creativity Management Performance", "Social Performance", and "Environmental Performance" of The Report are stated adequately and in full and are free of material misstatement or bias.

\* Reasonable assurance constitutes a higher level of assurance than limited.

### Criteria

The Auditor reviewed whether The Report was written in accordance with the following reporting guidelines.

(1) The AA1000 Assurance Standard's (AA1000 AS)\* three core principles of Materiality, Completeness and Responsiveness;

(2) The local BSR Guidelines (B.E.S.T Sustainability Reporting Guidelines)\*\* for sustainability management;

(3) The Global Reporting Initiative's (GRI) \*\*\* G3 Sustainability Reporting Guidelines Version 3.0.

\* AA1000 AS is an assurance standard for social and sustainable reporting developed by the U.K.-based Institute of Social and Ethical AccountAbility in November 1999. A nonprofit organization that promotes corporate social responsibility, business ethics and responsible business practices, AccountAbility aims to improve the quality of social and ethical accounting, auditing and reporting through the AA1000 AS.

\*\* The BSR Guideline (B.E.S.T Sustainability Reporting Guideline) was jointly developed by the Ministry of Commerce, Industry, and Energy (MOCIE), the Korea Chamber of Commerce and Industry (KCCI), and the Institute for Industrial Policy Studies (IPS) and provides for five levels of reporting rigor (Level 1 ~ 5).

\*\*\* The Global Reporting Initiative (GRI)'s Sustainability Reporting Guideline was jointly convened by the Coalition for Environmentally Responsible Economies (CERES) and UNEP in 1997. The newly revised G3 version was launched in October 2006.

### Work Undertaken

The Auditor reviewed the Materiality, Completeness, and Responsiveness of The Report through the activities outlined below:

- a review of media reports relating to KNOC
- a review of information contained in The Report as well as the underlying data collection system
- data sampling and assessment of high-risk areas for intensive review of key statements in The Report, internal policies, documentation, and information system
- written interviews with managers and staff in charge of sustainability reporting, as well as persons responsible for The Report's source information
- interviews with senior executives in charge of sustainability management
- a reconciliation of financial information stated in The Report against the audited Annual Report
- a survey of sustainability management experts

### Conclusions

On the basis of the above we provide the following conclusions. The Auditor did not find The Report to contain any material misstatement or bias. All material findings of The Auditor are included herein, and detailed review findings and follow-up recommendations have been submitted to KNOC.

#### Materiality: Does The Report cover economic, social and environmental issues of the greatest importance to KNOC?

The Auditor does not believe that KNOC has omitted or excluded any information of the greatest importance to itself. We were able to verify efforts by KNOC to identify issues of the greatest material interest to itself through



stakeholder-specific surveys (targeting management and staff, customers, suppliers, local community, NGOs), interviews with experts from the government, academia, and NGO sector, followed by materiality testing to incorporate relevant findings into The Report.

It is The Auditor's recommendation, however, that KNOC strengthen its policies to better support continuous communication with its stakeholders by utilizing materiality testing as more than a one-off tool in diagnosing the current status of the organization and setting strategies and policy tasks going forward.

**Completeness: How reliable is the information and data stated in The Report, and is the underlying information and data collection system complete and robust?**

The Auditor took note that KNOC's respective branch and representative offices were organically engaged in integrated activities to support key areas of sustainable development - economics, innovation/creativity/ethics, customers, social contribution, and the environment. We confirmed that KNOC has implemented an internal control system to improve its financial structure (economic dimension); a VOC (Voice of the Customer) management system (social dimension); and a HSEQ (Health, Safety, Environment & Quality) system for environmental impact assessment and computerized data management (environmental dimension).

However, in the interest of achieving balanced growth between the economic, social, and environmental dimensions, we suggest that a "Sustainability Management Committee" be established within the Board of Directors, to set the vision and strategies for sustainable management and oversee the integrated management of targets and results.

**Responsiveness: How well does The Report address information of importance to KNOC stakeholders?**

The Auditor determined that KNOC has been making efforts to identify sustainability management issues of the greatest importance to its stakeholders including customers, shareholders, suppliers, management and staff, and the local community through various channels of communication including sustainability awareness surveys and expert interviews.

We do suggest, that KNOC continues to keep its communication channels up and running so that in the next report, it can present how much progress has been made against stated targets to stakeholders.

