

Cosmo Oil Group

Sustainability Report 2004

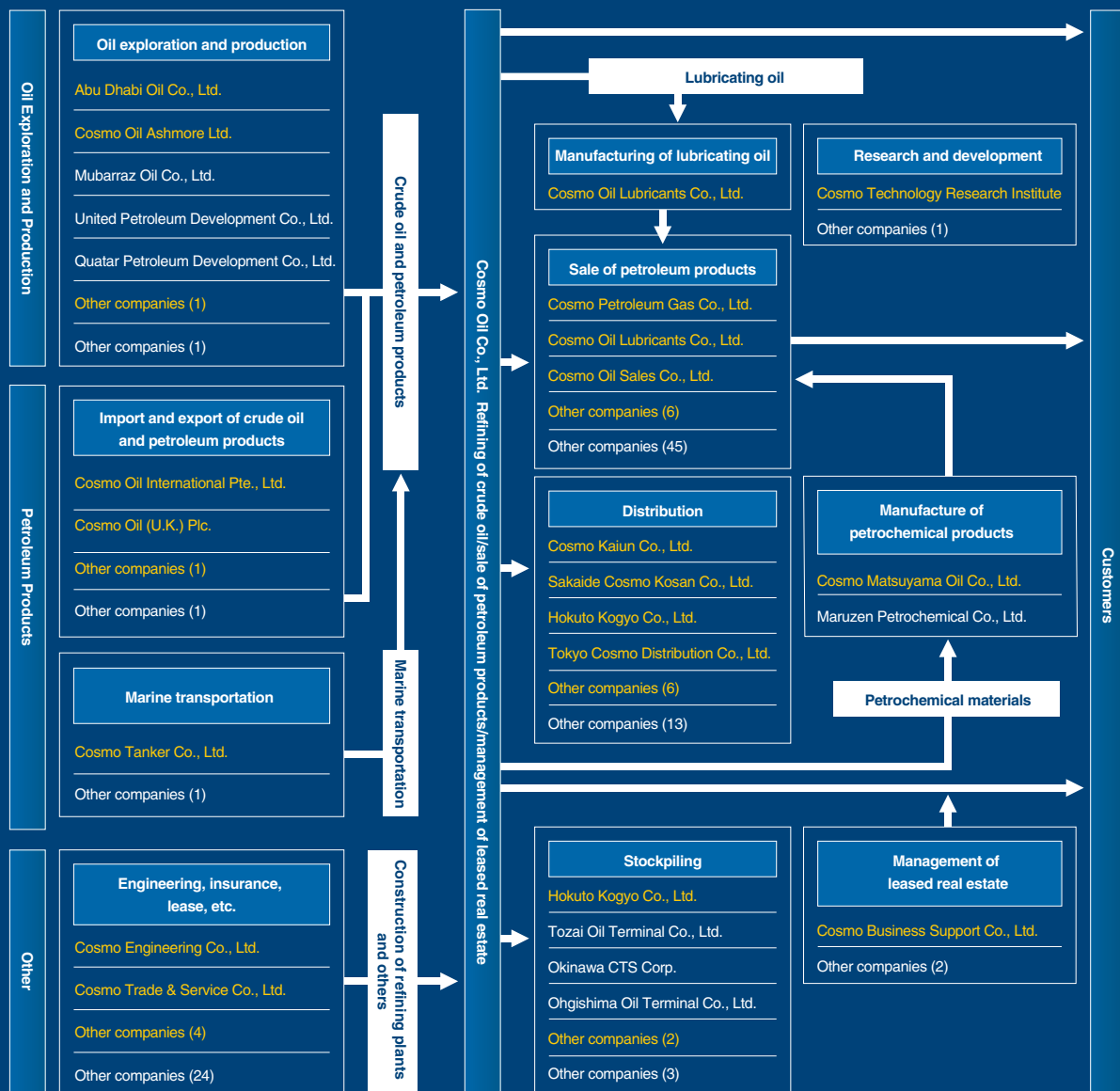


L i v i n g w i t h O u r P l a n e t

Outline of Cosmo Group

Major Subsidiaries and Affiliates (as at March 31, 2004)

Total No. of Consolidated Subsidiaries: 31



Company Profile

(as at March 31, 2004)

Trading name	Cosmo Oil Co., Ltd.	Cosmo Oil Co., Ltd. established on April 1, 1986 by the merger of Daikyo Oil Co., Ltd., Maruzen Oil Co., Ltd. and their refinery subsidiary, the former Cosmo Oil Co., Ltd. Acquired Asia Oil Co., Ltd. by merger on October 1, 1989.			
Location of head office	1-1-1, Shibaura, Minato-ku, Tokyo, Japan Tel: +81-3-3798-3211	History			
Establishment	April 1, 1986	Dealers	340	Service stations	5,042
Paid-in capital	JPY51,886,816,126	Branches	Sapporo, Sendai, Tokyo, Nagoya, Osaka, Hiroshima, Takamatsu, Fukuoka		
Business	Refining and marketing of oil products	Refineries	Chiba, Yokkaichi, Sakai, Sakaide		
Employees	1,764	Oil storage depot	38		

Editorial Policy

1

This report is created from the perspective of realization of a sustainable society to replace our Environmental Report that we have annually been publishing until last year.

2

While our aim in this report is to present a comprehensive view of our efforts, we have concentrated on the *environment* and *society* portions of the *triple bottom line*. Regarding economic aspect, please see our business reports, annual reports and so forth where these activities are reported in detail.

3

In preparing this report, our main goal was to describe our activities in FY 2003 in easy-to-understand terms. Please see the separate Data Book for more detailed information.

4

In deciding what subjects to include in this report, we have consulted the “Environmental Report Guidelines (FY 2003 version)” published by the Ministry of Environment together with the “GRI* 2002 Sustainability Reporting Guidelines.”

* GRI (Global Reporting Initiative) Guidelines for preparing “sustainability reports”, including environmental reports, with the emphasis on the “triple bottom line” of environment, society and economy.

Scope of Report

This report covers the environmental, social and economic activities of the Cosmo Oil Group in the 2003 fiscal year (April 1, 2003 to March 31, 2004). However in the case of some examples it also covers part of FY 2004. You can get a clear overall picture of the Cosmo Oil Group at page 1.

