Cosmo Oil Group Corporate Report

2011





# Great East Japan Earthquake and Chiba Refinery Accident

On March 11, 2011, the Great East Japan Earthquake and ensuing tsunami caused widespread devastation in eastern Japan, taking many lives. I would like to take this opportunity to express my sincere condolences to everyone affected by the earthquake. I pray for the earliest possible reconstruction of the areas devastated by the quake.

The earthquake also damaged service stations and oil depots of the Cosmo Oil Group, impacting the supply of our petroleum products in the affected areas as well as greater Tokyo and causing major inconvenience to our customers. Fighting back, we made an all-out effort to reestablish lines of supply to the affected areas as quickly as possible. We are deeply grateful for the understanding and cooperation of everyone involved.

The March 11 quake also triggered an accident at our Chiba Refinery, involving a fire and explosions of liquefied petroleum gas (LPG) tanks. I deeply regret the impact the accident had on nearby residents as well as people working at nearby companies and government authorities. (See pages 3–4 for more details.)

We formed the Accident Investigation Committee and are using the committee's findings to proceed with preparations to restart the Chiba Refinery. We are implementing company-wide measures to prevent future accidents and upgrading our safety management system. The Chiba Refinery will be restarted only with the full understanding of local residents and the guidance of supervising authorities.

The investigation of the accident revealed a number of inadequacies in connection with safety equipment at the Chiba Refinery, leading to administrative dispositions from the Nuclear and Industrial Safety Agency of Japan's Ministry of Economy, Trade and Industry, and from the government of Chiba Prefecture. Recognizing the seriousness of the situation, we will further educate employees on the need for compliance and endeavor to prevent future accidents. We are determined to ensure that the Chiba Refinery regains the confidence of the public.

#### **Securing Safe, Stable Operations**

The Cosmo Oil Group initiated its Third Consolidated Medium-Term Corporate Social Responsibility (CSR) Management Plan in fiscal 2010. The plan positions safety of operations as a top-priority issue. In our determination to prevent future accidents, we are redoubling our commitment to safety as first priority and to regulatory compliance. Accordingly, we are carefully reviewing our existing safety initiatives and taking steps to reinforce their implementation. We are doing all we can to secure the safety and continuity of operations by enhancing our safety management.

Several types of disasters occurred with the March 11 quake, which affected a vast region of Japan. In order to establish a crisis management framework that is capable of responding to multiple disaster elements, we will review our risk management system including the business continuity plan (BCP) for an earthquake occurring directly beneath Tokyo. We will also formulate new BCPs against major quakes that could occur in the Tokai, Tonankai and Nankai regions, respectively, where major earthquakes have occurred regularly every 100 to 150 years. In addition, we will identify risks other than disasters and review our planned response, in order to ensure that we will be able to meet our responsibilities as an energy provider.

#### **Business Performance**

Following two years of very challenging business conditions, the Cosmo Oil Group initiated its Fourth Consolidated Medium-Term Management Plan in fiscal 2010. The plan makes it a priority to resuscitate revenues from the petroleum business. Despite the negative impact from the earthquake, by implementing various initiatives, we successfully increased revenues and profits in fiscal 2010.

The Group continues to derive steady production from the oil exploration business. Building on more than 40 years of steady crude oil production, our group company Abu Dhabi Oil Co., Ltd. (Japan) recently had its existing production rights extended and was awarded an additional concession agreement. In the petrochemicals business, we successfully made our first

# Redoubling Our Dedication to Safety and Stable Supply to Meet Our Responsibilities as an Energy Provider

international foray into the petrochemicals segment by establishing HC Petrochem Co., Ltd. (HCP) with Hyundai Oilbank Co., Ltd. of South Korea. We plan to expand the production of para-xylene through a new plant to be constructed by the joint venture. This business development in South Korea will be a major asset for capitalizing on the great demand in the Chinese market.

In the sustainable energy business, we acquired the wind power provider, Eco Power Co., Ltd., in 2010 and made it a Group company. In order to raise wind power operating rates to increase revenues, we enhanced equipment maintenance and repairs. As a result of these efforts, we succeeded in raising operating rates in fiscal 2010 and turning a profit within just one year of the acquisition.

In terms of new business development, the Group possesses proprietary technology for cost-effective mass production of 5-aminolevulinic acid (ALA), which we are counting on as a future revenue stream. We are pursuing business development in a various fields that involve using ALA as an intermediate, including the development of a hair growth solution that uses ALA.

The long-term gradual decline in petroleum demand in Japan is expected to continue in fiscal 2011. In particular, the sluggish economy in Japan is expected to lower consumer sentiment and reduce demand for gasoline. Furthermore, the accident at the Chiba Refinery continues to impact our business, even as we face very challenging general conditions. Still, we will continue making every effort to return the oil refining and marketing business to profitability, a goal set as a basic policy under the Fourth Consolidated Medium-Term Management Plan.

# Realizing the Promises of Our "Filling Up Your Hearts, Too" Declaration

Drawing from the recent experience of the March 11 quake, the Cosmo Oil Group will redouble its commitment to safety and continuity, both at our refinery operations and through the steady supply of petroleum products. As an energy provider, we understand that we have a responsibility to maintain a

strong supply chain and build a consistent track record. Each of our employees has pledged to show initiative and engage in responsible conduct as we strive to build a corporate culture that makes the most of the collective strengths of our outstanding workforce.

Moving forward, we will work even harder to build a positive, vibrant workplace environment that is motivating for employees, a priority theme under our Third Consolidated Medium-Term CSR Management Plan. Our employees all embrace the "Filling Up Your Hearts, Too" Declaration, and we are making a Group-wide effort to provide services and deliver initiatives that earn the loyalty of stakeholders including customers, shareholders and the general public.

The Cosmo Oil Group has pledged its commitment to the United Nations Global Compact since 2006, endeavoring to actively pursue CSR initiatives that respect the basic principles of human rights, labor standards, the environment and anticorruption. We will continue to operate in a socially responsible way and contribute to the sustainable development of society.



## Fire and Explosions at Chiba Refinery

Updates on the March 11 accident at the Chiba Refinery have been posted to the Cosmo Oil website.

#### **Accident Summary**

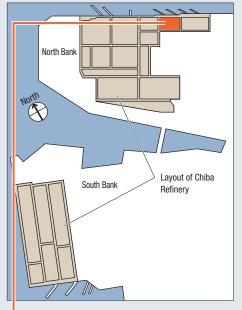
On March 11, 2011, the Great East Japan Earthquake occurred off the coast of Tohoku, followed by a subsequent quake off the coast of Ibaraki Prefecture. The quakes triggered a fire and explosions at the liquefied petroleum gas (LPG) facilities of the Cosmo Oil Chiba Refinery in Ichihara City, Chiba Prefecture. The fire was successfully extinguished on March 21, but the Chiba Refinery remained shut down as of September 30, 2011. Production at the Yokkaichi Refinery and Sakaide Refinery has been increased since March 15.

In response to the accident, Cosmo Oil assembled the Accident Investigation Committee on April 1, 2011, which has produced a report on its findings. The report details the circumstances and causes of the accident as well as measures to prevent future accidents.

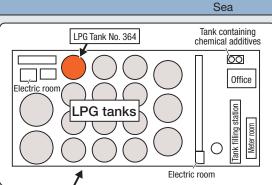
The facts surrounding the fire and explosion are as follows, in chronological order:

- At 2:46 p.m. on March 11, 2011, the Great East Japan Earthquake occurred in the Pacific Ocean off the coast of Tohoku. The quake registered a lower-five in seismic intensity (Japan's measure of earthquake intensity in terms of "degree of shaking") in Ichihara City, Chiba Prefecture, some distance away from the epicenter.
- The quake caused the fracture of many cross-braces on the support legs of LPG Tank No. 364 (Fig. 2 and 3), which at the time was not full of LPG, but water used to purge air from the tank for a regulatory overhaul inspection.
- At 3:15 p.m., another earthquake occurred off the coast of Ibaraki Prefecture. The quake registered a four in seismic intensity in Ichihara City.
- The second quake buckled the support legs (with fractured cross-braces) of LPG Tank No. 364, which caused the tank to collapse. This led to the rupture of multiple pipes near the tank, and the leakage of LPG.
- O The leaking LPG spread and caught fire, leading to a fire near LPG Tank No. 364 (Fig. 4).
- The fire caused an adjacent LPG tank to explode, as the fire spread.
- The spreading fire caused the explosion of other nearby LPG tanks, and the fire continued to spread.
- After continuous efforts to put out the fire, it was completely extinguished at 10:10 a.m. on March 21, 2011.
   Figure 2. LPG tank site





LPG tanks



Direction from which Fig. 4 photo was taken

#### Injury and Damage Report

#### Injuries

• Six persons were injured, including five minor injuries and one serious injury.

#### Physical Damage

- All 17 LPG tanks on the site of the fire were damaged. Nearby pipelines and roads were also damaged.
- There was damage to adjacent asphalt tanks and leakage of asphalt. (Asphalt recovery was completed on May 10, 2011.)
- The shockwaves and debris from the explosions triggered fires on adjacent premises operated by Maruzen Petrochemical Co., Ltd. and Chisso
- Petrochemical Corporation. There was also damage to nearby vehicles and ships as well as building windows.

Electric room

 The shockwaves from the explosions broke windows and damaged shutters and roof shingles in nearby residential areas. Lightweight insulation debris also soiled vehicles in residential areas.

#### **Environmental Damage**

The fire caused the combustion of all 5,227 tonnes of LPG stored on the site.
 All of the leaked asphalt was successfully recovered. As a result, no lasting impact on air, water or soil from the accident has been observed.

#### **Actions of the Accident Investigation Committee**

Cosmo Oil formed the Accident Investigation Committee on April 1, 2011, which included outside experts. The actions of the committee and its sub-committees are outlined below.

April 1, 2011	Visit to accident site by Committee	May 30, 2011	Second meeting of the Committee
April 11, 2011	First meeting of the Committee	June 16, 2011	Second meeting of sub-committees on earthquake resistance and fire
April 25, 2011	First meeting of the sub-committee on earthquake resistance	July 4, 2011	Third meeting of the Committee
April 26, 2011	First meeting of the sub-committee on fire	July 28, 2011	Fourth meeting of the Committee
May 18, 2011	On-site investigation by the Committee		

#### **Accident Causes and Future Preventative Measures**

# 1. Fracture of Many LPG Tank Support Cross-braces, and Buckling and Collapse of Tank Supports

LPG Tank No. 364 was designed and built to seismic standards. At the time of the accident, the tank was full of water, which weighs twice as much as LPG, in preparation for regulatory overhaul inspections. The initial quake, combined with the added weight, caused the support cross-braces to fracture, and the subsequent quake caused the support legs to buckle and the tank to collapse. Better recognition was needed of the potential risk from an earthquake occurring when a tank was filled with water.

From now on, the Company will shorten the period during which the tanks are filled to capacity with water. Future LPG tanks will be designed specifically to hold a full tank of water, and existing LPG tanks will be evaluated and reinforced. To address the possibility of a tank collapsing, thereby damaging nearby pipelines and equipment, the Company will modify its facilities to protect pipelines and equipment, and enable the isolation and separation of pipelines as safeguards against LPG leakage.

#### 2. LPG Leaks

The evidence indicates that the quakes shook but did not damage the actual LPG tanks and pipelines. The collapse of LPG Tank No. 364 is what fractured pipelines and caused the leakage of LPG.

The evidence further suggests that LPG was leaking from three places, one of which was connected to an emergency shutoff valve<sup>1</sup> that had been locked in an open position. This had been done prior to the quake in order to repair a minor leak in a pipeline that supplies air to open and close the valve. For the repair, the emergency shutoff valve was locked open to prevent it from closing when the air pressure dropped during the work.

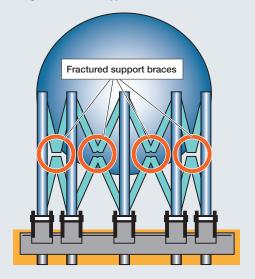
The emergency protocol calls for workers to manually release the emergency shutoff valve from the open position in an emergency. However, workers were unable to get near the valve during the March 11 accident, due to the leaking LPG.

As a preventive measure, LPG tanks will be surrounded by flexible pipelines<sup>2</sup> to prevent damage should a tank collapse on the pipelines. In addition, Cosmo Oil has eliminated the practice of locking emergency shutoff valves in an open position.

#### 3. Cause of Ignition, Resulting Explosion and Spread of Fire

The investigation was unable to determine the exact cause of ignition. After the fire broke out, fire crews continuously sprayed water on the surrounding LPG tanks to keep them cool, but the fire near LPG Tank No. 364 grew in intensity, which raised the surface temperature of the adjacent LPG tanks. This weakened the tanks, to the extent that they could not contain their internal pressure, and the resulting explosions caused the fire to spread.

■ Figure 3. Fractured support braces of LPG Tank No. 364



■ Figure 4. Ignition of leaking LGP and fire



- An emergency shutoff valve is a safety device that is designed to safely and immediately shut off if there is an LPG leak.
- 2. The use of flexible piping enables pipelines to better absorb impacts and bend under pressure.

## **Initiatives to Enhance Safety**

#### Safety Management System

Cosmo Oil's safety management system has focused on the response to safety incidents and preventative measures to address issues that arose from past incidents. The Company also has strongly emphasized regulatory compliance in the filing of construction approvals, and for equipment standards and government reporting. However, in analyzing the March 11 accident at the Chiba Refinery, the Company is aware that there are ways in which it could have been better prepared for an emergency such as a quake. The Company also recognizes the need for better awareness of regulations and potential risks associated with the decisions to lock the emergency shutoff valve in an open position and to store water in LPG tanks during the overhaul. In order to address these issues, the Company will take the actions outlined below.

#### 1. Implementation of Comprehensive Safety Inspections

The Company will ensure that all employees of the Refinery—including management under the leadership of the refinery general manager—are completely aware of rules under Japanese accident prevention laws on high pressure gases, fire service, and petroleum complexes. All personnel will be reminded of their roles, responsibilities and jurisdiction, which they will make certain to execute.

Refinery workers will use safety equipment checklists to check their own and each other's work, which will reinforce the understanding of regulatory and in-house safety standards, and allow a correct grasp of potential risks. Managers will also be asked to work in unison with refinery workers and verify checklists in person.

#### 2. Improvement of Contingency Response

In addition to initiatives that are already being implemented by Cosmo Oil and the Chiba Refinery, the Company will continue to conduct refinery-wide drills in preparation for a large-scale disaster, while improving employee awareness of the contingency response. In conducting these drills, the Company will reexamine the level of collaboration between departments and improve manuals to enhance effectiveness of drills. The Company will also work harder on hazard prediction activities and improve risk estimation, while ensuring skills are passed on to less experienced workers at refineries.

#### 3. Management of Preventative Measures and Implementation at Other Refineries

The Chiba Refinery will monitor the progress of the above activities, and the Head Office and other Group refineries will audit the activities to ensure that they are being executed properly. The supervising department at the Head Office will verify security, maintenance and operational management. The Internal Auditing Office, which reports directly to the President, will audit the details of this verification and report to management on the level of effectiveness. If there are any deficiencies in the level of effectiveness, the Chiba Refinery will implement improvements and take action to address the deficiencies. The Company will conduct regular internal audits in order to verify the progress of the preventative measures.

Areas for improvement that are identified during the implementation of preventative measures will also be addressed at other Group refineries, to enhance safety effectively throughout the Group.