- Relative to BSR Guidelines, in view of the level of reporting rigor and intensity of information provided, The Auditor finds The Report to fulfill 93.7% of the reporting requirements necessary to qualify for a Level 5 report (from among Level 1 ~ 5).

- Relative to the GRI Guidelines, The Report meets the content and quality requirements of GRI G3 Application Level A+.

**Issues for Future Consideration**

The Auditor found the 2007 Sustainability Management Report, the first by KNOC, to encompass efforts by the company to seek out and identify material issues pertaining to sustainability management through stakeholder engagement. In the interest of continued qualitative improvements in its sustainability performance management and reporting, the Auditor would like to make the following recommendations.

- Strengthen adherence levels to GRI and BSR reporting guidelines, and increase the proportion of quantitative information included in The Report
- Present targets for major issues in each dimension and indicate the percentage of actual performance achieved against targets to better demonstrate KNOC's commitment to keeping its promise to stakeholders.
- Refine the implementation mechanism for sustainability management to be more systematic to expand the scope of stakeholders against whom sustainability management performance is aggregated and measured to better enhance data collection and reporting for social and environmental sustainability performance.

Based upon the above assurance statement as well as the separately provided letter of recommendation, we suggest that KNOC continues to work toward a more systematic sustainability management and reporting mechanism, as well as continued improvements.

October 1, 2007

최열

Yul, Choi  
President

The Korea Green Foundation



Korea Green Foundation

# Ethics Charter

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The Korea National Oil Corporation (KNOC) is a proud national corporation which has contributed to the stabilization of petroleum supply & demand and the development of Korea's national economy through efficient management of businesses in the areas of oil resource development, oil stockpiling and oil distribution.

KNOC is striving with pride and confidence to join the ranks of the world's top national oil corporations, while leading the effort to ensure energy independence for Korea. KNOC will grow along with local communities through business management focusing on responsibility, transparency and ethics, and become a trustworthy corporation in the global society.

In line with this firm commitment, KNOC established the "KNOC Ethics Charter" to provide a barometer for ethical action and values for every member of our management and staff, and we duly comply with and implement the Charter.

- We will accomplish our mission of stabilizing supply and demand of petroleum through creative thinking and challenging the status quo. We strive to become a world-class national oil corporation, serving the needs of the Korean public.
- We maintain an honest and fair attitude toward our work based on high ethical standards and lead efforts to combat corruption and establish a clean corporate culture.
- We always think and act in the interests of our customers. We will bring customers satisfaction and convenience by fulfilling their needs and expectations with high-quality, timely service.
- We will create a fair and transparent corporate culture and promote the development of all stakeholders based on mutual trust and cooperation.
- We respect the rights of all management and employees, refrain from any acts of discrimination, are committed to equal opportunity and fair evaluation, and strive to improve the health and quality of life for all management and employees.
- We comply with relevant rules and regulations at home and abroad. We will fulfill our responsibility and obligation to build a more prosperous and healthy society and nation.
- We respect life and are committed to preventing accidents and environmental pollution in order to preserve a clean natural environment.

\* Please visit KNOC's website ([www.knoc.co.kr](http://www.knoc.co.kr)) for further information on KNOC's Code of Ethics and Code of Conduct.

## Awards (2004~2006)

Year	Award	Host
2004	Presented best practices in accident-free operations at the Geoje base and won the grand prize	Korea Occupational Safety and Health Agency
2004	Received award for the prevention of industrial accidents at the Geoje base	Minister of Labor
2006	Won the Korea Digital Management Innovation Award	Ministry of Commerce, Industry and Energy
2006	Received the Energy Industry Grand Prize	Korean Resource Economics Association
2006	Selected as one of the best companies in energy conservation	Office for Government Policy Coordination
2006	Received the Friendship Medal	Government of Vietnam
2006	Received the 6 <sup>th</sup> Prime Minister's Award for Public Procurement Promotion for SME Products	SME Special Committee under the Presidential Office
2006	Selected as the silver medalist of 2006 Annual Report LACP Award	League of American Communications Professionals