Cover Photos

Background photo	Red-footed boobies living in the Christmas (Kiritimati) Island national park in the Republic of Kiribati, one of the “Living with Our Planet” project sites (page 39)
Left	Children in the Solomon Islands, another “Living with Our Planet” project sites
Center	“Auto B-cle” SS (service station) (page 37)
Right	Tropical rainforest in the Solomon Islands, another “Living with Our Planet” project site

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

➤ **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 Values**

- Creating the Value of “Customer First”
- Creating Value from the Diverse Ideas of the Individual
- Creating Value by Expressing Collective Wisdom

The Cosmo Oil Group’s Management Vision

The dilemma confronting the oil industry

By metamorphosing into fuel, raw materials, medicines, and so forth, oil has brought many benefits to humankind, but on the other hand mass consumption of oil has imposed a great burden on global environment.

The Cosmo Group’s intention

The Cosmo Oil Group mainly handles oil energy. Without forgetting this fact, we wish to become an energy business that can deliver new value, while stressing the importance of the harmonious symbiosis of the earth, people and society, in the hope of bringing about a fruitful future at the global level.

Our two slogans

We have entrusted these intentions to the two slogans “Living with Our Planet” and “Filling Up Your Hearts, Too”. We have produced this report in order to convey to everyone the Cosmo Oil Group’s efforts to realize a sustainable society having these slogans as its supporting pillars.

“Living with Our Planet”

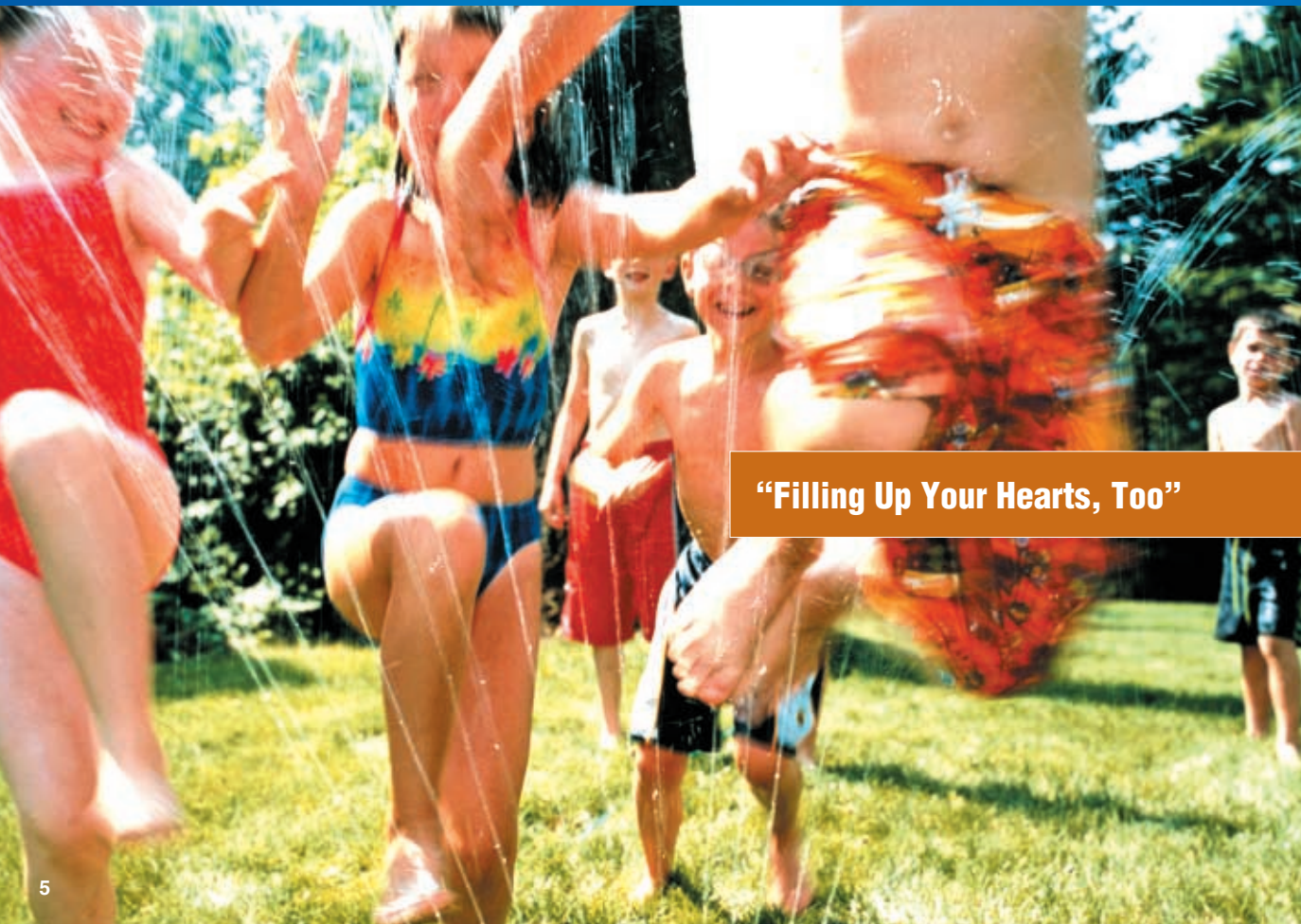
In order to be a business that is expected by society to last, and as a corporate citizen, we are going beyond the scope of the oil business, faithfully doing what can be done and what needs to be done for the earth.



“Filling Up Your Hearts, Too”

In order to be the energy business that the customers choose, through “a stable supply of energy”, we support our customers in such a way that they can lead their daily lives with full hearts.

“Living with Our Planet”



“Filling Up Your Hearts, Too”

Environmental problems are clearly a grave threat to sustainable development.

The Cosmo Oil Group is seeking harmony and symbiosis with the environment so that all the people of the earth can continue to live in prosperity. We are striving to alleviate the environmental impact of the whole of our business, ranging from oil production to product sales, and are pushing forward with our efforts to become a comprehensive energy business that can supply en-

ergy that is friendly to both the earth and its people. Furthermore, going beyond the scope of the oil business, we are also expanding our activities in the areas of environmental remediation and conservation, and carrying out educational activities aimed at communicating the importance of the environment to children, who hold the future on their shoulders.



Zero flare project

An annual reduction of 200,000 tons of CO₂ equivalent greenhouse gas has been achieved by returning associated gases, which used to be burned off, to the sub-stratum, using a large-scale compressor.