#### Supply Situation Since March 11 Quake

The March 11 quake caused the shutdown of the Chiba Refinery and of refineries and shipping terminals in and around the Tohoku region, leading to shortages in the supply of petroleum products. In order to make up for the shortages, on March 15 the Company increased the daily crude oil processing capacity at the Yokkaichi Refinery and Sakaide Refinery by 50,000 barrels and 30,000 barrels, respectively. The additional 80,000 barrels per day brought output back to more than 70% of the regular level. The Company also took steps to secure supply for the Japanese market by importing petroleum products and temporarily freezing exports.

#### ■ Refinery Capacity

	Crude Oil Processing Capacity		Barrels per Day
Refinery	Before	Now	Change
Chiba Refinery	220,000	220,000 <sup>1</sup>	±0
Yokkaichi Refinery	125,000	175,000	50,000
Sakai Refinery	100,000	100,000	±0
Sakaide Refinery	110,000	140,000	30,000

<sup>1.</sup> Output at zero due to shutdown.

# Securing a Continuous Supply of Petroleum for Daily Life and Social Activity

#### Response to March 11 Quake and Future Measures

Cosmo Oil has a business continuity plan (BCP) to secure the continuity of business execution during a large-scale disaster. The BCP outlines the Company's basic policies as well as the framework and guidelines for securing business continuity. After the March 11 quake, the Company's business locations began working together in accordance with the basic policies of the BCP, to continue executing priority tasks based on the available refining and delivery capacity. Every effort was made to reopen quickly the supply chains that were interrupted by the quake.

#### Basic Policies of Business Continuity Plan

- O Take action with top priority on saving lives.
- Once the safety of employees and their families is secured, work to secure best possible, stable product supply.
- Take steps to prevent secondary disasters, and assist recovery and reconstruction efforts in disaster zones.

#### Actions Taken and Future Measures

The following paragraphs summarize the main actions taken by the Company to support the early recovery of areas affected by the March 11 quake. These actions were based on a Companywide consensus to prioritize the supply of petroleum products that are essential to social activity, and quickly restart the refinery and shipping terminals that were shut down due to the quake. The Company will identify shortcomings and issues in its response to the March 11 quake, and take appropriate steps to address them.

#### 1. Verification of Safety

The Company placed the highest priority on verifying the safety of employees, their families, and dealers.

#### 2. Supply of Emergency Fuels

In order to save as many lives as possible, the Company made it a priority to supply fuel to Japan Self-Defense Forces and hospitals, as well as fuel for the transport of emergency supplies.

# 3. Cooperation with Emergency Measures by Japanese Government

Increased Production of Petroleum Products
In order to make up for the loss of supply from the Chiba
Refinery, the Company increased production at the Yokkaichi,

- Sakai and Sakaide refineries located in western Japan. These products were shipped to disaster zones.
- © Designation of Priority Service Stations for Petroleum Supply Cosmo Oil designated 84 service stations as priority supply points to secure the continuing supply of petroleum products for emergency vehicles and transport vehicles for relief supplies. The Company coordinated with emergency disaster response offices set up by local government authorities, to deliver petroleum products to these service stations. The Company also shipped kerosene and light oil in drums at the request of the Japanese government.

# 4. Continued Operation of Service Stations and Reopening of Service Stations

Support for Dealers
In addition to securing the supply of petroleum products to dealers, the Company provided other kinds of assistance

Support to Reopen Service Stations

The Company supported service stations capable of being
quickly reopened, by supplying secondhand fuel pumps and
providing other assistance.

#### 5. Customer Support and Assistance

O Customer Inquiries

The Company increased staffing at its customer center,<sup>1</sup> in order to field inquiries on topics like the location of open service stations. (For more information, see page 33.)

Cosmo The Card

The Company offered Cosmo The Card users the option of donating their Cosmo Gasoline Mileage rebates to the Japanese Red Cross Society for disaster relief. (For more information, see page 23.)

O Cosmo B-cle Lease

The Company utilized the Cosmo B-cle Lease network to provide vehicles and fuel at no charge for local government use, and provide discounted vehicle leasing rates and fuel cash back benefits for individuals. (For more information, see page 23.)

 The customer center fielded some 4,300 inquiries in March 2011 including questions that were connected with the disaster. This was 12 times the volume of inquiries fielded in the same month last year.



Service station damaged due to March 11 quake (taken on March 25, 2011)



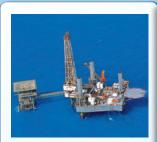
Service station after reopening for business (taken on April 5, 2011)

The Company's relevant business locations have been working together to implement the above measures since the March 11 quake, striving to restore product supply to normal levels. The Company has also launched a comprehensive examination of its response to the disaster to identify issues with the response, implement improvements including changes to the BCP manual, and share these improvements with the relevant business locations. The goal is to learn as much as possible in order to be better prepared for future unforeseen circumstances. The Company continues to work with its business locations to build a stronger product supply framework, including redefining basic aspects of the Company's disaster response and developing detailed business operation procedure manuals.

## Cosmo Oil Group Businesses

Maintaining safety as priority No. 1, the Cosmo Oil Group fulfills its social responsibility of ensuring a stable energy supply, operating petroleum businesses ranging from the independent development of crude oil (upstream business) to the manufacture, transport and sale of oil products (downstream businesses). The Group is also working to develop new technologies and new businesses that meet the needs of future generations.

## Cosmo Oil Group's Business Flow



#### **Crude Oil Procurement, Exploration and Production**

The Cosmo Oil Group imports crude oil mainly from Middle Eastern countries. The Group is also actively pursuing oil exploration and production in cooperation with oil producing countries. Independent development and production by the Group is currently underway in the United Arab Emirates (UAE) and Qatar, with the amount of independently developed crude oil accounting for approximately 5% of total imports by the Group to Japan.



#### **Marine Transport**

The Cosmo Oil Group takes measures, such as the use of doublehull tankers, to prevent accidents that may occur during the extensive 20-day transport of crude oil from the Middle East to Japan. The Group is also increasing the efficiency of its crude oil transport with joint plying and large-sized tankers.



#### **Oil Refining**

Safe operations are the highest priority at Cosmo Oil Group refineries and plants. These facilities are making progress through various initiatives to protect the local environment in the production of oil products, including the promotion of efficient energy use, industrial waste reduction, and the prevention of air and water pollution



**LPG** 

Gasoline/Naphtha

Kerosene/Jet fuel

Diesel fuel

Heavy fuel oil

**Asphalt** 

Lubricant



#### **Petrochemicals**

The Cosmo Oil Group manufactures petrochemical products that include xylene and other raw materials used in everyday items such as clothing and PET resin. Demand for these products is expected to rise in China and other countries in Asia.



In order to ensure that energy supplies remain stable even in emergency situations, Cosmo Oil stockpiles at least 70 days worth of private crude oil reserves. Cosmo Oil is also a key participant in Japan's national crude oil storage project, as the primary operator of Shirashima Oil Storage Co., Ltd.



Shirashima Oil Storage Base

#### **Research and Development**

In addition to its focus on developing environmentally friendly petroleum products and more advanced manufacturing technologies, the Cosmo Oil Group is also engaged in the development of new energies and environmental technologies and in the creation of new businesses



Research & Development Cente



In this report, this mark indicates that the data has been assured by KPMG AZSA Sustainability Co., Ltd.









#### **Transport in Japan**

Petroleum products produced at Cosmo Oil refineries are delivered to service stations, oil depots and users across Japan by coastal tanker, tanker truck, railroad tank car and pipelines. The safest and most efficient means of transport is selected for each trip, taking cost, distance and location into consideration.



#### Sales in Japan

The Cosmo Oil Group sells its products directly to large-scale users, delivers wholesale to dealers, and sells to customers at service stations. The Group gives consideration to regional differences in marketing campaigns at Cosmo Oil service stations, providing support for customers and their automotive needs through its "Filling Up Your Hearts, Too" Declaration



#### **New and Other Businesses**

The Cosmo Oil Group is involved in wind power generation as part of its focus on environmentally friendly businesses. The Group is also expanding into new businesses outside of the oil sector. It is focused intently on its ALA (5-aminolevulinic acid) business and is also engaged in constructing, leasing, and insuring oil-related facilities.



Hazaki Wind Farm

#### Sales Outside of Japan

Although demand for petroleum products in Japan has fallen, global demand is on the rise and expected to remain strong in the future. Anticipating demand outside of Japan, the Cosmo Oil Group is focused on developing sales in North America, South America and Oceania where customers value high-quality products that meet strict environmental regulations.

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# Cosmo Oil Group Management Vision, Code of Conduct and CSR Management

Cosmo Oil Group employees take initiative in implementing CSR activities to realize the Group Management Vision. The Cosmo Oil Group Code of Conduct provides employees with the tools necessary to make sound judgments as members of the Group and to enhance their implementation of CSR activities.

## Cosmo Oil Group Management Vision

In striving for harmony and symbiosis among our planet, humankind, and society, we aim for sustainable growth towards a future of limitless possibilities.

In alignment with its Management Vision of "Harmony and Symbiosis" and "Creating Future Value," the Cosmo Oil Group strives to achieve harmony and symbiosis between our planet, humankind, and society, and is working to achieve sustainable growth into a future of limitless possibilities. The Cosmo Oil Group Code of Conduct has been enacted to ensure that this vision of management is firmly instilled throughout the Group and is reflected in the behavior of each employee.

# Harmony and Symbiosis

Harmony and Symbiosis with the Global Environment

Harmony and Symbiosis between Energy and Society

Harmony and Symbiosis between Companies and Society

# Creating Future Value

Creating the Value of "Customer First"

Creating Value from the Diverse Ideas of the Individual

Creating Value by Expressing Collective Wisdom

## **Management Vision**

**Code of Conduct** 

In conjunction with the Consolidated Medium-Term Management Plan, the Consolidated Medium-Term CSR Management Plan has been drawn up in order to ensure that the Code of Conduct is put into practice. The entire Cosmo Oil Group is working together to develop activities that will earn the trust of stakeholders and increase corporate value.

Consolidated Medium-Term CSR Management Plan

# hapter

# Live up to customer expectations concerning reliability and satisfaction

- 1. We strive to deliver stable energy supplies
- 2. We develop and provide products and services that customers can rely on

# Chapter C

#### We aspire to become a safe, accident-free company

- 1. We strive rigorously to prevent accidents and industrial injuries
- 2. We handle accidents and disasters responsibly should they happen
- 3. We work to improve safety education

# Chapter 3

#### We value people

- 1. We respect each individual
- 2. We work to create bright workplaces where employees can work comfortably

# hapter

#### We take care of the global environment

- 1. We do what we can to preserve the global environment
- 2. We act after fully considering the global environment

# Chapter

#### We value communications with society

- 1. We work for the development of the community
- 2. We strive to keep people informed

# hapter

# We strive to maintain our position as an honest company

- 1. We engage in sensible activities as members of society
- 2. We treat company property with care
- 3. We are honest in our transactions
- 4. We handle information properly



The Cosmo Oil Group recognizes that its most important social responsibilities are living up to society's expectations for a stable supply of petroleum products and customers' expectations for greater satisfaction at Cosmo service stations.



## **Satisfying Customers at Group Service Stations**

The Cosmo Oil Group recognizes how critically important it is to provide society with a stable energy supply. It is also committed to building relationships of trust with the consumers who are the end users of this energy, and to increasing satisfaction with its service stations, the point of contact where Cosmo Oil communicates most closely with customers.

In fiscal 2010, Cosmo Oil Group service stations developed the "Filling Up Your Hearts, Too" Declaration 2010 to give customers a true sense of comfort, peace of mind, and trust—the three tenets of the declaration. The stations also took steps to institute these tenets more thoroughly in daily operations.

The "Filling Up Your Hearts, Too" Declaration 2010 focuses on enhancing functions of service stations and building the strongest possible brand in order to establish service stations as a value chain for customer driving needs. The Cosmo Oil Group has set concrete numerical targets and introduced Group-wide initiatives to meet these objectives.

#### "Filling Up Your Hearts, Too" Declaration 2010 Mandatory Goals

- Achieve average of 95 points or higher on CSR assessment
- Achieve average of 90 points or higher on service station evaluations with regard to the "Filling Up Your Hearts, Too" Declaration Three Promises
- Improve SSNV Index¹ by an average of one or more points
- Service Station Navigation (SSNV) Index: An original Cosmo Oil index used to measure management performance at service stations. The smaller the figure, the stronger the service station managerial structure.

#### Restoring Product Supply after the Earthquake

The Great East Japan Earthquake, which struck on March 11, 2011, inflicted damage to many service stations and shipping facilities, leaving Japan's oil industry without sufficient capacity to supply the Tohoku region. After verifying the safety of employees and their families, the Cosmo Oil Group immediately mobilized all of its resources to restore a stable supply of petroleum products and resolve shortages as quickly as possible in order to fulfill its important social responsibility to provide petroleum products—one of the most essential forms of energy in today's society.

The Group carried out emergency service station inspections of underground tanks and pipes at 240 locations in areas struck by seismic intensity of six or higher. Equipment was inspected to verify operational safety, and the stations were reopened as quickly as possible. In addition, secondhand fuel pumps were installed free of charge and operated temporarily at five service stations that had sustained damage.

The Cosmo Oil Group will continue to do everything in its power to help with recovery in the disaster-stricken area and to ensure a stable supply of petroleum products until the supply structure has been restored to pre-earthquake conditions.

The Cosmo Oil Group's greatest responsibility to society is the stable supply of energy that is crucial to Japan's economic and social activities. To ensure stable procurement of crude oil, the Group has spent many years building close relationships based on trust with oil-producing countries. The Group also continues to provide the reliable products and quality services that customers expect, as well as to focus on increasing customer satisfaction at Group service stations.



# Building Close Relationships with Oil-producing Countries to Ensure Stable Supply



Hironaga Takada Deputy General Manager, Planning Department, Abu Dhabi Oil Co., Ltd. (Japan)

As newly emerging economies undergo economic development, countries around the world find themselves competing for energy resources. In Japan, the Great East Japan Earthquake was a stark reminder of just how important stable supplies of gasoline and diesel fuel are to day-to-day life.

In such circumstances, Abu Dhabi Oil Co., Ltd. (Japan) has renewed its concession agreement in the Emirate of Abu Dhabi in the United Arab Emirates (UAE) for an additional 30 years and acquired a concession agreement for a new area, as well. Access to a large number of oil fields for Japanese companies to independently develop would contribute significantly to securing a stable oil supply. Building close and enduring relationships with oil-producing countries is extremely important for this reason. Our renewed concession agreement in the Emirate of Abu Dhabi was a testament to a long relationship of trust spanning over 40 years, as well as to our extensive contributions to environmental technology and education in the country.

For a country like Japan that depends on imports for most of its energy resources, ensuring a stable supply of oil is a major responsibility that transcends the efforts of any individual company. In light of this, I know that our work is invaluable and worthwhile to society.

# Improving Product and Service Quality to Ensure Reliability

The Quality Assurance Committee established at the Cosmo Oil Head Office oversees all quality issues, drafts Group-wide quality assurance policy, and creates a uniform quality assurance structure for the entire Group. Refining and manufacturing divisions are focused on ensuring that ISO 9001 international standards for quality management systems are consistently applied. Distribution and marketing divisions promote comprehensive quality control education and training designed to prevent failures and eliminate accidents. All departments work together to improve the quality and ensure the reliability of products and services as a whole.