## Membership in Associations and Organizations

Name	Year	Purpose
Korea Petroleum Association	1980	Founded the association with five oil refinery companies
Federation of Korean Industries	1979	Understand and analyze economic trends
Korea Environmental Preservation Association	1984	Contribute to workplace safety management
Emergency Planning Commission	1987	Contribute to our contingency planning management
Korea Industrial Safety Association	1988	Obtain industrial safety and welfare information and conduct effective safety management
Korea Fire Safety Association	1989	Obtain up-to-date information on fire safety and relevant regulations
Korea Customs Association	1989	Collect up-to-date information on bonded cargo shipment and relevant regulations
International Association of Drilling Contractors (IADC)	1990	Subscribe to the accident statistics program for record accreditation
Korea Society of Economic and Environmental Geology	1990	Share research data
Geological Society of Korea	1991	Participate in the Geological Society and obtain up-to-date information
Korean Member Committee for WEC	1993	Reinforce awareness among Korean energy industries
Korean Society for Geo-system Engineering	1993	Improve knowledge base by sharing petroleum resource data
Korea Society for Petroleum Geology	1994	Improve knowledge base and contribute to the development of petroleum geology
Korea Society for Petroleum Engineering	1994	Improve knowledge base by sharing petroleum resource data
Korea Electric Engineers Association	1995	Obtain information for enhancing work capabilities
Korean Dietetic Association	1995	Food R&D and provide nutrition service
Korea Fire Safety Association	1995	Establish safety-first culture and modernize disaster management
Reserve Army Commander Association	1995	Provide support for corporate reserve army
Korea Productivity Center	1996	Understand the industry trends based on up-to-date information
Korean Institute of Auditors	1996	Obtain latest audit data and exchange audits
Korea Member Committee for WPC	1996	Exchange information among petroleum companies
Korea Electric Engineers Association	1998	Improve electric safety management and business efficiency
Korean Society of Exploration Geophysicists	1999	Modernize technology research in exploration and geophysics
Korean Society of Soil and Groundwater	2000	Research in prevention of groundwater pollution for groundwater management and environmentally friendly base operation
Korea International Trade Association	2002	Collect latest trade-related information
Korean Geophysical Society	2002	Research in the area of geophysics
BEST Forum (Business Ethics is the Source of Top performance)	2003	Build knowledge base and establish networks of human and other resources among industries
Korea Management Association	2004	Innovate thinking process through new information and exchanges
Korea Geo-technical Society	2004	Understand latest technology and trends of geo-technology for the stockpiling base construction projects
Korean Society of Civil Engineers	2005	Improve technology and maintain partnerships
Korea Innovation Society	2005	Conduct academic research on innovation and analyze local and global best practices
Council for the Korean Pact on Anti-corruption and Transparency of Public Corporations	2005	Enhance image of transparent public corporation
Korean Association for Organizational Studies	2005	Foster organizational management capability through information exchange and cooperation
Society for Korea and Middle East	2005	Obtain information on oil development business in the Middle East
Korean Resource Economics Association	2005	Build human resource network with oil development experts
Korea Society for Energy Engineering	2005	Improve knowledge base through exchange of technology information with local and global members
Korea Society for Chemistry Engineering	2005	Improve the academic knowledge through publishing of journals and research
Council for Energy Industry's Entry into the Global Market	2006	Energy-related public corporations, resource development companies, construction and financial companies participate with the purpose of building a business cooperation network for stable energy development and securing supply distribution network
Korea Industrial Technology Association	2006	Register the foundation of research center and support research effort
International Construction Association	2007	Carry out projects for the construction of strategic stockpiling bases in India, China and Singapore
CEO Club for Energy Public Corporations	2007	CEOs of energy public corporations participating to promote cooperation for joint overseas resource development projects