Environmental conservation projects

With *Living with Our Planet* as the watchword, we are implementing six projects inside and outside Japan together with our Cosmo The Card Eco members, involving conservation of rain forests, tree planting on the Silk Road, support for environmental education and so on.



Hydrogen refuelling station

Taking a hard look at next-generation energy sources that are gentler on the environment, we are implementing development of hydrogen fuel cells and verification testing, and are striving to educate the public and popularize such technology on the basis of testing data from diverse sources.



Expansion of Auto B-cle

In order to deliver a car-care service that meets the various needs of the customers, we are progressing the networking of SS, centering around key SS that include vehicle inspection stations.



Thoroughgoing safety management

In our unrelenting drive for safety management, we have implemented complete measures on the software and hardware sides both for disaster and accident prevention and for dealing with any disaster or accident that does occur. For example, anticipating the possible occurrence of disasters, we have organized "in-house fire brigades" in refineries and hold regular disaster drills.



Cosmo Earth Conscious Acts

With wide participation by members of the public, and in league with FM stations nationwide, we are expanding communications activities calling for preservation of the environment. One of these activities, the *Clean-up Campaign*, involved the cleaning of 40 locations on or near mountains, rivers, the sea and parks.

We feel that a sustainable society can only be realized on the foundations of the peace of mind, safety and full hearts of all the people comprising that society.

In order to realize "filling up hearts, too", in our capacity as an energy business, we are endeavoring to listen to society's needs and to communicate with society, to continue

delivering services that have real value and even better products, and at the same time to maintain honest management and stable profits and enjoy the public's trust.

Message

As a member of community and a pillar of the energy industry, we carry out our business activities honestly, trusted by everyone, so as to continue sustainable growth together with community.



Towards realization of sustainable society

The title of this report, "Living with Our Planet" and the catchphrase "Filling Up Your Hearts, Too", which has become familiar over many years, are the symbols of our group's management vision, which aims at the realization at the global level of a sustainable society. In order to realize these slogans, it is not sufficient for us alone to be sustainable. Our vision is to consider what we can do for the sustainable development of society, confront the issues head-on, and deliver *value* going into the future. For this purpose, we must produce "stable profits" and faithfully fulfill our "social responsibility" in our relations with our stakeholders.

These two things are like the wheels of a cart – in my thought we can only gain the trust of society, develop sustainably along with society and give birth to value once the cart is moving on both these wheels in balance.

It is "people" who turn these wheels. "Trust" also arises between people, and "value" is produced by the ideas and the originality and ingenuity of individual people. I believe that an organization is the arena for individuals to give full play to their strengths, by



acting with self-awareness and responsibility. In other words, the most important thing, the driving force for realizing a sustainable society, and the foundation of all business activity, is that individuals and business fulfill their responsibilities to each other.

The issues involved in oil energy are the starting point

The vision of Cosmo Oil Group, with its focus on the oil business, is to bring greater convenience to daily life and to contribute to the stimulation of industry. On the other hand, we are aware that large scale consumption of oil has had a serious impact on the earth. Accordingly, for our sustainable development together with society, grappling with environmental issue is very important to us. Aiming to become "Cosmo Oil - the environmental choice", we are making great efforts to reduce the environmental impact arising from our business activities, and also, going beyond the scope of our business and our country, we are engaged in activities for preservation of the environment and restoration of nature that has been destroyed. There can be no radical solution of environmental problems unless people with all the points of view who make up society cooperate and unless we also at the same time tackle the underlying problems such as poverty and energy. We are making progress in our efforts to find concrete solutions to environmental problems, together with regional societies, NGOs and a number of national governments - in April 2002 we started issuing Cosmo the Card Eco, enabling our customers to participate by contributing to this struggle.

Furthermore, in parallel with the struggle for the environment, best practice in safety management is a necessary and indispensable proposition for the oil industry. Here at Cosmo we are striving to achieve best practice in safety management. In order that our products may be used safely and with peace of mind, we have implemented safety practices aimed at preventing incidents and ensuring early response if an incident does occur, in full compliance with both statutory regulations and our own voluntary standards. We are also pushing forward with information disclosure.



For Creation of New “Value”

The stable supply of oil supported Japan’s rapid economic growth, taking up 80% of the national primary energy supply. Although the ratio has dramatically dropped, to approximately 50% after the oil crisis, oil still supports our lives as an important energy source and in the forms of various materials.

Under these present conditions we are attempting to reduce the environmental impact of oil by improving the quality of petroleum products whilst increasing the number of SS and providing better services. Our aim is to make our customers’ “car life” more convenient, safe and secure – by creating new value for our customers.

We are also expanding our business to become an integrated energy company capable of supplying energy stability in the long term, responding to the issues of limitation of natural resources and environmental protection. To accomplish this, we are carrying out R&D and commercialisation of energy for the next generation in order to continuously provide new values to our customers. In the field of renewable energy - the most environmental friendly energy, we are endeavouring to develop hydrogen-powered fuel cells and wind-powered electricity.

Strengthening of Corporate Governance System

We, the Cosmo Oil Group, are trying to strengthen our management systems in order to help make society more sustainable in a more effective and efficient way.

In April 2004 we established an integrated management system highlighting fundamental issues such as business ethics, human rights, security and environment. Previously, these issues were dealt with separately. This integrated management system now enables us to examine our activities far more comprehensively. The roles of both supervision and administration are now more specific and duties have been outlined more clearly. Since July 2004, we have reinforced both these functions, resulting in a more functional and clearer management. Our company-wide risk management cycle established in fiscal 2003 has entered its second year and is presently being settled into final form.

Trustworthy, Honest Management for Our Customers

As stated at the outset, we think “humanity” and the principle of “All for One, One for All” play essential parts in carrying out a variety of activities to assist society to be more sustainable. For this reason we are improving our personnel system and workplace in order to make our company a place where individual employees can make the most of their abilities. Customer confidence can be gained only through our employees’ high ethical standards, our responsible actions and the attitude of respecting human rights – in other words, the principle of respecting others. To nurture such a corporate culture within the entire group, we have improved the organisational system by establishing a Business Ethics Promotion Office and Human Rights Committee. In addition, our employees have the opportunity to attend educational and training seminars. We have also established a system that allows employees to voice their own opinions and we are enforcing business ethics rigorously.