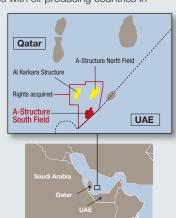
#### **Quality Assurance Committee Organization**



# Independent Development of Qatar Oil Fields Launched

Securing access for the independent development of oil fields is extremely important for ensuring a stable oil supply. Qatar Petroleum Development Co., Ltd., a Cosmo Oil Group company, has successfully developed the A-Structure South Oil Field, and crude oil production started on April 27, 2011. Utilizing the experience and technology that the Group has cultivated to develop new oil fields, the Group will work to build even stronger, more cooperative relationships with oil-producing countries in

the Middle East, helping to ensure an even more stable supply of oil to Japan. The Group employs environmentally friendly technologies in its independent development of oil fields in this region. The gas generated in the process of producing oil is pumped back underground, rather than burned and released into the atmosphere.





## Achieving and Maintaining Record of Zero Accidents at Refineries

All Cosmo Oil refineries and Cosmo Matsuyama Oil Co., Ltd. have introduced Change 21 Activities, <sup>1</sup> the ultimate goal of which is achieving and maintaining a record of zero accidents. These activities have a near-term target of reducing the number of unsafe and failure incidents<sup>2</sup> by 90% or more compared with the base year (September 2006–August 2007) by 2012. An additional goal is to achieve a record of zero serious unsafe and failure incidents, including work-related injuries that require days off of work. The number of unsafe and failure incidents in 2010 stood at 99, a 21% decrease from the 126 incidents in 2009.

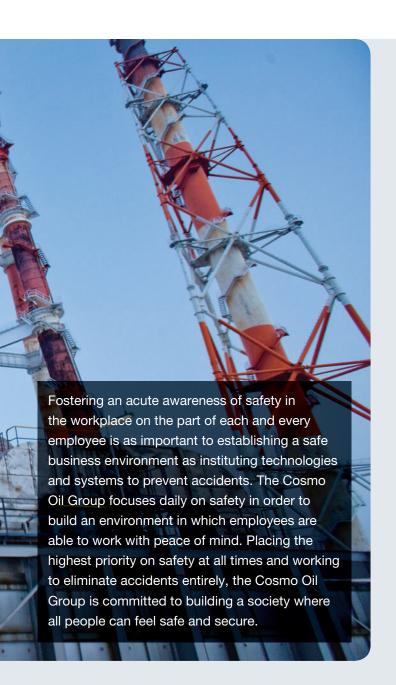
The Cosmo Oil Group expresses its deepest regret for the concern and inconvenience caused to those in the local community, as well as all other persons affected, by the fire and explosions that occurred in the LPG tank area at the Chiba Refinery when the Great East Japan Earthquake struck on March 11, 2011.

The Cosmo Oil Group considers safety in all its business activities to be its most important corporate responsibility. As such, the Group has formed an Accident Investigation Committee made up of internal and external experts and representatives of relevant organizations, to investigate the circumstances and cause of the Chiba Refinery fire and draft measures to prevent its recurrence. Drawing on the invaluable lessons learned from this fire, the Cosmo Oil Group will focus on the steady implementation of preventative measures and increasing the level of safety at its refineries.

- Activities under the Third Consolidated Medium-Term Safety Plan, including Change 21 Activities, are based on a calendar year rather than a fiscal year.
- 2. "Unsafe and failure incidents," as defined by the Cosmo Oil Group, include the following: extraordinary accidents as defined by the Act on the Prevention of Disaster in Petroleum Industrial Complexes and Other Petroleum Facilities; trouble and failures that do not rise to the level of extraordinary accidents; leaks of non-toxic substances (industrial water, steam, etc.); and work-related injuries that require days off of work.



Employees pledge commitment at Safety Declaration Meeting



### Persisting with Steady, Proactive Efforts to Ensure Safety at Refineries



Naoyuki Takahashi Manager, Safety & Environment Control Office, Sakaide Refinery, Cosmo Oil Co., Ltd.

At Cosmo Oil, the entire company is focused on zero-accident activities. At the Sakaide Refinery, we communicate this focus in the workplace using three intuitive themes: visualizing accident prevention, paying careful attention, and communicating well.

We train employees to focus closely on activities in specifically assigned areas and on-stream inspections during actual operations. Activities in assigned areas are designed to focus employee attention on a specific area that he or she is in charge of keeping clean and in good repair to ensure that dirty equipment does not prevent irregularities from being detected. With on-stream inspections, employees closely inspect equipment for signs of decay, aging, and other concerns and immediately report any irregularities to the relevant department to prevent accidents before they occur. The Sakaide Refinery has also developed its own additional practice of having employees fill out accident prevention reports. The refinery actively integrates examples given in these reports of steps taken by employees to guarantee safety and secure their own peace of mind.

All of our employees are focused on frontline activities tailored to their specific workplace, rather than on academic discussions of safety. I believe this site-based approach is especially important to ensuring safety at refineries.

# Strengthening Safety Management in Distribution

With regard to tanker trucks and other ground shipments, the Cosmo Oil Group has made its comprehensive safety management system for contracted ground shipment service providers into a full-scale operation that aims to help them build their own independent safety systems. In fiscal 2010, Cosmo Delivery Service Co., Ltd. audited the operations of all contracted ground shipment service providers and verified the suitability of the structure and operation of safety management systems. Safety Measure Coordination Conferences are held monthly between Cosmo Kaiun Co., Ltd. and contracted coastal shipment service providers to coordinate safety in marine transport by coastal tankers. These conferences are used to investigate the causes of incidents and oversee measures to prevent their recurrence, as well. Ship safety committees at refineries also conduct

patrols by visiting ships as well as other safety management activities. The Cosmo Oil Group will continue to improve safety management and strengthen safety activities to eliminate accidents in the future.



Coastal tanker

#### Cosmo Gas Safety Support Program

The Cosmo Gas Safety Support Program provides support for safety activities at Cosmo Petroleum Gas dealers. In Japan, aging and decayed equipment has caused a recent increase in the number of gas-related accidents, many of which could have been detected and prevented with regular daily inspections. Cosmo Petroleum Gas Co., Ltd. focuses on providing the support needed to maintain conditions under which gas can be consistently and safely used. In addition to strengthening measures for the safe operation of gas filling stations, the program also focuses on reevaluating inspection methods, providing safety officers at Cosmo Petroleum Gas dealers with the most up-to-date accident-related information, and explaining government guidelines.

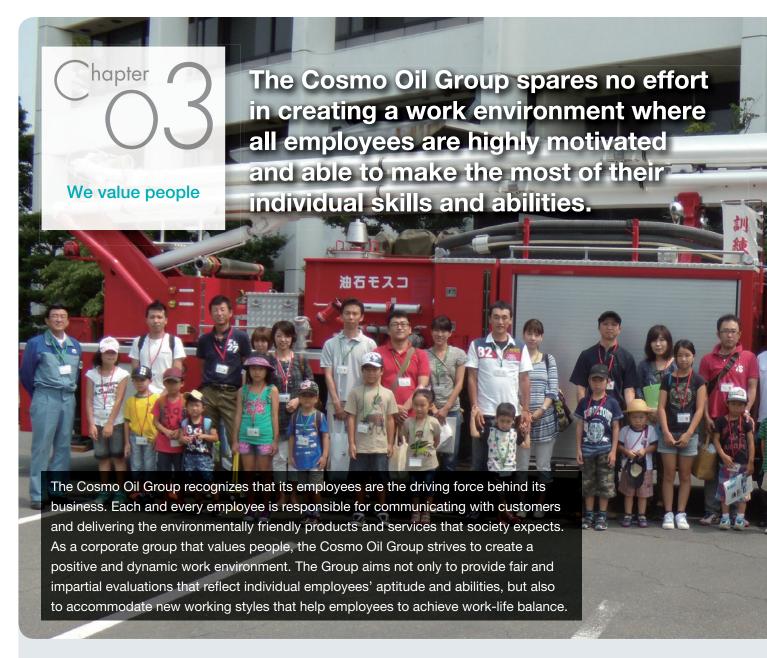
In the future, the program will expand to provide opportunities for safety dealers to share information with each other and develop

better solutions for normal working procedures and disaster response.

Going forward, Cosmo Petroleum Gas will remain committed to taking these steps to prevent accidents and establishing an environment in which customers can use gas with complete peace of mind.



Cosmo Petroleum Gas dealers receiving training at the gas-tank filling station



## Continuous Support for Balancing Work and Home Life

The Third Consolidated Medium-Term Human Rights/Personnel Plan identifies child/family care leave and leisure activities as important elements for employees to balance work and home life. The plan focuses on enhancing various systems to better support child and family care leave. With regard to supporting leisure activities, the plan targets include employees taking 80% or more of their annual paid leave as well as a general increase in the number of days off taken by all employees. Although this goal was not achieved in fiscal 2010, employees took an average 78.4% of their paid leave, an improvement over the previous fiscal year (76.7%). Out of the 18 Cosmo Oil Group companies that were targeted for increasing the percentage of employees taking paid leave, 13 saw an improvement over the previous year.

In addition, the Group received approval of the third action plan required for general business owners for fiscal 2009-2010, which was submitted to Japan's Ministry of Health, Labour and Welfare, as part of its measures to support the raising of the next generation of children.

Under the Act on Advancement of Measures to Support Raising Next-Generation Children enacted in 2003, business owners employing

301 or more workers<sup>1</sup> were required to draft and submit to relevant labor boards an action plan required for general business owners.<sup>2</sup> The Act was revised, however, in April 2011 to require action plans from business owners employing 101 or more workers.



With this revision, two additional Cosmo Oil Group companies are now required to submit these plans, for a total of five: Cosmo Petro Service Co., Ltd. and Cosmo Trade & Service Co., Ltd. in addition to Cosmo Oil, Cosmo Oil Sales Co., Ltd., and Cosmo Engineering Co., Ltd. All five companies have drafted and submitted their action plans. Although not required by law to submit an action plan, Cosmo Matsuyama Oil Co., Ltd. introduced measures based on the same action plan in August 2010.

- 301 or more workers: Temporarily dispatched workers are counted as employees of the company from which they have been dispatched.
- Action plan required for general business owners: These plans outline timeframes, objectives, and duration of implementation for measures to support and enhance working conditions for workers who are raising children.
- Kurumin Mark: Indicates that a company or enterprise has been certified by the Ministry of Health, Labour and Welfare for implementing support for childrearing as a measure to counter Japan's declining birthrate.

#### **Reference: Cosmo Oil Action Plan Required for General Business Owners**

- 1. Timeframe: Two years beginning in April 2009
- 2. Objectives
  - (1) Introduce telecommuting system to support employees who are caring for a child or family member while working
  - (2) Promote childcare leave for fathers when children are born
  - (3) Increase awareness and promote use of support system to help employees balance child/family care and work
  - (4) Reduce work outside of regular working hours and encourage workers to take annual paid days of leave (Flextime system, company-specified holiday system)



### Welcomed Back to Work after Every Maternity Leave



Atsuko Furukawa Maintenance & Engineering Section, Chiba Refinery, Cosmo Oil Co., Ltd.

I have three children, aged seven, five, and one, and I took maternity leave after each one was born. I am extremely grateful, both to the company, which allowed me to return to work three times after my leave, and to my colleagues, who all welcomed me back warmly each time. Taking maternity leave, I realized once again just how comfortable the work environment at Cosmo Oil and the Chiba Refinery is for female employees who have taken maternity leave.

I have always had a strong desire to be a working member of society and never thought about quitting my job. I am often asked, "Isn't it hard to work when you have three children?" Really, though, with the systems and support structures in place today, it is not so difficult. Working gives me a sense of fulfillment and enjoyment, and I think this helps me have more fun and be more positive with my children. I would encourage anyone in the same position to take advantage of maternity leave and to keep working. My hope is that the number of working mothers at Cosmo Oil will increase, and that we can network with one another.

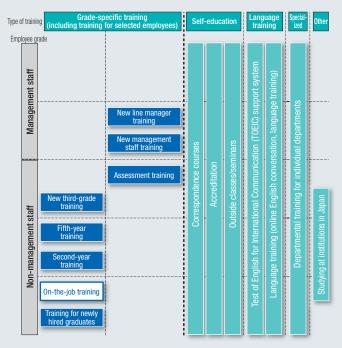
## **Approach to Human Resource Development**

Cosmo Oil has developed and implemented an education system with the goal of fostering an independent workforce capable of evaluating situations on their own, reaching out to solve problems, and taking the initiative in their own career development. The Company provides opportunities for growth on the job and focuses on systematic, productive human resource development under a system of fair evaluation. Here are the priorities:

- $\hbox{(1) Provide guidance and training while performing on-the-job tasks} \\$
- (2) Provide opportunities to acquire specialized knowledge and improve language proficiency
- (3) Provide grade-based training to equip employees for role transitions and to increase awareness
- (4) Establish correspondence course systems as means of self-education

When new recruits join the Company, they are given training to develop their sense of professionalism as Cosmo Oil employees and are taught the basics they need as working members of society. The Company has also established an extended system of training and education that includes on-the-job, second-year, and fifth-year training sessions for employees at every position and grade to give them opportunities to realize their full potential. Cosmo Oil develops independent, self-sufficient employees by making the most of these training systems and providing further opportunities for growth through personnel rotations.

#### Cosmo Oil education system (primarily for career track employees)





## Working Hard to Conserve Energy as an Energy Provider

Initiatives to combat climate change are an important focus for an enterprise that works with fossil fuels like the Cosmo Oil Group. Although each stage of the process involved in extracting crude oil, shipping oil, and storing oil products generates  $CO_2$  emissions, approximately 60% are generated by oil refining. Employees at Cosmo Oil refineries work together to reduce this figure, conserving energy both by increasing the efficiency of equipment and improving operational performance. In addition to improving the efficacy of gas compressor and furnace performance, the reevaluation of operational conditions, reduction of steam consumption, and other initiatives also helped reduce  $CO_2$  emissions in fiscal 2010.

The Third Consolidated Medium-Term Environmental Plan set a  $CO_2$  reduction (cumulative effect of individual measures) target of 16,800 tonnes (crude oil equivalent of 6,400 kiloliters) for fiscal 2010. By the end of the year, the refineries had reduced  $CO_2$  emissions by 29,000 tonnes (crude oil equivalent of 11,080 kiloliters), exceeding the goal by a considerable margin. Total  $CO_2$  emissions, however, increased in fiscal 2010 with the launch of full heavy oil cracking facility operations at the Sakai Refinery. In order to create momentum in society for conserving energy, the Cosmo Oil Group will continue, as a responsible energy provider, to improve existing policies and introduce new energy-saving measures of the sort that only an energy provider can make viable.

#### Energy Consumption and CO<sub>2</sub> Emissions at Four Refineries

CO<sub>2</sub> emissions

6,000

4.000

(kl-crude oil/Ml)

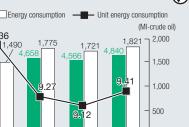
10.5

10.0

9.5

9.0

8.5



Notes:

- 1. Unit energy consumption indicates total energy consumption divided by the total crude oil equivalent processed, taking into account the complexity of refining technology. The unit used is kiloliters of crude oil equivalent/megaliters (kl-crude oil/Ml). Total energy consumption is calculated by converting heat, electricity, and other energy use into the megaliters of crude oil equivalent (Ml-crude oil). The unit used for CO<sub>2</sub> emissions is kilotonnes (kt).
- Beginning with fiscal 2006 results, the method of calculating CO<sub>2</sub> was revised as stipulated by Japan's Act on Promotion of Global Warming Countermeasures.
- 3. CO<sub>2</sub> emissions for fiscal 2009 and 2010 have been calculated using the CO<sub>2</sub> emission factor for electricity for fiscal 2008 and 2009 respectively. CO<sub>2</sub> emissions up to fiscal 2008 have been calculated using the CO<sub>2</sub> emission factor for electricity for fiscal 2008 and 2009 respectively. CO<sub>2</sub> emissions up to fiscal 2008 have been calculated using the CO<sub>2</sub> emissions found to the control of the control
- have been calculated using the CO<sub>2</sub> emission factor for electricity for each fiscal year.