# BSR/GRI Index

	Index	GRI Content	Extent of reporting	Page No.	BSR Indicators
Strategy and Analysis	1.1	Statement from the most senior decision-maker of the organization about the relevance of sustainability to the organization and its strategy.	■	6~9	A-1
	1.2	Description of key impacts, risks, and opportunities.	■	20~21	A-2
Organizational Profile	2.1	Name of the organization.	■	1	A-3
	2.2	Primary brands, products, and/or services.	■	12~14	A-4
	2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	■	14~15	A-5
	2.4	Location of organization's headquarters.	■	14~15	A-7
	2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	■	14~15	A-7
	2.6	Nature of ownership and legal form.	■	10, 40	A-8
	2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	■	20~21	A-9
	2.8	Scale of the reporting organization, including: * Number of employees; * Net sales (for private sector organizations) or net revenues (for public sector organizations);	■	10	A-10
	2.9	Significant changes during the reporting period regarding size, structure, or ownership.	□	–	B-8
	2.10	Awards received in the reporting period.	■	121	CO8
Report Parameters	3.1	Reporting period for information provided.	■	3	B-3
	3.2	Date of most recent previous report (if any).	□	–	B-8
	3.3	Reporting cycle (annual, biennial, etc.)	■	3	B-6
	3.4	Contact point for questions regarding the report or its contents.	■	3	B-9
	3.5	Process for defining report content.	■	3	B-4
	3.6	Boundary of the report.	■	3	B-1
	3.7	State any specific limitations on the scope or boundary of the report .	■	1, 26~27	B-2
	3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	□	–	A-6
	3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report.	■	3, 42, 110~112	N/A
	3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement.	□	–	N/A
	3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	□	–	B-5
	3.12	Table identifying the location of the Standard Disclosures in the report.	■	122~124	B-10
	3.13	Policy and current practice with regard to seeking external assurance for the report.	■	118~119	B-7
Governance, Commitments, and Engagement	4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.	■	15~16	GR1
	4.2	Indicate whether the Chair of the highest governance body is also an executive officer.	■	15~16	GR1/GR3
	4.3	For organizations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members.	■	15	GR2
	4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	■	15~16	GR12
	4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives, and the organization's performance.	■	16	GR7
	4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	■	15~16	GR13
	4.7	Process for determining the qualifications and expertise of the members of the highest governance body for guiding the organization's strategy on economic, environmental, and social topics.	■	15~16	GR4
	4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	■	24, 120	GR10
	4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	■	16	GR5
	4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	■	22	GR6
	4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	■	16~17	GR11
	4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	■	24, 120	GR10
	4.13	Memberships in associations and/or national/international advocacy organizations.	■	121	A-11
	4.14	List of stakeholder groups engaged by the organization.	■	25	C-1/C-2
	4.15	Basis for identification and selection of stakeholders with whom to engage.	■	25	C-1
	4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	■	25	C-2
	4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	■	26~27, 43, 57, 67, 79, 85, 93, 101, 116	C-3



■ Reported   ■ Partly reported   ☒ Reported to other channel   ☒ Not reported   □ N/A

	Index	GRI Content	Extent of reporting	Page No.	BSR Indicators
Economic	EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	■	33–41	EC1
	EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change.	☒	–	EC2
	EC3	Coverage of the organization's defined benefit plan obligations.	■	76	EC3
	EC4	Significant financial assistance received from government.	■	39	EC5
	EC5	Range of ratios of standard entry level wage compared to local minimum wage at significant locations of operation.	■	75–76	EM4
	EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	■	69–70, 99	EC4
	EC7	Procedures for local hiring and proportion of senior management hired from the local community at significant locations of operation.	■	69–70, 99	EC4
	EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.	■	40	EC6
	EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts.	■	40	EC7
Environmental	EN1	Materials used by weight or volume.	☒	–	EV10
	EN2	Percentage of materials used that are recycled input materials.	☒	–	EV11
	EN3	Direct energy consumption by primary energy source.	■	108	EV7
	EN4	Indirect energy consumption by primary source.	■	108	EV8
	EN5	Energy saved due to conservation and efficiency improvements.	■	108, 113	EV5
	EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	■	108, 113	EV5
	EN7	Initiatives to reduce indirect energy consumption and reductions achieved.	■	108, 113	EV5
	EN8	Total water withdrawal by source.	■	108	EV9
	EN9	Water sources significantly affected by withdrawal of water.	■	113	EV20
	EN10	Percentage and total volume of water recycled and reused.	■	108	EV18
	EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	■	113	EV22
	EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	■	109, 113	EV22/EV26
	EN13	Habitats protected or restored.	■	109, 113	EV27
	EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.	■	109, 113	EV6/EV26
	EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	■	109, 113	EV28
	EN16	Total direct and indirect greenhouse gas emissions by weight.	☒	–	EV12
	EN17	Other relevant indirect greenhouse gas emissions by weight.	☒	–	EV13
	EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	■	115	EV4
	EN19	Emissions of ozone-depleting substances by weight.	■	111	EV14
	EN20	NOx, SOx, and other significant air emissions by type and weight.	■	111	EV15
	EN21	Total water discharge by quality and destination.	■	109–110	EV17
	EN22	Total weight of waste by type and disposal method.	■	112–113	EV16
	EN23	Total number and volume of significant spills.	■	110	EV21
	EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.	■	112	EV29
	EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.	■	113	EV19
	EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	■	109, 113	EV23
	EN27	Percentage of products sold and their packaging materials that are reclaimed by category.	□	–	EV24
	EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	■	113	EV31
	EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	■	115	EV30
	EN30	Total environmental protection expenditures and investments by type.	■	113	EV1
Social: Labor Practices and Decent Work	LA1	Total workforce by employment type, employment contract, and region.	■	69	EM1
	LA2	Total number and rate of employee turnover by age group, gender, and region.	■	69	EM5
	LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations.	■	76	EM20
	LA4	Percentage of employees covered by collective bargaining agreements.	■	77	EM12
	LA5	Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements.	■	77–78	EM13
	LA6	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.	■	74–75	EM14
	LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region.	■	74–75	EM19