In March 2004 there was an incident involving the leakage of personal information of a “Cosmo the Card” members. We sincerely apologise for this incident and in order to ensure there is no re-occurrence, we have put in place new measures, including reviewing our business methods, devise countermeasures to meet the situation and enforce our business ethics.

Three years have passed since our “Environmental Report” was issued. Fundamentally, reports are a tool for companies to communicate their ideas to community. As we are formalising our management concept, we have renewed this report in order to explain to the public our visions and activities more comprehensively. The report has been renamed “Sustainability Report”.

Our first Sustainability Report may include some points to ameliorate. However, for our company to continuously grow with society, we believe it is very important to disclose our business information accurately, appropriately and openly. We desire also to reflect our customers’ voice in the management of our affairs. We appreciate your frank opinions and suggestions.

木村 一

Yaichi Kimura
Chief Executive Officer
Cosmo Oil Co., Ltd.



“Living with Our Planet”

When crude oil is extracted, gas comes out with the oil.

Up until now, in Middle East oil fields this gas was burned at the top of a tower.

CO₂ was discharged into the atmosphere along with the flames.

In order to eliminate this, we developed a system for returning the gas to the underground oil layer.

The flames are extinguished and there is an annual reduction of approximately 200,000 tons of CO₂.

We are seeking the ideal form of energy, while facing up to environmental problems on a global scale, in order to realize a sustainable society.

- 1 We are striving to conserve the environment all around the world, and at the same time to alleviate the impact of our business on the environment.
 - Prevention of climate change
 - Improving quality of petroleum products
- 2 We are taking a hard look at the future in our struggle for technological development.
 - Development of environmentally friendly technology and products
- 3 We are carefully considering the optimal mix of energy, while striving to become a comprehensive energy business.
 - Development of new sources of energy

Prevention of climate change

CO₂, the principal cause of climate change, is emitted both at the stage of production of oil and at the stage of use by our customers. CO₂ is a substance that has always existed in the natural world, and if it ceased to exist, on the contrary the earth would cool down. Frankly speaking, climate change can be said to be an environmental problem brought about by the excessive emissions of CO₂ as a result of the mass consumption - mass disposal society. Right across our business, from extraction to sales in service section, we are taking action to prevent climate change. At the same time, going beyond the framework of the oil industry, we are implementing pro bono activities aimed at preventing warming, in conjunction with our customers who use oil. Furthermore, we are expanding educational activities aimed as encouraging "noble use" of petroleum, based on our desire that oil be used with great care.

When the flames vanish, the CO₂ also vanishes.

In order to eliminate the CO₂ that is released into the air along with the fiercely burning flames at the top of exhaust chimneys, we have developed a system for returning the gas to the underground oil layer. The result is the flames vanish, with an annual reduction of 200,000 tons of CO₂ emissions.



In refineries and offices

In our refineries the basic units of energy consumption have been reduced by 10.7% compared with 1990 by efficient use of energy (notably by use of cogeneration systems) and strengthening of operating controls, etc. In our head office an energy saving of 3% compared with 2002 has been achieved by thorough turning off of lights, etc.



Support for afforestation in Australia

In 2001 Cosmo Oil concluded a CO₂ emission option agreement in relation to a remote area of south-western Australia, and planting of eucalyptus trees commenced. In 2003 the company acquired the right to emit the 47,489 tons of CO₂ absorbed by this forest.



Together with our customers

We push forward with action to prevent climate change with our Cosmo the Card Eco members. We are also taking advantage of our commercials and other advertisements and events to raise consumers' awareness of global warning.

Improving the quality of petroleum products

In the life cycle of petroleum products, the greatest environmental impact arises during use by customers. For this reason, Cosmo Oil is moving aggressively to develop technology to remove sulfur, which causes air pollution, from petroleum products.

Moving towards supply of sulfur free gasoline and diesel

Cosmo Oil is progressing its preparations with the aim of commencing supply of sulfur free (sulfur content of 10ppm or less) gasoline and diesel from 2005. For the purpose of production of sulfur free gasoline, we have installed new desulfurization equipment at our Chiba, Yokkaichi and Sakai refineries for FCC (fluidized catalytic cracker) gasoline (*1). Furthermore, at our Sakaide refinery, we have made a change to processing by the heavy oil desulfurization device prior to the FCC function. Also we will be producing sulfur free diesel using a high-performance catalyst (*2) that we have developed in addition to the current desulfurization equipment. From May 2004 we have been doing verification testing of this catalyst developed at our Chiba refinery, and assuming that this catalyst is suitable, we will be able to produce sulfur free diesel without major investment in plant and equipment.

*1 FCC gasoline: Given that this is the gasoline component with the highest sulfur content, the sulfur content of the gasoline as a whole can be reduced by reducing the sulfur content of this component.

*2 High-performance catalyst: Developed by our company with the assistance of PEC (Petroleum Energy Center) and NEDO (New Energy And Industrial Technology Development Organization).

Achieving clean exhaust gas

In May 2004, research by members of Cosmo Oil Research & Development Center into the influence of fuel on "HCCI combustion" was awarded the 54th Automobile Technology Association Asahara Science Encouragement Prize. "HCCI combustion" is a future technology that is environmentally friendly, having the possibility of achieving both high efficiency and clean exhaust gas. High hopes are held of its suitability for automobile engines.

Currently we are carrying out research jointly with automobile manufacturers and universities to push forward the results of the research to date in order to optimize the fuel quality in the HCCI engine.

Reference For details, please see pp.5-6 of the Data Book.

Development of environmentally friendly technology and products

We are pushing forward development of a variety of petroleum related environmental technology, such as for waste reduction and soil environmental conservation.

Of these environmentally friendly technologies and products, we especially offer to the market those that contribute to alleviating environmental damage not only in the oil industry but also in a wide variety of fields.

The possibility of "bioremediation" soil cleaning technology

We research methods for cleaning soil contamination using earth friendly microorganisms.

Thus far we have been able to establish methods for accurately measuring oil elements in the soil and for determining whether bioremediation (the microorganism method) is possible or not



Reducing surplus sludge by 50% with the sludge volume reduction equipment

Surplus sludge discharged by the wastewater plant takes up the biggest share of industrial waste generated by oil refineries. Cosmo Oil Research & Development Center has developed a volume reduction device that returns surplus sludge to the wastewater plant after solubilization processing.