  4. In addition to the figures shown in the graph, N<sub>2</sub>O released from the catalyst regeneration tower amounted to 21 kilotonnes of CO<sub>2</sub> equivalent in fiscal 2010.



### Oil and Non-Petroleum **Energy: Pursuing Environmental Technologies** for Today's Needs



Nobumasa Nakajima Refining Technology Group, Research & Development Center, Cosmo Oil Co., Ltd.

Gasoline, diesel fuel, and heavy fuel oil are all manufactured by refining crude oil using distillation, desulfurization, and other processes. Of these, the desulfurization process of removing sulfur from crude oil is a technique that has been developed most recently for manufacturing the sulfur-free (sulfur at 10 ppm1 or less) gasoline demanded for automotive fuel. A highly efficient catalyst is essential to the desulfurization process. My job involves researching the development of more efficient catalysts in order to further improve this process. Sulfur-free fuel is essential for ensuring the effective operation of processing units that remove the toxic gases (nitrogen oxide, particle matters and hydrocarbons) from automobile emissions, and was introduced in Japan first in the world.

Most manufacturers purchase the catalysts they use in desulfurization and all other processes from catalyst manufacturers. At Cosmo Oil, however, we are working to develop our own catalysts for use in manufacturing, capitalizing on our expertise in the field to create more efficient catalysts than those available on the market. The Research and Development Center is also committed to developing technologies that help preserve the environment, including the development of environmental technologies designed to reduce waste, new non-fossil fuel energy technologies, and technologies that produce ALA (5-aminolevulinic acid) using fermentation.

1. 1 ppm: Parts per million; unit indicating 1/1,000,000

#### Taking on the Challenge of Renewable Energy

Cosmo Oil is working to secure an electricity supply generated by wind power, a renewable green energy that emits no greenhouse gases.

Eco Power Co., Ltd. joined the Cosmo Oil Group in March 2010. A pioneer in wind power generation in Japan, Eco Power operates wind farms in the northern part of Japan where wind conditions are especially good. As of the end of March 2011, the Cosmo Oil Group operates 131 wind turbines with a total output capacity of 148,510 kilowatts. In

fiscal 2010, the Group supplied 250 gigawatts per hour of wind-generated power. This annual output corresponds to an approximately 140,000-tonne reduction in CO<sub>2</sub>. Rumoi Wind Farm



#### Protecting Biodiversity and Satoyama in **Business Operations**

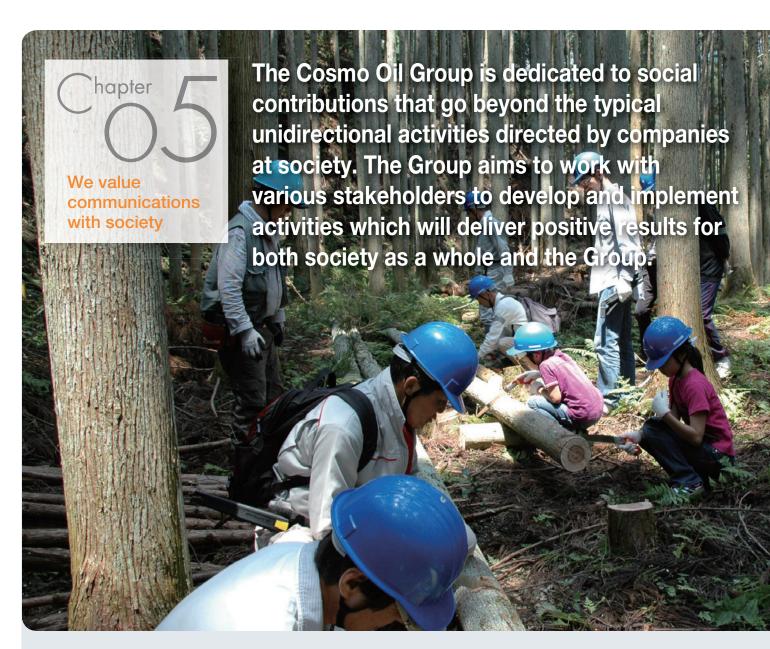
Cosmo Oil joined the Japan Business Initiative for Conservation and Sustainable Use of Biodiversity in February 2010, and uses the organization's Map of Corporate Activities and Biodiversity® to help ascertain the impact of its business operations on biodiversity. The Cosmo Oil Group recognizes the



Golden snub-nosed monkeys in the Qin Ling Mountains

potential impact from all of its businesses, including oil exploration, production, refining, shipping and marketing, and will continue to strive in the future to minimize its impact on biodiversity by ensuring safe and secure business operations.

Supported by donations from Eco Card members, the Cosmo Oil Eco Card Fund (see page 20 for details) has helped finance the Qin Ling Mountains Forest and Ecosystem Recovery Project, as well as other projects designed to preserve biodiversity. In fiscal 2010, the Fund added preservation of biodiversity to its activity themes and began looking at activities that focus on biodiversity. The Cosmo Oil Chiba Refinery, Sakai Refinery, and Cosmo Matsuyama Oil Co. Ltd. will also continue to work on preserving satoyama (managed woodlands near populated areas) and to focus on the preservation of biodiversity.



# **Greater Opportunity for Employee Participation in Long-Term Social Contribution Activities**

Cosmo Oil aims to help create a prosperous, secure society today and for future generations, focusing on activities that continue over the long-term and encouraging individual employee participation. To ensure that these activities are true to the Cosmo Oil spirit, the Company has instituted basic concepts and policies that shape its social contribution activities.

- ■Basic social contribution activity concepts
- To educate children who will be part of the future society
- To preserve the global environment, the foundations of a sustainable society
- To form a peaceful, considerate, and cultural society
- Basic social contribution activity policies
- Activities unique to the Cosmo Oil Group
- Full employee participation
- Lasting presence regardless of our business status

#### Cosmo Waku Waku Camp

Operated every year since 1993, the Cosmo Waku Waku Camp is a two-night, three-day nature camp for elementary school children orphaned by traffic accidents. Participating employee volunteers run through the camp schedule on-site beforehand to make sure that the children will stay safe and healthy while camping.



#### Art Program for Daddies and Kids

This program for fathers with children aims to promote fathers' participation in childrearing by offering opportunities for them to take part together in social contribution activities on days off. The program brings fathers and their children together to create artwork and foster communication. Employee volunteers organize the program with cooperation from local art museums.



#### **Christmas Card Project**

This project delivers encouraging messages to children whose long hospital stays keep them away from home on Christmas. Cosmo Oil Group employees and their friends and families participate by writing messages on Christmas cards. In 2010, 1,804 cards were delivered to 19 hospitals across Japan.





# Cosmo Forest Initiative Protects *Satoyama*



**Toshihiro Itakura** General Affairs Section, Sakai Refinery, Cosmo Oil Co., Ltd.

The Cosmo Forest Initiative is a program that works with local governments to preserve *satoyama* near where the Cosmo Oil Group operates. It was introduced as part of the Group's management vision of "Harmony and Symbiosis with the Global Environment." The Fourth Consolidated Medium-Term Environment Plan incorporates even more activities of this type. To date, the initiative has already achieved significant results, including the Chiba Refinery working with Ichihara City in Chiba Prefecture, and Cosmo Matsuyama Oil Co., Ltd. signing an agreement with Ehime Prefecture.

In 2010, the Sakai Refinery endorsed the Sakai City environmental plan, adopting *satoyama* in Higashiyoshino Village as a Cosmo Forest. The official Cosmo Forest Initiative signing ceremony took place on May 21.

Group employees and their families undertook forest care activities three times between June 2010 and June 2011, with approximately 260 people participating. The volunteers divided into groups and, under the instruction of the local Yoshino forest association representatives, went to work thinning growth, trimming branches, and cutting grass. Following a morning of forest care activities, participating children spent the afternoon fishing and making *mochi* rice cakes the old-fashioned way with local residents. Everyone came away with a fun-filled experience of nature. Although the goal of the Cosmo Forest Initiative is to contribute to the environment, these activities also help to foster unity among Group employees and their families.

# Cosmo Oil Eco Card Fund Marks Tenth Year of Activities in April 2011

Thanks to the cooperation of approximately 80,000 cardholders, the Cosmo Oil Eco Card Fund has developed "Living with Our Planet" projects to protect the irreplaceable global environment for future generations of children. Cardholders make automatic donations via the card using the mechanism shown in the chart below. The donations are used to find solutions to environmental issues and fund environmental preservation activities that focus on restoring and preserving the environment and educating the next generation. Preserving biodiversity was added as a new theme for Fund projects in fiscal 2010.

#### The Cosmo Oil Eco Card Fund System



Donations by all cardholders of Cosmo The Card Opus Eco and Cosmo The Card Eco

Cardholders make an initial Y500 donation at the start of their membership. Every year thereafter they again donate ¥500 in the month that they initially joined

**Donations by the Cosmo Oil Group** 

Operation of the "Living with Our Planet" projects that support efforts to contribute to the global environment

Fiscal 2010 Projects

Achievement of a sustainable society Restoration and preservation of the Education of the next generation environment in Japan and overseas Tropical Rainforest Satoyama Preservation Global environmental Conservation Project School Qin Ling Mountains Forest and Environmental Education Support Project at Schools Ecosystem Recovery Project nitiatives i ervation o Noguchi Ken Seed Planting School Environmental School Community Forest Map South Pacific Countries Development in the Northern Support Project Mountainous Region of Thailand Silk Road Inner Mongolia Afforestation Project Afforestation Project Sustainable Farming Support Project

Support was provided for 11 projects both in and outside of Japan in fiscal 2010. The *Cosmo Oil Eco Card Fund Activity Report 2011* released in July 2011 outlines the activities conducted under these projects.

Related information Environment

www.cosmo-oil.co.jp/eng/envi/



### **Focus on Training for Strong Corporate Ethics**

In order to maintain a high level of awareness of corporate ethics, the Cosmo Oil Group conducts annual corporate ethics training for Group employees. In addition to providing training tailored to job levels to help employees gain the expertise they need in specific positions, training sessions tailored to specific workplaces are also led by general managers and Group company presidents.

In fiscal 2010, the Group concentrated on raising employee awareness of information security issues with training designed to reinforce the appropriate use of information systems. The Group also introduced ethics training in technical divisions to increase understanding among engineers of the unique ethical issues that they face. In addition, training sessions focused on increasing understanding among employees by using familiar examples to illustrate specific topics such as preventing the risk of misconduct, the Antimonopoly Act and securities, and preventing harassment and eliminating discrimination.

The Group increased the number of training opportunities for employees, as well. The total number of participants Group-wide in

fiscal 2010 rose to 3,611, an increase of 860 participants over the previous fiscal year. Surveys taken after participants completed training will be used in developing sessions for the following years.



Corporate ethics training



# Surveying Employee Awareness to Assess CSR Management

From February through April of 2011, the Cosmo Oil Group conducted the CSR Status Survey of executives and employees at 19 Group companies, as it has in previous fiscal years. This survey is used to identify areas for improvement and measure the results of previous initiatives to promote CSR management. Survey responses are anonymous, and the questionnaires are collected by an outside organization. By protecting respondents in this way, the survey had a response rate of approximately 98% (4,828 respondents) in fiscal 2010.

Analysis of responses by outside experts indicates that CSR risks across the Group are generally on the decline. However, though small in number, a few respondents did answer in the affirmative when asked about risks related to compliance and safety. The results of this survey will be used to bolster CSR management with the aim of eliminating all risks in these areas. Cosmo Oil will take the lead in developing and implementing measures across the Group for strengthening communication between managers and subordinates, enhancing training by job grade, and improving compliance-related manuals.

### Embedding Frontline Employee Awareness of Risk in Corporate Culture



Kenji Araki Manager, Risk Management Section, General Affairs Department, Cosmo Oil Co., Ltd.

The key to risk management at the Cosmo Oil Group is to anticipate and expose risks that have not yet manifested themselves, properly assess the primary factors involved, and take the necessary measures to eliminate them.

The Group strongly emphasizes a frontline focus when taking steps to mitigate risks, and we will continue to work on this. It is the workers on-site who know best the conditions there. It is therefore individual employees throughout the Group who must take responsibility for identifying the risks involved in their own jobs and zeroing in on the risk these would pose to the Group. Aiming to establish this type of system, our job as part of the Risk Management Group begins with raising employee awareness of risk and then embedding this awareness in our corporate culture.

Enhancing Group-wide communication that transcends the boundaries of department or company is important to raising awareness among employees on the frontlines. People tend to focus only on the specific group they are a part of, but I think an employee should actively share new "realizations" with people both in and outside of his or her own specific department. My impression is that each and every employee of the Cosmo Oil Group is extremely sensitive to risk after the Great East Japan Earthquake. What is important now is determining how the Group will integrate our employees' increased sensitivity to risk, and we recognize that building the structure to do so is a matter of great urgency.

# Instituting a Corporate Ethics Consultation Helpline

The Cosmo Oil Group has set up internal and external helplines by which employees or persons outside the Group can discuss legal or ethical problems concerning Group operations. In addition to the corporate ethics consultation helpline within the Corporate Ethics Promotion Office, there is a consultation helpline within the Personnel Department for matters related to sexual and power harassment. The Group has also set up a helpline staffed by external experts to assure anonymity and guard against adverse repercussions to the caller. In fiscal 2010, the helplines received a total of five requests for consultations.

# Cosmo Oil Group Support for Great East Japan Earthquake Recovery

The Cosmo Oil Group extends condolences to all of the victims of the Great East Japan Earthquake. Everyone at Cosmo Oil hopes for the quickest possible recovery of the affected areas.

#### **Donations and Other Support**

- (1) Cosmo Oil made a donation of ¥100 million to provide support for the affected areas through the Japanese Red Cross Society. In addition, the Cosmo Oil Group collected voluntary donations from employees, and matched the ¥8.15 million collected from employees to provide a total of ¥16.3 million through the Japanese Red Cross Society.
- (2) In fiscal 2010, the Company offered customers the option of donating their Cosmo Gasoline Mileage rebates to the Japanese Red Cross Society for disaster relief.
- (3) The Cosmo Oil Eco Card Fund chose to support Mori-Umi (Forest and Sea), a non-profit organization run by local fishermen in Kesennuma City, Miyagi Prefecture, an area that suffered massive damage from the earthquake and tsunami. The Fund provided support for the organization's summer school for kids. Employees and their families from the Eco Card Office and the Cosmo Oil Sendai Branch Office also took part in the Mori-Umi tree-planting ceremony in Miyagi Prefecture in June 2011, as well.



Summer school for kids

#### Material Aid - Daily Necessities and Vehicles

- (1) Immediately after the earthquake struck, the Group delivered food, other daily necessities, and equipment needed to supply energy such as portable emergency pumps, secondhand fuel pumps, and liquefied petroleum gas. Employees also helped sort the material aid donated to the afflicted areas.
- (2) Cosmo Oil provided loaner vehicles that had been fully fueled, insured, and serviced free of charge to local governments in coastal areas in Iwate, Miyagi and Fukushima prefectures. These vehicles, normally used in the Group's car leasing business, have been used to meet such needs as transporting goods and volunteers around disasterstricken areas. Local government officials have expressed their appreciation, saying, "We lost so many vehicles in the disaster and are extremely grateful for those you have loaned us. They are invaluable to recovery and reconstruction here."