■ Reported ■ Partly reported ☒ Reported to other channel ☒ Not reported □ N/A

	Index	GRI Content	Extent of reporting	Page No.	BSR Indicators
	LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	■	74~75	EM18
	LA9	Health and safety topics covered in formal agreements with trade unions.	■	74~75	EM15
	LA10	Average hours of training per year per employee by employee category.	■	72	EM27
	LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	■	68, 72~73	EM28
	LA12	Percentage of employees receiving regular performance and career development reviews.	■	73, 78	EM29
	LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity.	■	69	EM2
	LA14	Ratio of basic salary of men to women by employee category.	☒	–	EM3
Social: Human Rights	HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening.	☒	–	PN2
	HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken.	☒	–	PN3
	HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	■	70	EM30
	HR4	Total number of incidents of discrimination and actions taken.	■	69~70	EM7
	HR5	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights.	■	77	EM8
	HR6	Operations identified as having significant risk for incidents of child labor, and measures taken to contribute to the elimination of child labor.	■	70	EM9
	HR7	Operations identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of forced or compulsory labor.	■	70	EM10
	HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.	■	70	EM31
	HR9	Total number of incidents of violations involving rights of indigenous people and actions taken.	■	98~99	CO2
Social: Society	SO1	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting.	■	25, 98~99	CO2/C-2
	SO2	Percentage and total number of business units analyzed for risks related to corruption.	■	89~92	CO5
	SO3	Percentage of employees trained in organization's anti-corruption policies and procedures.	■	89~92	CO5
	SO4	Actions taken in response to incidents of corruption.	■	89~92	CO5
	SO5	Public policy positions and participation in public policy development and lobbying.	■	92	CO6
	SO6	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country.	■	92	CO7
	SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes.	■	61, 63, 92	CS3
	SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.	■	92	CO9
Social: Product Responsibility	PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	■	63	CS4
	PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.	■	63	CS11
	PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.	■	21, 61~66	CS5
	PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.	■	63	CS12
	PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	■	62~66	CS9
	PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	■	63	CS13
	PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.	■	63	CS14
	PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	■	63	CS15
	PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.	■	63	CS12

Content	Extent of reporting	Page No.
Disclosure on Management Approach(DMA)	■	30, 46, 60, 68, 80, 86, 94, 104
Global Compact Communication on Progress(CoP)	■	24

Not Available	
Index	Explanation
2.9	No significant changes in scale, structure and ownership structure during the reporting period
3.2	N/A as this is KNOC's first report.
3.8	N/A as KNOC doesn't run any joint-venture company, subsidiary, leased facilities and outsourced operations etc.
3.10	N/A as this is KNOC's first report.
3.11	N/A as this is KNOC's first report.
EN27	KNOC's main operations don't involve products and packing materials.
Repoerted to other channels such homepage, annual report, Alio system	
Index	Explanation
LA14	Ratio of basic salary is disclosed on the Alio system(www.alio.go.kr).
Not reported	
Index	Explanation
EC2	KNOC is set to measures and collects data on core environmental indicators such as climate change, the amount of raw material used, recycling rate and greenhouse gas emission(that are marked " ☒ ", " ☒ " abobe). The performance and results of those indicators are to reported in the following reporting year.
EN1	
EN2	
EN16	
EN17	
HR1	KNOC is set to adopt a policy that take account of human rights in selecting contractors and track and disclose its performance in the following reporting year.
HR2	

## Glossary

**Public Institution ALIO System** | ALIO, which is an integrated disclosure system for public corporations, stands for "All Public Information In One." ALIO System is extended and improved from the former Public Corporation Management Disclosure System, which served as a tool for direct monitoring of public corporations through easy-to-understand disclosures of management information in the 20 categories including finance and HR.