In 2002 we carried out verification testing at our Sakaide refinery, and a 50% reduction was achieved. Then in 2003 we started full operation at the Sakaide refinery and achieved a major reduction of sludge, and stable operation continues to the present time.

We are also participating in a PEC project and carrying out further research and development with a view to verification testing at our Chiba refinery.



Reference For details, please see p.7 of the Data Book.



Rapidly growing wind power generation

In 2003 the total generating capacity of wind power around the world was 40,000,000 kW. By the end of 2006, wind power is expected to exceed 60,000,000 kW, which is 10% of total generating capacity in Europe.

Development of new sources of energy

Great change in industrial structure has accompanied technological innovation, and action in respect of limited energy sources and environmental conservation are demanded.

As an energy business, in order to continue to supply the best possible energy, Cosmo Oil Group is aware of the importance of building up a business portfolio based on a long-term perspective.

Aiming at becoming an integrated energy business, we are working in the oil development, electric power, gas and new energy businesses.

While new energy sources at this stage have unresolved issues relating to stability, cost and versatility, etc., they are indispensable for the sustainable development of society.

We are making ongoing efforts aimed at practical application of new energy sources, in the areas of research, technological development and commercialization.

Opening a new direction with clean energy

We carry out introduction and practical application of clean, renewable energy, which is attracting attention due to the heightened awareness of environmental conservation. We have installed solar panels in some SS and are moving into the wind power generated electricity business, and we are studying the production and supply of energy using biomass.



Towards realization of a hydrogen energy society

Cosmo Oil is pushing forward with research, development and commercialization of the production, supply and use technology of hydrogen, the next generation green energy. In March 2003 the JHFC Yokohama Daikoku Hydrogen Station commenced operation and we gathered data for practical application. Also we conducted joint research on hydrogen filling technology with Nissan Motor Co., which has brought out a fuel cell vehicle, the TRAIL FCV. Finally, in order to make the most of oil-related fuels, we conducted research and development and field studies aimed at practical application of a fuel cell for home use that uses kerosene and hydrogen.



Progress of “Blue Earth 21”, Cosmo Oil’s Mid-term Environmental Plan

In the Blue Earth 21 plan, we set nine themes and slogans to convey the message of the Mid-term Environmental Plan. Each department sets objectives and works to achieve them.

➤ **Slogans of the mid-term environmental plan:**
“Cosmo Oil – the environmental choice”

“Committed to environmental excellence”

“Fulfilling our responsibilities
as a corporate citizen”

“Environment and economics
– both are essential”

➤ Progress in the Blue Earth 21, Cosmo Oil’s mid-term environmental plan

Theme	Activities	Mid-term Target (FY 2004)
1. Prevention of climate change: Reduction of CO ₂ emissions from business activities and introduction of new energy	Energy conservation	Reduce unit energy consumption at oil refineries by 9.2% from 1990 level Reduce fuel consumption for distribution: Decrease use of tanker trucks by ▲20%, and coastal tankers by ▲17%, from 1990 level Promote energy conservation at offices. Reduce electricity consumption at offices from 2003 level by ▲5%. Reduce fuel consumption for company cars from 2003 level by ▲7%.◇
	Utilization of the Kyoto Mechanisms	Assessment of engagement with Kyoto mechanisms
	Introduction of new energy	Assessment of introduction of new energy sources (promote wind-power electricity business, install solar panels at two or more SS)
	Air pollution control	Maintain discharge of SOX, NOX and soot from oil refineries at current levels (within legal limits)
2. Reduction of pollutant emissions: Control of emission levels for air and water pollutants below the regulatory standards and reduction of industrial waste, etc.,	Water pollution control	Maintain discharge of COD from oil refineries at the present level (within legal limits)
	Industrial waste reduction	Reduce final disposal by average ▲81% per year (2002-2004) from 1990 level Maintain final disposal (land-fill disposal) / waste generation ratio no more than 1.5% Set targets for further reduction of final disposal aiming at zero emissions◇
	Management of chemical substances	Implement and promote management of chemical substances in accordance with laws and regulations
	Reduction of VOCs based on voluntary standards	Complete assessment of countermeasures linking oil refineries, oil terminals and service stations
3. Prevention of soil contamination: Assessment of current situation and promotion of preventive measures	Service stations (SS)	Promote preventive measures, conduct self-inspections at service stations and take measures appropriate to the situation
	Other facilities	Inspect soil contamination and take appropriate measures at each facility
4. Material reduction: Promotion of 3R activities (reduce, reuse, recycle) and reduction of municipal waste	Paper	Reduce paper ledgers, slips, etc. by promoting merger and abolition or electronic management thereof, preparing for the revised system at oil refineries starting in 2005◇
	Daily items	Establish a sorting and collection and recycling system at all facilities ◇
	Water	Introduce wastewater recycling systems at 2 SS or more
5. Reduction of environmental impact of products: Providing petroleum products with lower environmental impacts	Diesel fuel	Establish systems to supply sulfur free (sulfur content of 10ppm or less) diesel fuel
	Gasoline	Establish systems to supply sulfur free (sulfur content of 10ppm or less) gasoline
6. Green purchasing: Expansion of items covered by green purchasing.	Material, equipment, and works	Implement green purchasing of materials and equipment (e.g. construction materials), subsidiary materials (e.g. chemicals and catalysts) and construction work and expand the range of items covered by green purchasing
	Office supplies	Continue purchasing in line with standards ◇
	Purchasing from green suppliers	Implement purchasing from green suppliers and expand the range of items covered under green purchasing
7. Research & development: Development of petroleum products and environmental technologies related to business activities	Petroleum product development	Develop high-performance catalysts to reduce environmental impact of products
	Environmental technology development	Develop technologies to reduce and reuse catalysts and those to reduce surplus sludge Develop evaluation technologies for oil content in soil and technologies to clean-up the contaminated soil Provide technologies to absorb and recover vapors including VOCs
	New energy development	Develop fuel cell systems and technologies for the conversion of natural gas to liquid fuel (GTL)
	Technical cooperation in environmental protection	Share environmental technologies with other countries
8. Environmental conservation projects: Continuous efforts to support projects, particularly those related to prevention of climate change	Cosmo the Card Eco projects	For the prevention of global warming, continuously implement the following projects: 1. Aid for developing countries 2. Projects for environmental education ◇
	Social contributions	Continuously implement community programs
9. Organization for environmental management: Continuous efforts in environmental management and communication with multiple stakeholders	Environmental management	Promote sharing of environmental awareness to develop human resources
	Communication	Effectively communicate environmental information to all stakeholders

➤ Progress in FY 2003

We set priorities as Zero emissions, Green purchasing and Soil conservation for all of our employees to participate in environmental activities and to reinforce our risk management system. We established the foundation for the systems and action plans in FY 2003. We will continuously expand the progress in each activity.