Fully fueled, insured and serviced vehicles were loaned free of charge

#### Supporting Employee Volunteers

The Cosmo Oil Group has introduced systematic improvements to make it easier for employees to volunteer in the disaster-stricken areas. The Group has expanded the number of days allowed under its volunteer leave program from three to five and now provides insurance coverage for employees who volunteer. Daigo Kato, a volunteer working on the ground in Tohoku, gave a Disaster Recovery Volunteer Orientation to help volunteers stay safe when working in the afflicted area. Using photographs of the situation on site to illustrate, Mr. Kato talked about volunteer preparations and safety.



A volunteer working in Tohoku gives Disaster Recovery Volunteer Orientation

The Cosmo Oil Group will continue to do its utmost to provide support for people in the disaster-stricken areas.



# Cosmo Oil Group Corporate Report 2011

# **Additional Data**

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### **Corporate Profile and Financial Data**

#### Corporate Profile (as of March 31, 2011)

Name Head office	Cosmo Oil Co., Ltd. 1-1-1, Shibaura, Minato-ku, Tokyo 105-8528 Japan	History	Cosmo Oil Co., Ltd. was established on April 1, 1986 through the merger of Daikyo Oil Co., Ltd., Maruzen Oil Co., Ltd., and their refinery subsidiary, the former Cosmo Oil Co., Ltd. Asian Oil Co., Ltd. merged into Cosmo Oil on October 1, 1989.
Telephone	+81-3- 3798-3211	Dealers	250 offices
Established	April 1, 1986	Service stations	3,609 (stationary)
Capital	¥107,246,816,126	Branch offices	Sapporo, Sendai, Tokyo, Kanto-Minami, Nagoya, Osaka, Hiroshima, Takamatsu, and Fukuoka
Main business	Oil refining and sales	Refineries	Chiba, Yokkaichi, Sakai, and Sakaide
No. of employees	2,135	Oil depots	35 locations (including 33 subcontractors)

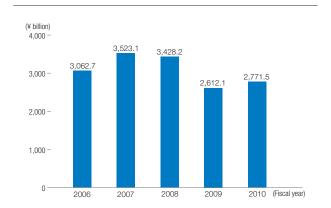
Bases outside

Abu Dhabi (UAE); Beijing and Shanghai (China); Doha (Qatar); Torrance, California (USA); London (UK); Singapore

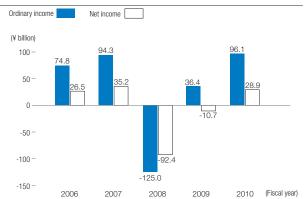
of Japan

#### **Financial Data**

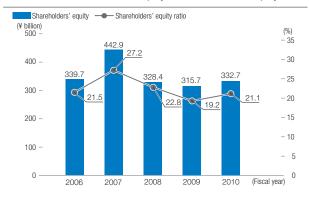
#### Consolidated Net Sales



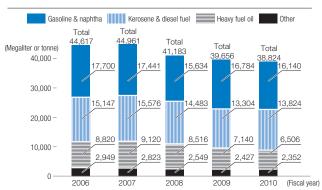
#### Consolidated Ordinary and Net Income



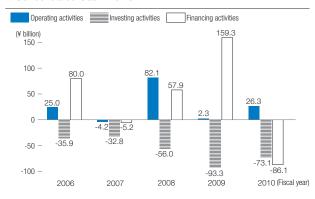
#### Consolidated Shareholders' Equity and Shareholders' Equity Ratio



#### • Non-Consolidated Sales Volume



#### Consolidated Cash Flows



#### Consolidated Profit Ratios



### **Editorial Policy**

#### **Editorial Policy**

The Cosmo Oil Group *Environmental Report* was first published in fiscal 2001, then replaced by the *Sustainability Report* in fiscal 2004. It was changed into a corporate profile in fiscal 2010 for use as a comprehensive communication tool and renamed the *Corporate Report*.

This year's report was prepared with reference to the Global Reporting Initiative (GRI) *Sustainability Reporting Guidelines 2006*, and includes special features that highlight issues deemed important to stakeholders. The issues have been selected to reflect stakeholders' views as expressed in questionnaires and other sources, as well as the Group's management philosophy, business strategies and risk factors that the Group considers to be material.

#### Report Boundary and Period Covered

This report covers<sup>2</sup> the Cosmo Oil Group's efforts in the area of corporate social responsibility in fiscal 2010 (April 1, 2010 to March 31, 2011), though some sections include content from fiscal 2011. It includes information on the 23 Cosmo Oil Group companies, listed below, which are implementing the Third Consolidated Medium-Term CSR Management Plan. Data, however, that pertains only to Cosmo Oil or only to certain companies is footnoted to indicate this.

#### Oil Exploration and Production

Abu Dhabi Oil Co., Ltd. (Japan) Qatar Petroleum Development Co., Ltd. (Japan)

#### Petroleum Product Manufacturing and Sales

Cosmo Oil Lubricants Co., Ltd. Cosmo Matsuyama Oil Co., Ltd.

#### Sales

Cosmo Petroleum Gas Co., Ltd. Cosmo Oil Sales Corp.

#### O Distribution

Hokuto Kogyo Co., Ltd.
Cosmo Kaiun Co., Ltd.
Cosmo Delivery Service Co., Ltd.
Cosmo Petro Service Co., Ltd.
Cosmo Techno Yokkaichi Co., Ltd.
Kansai Cosmo Logistics Co., Ltd.
Sakaide Cosmo Kosan Co., Ltd.

#### Other Businesses

Cosmo Engineering Co., Ltd.
Cosmo Trade & Service Co., Ltd.
Cosmo Business Support Co., Ltd.
Cosmo Research Institute
Cosmo Computer Center Co., Ltd.
Eco Power Co., Ltd.

#### Outside of Japan

Cosmo Oil (U.K.) Plc. Cosmo Oil International Pte., Ltd. Cosmo Oil of U.S.A. Inc.

Cosmo Oil Co., Ltd.

#### 1. Items of importance in report



Strategic importance for the Cosmo Oil Group

There have been no major changes in the boundary covered since the previous report.

#### Month of Issue

December 2011

Next issue (tentative): November 2012 (previous issue was November 2010; report issued annually)

#### Corporate Report 2011 and the Website

The Cosmo Oil Group is committed to making the information in *Corporate Report 2011* available to as many stakeholders as possible. The Group publishes two versions of the report: a concise print version that provides report highlights and an online version that provides detailed data. Access the publicly available Web version of the report at the official Cosmo Oil website.

Detailed information CSR website

www.cosmo-oil.co.jp/eng/csr/

#### Inquiries

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# Fourth Consolidated Medium-Term Management Plan and Third Consolidated Medium-Term CSR Management Plan

#### Working on Establishing the Business Base for Sustainable Growth and Reinforcing the Finance Base

With the basic policy of establishing a stable earnings base and shifting toward a growth strategy in the Third Consolidated Medium-Term Management Plan, the Cosmo Oil Group steadily executed a variety of programs and investments. However, as crude oil prices hovered at high levels, the Group was unable to secure appropriate margins. The result is that the earnings goals set out in the Third

Plan were not met. In the Fourth Consolidated Medium-Term Management Plan for Fiscal 2010–2012, the Group will establish the business base and reinforce the financial base for sustainable growth by returning the oil refining and marketing business to profitability and enhancing the portfolio of petrochemical and oil exploration and production businesses.

#### Basic Policy, Earnings, and Financial Goals of the Fourth Consolidated Medium-Term Management Plan

Basic Policy 1

Return oil refining and marketing business to profitability

Basic Policy 2

Enhance the portfolio of petrochemical and oil exploration and production businesses

Basic Policy 3

Maintain and promote CSR and environmental management

#### ■ FY2012 Consolidated Earnings Goals

Net Sales	¥2,643 billion
Operating Income	¥69 billion
Ordinary Income	¥65 billion
Net Income	¥33 billion

#### ■ FY2012 Management Index Goals

Return on Equity (ROE)	9.1%
Shareholders' Equity Ratio	25.4%
Debt-to-Equity (D/E) Ratio	1.6 times
Net D/E Ratio	1.3 times

#### Basic Policy 1

#### Return Oil Refining and Marketing Business to Profitability

#### 1. Rationalization

- Right-sizing of workforce
- Keep a good balance between "safe operations" and "repair and maintenance cost reduction"

#### 2. Oil refining

- "Reduce crude oil procurement cost" and "improve product mix" through maximum use of the heavy oil cracking (coker) facilities
- Maximize the supply-demand balancing mechanism through appropriate operations of the refineries

#### 3. Oil sales in Japan

- Improve the distilled product structure for sale
- Secure appropriate margins in both distribution and wholesale

#### 4. Oil sales outside of Japan

• Expand stable sales channels in the Asian and Pacific Rim region

#### Basic Policy 2

#### Enhance the Portfolio of Petrochemical and Oil Exploration and Production Businesses

#### 1. Petrochemical Business

- Establish new mixed xylene (MX) manufacturing facilities (300 kilotonnes/year)
- Start building new para-xylene (PX) manufacturing facilities (800 kilotonnes/year)

#### 2. Oil Exploration and Production Business

- Obtain renewal of Abu Dhabi Oil's concession
- Start commercial production in the A-Structure South Oil Field being developed by Qatar Petroleum Development Co., Ltd.
- Start early production in the Audacious and Tenacious oil fields off the coast of Australia.

#### 3. Environmental and Renewable Energy Businesses

- ALA: Accelerate commercialization and enhance sales and marketing power
- Wind power generation: Enter the market on a full scale by acquiring stock in Eco Power Co., Ltd.
- Solar photovoltaic power generation: Establish the low-cost production technology for polysilicon
- Concentrated solar power (CSP) generation: Verify feasibility of commercialization

#### Basic Policy 3

#### Fiscal 2010 Initiatives and Results under the Third Consolidated Medium-Term CSR Management Plan (Fiscal 2010-2012)

	Priority Items	Themes	Major Activity Policy/Goals
		Strengthen structures for improving implementation	Review the appointment and duties of personnel in charge of CSR promotion to enhance the Group's CSR promotion system
	Improve functioning of CSR promotion structure	Further increase recognition and understanding of Code of Conduct	Continue regular internal training     Implement monitoring (CSR Status Survey)
		Promote efficient operations in conformity with company rules and manuals	Standardize and simplify business operations by using internal infrastructures, and strengthen information management
듩		Restructure risk management structure	Identify risks on a company-wide basis and establish countermeasures     Conduct continual education and training on business continuity plan (BCP)
CSR Management Plan	Strengthen safety management (Third Consolidated Medium-	Raise safety level by setting quantitative targets for reducing	Refineries and Cosmo Matsuyama Oil Co., Ltd.: Achieve and maintain a record of zero accidents: Reduce unsafe and failure incidents by 90% or more from the benchmark year (Sep. 2006–Aug. 2007) by 2010
nagem	Term Safety Plan)  → See p. 30 for more details.	accidents, assessing results and making improvements	Other departments (offices/Group companies): Continue and develop safety management activities to meet specific objectives, i.e., reduce or eliminate work-related injuries, reduce or eliminate accidents/incidents
R Ma	Enhance human rights/	Respect human rights: Prevent harassment and eliminate discrimination	<ul> <li>Achieve participation rate of 80% or more in human rights training for Cosmo Oil employees (including those temporarily dispatched; excluding shift workers)</li> </ul>
S	personnel policies	Respect diversity/equal opportunity: Maintain fairness in hiring	Maintain and improve employment rate of people with disabilities (higher than the legally mandated rate of 1.8%)
	(Third Consolidated Medium-Term Human Rights/ Personnel Plan)	Promote physical and mental health care: Prohibit overwork and implement specified health exams	Gradually decrease excessive working hours (350 working hours per year)
I-mn	→ See p. 31 for more details.	Support balance between work and home life: Promote childcare and family healthcare leave and support leisure activities	Maintain or improve the average paid time off utilization rate of employees (excluding shift workers) (Cosmo Oil: 80% or more, Group companies: improve current records)
Third Consolidated Medium-Term		Respond strategically to prevent global warming while ensuring continuation of business	Reduce CO <sub>2</sub> by amount equivalent to approx. 3% (220 kilotonnes) or more of annual emissions in Group's business areas (crude oil extraction, crude oil transport, refining, and product transport and storage at oil depots) by fiscal 2012 (compared to level before implementation of measures). Reductions achieved by the wind power generation business will be included in overall amount.      Control the volume of greenhouse gas emissions in manufacturing, product transport and storage processing as well as in offices and the R&D Center.
Third Cons	Promote environmental initiatives (Fourth Consolidated Medium-Term Environment Plan)  See p. 34 for more details.	Reduce environmental impact	Identify environmental risks that may arise at times of normal operations and times of irregular operations; implement response measures for each     Reduce industrial waste: achieve final disposal rate of less than 0.5% at Cosmo 0il and less than 5.0% in total at target companies¹     Enhance internal/external audits for thorough environmental management     Adopt rigorous measures to ensure soil preservation     Promote Eco Office activities (Group-wide goal: Reduce copy paper by 9%, company car fuel consumption by 6%, and office electricity consumption by 7% from the averages of fiscal 2007–2009)     Promote green purchasing
		Promote environmental contribution activities	Promote environmental contribution activities through Cosmo Oil Eco Card Fund     Protect biodiversity
	Promote communication activities that respond to society	Establish effective communication activities based on stakeholder feedback	Maintain communication with all stakeholders, including customers, local communities, shareholders, investors and societies around the world

<sup>1.</sup> Target companies include Cosmo Oil Co., Ltd., Cosmo Engineering Co., Ltd., Cosmo Matsuyama Oil Co., Ltd., Cosmo Oil Lubricants Co., Ltd., Cosmo Petroleum Gas Co., Ltd., and Hokuto Kougyo Co., Ltd.

# Fiscal 2010 Initiatives and Results under the Fourth Consolidated Medium-Term Management Plan and Third Consolidated Medium-Term CSR Management Plan

#### Ordinary Income of ¥96.1 Billion Achieved in Fiscal 2010

The Cosmo Oil Group has focused on improving margins by appropriately balancing oil product supply and demand and rationalizing business operations. The Group has strengthened its earnings base by leveraging the Sakai Refinery coker facilities, which launched full operation in October 2010, and also by establishing

a proper petroleum supply-demand balance and expanding its oil exploration business. The earnings acquired through these measures will be allocated for capital investment designed to spur future growth and for paying down interest-bearing debt in order to further strengthen the Group's financial position and earnings base.

#### Fiscal 2011 Management Policy

#### Management Policy

- Ensure stable supply of energy
- Maintain and enhance the earnings base for the oil refining and marketing and sales business
- Increase profit in the oil exploration and production business

#### Supplies

- Increase production at three existing refineries in West Japan to support product supply
- Restore Chiba Refinery operations as soon as possible by giving the top priority to ensuring safe operations
- Expand earnings by operating coker facilities

#### Sales

Respond to demand related to reconstruction from the earthquake and secure right margins

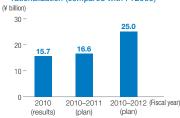
#### Oil Exploration and Production

■ Make the maximum use of benefits from higher crude oil prices through increased oil production

## Rationalization Initiatives Efforts to rationalize and increase

efficiency across the entire Cosmo Oil Group, as well as reduced promotional expenses due to the earthquake, resulted in a reduction of ¥15.7 billion in expenses in fiscal 2010.