**Underlying Amount** | Amount acting as base for "estimate price," which is a price calculated in advance to use as a barometer for successful bidder and contract amount during bids

**Dynamic Reserve Concept** | Economic stockpiling of crude oil considering both energy security and economics, a new approach that differs from strategic reserve which focuses on petroleum security based on changes in the oil market

**Matching Grant** | One type of corporate effort to give back to society as the companies match the donations to non-profit organizations regularly made by their employees

**Private Preliminary Negotiation** | Preliminary negotiation process to exchange opinions between contract parties regarding contract terms, amount, due date and maintenance in a private contract, not a competitive bid, before drawing up a contract

**Council for Energy Industry's Entry into the Global Market (CEIEGM)** | Council founded in 2006 to share research and market information on promising markets for energy resource development and relevant industries under the mission of promoting overseas petroleum development projects. Currently, a total of 24 member-companies participate in the council, including energy public corporations, resource development specialized companies and resource development supporting companies.

**Floating Price** | A price-determination method where price is determined at the time of loading or unloading of cargo, not at the time of concluding sales contract.

**Oilsand** | Originally referred to sand mixed with crude oil, but broadly refers to all type of rocks containing more than 10% crude oil. Approximately one barrel of crude oil is extracted from two tons of oilsands.

**Backwardation Trading Project** | A future market condition in which a futures price is higher in the near delivery months than in the distant delivery months. The aim of backwardation trading is to profit from a price difference by selling relatively overvalued near-month delivery and buying relatively undervalued distant-month delivery.

**BEST Sustainability Reporting Guidelines (BSR Guidelines)** | Reporting guidelines jointly developed by the Ministry of Commerce, Industry and Energy, the Korea Chamber of Commerce and Industry, and the Institute for Industrial Policy Studies in order to promote publishing of sustainability reports by Korean companies.

**CA (Change Agent)** | Each team selects one employee who collects feedback on innovation from employees; offers food for thought on innovation; actively takes a part in innovation challenge program; and unveils and shares best practices for innovation.

**COI (Customer Oriented Index)** | Index for employee dedication to customers

**Condensate** | Natural light hydrocarbon condensed from the surface during natural gas extraction

# Glossary

**CR Rating (Corporate Responsibility Rating)** | Indicator of how effective corporate CR strategies and systems are. A CR Rating first defines major CR risks of the relevant industry and how they affect an organization. Then, the rating is determined based on the analysis of organization's strategic CR risk management.

**CSI (Customer Satisfaction Index)** | Indicator of customer behavior, measuring the satisfaction of consumers

**EIS (Executive Information System)** | Information integration system, which compiles information from internal and external resources for CEOs to review and request key information based on their preference

**ERP (Enterprise Resource Planning)** | Computer system which helps companies to conduct business in an optimized way by managing enterprise-wide resources (e.g., HR, tangible assets and accounting) as a whole. It increases productivity, saves time for collecting dispersed information, and allows consistent and accurate integration of information.

**EVA (Economic Value Added)** | A business performance metric, which deducts costs such as corporate taxes, and financial and capital cost from operating income. EVA takes opportunity cost into consideration. In short, EVA is residual wealth calculated by deducting cost of capital from net operating income after taxes.

**FPSO (Floating Production Storage and Offloading)** | A new type of ship which allows free movement, trial exploration, production, storage and offloading

**G3** | 2006 guidelines for GRI (Global Reporting Initiative), which incorporate three TBLs (Triple Bottom Lines), namely, economic value, social value and environmental value

**Gas Hydrates** | Solid energy source which is the mixture of natural gas and water. It resembles dry ice. Gas hydrates, also known as burning ice, are a next-generation energy source.

**GRI (Global Reporting Initiative)** | Established in 1997 by the Coalition for Environmentally Responsible Economies (CERES), a US NGO, and the UNEP.

**GTL (Gas to Liquid)** | Refers to converting natural gas into synthetic petroleum. In 1923, German chemists Franz Fischer and Hans Tropsch first produced synthetic petroleum by converting synthetic gases using catalyst during partial oxidation of coal. During the 1950s, the Republic of South Africa developed and marketed GTL technology after introducing German technology.