➤ Plan for FY 2004

At all times our company has main three priorities. Zero emissions, Green purchasing and Soil Conservation and will continue to implement the mid-term environmental plan. Our aim is to achieve the objectives in all themes in FY 2004 as this is the last year of the first term of the mid-term environmental plan. After reviewing the results for FY 2003, we revised some of our objectives.

Evaluation ○ : achieved △ : not achieved
▲ : decrease
◇ : Objectives reviewed and reset in FY 2003

	FY 2003 Target	FY 2003 Actual	Evaluation	Ref.
	▲8.3% (vs. 1990) ◇	▲10.7%	○	21
	Tanker trucks▲19% (vs. 1990)	Tanker trucks ▲20%	○	25
	Coastal tankers▲16% (vs. 1990)	Coastal tankers ▲11%	△	25
	Prepare to expand throughout the business	Established Office Clean-Up Team to reinforce the system Survey relating to energy saving at all offices	○	24
	Same as left target	Exercised and utilized Australian emission rights. Participated in ventures and seminars to gain knowledge on emission trading, CDM, etc.	○	41
	Same as left target	Carried out survey of circumstances relating to wind power generation	○	28
	Same as left target	Installed solar panels at 4 service stations	○	26
	Same as left target	Maintained (complying with relevant regulations)	○	22
	Same as left target	Maintained (complying with relevant regulations)	○	23
	Same as left target	▲87.4% (vs. 1990)	○	21
	Establish systems at each site to achieve zero emissions	Established action plan for zero emissions of industrial waste	○	15
	Same as left target	Assessed the amount of chemical substances emitted or transported based on PRTR Law and reported them to the government	○	22
	Same as left target	Assessed the status of VOC in oil refineries and oil terminals and considered appropriate action (delayed from plan)	△	—
	Same as left target	Introduced EM points system (SS management tool) every 6 months. Educated employees in SS on environmental management. Conducted self-inspections for oil tanks	○	16 26
	Implement systematic assessments and countermeasures	Conducted soil tests at 11 sites and reinforced the maintenance of facilities and daily inspection	○	16
	Reduce paper ledgers, etc.▲18% (vs. 2002)	Reduced paper ledgers, etc. ▲33.3%	○	24
	Expand to other sites	Established Office Clean-Up Team to reinforce the system. Assessed all business sites on sorting, collection and recycling system oil tanks	○	—
	4 locations	Wastewater recycling systems were not introduced	△	—
	Supply diesel fuel that complies with the regulations. (sulfur content of 50ppm or less)	Initiated nation-wide supply of diesel oil (sulfur content of 50ppm or less) since April 2003	○	DataBook p5
	Same as left target	Prepared for supply systems including establishment of new facilities	○	11
	Set standards for green purchasing	Surveyed suppliers and set standards for green purchasing (delayed from plan)	△	15
	Set standards for green purchasing	Surveyed all business facilities and set standards for green purchasing	○	15
	Set standards for green purchasing	Conducted questionnaires to suppliers and set standards for green purchasing	○	15
	Same as left target	Continued development of high-performance desulfurization catalysts for sulfur free diesel fuel manufacturing	○	27
	Same as left target	Provided technical support for surplus sludge reduction system in actual operation	○	11
	Same as left target	Continued development of FCC metal scavenger	○	—
	Same as left target	Utilized evaluation technology for oil content in soil at oil refineries and SS and continued development of soil cleaning technologies (delayed from plan)	△	27
	Same as left target	Provided technical support to promote sales of VOC recovery system (7 cases)	○	—
	Same as left target	Conducted verification testing on catalysts under development at GTL pilot plant	○	27
	Same as left target	Continued development of hydrogen production catalysts made from LPG or oil to use for development of fuel cells	○	12
	Same as left target	Implemented technical cooperation with other countries about Zero Flare plan, energy conservation, etc.	○	43
	Same as left target	Continued implementation of Cosmo the Card Eco projects	○	39
	Same as left target	Implemented "Cosmo Children's Earth School" to provide environmental education to children. Introduced "Cosmo Earth Conscious Act" to encourage society to participate in environmental protection	○	49 - 50
	Same as left target	Provided each level of employees with environmental education	○	36
	Same as left target	Continued provision of environmental information through environmental publications, advertisements, Web sites, etc.	○	47 - 48

Green Purchasing Our commitment is to purchase products with less environmental impact from suppliers focused on environmental issues.

As part of our efforts to reduce the environmental impact of our activities, we are committed to *green purchasing* in our supply chains. This is unlike the conventional way of purchasing, as it doesn't only take into account the quality, price and delivery date when purchasing products, but also the environmental aspect. We push green purchasing as a priority in our mid-term environmental plan. Our ultimate goal is to purchase only environmentally friendly products apart from crude oil and petroleum products and to give priority to suppliers focused on environmental initiatives.

In FY 2003, we began formalizing in-house standards for green purchasing and actually started making some of our purchases in accordance with these standards. Our *Green Purchasing Standards* include two types of standards to encourage the purchase of environmentally friendly products: one for the specific environmental impact of each product and the other for assessment of the supplier's environmental consciousness.

Products standards are set for the following areas:

- Consumable (copy paper, office and stationery supplies, lighting apparatus, fixtures and fittings, office furniture, copiers, automobiles)
- Construction and construction equipment and materials (oil refineries, oil terminals, SS)
- System equipment (PCs, printers, scanners, displays, communication equipment)
- Sales promotion materials

Questionnaires are submitted to suppliers and priority is given to companies that meet or exceed certain standards for environmental consciousness. We have also started making approaches to those who have not yet met the standards, seeking to persuade them to adopt the standards.

In FY 2004, we plan to set standards for all areas and upgrade standards in all areas; at the same time, we will assess our results. Many green products have been produced, but there are still no clear standards for a number of products. Therefore, to establish the standards for environmental impact of products, it is necessary to gather information, expand the range of items covered under Green Standard and upgrade these standards for each product.