# ■ Accumulated results of three years of rationalization (compared with FY2009)



# Oil Refining and Marketing Initiatives

The Cosmo Oil Group aims to expand earnings by maximizing the use of coker facilities to address changing demand structures. In terms of its marketing of oil products, the Group is focused on establishing a proper petroleum supply-demand balance and ensuring more stable margins.



Delayed coker (heavy oil cracking facility)

#### **Petrochemical Initiatives**

To meet growing demand in newly emerging countries for para-xylene (PX), a raw material for making PET resin the Cosmo Oil Group has established HC Petrochem Co., Ltd. (HCP), a joint venture with Hyundai Oilbank Co., Ltd. in South Korea, to go into the PX business. The new facilities, which will operate the world's largest production line at 1,180,000 tonnes a year, are planned for completion in 2013.



Para-xylene (PX) manufacturing facilities

#### **New Business Initiatives**

The Group is also pursuing environment-related businesses in order to establish a foundation for future growth.

- ALA (5-aminolevulinic acid)
- · Wind power generation
- Solar power generation
- Concentrated solar power (CSP) generation



Penta Garden (liquid fertilizers containing ALA)

Degree of achievement:  $\bigcirc$  Achieved  $\triangle$  Partially achieved  $\times$  Not achieved

Fiscal 2010 Initiatives and Results	Achievement of Goal	
<ul> <li>CSR Promotion Committee verified fiscal 2010 CSR performance and issues and adopted policy on activities to start in fiscal 2011</li> <li>Appointed 64 employees to be responsible for CSR promotion and 91 employees to be in charge of promotion initiatives</li> </ul>		
<ul> <li>Implemented internal corporate ethics training from October to December (3,611 participants)</li> <li>Implemented CSR Status Survey in February 2011 (4,828 respondents)</li> </ul>		
<ul> <li>Streamlined business operation flow in September with improvements to online approval database</li> <li>Conducted information management in April by converting hard copies of the list of important documents to a digital database</li> </ul>		
Identified risks on company-wide basis and reevaluated countermeasures from March to May     Conducted education and training on BCP in September		
Refining and manufacturing: Recorded continual decrease since 2008 in number of unsafe and failure incidents at refineries and Cosmo Matsuyama 0il Co., Ltd. (143 in 2008 → 126 in 2009 → 99 in 2010).		
<ul> <li>Distribution: 2 mixing-oil accidents at Cosmo Delivery Service Co., Ltd.; 1 marine oil spill at Cosmo Kaiun Co., Ltd.; 0 ships run aground</li> <li>Marketing and other departments: 0 work-related injuries at Marketing Dept.; 2 accidents at Project Development Dept.; 2 incidents at R&amp;D Dept.</li> </ul>		
Participation rate in human rights training: 83%		
2.2% rate achieved at Cosmo Oil		
Decreased the number of employees working excessively long hours to 359 (167 less than in fiscal 2009)		
Cosmo Oil fell short of goal at 78.4%; 13 of 18 Group companies improved records.		
<ul> <li>Reduced CO<sub>2</sub> emissions by 240 kilotonnes</li> <li>Submitted report summarizing greenhouse gas emissions in accordance with Japan's Act on the Rational Use of Energy and Act on Promotion of Global Warming Countermeasures</li> </ul>	i	
<ul> <li>Identified 10 risks and considered precautions (Precautions completed for one risk and under ongoing consideration for 9 risks)</li> <li>Achieved final disposal rate of less than 0.5% at Cosmo Oil and less than 2.9% in total at target companies¹</li> <li>Conducted internal/external audits and environmental inspections</li> <li>Took actions as planned (cleanup at 28 service stations)</li> <li>Achieved goals for copy paper and company vehicle fuel; did not achieve goal for office electricity</li> <li>Achieved 100% green purchasing for specified items</li> </ul>	Δ	
Continued to implement 11 Cosmo Oil Eco Card Fund projects; selected 4 new projects     Measured impact of business operations on biodiversity in business areas and formulated action policy		
Improved CSR evaluation in "Filling Up Your Hearts, Too" Declaration 2011 activities over the previous year     Implemented Cosmo Forest activities in Ichihara, Sakai and Matsuyama cities     Sent 1,804 cards as part of the Christmas Card Project	0	

#### **Corporate Governance**

In line with the Cosmo Oil Group Management Vision and Code of Conduct, the Group works to raise management transparency and efficiency, rapidly execute business, and implement thorough risk management and compliance. Having adopted a corporate auditor system, the Group has a Board of Directors, Executive

Officers' Committee, and Executive
Advisory Council, a structure which
separates the functions of (1)
management decision-making and
supervision, (2) execution of duties, and
(3) performance evaluation of directors.
Moreover, management oversight has
been enhanced through the attendance of
corporate auditors at important meetings,
including those of the Board of Directors.

# General Meeting of Shareholders Election and dismissal Board of Corporate Auditors Election and dismissal Board of Directors Election and dismissal President Independent audit Independent Auditor Auditor Officers' Meeting

#### **Internal Controls**

The Como Oil Group maintains a structure for the execution of duties by directors and employees, systems for risk management and internal auditing to support the execution of duties, and systems to ensure effective auditing by corporate auditors. In addition, the CSR Promotion Committee handles all activities related to Group-wide CSR and internal control under the direct supervision of the president, while ensuring that CSR management information is shared in a timely manner with Group companies.

#### **Internal Control System**



#### Creating a Structure for Corporate Ethics Compliance

The Cosmo Oil Group Corporate Ethics Committee determines, promotes, implements, and monitors basic corporate ethics guidelines, while the Corporate Ethics Promotion Office undertakes activities to complement the Committee's initiatives. The Group established a Corporate Ethics Consultation Helpline under the Corporate Ethics Promotion Office and operates it in compliance with Japan's Whistleblower Protection Act in order to facilitate the early discovery and resolution of corporate ethics problems.

At each refinery, the Refinery Compliance Committee, headed by the refinery general manager, works to ensure full compliance.

#### Initiatives to Instill a Culture of Safety

Prompted by an explosion and fire at the Chiba Refinery in 2006, the Cosmo Oil Group made a fundamental review of its safety management system and safety awareness efforts, and has undertaken safety management initiatives aimed at achieving zero accidents. In addition to hardware aspects such as equipment servicing and improvement and software aspects such as the revision of procedure manuals, the Group believes it is important for each and every employee to take action with awareness of safety to prevent accidents caused by human error and achieve zero accidents.

To lay this foundation, the Group strove to establish a culture of safety through voluntary safety initiatives<sup>1</sup> and Cosmo Oil Small Group Initiatives,<sup>2</sup> and also through efforts to strengthen its zero-accident campaign<sup>3</sup> as an initiative to create a corporate culture of action with awareness of safety. Together with the Japan Industrial Safety & Health Association, the Group held training sessions for 2,800 people, including employees of business partners, in order to practice safety with correct understanding of principles and techniques. In addition to principles, expectations for the establishment of a culture of safety within the Group were shared with all employees.

While a culture of safety can be created in this way by steadily putting into practice each initiative one by one, it is not something that can be accomplished in one or two years of effort. Some positive results had started to appear with accidents declining for several years. However, a fire and explosion occurred at the Chiba Refinery with the Great East Japan Earthquake of March 11, 2011, causing many people a great deal of concern. The Group set up an accident investigation committee, which reported on the circumstances and causes of the accident as well as recurrence prevention measures in August 2011. The Group will work seriously on the recurrence prevention measures and continue with its initiatives aimed at establishing a culture of safety.

- Voluntary on-site initiatives aimed at early discovery of abnormalities, maintenance and management of equipment, improvement of safety sensitivity, strengthening of safety management, and promotion of skill acquisition and transmission.
- Cosmo Oil Small Group Initiatives are voluntary initiatives in small groups formed in the workplace to achieve the objectives of Cosmo Oil Group's management policies.
- A campaign aimed at creating a bright and vibrant corporate culture by engaging everyone in resolving workplace dangers and problems.

#### Third Consolidated Medium-Term Safety Plan

Since fiscal 2005, the Cosmo Oil Group has carried out the Consolidated Medium-Term Safety Plan on a three-year basis to eliminate work-related accidents and injuries. Under the Plan, the Group implements initiatives for each stage of business (production, distribution and sales).

Launched in fiscal 2010, the Third Consolidated Medium-Term Safety Plan was designed to further improve safety based on a vision of diligently promoting a zero-accident record and initiatives with the aim of building a safe and secure Cosmo Oil Group that is a source of employee pride and is trusted by society.

#### Fiscal 2010 Initiatives and Results under the Third Consolidated Medium-Term Safety Plan



Degree of achievement:  $\bigcirc$  Achieved  $\triangle$  Partially achieved  $\times$  Not achieved

		Divisions	Fiscal 2010 Goals	Fiscal 2010 Results	Achievement of Goal
	and	4 refineries and Cosmo Matsuyama Oil Co., Ltd.	Reduce unsafe and failure incidents by 90% or more from the benchmark year¹ by 2010 (meaning 11 or less incidents)	Unsafe and failure incidents: 99 (10% reduction from benchmark year¹)	×
듩	Refining manufact	Cosmo Oil Lubricants Co., Ltd. (manufacturer of lubricating oil)	Achieve target of zero work-related injuries     Reduce accidents/incidents by 30% over previous year	Work-related injuries: 0     Accidents/incidents: 15 (same as previous year)	Δ
Safety Plan		Cosmo Petroleum Gas Co., Ltd. (LPG storage/delivery)	Maintain zero accidents/incidents	Accidents/incidents: 0	0
		Cosmo Delivery Service Co., Ltd. (ground shipments)	Eliminate oil-mixing accidents to zero     Encourage employees to report near-miss accidents, with a target of 10,000 reports	Oil-mixing accidents: 2 Near-miss accident reports: 23,000	Δ
ım-Te	noi	Cosmo Kaiun Co., Ltd. (sea shipments)	Maintain zero accidents involving marine oil spills/ships run aground     Reduce equipment failure to 50% of benchmark year (2008)	Marine oil spills: 1; ships run aground: 0     67% reduction in equipment failures to 5 incidents	Δ
Mediu	Distribution	Oil depots	Maintain zero work-related injuries     Limit the number of fires/oil spills to less than 2 incidents per year	Work-related injuries: 0     Oil spill: 1	0
Third Consolidated Medium-Term	Dis	Crude Oil & Tanker Dept.	Complete action plan	Held safety meetings and shared information     Made decisions on safe plying in each case based on a variety of information	Δ
Sonso		Petroleum Products Trading Dept.	Achieve target of zero serious accidents relating to ship movements	Serious accidents relating to ship movements: 0	0
ġ Q	S	Service Station Dept.	Maintain zero work-related injuries in service station construction	Work-related injuries: 0	0
Ŧ	s and perations	Project Development Dept. (co-generation, etc.)	Achieve target of no more than one accident a year	Accidents: 2	×
	ales a	R&D Dept.	Achieve target of no more than one incident per year	• Incidents: 2	×
	Sal other	Research and Development Center	Maintain zero work-related injuries     Reduce number of accidents/incidents against previous year	Work-related injuries: 0     Accidents/incidents increased 37% over previous year to 74 cases	Δ
	0	Cosmo Engineering Co., Ltd.	Steadily reduce work-related injuries to zero	Same number of work-related injuries over previous year (31)	×

Benchmark year: September 2006–August 2007

#### **Building a Group-Wide Safety Management Structure**

The Cosmo Oil Group has established the Comprehensive Safety Action Headquarters Committee to manage safety throughout the entire Group. The Committee reviews and coordinates important matters related to safety management at regular meetings each year and verifies the status of safety management in each department and workplace.

#### Safety Management System



#### **Safety Inspections**

The Cosmo Oil Group conducts annual safety inspections at workplaces and the Head Office departments that oversee these workplaces. In fiscal 2010, safety inspections were conducted at 13 workplaces/ departments including four refineries. Especially in the inspection of refineries, efforts are made to enable more effective, higher improvements and guidance from a third-party perspective by including personnel from other refineries in addition to the Head Office among the internal inspectors.

#### Workplaces/Companies Given Safety Inspections in Fiscal 2010

Cosmo Oil				
Chiba Refinery	Sakaide Refinery	Distribution Department		
Yokkaichi Refinery	Research & Development Center	Project Development Department		
Sakai Refinery	Sales Department	R&D Department		

Group companies			
Cosmo Oil Lubricants Co., Ltd.			
Cosmo Petroleum Gas Co., Ltd.			

#### Third Consolidated Medium-Term Human Rights/Personnel Plan

The Cosmo Oil Group is striving to create workplaces that respect human rights and the diversity of personnel. Introduced in fiscal 2010, the Third Consolidated Medium-Term Human Rights/Personnel Plan is divided into shared Group themes on which Cosmo Oil and its main Group companies (18 companies) work, and individual themes in which initiatives differ according to the number of employed workers at each company. Shared Group themes were narrowed down to four from the six that were set out in the Second Plan: respect for human rights, respect for diversity and equal opportunity, promoting physical and mental health care, and supporting balance between work and home life.

Fiscal 2010 Initiatives and Results under the Third Consolidated Medium-Term Human Rights/Personnel Plan

$\Diamond$	
$\bigcirc$	

		Degree of achievement: ○ Achieved △ Partially achieved × Not achieve				
		Т	hemes	Fiscal 2010 Goals	Fiscal 2010 Results	Achievement of Goal
m-Term	Themes	Respect human rights	Prevent harassment, eliminate discrimination	Achieve participation rate of 80% or more in human rights training for Cosmo Oil employees (including those temporarily dispatched; excluding shift workers)	Participation rate in human rights training: 83%	0
Mediu	Group 7	Respect diversity/equal opportunity	Maintain fairness in hiring	Maintain and improve employment rate of people with disabilities (higher than the legally mandated rate of 1.8%)	Employment rate of people with disabilities: Fiscal 2009 2.1% → Fiscal 2010 2.2%	0
idated jhts/Pe	nared (	Promote physical and mental health care	Prohibit excessive overwork and implement specified health exams	Gradually decrease excessive working hours (350 working hours per year)	Persons working excessively long hours: 359 (167 less than in fiscal 2009)	0
Fhird Consolidated Medium-Term Human Rights/Personnel Plan	IS	Support balance between work and home life	Promote childcare and family healthcare leave and support leisure activities	Average paid time off utilization rate of employees (excluding shift workers):  Cosmo Oil: 80% or more Group companies: Improve current record	Cosmo Oil: 78.4%     Group companies: Improvements at 13 of 18 target companies	×
Third	Individual themes	Comply with Act on Advance Raising Next-Generation Ch	ement of Measures to Support ildren	Establish an action plan required for general business owners and notify the authorities	Plan establishment or notification completed at five target companies	0

#### **Promoting Work-Life Balance**

The Cosmo Oil Group is committed to creating positive, dynamic work environments for employees. With respect for diversity in terms of life and work styles being emphasized in recent years, the necessity of efforts that address work-life balance has been growing. The Cosmo Oil Group respects each employee's set of values and approach to life. The Group is therefore promoting initiatives designed to help employees maintain a healthy work-life balance so that they can achieve their desired lifestyles.