**IADC (International Association of Drilling Contractors)** | Association established in 1940 to protect the environment and promote safety through the development of drilling technology

**IC (Invested Capital)** | A measure which provides information on management and funding of capital based on operational and non-operational assets

**IEA (International Energy Agency)** | An organization under the OECD founded by major oil-consuming countries in order to act against decreases in oil supply by OPEC

**IMO (International Maritime Organization)** | A UN specialized agency which was established to create global standards for ocean routes, transportation regulation and port facilities. It was first adopted in Geneva, Switzerland, in March 1948 and announced in 1958. It was originally called IMCO, but was renamed IMO in May 1982. This agency is founded to

provide safety of international shipping, optimization of navigation and abolishment of various restrictions. It also deliberates on issues, promotes exchange of information and provides advice on conventions.

**ISM Code (International Ship Management Code)** | ISM Code is a set of standards which can be applied by IMO to all types of vessels to prevent environment pollution.

**KOSHA 18001 (Safety Welfare Management System)** | Management system provided by the Korea Occupational Safety and Health Agency in 1999 for the voluntary establishment of safety and welfare management systems based on users and safety of workers

**MSDS (Material Safety Data Bulletins)** | List of approximately 600 chemicals harmful to workers, established by the Occupational Safety & Health Administration under the US Department of Labor in 1983

**NEP (New Excellent Product)** | NEP is a government certification program for products manufactured with new technology which has been in use for less than three years after it first came out.

**NOPAT (Net Operating Profit Less Adjusted Taxes)** | Operational profit calculated by deducting corporate income tax from operational income

**PCSI (Public-Service Customer Satisfaction Index)** | Employed as a customer satisfaction index for public corporations starting from 2007

**Petronet (Korea Petroleum Information Network)** | Petroleum information service system which comprises a database of petroleum-related information from home and abroad and provides it over the Internet. It was launched in January 1999 and provides 238 different types of information in 18 different sectors, such as local and global oil prices, petroleum industry, oil development and distribution of petroleum.

**PSM (Process Safety Management)** | A voluntary safety management program adopted by the US to prevent fires, explosions and leaks of harmful chemicals from petrochemical factories. In 1995, the US Labor Department introduced this under the name PSM.

**TPS (Toyota Production System)** | Management innovation concept introduced by Toyota which provides training focusing on eliminating wastes during the manufacturing process and emphasizes action and improvement

**VOC (Volatile Organic Compounds)** | Hydrocarbon compounds with the pressure of 10.3 kilo pascal (or 1.5 psia) or higher such as petrochemical or organic solvents, aromatic compounds and halogen hydrocarbons. VOCs are harmful as they are or cause for smog through photochemical reactions. They also indirectly affect global warming as they generate ozone.

**WACC (Weighted Average Cost of Capital)** | Weighted average of cost of capital (i.e., debt, preferred stocks, common stocks and retained earnings) based on the breakdown of capital or the percentage of each type of capital

**WPC (World Petroleum Congress)** | A global forum where a total of 60 countries participate to discuss science, technology, economics and management related to petroleum every three years. It is the biggest global event on petroleum since its first gathering in London in 1933 until the 18<sup>th</sup> forum in South Africa in 2005.



Homepage: [www.knoc.co.kr](http://www.knoc.co.kr)  
E-mail: [sustainability@knoc.co.kr](mailto:sustainability@knoc.co.kr)  
Phone: 031-380-2694, 2697  
Fax: 031-386-8767



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# Survey

- We value readers' opinions on our Sustainability Report.
- Please share your opinions or suggestions in the following form via fax. Your input will improve our sustainability activities and future reporting.

1. Please indicate which of the following you are:

- ☐ Customer   ☐ Partner company   ☐ Executives & Employees   ☐ A Local resident   ☐ Civil organization representative   ☐ Government organization or agency representative
- ☐ Media representative   ☐ Academic   ☐ Others (   )

2. Which part of this Sustainability Report did you find most useful?

- ☐ KNOC Profile   ☐ Economic Performance   ☐ Innovation & Creative Management Performance   ☐ Customers   ☐ Executives & Employees   ☐ Partner Companies
- ☐ Local Communities   ☐ Ethics Performance   ☐ Environmental Performance

3. Which part of this sustainability report do you think should be improved?

- ☐ KNOC Profile   ☐ Economic Performance   ☐ Innovation & Creative Management Performance   ☐ Customers   ☐ Executives & Employees   ☐ Partner Companies
- ☐ Local Communities   ☐ Ethics Performance   ☐ Environmental Performance

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