Zero Emissions We are working towards the reduction of industrial waste to zero emissions.

Industrial Waste

We have reduced industrial waste from our oil refineries. In the FY 2003 we achieved 87.4% reduction of landfill disposal from FY 1990 (our target was 81% reduction). In FY 2004 our target is to achieve zero emissions by reducing the landfill disposal-total waste generation ratio to a maximum 1.5%.

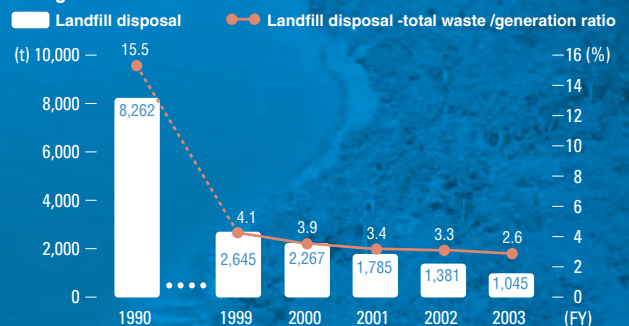
Reference For details, please see p. 21 of this report, p. 11 of the Data Book.

Offices

As our aim to zero waste, Office Clean-Up Team consisted of the manager of each business unit has been established. The OCU Team discusses measures for waste reduction through the "3Rs" (reduce, reuse, recycle).

Reference For details, please see p. 24 of this report.

Change in amount of industrial waste



Soil Conservation **We will attempt to reduce soil contamination through risk management.**

In June 2002, Cosmo Oil Group set up a guide called "Measures for Soil Conservation". Our company as a whole endeavor to prevent the risk from soil contamination, which is one of the priorities in our mid-term environmental plan.

Measures for Soil Conservation

- We will conduct soil inspection systematically at Cosmo Oil-owned and affiliated facilities as well as the sales facilities of Cosmo brand products and will take measures as deemed necessary.

Action for Soil Conservation

- We carry out the following activities to prevent leaks of petroleum products and minimize the environmental impact in the event of a leak.
- In FY 2002, we implemented risk assessments of the soil contamination at approximately 5,300 SS, including dealers. We provided guidance to some authorized dealers as deemed necessary.
- Based on findings from the risk assessments, we have conducted systematic soil inspections at Cosmo Oil-owned SS in descending order of risk. In FY 2003, responding to these findings, we conducted clean-up operations at 17 SS including those that are no longer in operation.
- As a prevention measure against soil contamination caused by leaks of petroleum products, we have implemented educational seminars for our employees regarding the importance of soil conservation and the day-to-day management of facilities. We have also conducted voluntary safety inspections of underground tanks, in addition to inspections required by law since FY 2002.
- We have endeavored to prevent soil contamination in other sites by careful maintenance and daily inspections of the sites. We have also planned soil inspections of 11 sites based on their business and operational history and commenced actual inspections, to be completed by the end of FY 2004.

Environmental Accounting **In order to promote effective preservation of the environment, we compile and disclose information relating to environmental activities.**

In order to promote effective preservation of the environment, we systematically collect data on the environmental cost, benefit and economic benefit. The following is an overview of environmental accounting in FY 2003.

➤ Environmental Cost

This includes the cost of prevention of pollution, desulfurization of petroleum and environmental R&D. In FY 2003, the investment was 11.4 billion yen, while expenditure was 47 billion yen.

Reference For details, please see p.15 of the Data Book.

➤ Economic Benefit

Energy savings resulting from using co-generation facilities and patent income from R&D generated total economic benefit equivalent to 2.8 billion yen.

➤ Environmental Benefit

The environmental impact of our business activities show the amount of CO₂ conversion calculated using the EPS*1 method increased by 329,000 tons to 5,254,000 tons, on account of increased crude oil throughput and upgrading of our refining process. The environmental impact of use of our petroleum products as seen in CO₂ conversion increased by 3,643,000 tons to 80,694,000 tons.

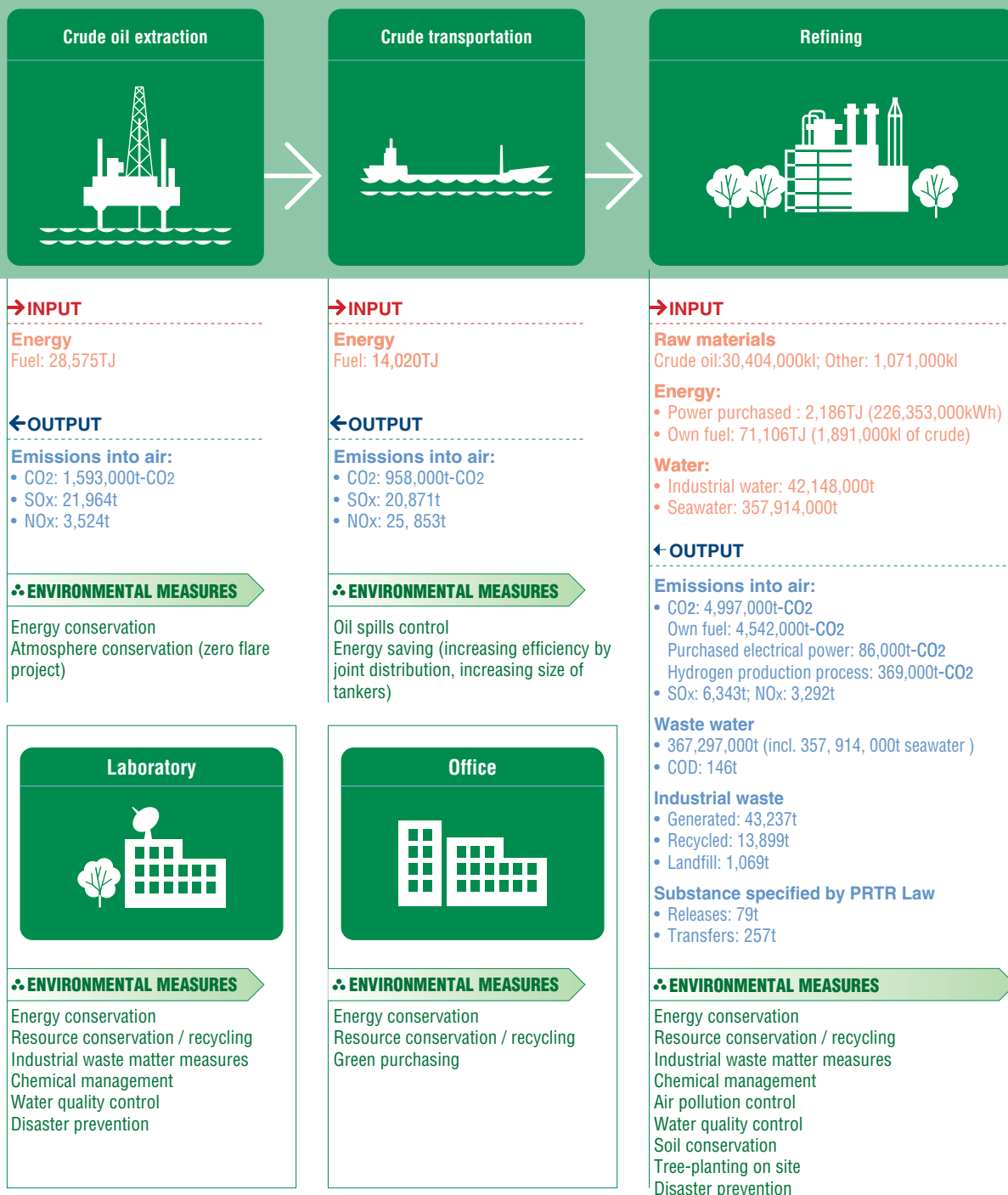
Reference For details, please see p.14, 16 of the Data Book.