Number of Cosmo Oil Employees (as of March 31, 2010)<sup>1</sup>

1	$\bigcirc$

		Men	Women	Total
	Union members	1,470	229	1,699
Cosmo Oil	Management positions	354	4	358
Cosmo Oii	Senior employees	75	3	78
	Subtotal	1,899	236	2,135
	Union members	745	95	840
Dispatched	Management positions	286	0	286
to Group companies <sup>2</sup>	Senior employees	6	1	7
Companico	Subtotal	1,037	96	1,133
Total		2,936	332	3,268

Number of Employees Taking Maternity and Childcare Leave and Support Courses for Returning to Work; and Child Care Leave Rate<sup>1</sup>



	Fiscal 2010		Fiscal 2009		Fiscal 2008	
	Men	Women	Men	Women	Men	Women
Maternity leave	0	4	0	6	0	5
Childcare leave <sup>2</sup>	2 (2)	5 (9)	2 (2)	4 (10)	1 (1)	7 (12)
Support course for returning to work	0	4	0	2	0	7
Childcare leave rate (%)	_	75%	_	100%	_	100%

### Respect for Human Rights (2)

The Cosmo Oil Group has a number of policies regarding respect for human rights. The Third Consolidated Medium-Term Human Rights/Personnel Plan includes the themes of preventing harassment and eliminating discrimination. To achieve those goals, the Group decided to continue implementing annual human rights training sessions in each workplace. A goal of an 80% or more participation rate in training sessions was set in the Medium-Term Plan, and in fiscal 2010 a result of 83% was achieved. This goal attainment is attributed to holding the human rights training sessions on the same day as other ethics training sessions, based on feedback from last year's attendees, and the rise in employees' desire to participate in ethics training overall, including sessions on human rights. In fiscal 2011, the Group will strive to further boost the participation rate to ensure that these training sessions foster Group-wide respect for human rights.

Detailed information Consolidated Medium-Term Human Rights/Personnel Plan www.cosmo-oil.co.jp/eng/csr/social/employee.html

1. Data excludes workers seconded from outside organizations

- 1. Data covers employees at Cosmo Oil Co., Ltd. (including those temporarily dispatched).
- 2. Figures show the number of employees who applied for leave in the corresponding fiscal year and figures in parentheses show the number of employees who took leave.

#### Respect for Diversity and Equal Opportunity (

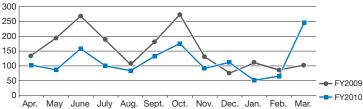
As a policy for achieving respect for diversity and equal opportunity for human resources, the Cosmo Oil Group made continuation of fair employment practices a theme and set the goal of maintaining and improving the employment rate of people with disabilities. Not only did the Group achieve the legally mandated rate of 1.8% or more in the employment rate of people with disabilities, it increased the rate from 2.1% in fiscal 2009 to 2.2% in fiscal 2010. The Group will continue to roll out a variety of measures with the aim of creating workplace environments where diverse human resources can demonstrate their different abilities to the full extent.

#### Protecting Employee Health by Reducing Long Working Hours

In the Third Consolidated Medium-Term Human Rights/Personnel Plan, the Cosmo Oil Group included the theme of prohibiting excessive overwork and implementing specified health exams in order to maintain employee health. The Group is making efforts to decrease excessive working hours gradually. Cosmo Oil sets limits on the number of overtime hours on a monthly and yearly basis. In fiscal 2010, the number of employees working long hours on a yearly basis decreased by 167 from the previous year to 359. A lot of overtime work occurred in December 2010 when power flickers (power disruptions caused by momentary power reductions) were caused by Chubu Electric Power Co., Inc., and in March 2011 as a result of the Great East Japan Earthquake. Keeping a record of working hours and holding individual discussions with employees resulted in a thorough awareness of improvements in each department in other months. The Group will continue implementing similar measures.

#### Number of Workers Exceeding Fixed Hours for Overtime Work in a Month





#### **Brand Support Declaration**

In addition to its existing "Filling Up Your Hearts, Too" Declaration activities, the Cosmo Oil Group is making a more concrete and practical Brand Support Declaration in order to strengthen the functions of its service stations, which are the point of direct contact between the Group and customers.

- O Provision of practical know-how backed by a record of experience
- © Product development with an eye to the future and dissemination of the latest retail information
- © Provision of systems to support customer management and service station operations distinctive of the Cosmo Oil brand

Through concrete efforts based on these three commitments, the Cosmo Oil Group aims to increase the fulfillment of its "Filling Up Your Hearts, Too" Declaration and to create a brand that is highly regarded by stakeholders.

#### The Three Promises of the "Filling Up Your Hearts, Too" Declaration





Promise 3

Trust

Value in the market Customer comfort, peace of mind and trust

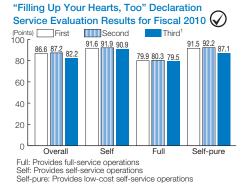
Responsibility as a member of society

#### **Service Evaluations Monitor Three Promises**

Cosmo Oil service station staff will be responsible

for their answers to customers' queries

The Cosmo Oil Group focuses intently on customer satisfaction. The Group surveys its customers to assess the level of comfort, peace of mind and trust provided by service stations and review the fulfillment of the Three Promises made to customers. In fiscal 2010, three service evaluation surveys were carried out at approximately 1,400 service stations. The results of the evaluations were used to provide feedback to the service stations for the purpose of improving services.

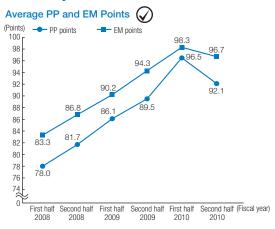


conducted at service stations whose scores were less than 90 points at the first and the second surveys

1. The third survey was

#### **Current CSR Status in Service Stations Surveyed**

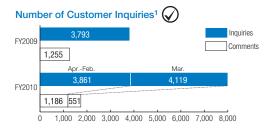
The Cosmo Oil Group conducts a privacy policy (PP) survey and an environment management (EM) survey annually to ensure that the entire Group is in compliance with the laws and ordinances that regulate service stations and other CSR matters. The survey results are incorporated to make necessary improvements in specific areas. The results are based on replies to a survey sheet, 100 points being a perfect score. In fiscal 2010, some 1,400 service stations participated in these surveys. Cosmo Oil service stations scored an average of 98.3 EM points (up 8.1 points year on year) and 96.5 PP points (up 10.4 points year on year) in the first half of the fiscal year, and 96.7 EM points (up 2.4 points year on year) and 92.1 PP points (up 2.6 points year on year) in the second half of the fiscal year, showing a big improvement in both categories.



#### 1. Affected by the Great East Japan Earthquake, the number of inquires received in March 2011 was over 4.000. a dramatic increase of more than 10-fold the monthly average

#### **Ensuring Customer Support**

The Cosmo Oil Group has established the Cosmo Oil Customer Center to facilitate greater interaction with customers. Since October 2010 the Center has been open to telephone inquiries 24 hours a day. Customer feedback is used to help improve service and business procedures.



#### **Promoting International Technology Exchanges**

The Cosmo Oil International Cooperation Center maintains and develops good relationships with oil-producing and developing nations through technology exchanges. These efforts have earned the Center high praise from the countries with which it conducts the exchanges. The Center also utilizes assistance programs offered by the Japan Cooperation Center, Petroleum (JCCP) and other organizations when conducting training projects.

#### Main Activities in Fiscal 2010 (



In line with its basic policy of strengthening relationships through technology cooperation with Middle Eastern oil-producing and Asian nations, the Cosmo Oil Group conducted technology cooperation and training projects in fiscal 2010. As a technology cooperation project, the Group participated in the Study for Process and Operational Improvement at Refinery in Oman, which was a JCCP-led project to develop oil industry infrastructure in oil-producing nations. In the area of training projects, the Group accepted trainees for 20 sessions and dispatched instructors for four sessions, working with 11 organizations in six countries (UAE, Qatar, Iran, China, Vietnam, and Thailand). Additionally, it conducted 12 training programs under the direct management of the JCCP.

Number of Training Projects Conducted in Fiscal 2010

Country		Organization	Incoming training	Dispatch training
		ADNOC Distribution	1	
	UAE	Abu Dhabi Oil Refining Company (TAKREER)	2	1
		Higher College of Technology	1	
Middle Eastern oil-	Qatar	Qatar Petroleum	2	1
producing nations	Qalai	Qatar University	1	
	Iran	National Iranian Oil Refining & Distribution Company	1	
		Subtotal	8	2
Other oil-producing nations	Vietnam Petrovietnam		3	1
		China National Petroleum Corporation	3	
	China	China Petroleum & Chemical Corporation (Sinopec)	3	1
Other nations		Sinopec Shanghai GaoQiao Petrochemical Corporation	2	
	Thailand	Bangchak Petroleum Public Co., Ltd.	1	
		Subtotal	9	1
Total	Total			4

**Number of Training Programs** 

Field	Programs	(Middle Eastern oil- producing nations)
Technology	21	(8)
Marketing	1	(1)
Personnel and administration	1	(1)
Lubricant	1	(1)

#### Number of Trainees Per Program

Training or or realistate or or regions.		
Country	Trainees	
Middle Eastern oil- producing nations	5.4	
Other oil-producing nations	11.7	
Other nations	12.4	

# **Environmental Report**

#### Fourth Consolidated Medium-Term Environmental Plan

The Cosmo Oil Group launched its first initiatives under its Consolidated Medium-Term Environmental Plan in fiscal 2002. In fiscal 2010, the Group introduced its Fourth Consolidated Medium-Term Environmental Plan based on the following policies: respond strategically to prevent global warming while ensuring continuation of business, reduce environmental impact, and promote environmental contribution activities.

#### Fiscal 2010 Initiatives and Results under the Fourth Consolidated Medium-Term Environmental Plan



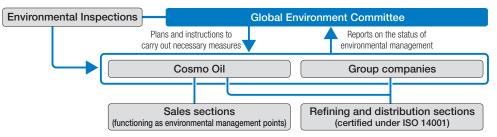
Degree of achievement:  $\bigcirc$  Achieved  $\triangle$  Partially achieved  $\times$  Not achieved

		Themes	Fiscal 2010 Goals	Fiscal 2010 Results	Achievement of Goal
an	Respond strategically to prevent global warming while ensuring continuation of business	Reduce CO <sub>2</sub> emissions	Make progress toward fiscal 2012 goal (reduce CO <sub>2</sub> by 220 kilotonnes per year compared to level before implementation of measures) (1) Reduce CO <sub>2</sub> in business areas (energy savings in refineries, bio-gasoline, etc.) (Anticipated reduction of 88 kilotonnes) (2) Develop wind power generation business (equivalent to reduction of 146 kilotonnes of CO <sub>2</sub> ) (3) Conduct environmental technology development and commercialization study aimed at future CO <sub>2</sub> reductions	Reduced CO <sub>2</sub> by about 240 kilotonnes (1) Reduced CO <sub>2</sub> by about 96 kilotonnes (2) Reduced CO <sub>2</sub> by 140 kilotonnes from wind power generation business (3) Conducted environmental technology development and commercialization study aimed at future CO <sub>2</sub> reductions	0
	Respond stra global warn continua	Manage greenhouse gas emissions	Control the volume of greenhouse gas emissions in manufacturing, product transport and storage processing as well as in offices and the R&D Center	Continued to control the volume of greenhouse gas emissions in the specified areas     Compiled a report on greenhouse gas emissions pursuant to Japan's Energy Conservation Act and Global Warming Prevention Act	0
ironmental P		Identify environmental risks that may arise at times of normal operations and times of irregular operations; implement response measures for each	Consider precautions for times of normal operations and times of irregular operations in which there is no leeway in regulation and agreement values at refineries	Identified 10 risks and considered precautions (Precautions completed for one risk and under ongoing consideration for 9 risks)	0
Fourth Consolidated Medium-Term Environmental Plan	mpact	Reduce industrial waste	Final disposal rate: less than 0.5% for Cosmo Oil, less than 5.0% for entire Group     Introduce electronic manifests	Final disposal rate: 0.5% for Cosmo Oil, 2.9% for entire Group     Conducted survey aimed at introduction of electronic manifests at refineries without them during current medium-term plan	0
	onmental i	Enhance internal/external audits for thorough environmental management	Continue ISO internal/external audits and environmental inspections in each workplace	Conducted internal/external audits and environmental inspections; environmental management was generally good     One legal/regulatory violation (related to air); reported to local authorities; corrective action taken	Δ
	Reduce environmental impact	Adopt rigorous measures to ensure soil preservation	Continue environmental monitoring and facilities management at refineries, oil depots, and Cosmo Oil service stations     Take actions according to equipment renovations and complete soil environment surveys at Cosmo Oil service stations with outdated equipment	Cosmo Oil service stations: Took actions as planned (surveys at 64 service stations, cleanup at 28 service stations, of which measures completed at 19 service stations) Refineries: Actions being taken in sequence	0
Fourth	ď	Promote Eco Office activities	Conduct energy- and resource-saving actions throughout the Cosmo Oil Group	Achieved goals to a large extent for copy paper and fuel consumption of company vehicles     Did not achieve goal for electricity use in offices, as air conditioner use increased with heat waves (goal achieved for Cosmo Oil alone)	Δ
		Promote green purchasing	Reconsider specified items (office supplies) and purchase 100% from selected specified items at each Group company	Practiced 100% green purchasing of specified items at each Group company	0
	nental vities	Promote environmental communication	Promote environmental contribution activities through Cosmo Oil Eco Card Fund	Continued supporting 11 projects and decided to support four new projects	0
	Promote environmental contribution activities	Protect biodiversity	Survey impact on biodiversity in business area and establish initiative policy     Conduct initiatives to protect public woodlands near workplaces     Conduct projects through the Cosmo Oil Eco Card Fund with the aim of protecting biodiversity	Measured impact on biodiversity in business areas     Conducted a total of six initiatives to protect public woodlands near workplaces     Conducted projects through the Eco Card Fund with the aim of protecting biodiversity (Qin Ling Mountains Forest and Ecosystem Recovery Project, Seed Planting School, and support for South Pacific nations)	0

#### **Cross-Sectional Environmental Management Structure**

The Cosmo Oil Group has established a unique environmental management system centered on the Global Environment Committee, a body that cuts across the Group and departments. The Global Environment Committee drafts the Consolidated Medium-Term Environmental Plan, reports on and evaluates plan results, and provides feedback to specified departments. Through this structure the Group encourages all employees to voluntarily engage in environmental action and shares actions taken throughout the Group, from the front lines to the management level.

#### **Environmental Management System**



#### Environmental Management Systems Based on ISO 14001 in Each Workplace

The Cosmo Oil Group has obtained ISO 14001 certification at 10 workplaces, including four refineries, focusing on workplaces with a large environmental impact. Each workplace has incorporated the Consolidated Medium-Term Environmental Plan into its business objectives and is taking initiatives aimed at accomplishing goals systematically. Additionally, the Group periodically checks to see if the system is functioning reliably by performing internal audits and external audits by certification bodies to verify that actions are taken in accordance with the PDCA cycle.

#### Workplaces with ISO Certification

$\bigcirc$		
	Date	
	luna	

Workplace	Date certified
Sakaide Refinery	June 1997
Chiba Refinery	March 1998
Yokkaichi Refinery	March 1998
Sakai Refinery	March 1998
Cosmo Matsuyama Oil Co., Ltd.	December 1998

Workplace	Date certified
Cosmo Oil Lubricants Co., Ltd. Shimotsu Plant	June 2003
Cosmo Kaiun Co., Ltd.	August 2003
Cosmo Oil Lubricants Co., Ltd. Osaka Plant	October 2003
Yokkaichi LPG Terminal	September 2006
Research & Development Center	December 2006

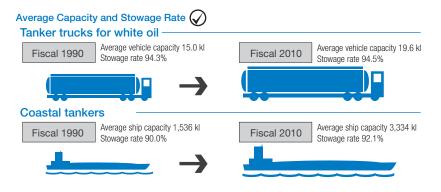
#### Saving Energy in Distribution Divisions 🕢

In fiscal 2010, unit energy consumption in the transport<sup>1</sup> sector at Cosmo Oil alone was 8.76 kiloliters/million tonne-kilometers (kl/Mt-km), a 0.09 kl/Mt-km improvement over the previous fiscal year. The Company engaged in the transport of 6,139 Mt-km of freight, which is a reduction to 98.4% of the volume transported in the previous fiscal year. Energy usage was 53,757 kiloliters of crude oil equivalent, which is a bigger reduction to 97.4% of the amount used in the previous. This resulted in a reduction of unit energy consumption.

The Cosmo Oil Group continues to implement energy conservation initiatives in ground transport by utilizing large tanker trucks and maintaining high stowage rates by consolidated loading. The transport volume per vehicle stood at 17.85 kiloliters per delivery, an improvement of 0.3 kiloliters per delivery, year on year. Unit energy consumption was 36.42 kl/Mt-km, an improvement of 0.52 kl/Mt-km over the previous year. Real energy usage (diesel) also declined, to 96.3% of the previous year. To further conserve energy, the Group will focus on systematic delivery, one-stop unloading and other means of raising efficiency.

The Group also continues to focus on the use of large coastal tankers and maintaining high stowage rates for marine transport activities. Unit energy consumption in marine transport was 6.14 kl/Mt-km, an improvement of 0.05 kl/Mt-km year on year. In fiscal 2011, Cosmo Oil will continue its efforts in using large coastal tankers and improving stowage rates.





#### **Eco Office Activities**

The Cosmo Oil Group conducts "Eco Office" activities to reduce the amount of copy paper used, the amount of fuel consumed by company vehicles and the amount of electricity consumed at its offices. To attain these overall goals, each and every employee will engage in initiatives to achieve reduction targets set by each workplace. In fiscal 2010, Group companies succeeded in keeping usage under the target levels in each category except the amount of electricity consumed at its offices. The goals for fiscal 2010 were set by multiplying the average performance for fiscal years 2007 to 2009 by the reduction rate.

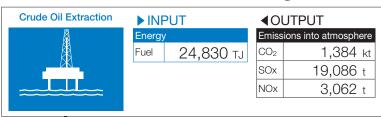
#### Eco Office Activities<sup>1</sup>

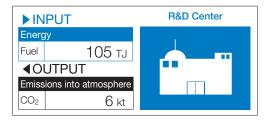


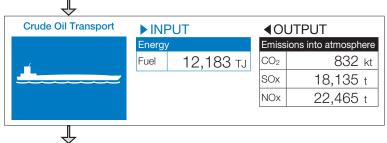
Targeted Area	FY2010 Goal		FY2010 Results (Compared to Goal)			
	Cosmo Oil	Group companies	Cosmo Oil		Group con	npanies
Copy paper (thousand sheets)	13,031	19,122	10,734	-17.6%	18,057	-5.6%
Company car fuel consumption (kl)	281	812	228	-18.9%	713	-12.2%
Office electricity consumption (MWh)	1,016	2,216	1,004	-1.2%	2,348	+6.0%

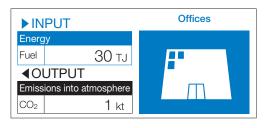
1. The Team Minus 6% Activities

#### Environmental Impact of Business Activities 🕢

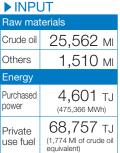












Water	
Industrial water	44,132 kt
Sea water	370,319 kt
Total energy consumption (TJ)	
Fiscal 2008	71,499
Fiscal 2009	69,136
Fiscal 2010	73,358

Steam sold:

1,774 TJ

144 kt

1,644 t

3,184 t

OO₂ sold:

Crude oil

transport

Crude oil

extraction

1.2%

1.9%

Emissions into atmosphere		
CO <sub>2</sub>	5,093 kt	
Private-use fuel 4,452 kt		
Purchased power 166 kt		
Hydrog	gen produ	uction process 476 kt
SOx	5,560 t	
NOx	3,005 t	
Wast	ewate	r
Wastewater		381,258 kt (including 370,819 kt of sea water)
Chemica demand		116 t
Nitrogen		61 t
Phosphorus		1 t

Industrial waste			
Generated	50,426 t		
Recycled	19,013 t		
Final disposal	272 t		
PRTR Law designated chemical substances			
Released	227 t		
Transferred	51 t		
CO <sub>2</sub> emissions (kt)			
Fiscal 2008	4,912		
Fiscal 2009	4,813		
Fiscal 2010	5,093		

Refining

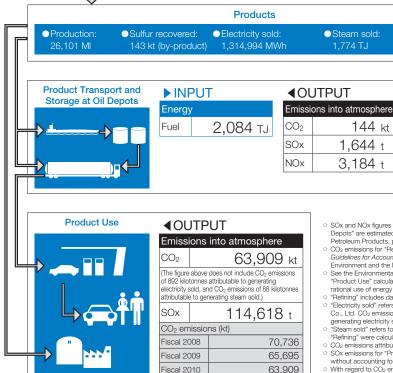
Product

transport

Product use 89.6%

0.2%

7.1%



SOx and NOx figures for "Crude Oil Extraction," "Crude Oil Transport," and "Product Transport and Storage at Oil Depots" are estimated based on LCI for Petroleum Products by Fuel and Environmental Impact Assessment for Petroleum Products, published in March 2000 by the Japan Petroleum Energy Center.
 Oce emissions for "Refining" and "Product Transport and Storage at Oil Depots" are calculated in accordance with the Guidelines for Accounting Greenhouse Gas Emissions from the Industry, published by the Japanese Ministry of the

CO<sub>2</sub> Emissions Throughout the Oil Lifecycle

Total CO2

emissions

**71,362** kt

- Guidelines for Accounting Greenhouse Gas Emissions from the Industry, published by the Japanese Ministry of the Environment and the Ministry of Economy, Trade and Industry.

  See the Environmental Accounting web page in the Cosmo Oil Group website for the methodology and basis of "Product Use" calculations. Energy consumption is calculated in accordance with the stipulations regarding the rational use of energy in the Act on the Rational Use of Energy.

  "Refining" includes data from the Yokkaichi Kasumi Power Station and Cosmo Matsuyama Oil Co., Ltd. O'le enissions for "Refinier were calculated after deducting the portion of CO2 emissions that results from generating electricity sold. Conversely, the purchased power portion of CO2 emissions is Included in "Refining" data.

  "Steam sold" refers to steam sold by the Chiba Refinery and Cosmo Matsuyama Oil Co., Ltd. CO2 emissions for "Refining" were calculated after deducting the portion of CO2 emissions is included in "Refining" data.

  "Steam sold" refers to steam sold by the Chiba Refinery and Cosmo Matsuyama Oil Co., Ltd. CO2 emissions for "Refining" were calculated after deducting the portion of CO2 emissions that results from generating steam sold.

  CO2 emissions for "Product Use" are included for reference, and were estimated from the sulfur content of products without accounting for sulfur reduction during use. Accordingly, actual SOx emissions are lower than the estimate.

  With regard to CO2 emissions for "Product Use," CO2 emissions attributable to generating electricity and steam sold are estimated for supparately.

- are estimated separately.

  CO<sub>2</sub> emissions of 15.7 kilotonnes arising from the fire on the LPG tanks at the Chiba Refinery are included in CO<sub>2</sub> for
- Naphtha used mainly as a petrochemical material does not directly emit CO<sub>2</sub> or SOx. However, naphtha is included with other petroleum products when calculating CO<sub>2</sub> and SOx emissions for "Product Use."

  "Industrial waste" refers to waste generated during business activities, which includes waste that could be sold.

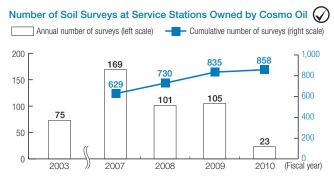
  Figures given for "Offices" include data from the Cosmo Oil Head Office and branch offices.

Detailed information Environmental accounting

www.cosmo-oil.co.jp/eng/csr/accounting/ev\_accounting.html

#### Reducing Environmental Risk in Soil

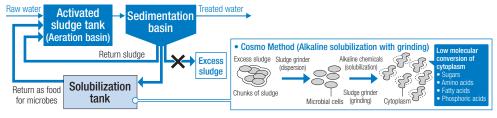
To reduce the risk of soil contamination occurring, particularly from a petroleum leak at service stations, the Cosmo Oil Group takes preventative measures and works to minimize impact on the surrounding environment in the case of spills and leaks. In fiscal 2010, surveys were conducted at 64 service stations in conjunction with equipment renovations carried out at service stations owned by Cosmo Oil (of these, surveys at 23 stations were new). Work was conducted on risk countermeasures at 28 service stations, including those that were still on-going from the previous fiscal year, and completed at 19 stations. These surveys and countermeasures, recorded as environmental accounting, totaled some ¥560 million. The Company will continue to conduct soil environment surveys at other service stations as they undergo renovations and will keep striving to minimize the risk of soil contamination.



#### **Reducing Excess Sludge**

Excess sludge discharged from wastewater treatment facilities accounts for the largest portion of all industrial waste in Japan. Sludge also makes up approximately 50% of industrial waste generated at Cosmo Oil's refineries, which means that initiatives against excess sludge could translate into the most effective means of waste reduction for the Cosmo Oil Group. The Company has conducted research into technologies for reducing excess sludge generated at refineries and has achieved large reductions in excess sludge at the Chiba Refinery and the Sakaide Refinery.





#### Striving to Achieve Zero Industrial Waste

In fiscal 2010, the final disposal rate of waste from target companies¹ was 2.9%, achieving one of the Fourth Consolidated Medium-Term Environmental Plan goals. The amount of waste sent for final disposal at Cosmo Oil's four refineries (including Yokkaichi Kasumi Power Station) was 242 tonnes, a 97% reduction from fiscal 1990 and a 0.5% final disposal rate. This fiscal 2010 reduction surpassed the target—94% reduction over fiscal 1990 and a 1.0% or less final disposal rate—set in the voluntary action plan of the Petroleum Association of Japan.



- According to State of Discharge and Treatment of Industrial Waste in FY2008 issued by Japan's Ministry of the Environment
   Research is being carried out
- Hesearch is being carried out as a project supported by the Japan Petroleum Energy Center.

Target companies include
 Cosmo Oil Co., Ltd., Cosmo
 Engineering Co., Ltd., Cosmo
 Matsuyama Oil Co., Ltd., Cosmo
 Oil Lubricants Co., Ltd., Cosmo
 Petroleum Gas Co., Ltd., and
 Hokuto Kouqyo Co., Ltd.

#### **Independent Assurance Report**



#### Independent Assurance Report

To the President of Cosmo Oil Co., Ltd.

#### **Purpose and Scope**

We were engaged by Cosmo Oil Co., Ltd. (the "Company") to provide limited assurance on its Corporate Report 2011 (the "Report") for the fiscal year ended March 31, 2011. The purpose of our assurance engagement was to express our conclusion, based on our assurance procedures, on whether the environmental and social performance indicators marked with  $\bigcirc$  (the "Indicators") for the period from April 1, 2010 to March 31, 2011 included in the Report are prepared, in all material respects, in accordance with the Company's reporting criteria.

The content of the Report is the responsibility of the Company's management. Our responsibility is to carry out a limited assurance engagement and to express our conclusion based on the work performed.

#### Criteria

The Company applies its own reporting criteria as described in the Report. These are derived, among others, from the Environmental Reporting Guidelines of Japan's Ministry of the Environment and Sustainability Reporting Guidelines 2006 of the Global Reporting Initiative. We used these criteria to evaluate the Indicators.

#### **Procedures Performed**

We conducted our engagement in accordance with 'International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information' issued by the International Auditing and Assurance Standards Board, and the 'Practical Guidelines of Sustainability Information Assurance' of the Japanese Association of Assurance Organizations for Sustainability Information ("J-SUS").

The limited assurance engagement on the Report consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical and other procedures. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Our assurance procedures included:

- Interviews with the Company's responsible personnel to obtain an understanding of its policy for the preparation of the Report.
- Reviews of the Company's reporting criteria.
- Inquiries about the design of the systems and methods used to collect and process the Indicators.
- Analytical reviews of the Indicators.
- Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the Indicators in conformity with the Company's reporting criteria, and also a recalculation of the Indicators.
- Visit to the Sakaide Refinery selected on the basis of a risk analysis.
- Evaluating the overall statement in which the Indicators are expressed.

#### Conclusion

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that the Indicators in the Report are not prepared, in all material respects, in accordance with the Company's reporting criteria as described in the Report.

We have no conflict of interest relationships with the Company that are specified in the Code of Ethics of J-SUS.

KPMG AZSA Surrempley Co., Lol.

KPMG AZSA Sustainability Co., Ltd. Tokyo, Japan November 25, 2011 The first half of the Cosmo Oil Group Corporate Report 2011 focuses on the Group's policies, initiatives and other aspects of its management philosophy, while the second half contains detailed reports, along with quantitative data, on plans and performance. Detailed data that could not fit into the printed edition of the report has been made available on the web, and the addresses are noted for reference. This shows that the Cosmo Oil Group is making an effort to improve the readability of the report without sacrificing the amount of information it discloses.

CSR reports generally emphasize the initiatives a company takes and the results achieved with regard to "reducing negatives" such as environmental impacts, accidents and disasters. This is also true of the Cosmo Oil Group Corporate Report 2011. The particular characteristics of this industry mean that disclosing this kind of information will continue to be important. Since the Great East Japan Earthquake, however, society has come to expect more of the Cosmo Oil Group in terms of contributing to sustainability through its business. In my opinion, the Group could yet improve its disclosure of information to better meet these expectations.

Although this report was made with reference to the GRI Sustainability Reporting Guidelines 2006, it is not fully in accordance with them. I would like to see future reports follow GRI guidelines, keeping in mind the Oil and Gas Sector Supplement scheduled for release in 2011.

#### Tomonori Yoshida

KPMG AZSA Sustainability Co., Ltd.

### **Editorial Postscript**

The Cosmo Oil Group Environmental Report was first published in fiscal 2001, replaced by the Sustainability Report in fiscal 2004 and then by the Corporate Report in fiscal 2010. Having originated as an environmental report, the report retains a great deal of information on Group initiatives and performance related to reducing environmental impacts, accidents and disasters. With the change in name to the Sustainability Report and then to the Corporate Report, efforts have been made to add overall profile information, as well as more information regarding the Group's management philosophy, Code of Conduct, social contributions, and other CSR activities. The Cosmo Oil Group will continue to work to add an even wider range of material on corporate initiatives and performance to the information it currently provides on the Group's contribution to sustainability through its oil business.

The Cosmo Oil Group recognizes how important it is to balance the inseparable management goals of improving earnings and pursuing CSR. In order to uphold the Cosmo Oil Group's management philosophy, it is also important to ensure that every Group employee brings a strong awareness of CSR to his or her job every day. In fiscal 2010, the Great East Japan Earthquake once again brought a keen awareness of the importance of ensuring safe operations and a stable energy supply.

The Cosmo Oil Group is committed to fulfilling its responsibilities as an energy provider. By revisiting the basics of safety and security, the Group is striving to maintain its position as an honest company that is worthy of the trust of all stakeholders.

CSR and Environmental Affairs Office, Corporate Communication Department Cosmo Oil Co., Ltd.





#### Color Universal Design

This report incorporates Color Universal Design principles to convey information to people who see color differently, in addition to people with normal color vision, and is certified by the non-profit Color Universal Design Organization (CUDO).