*1 EPS (Environmental Priority Strategies in Product Design): A life-cycle impact assessment method developed by a research team led by a Swedish environmental research institute (IVL) and managed by the Center for Environmental Assessment of Products and Material Systems in Chalmers University of Technology in Sweden. Regarding the conversion method based on the EPS method, please refer to p. 14 of the Data Book.

In order to reduce the environmental impact effectively, it is necessary to

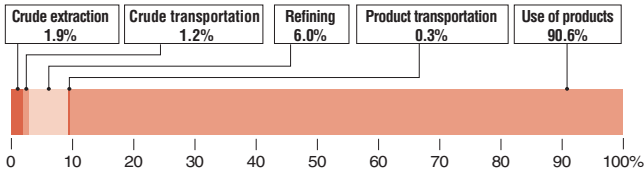
Cosmo Oil Group engages in businesses ranging from oil development and production in the oil producing countries, through oil transportation and refining, product transportation to sales in service stations. In order to deliver products that have small impact on the environment, it is necessary to reduce that impact across the full life cycle of the oil, including the stage of use by customers. It is not merely a matter of ascertaining the impact at each stage in isolation - rather it is essential to take into account the impact on other stages, and to seek an overall balance, while continuously striving for improvements.

In FY 2003, compared with the preceding year, the CO₂ emissions during use by customers increased by 3,509,000 tons on account of an increase in the volume of products produced.



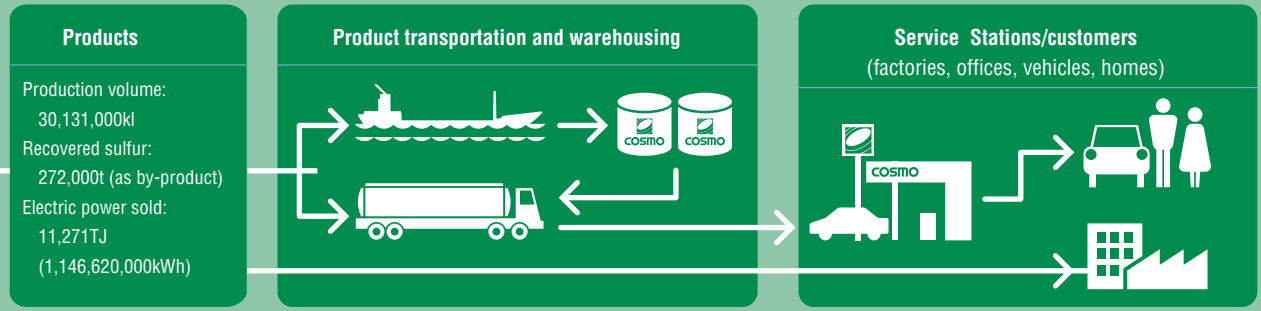
ascertain exactly what that load across the whole petroleum life cycle.

Proportion of CO2 in Oil Life Cycle



Oil Life Cycle Inventory (LCI)

Stage	Crude extraction	Crude transportation	Refining	Product transportation	Product use	Total
Energy consumption (TJ)	28,575	14,020	73,292	3,561	—	—
CO2 emissions (1,000t-CO2)	1,593	958	4,997	223	75,170	82,941
SOx emissions (t)	21,964	20,871	6,343	1,914	182,319	—
NOx emissions (t)	3,524	25,853	3,292	3,706	—	—



INPUT

Energy
Fuel: 3,561TJ

OUTPUT

Emissions into air:
• CO2: 223,000t-CO2
• SOx: 1,914t
• NOx: 3,706t

Maritime transportation (ship)

ENVIRONMENTAL MEASURES

Prevention of oil spill
Energy conservation (increased efficiency through mutual accommodations, larger tankers for coastal routes)

Land transportation (by road)

ENVIRONMENTAL MEASURES

Energy conservation (larger vehicles, improvement of stowage ratio)

Stockpiling (storage facilities)

ENVIRONMENTAL MEASURES

Energy conservation
Resource conservation
Chemical management
Soil conservation
Prevention of oil spill
Disaster prevention

OUTPUT

Emissions into air:
• CO2: 75,170,000t-CO2
• SOx: 182,319t

Service station

ENVIRONMENTAL MEASURES

Energy conservation
Resource conservation / recycling
Industrial waste matter measures
Chemical management
Air pollution control
Water quality control
Soil conservation
Disaster prevention

- Figures are estimated based on the actual production volumes of petroleum products in FY 2003.
- Figures for crude oil production, crude oil transportation, and product transportation are estimated based on LCI for Petroleum Products by Fuel and Environmental Impact Assessment for Petroleum Products, published in March 2000 by the Petroleum Energy Center.
- Figures for refining and product consumption are derived from environmental accounting. See p.13-16 of the Data Book for the methods and basis of calculations.
- In relation to CO2 emissions from refining, we have revised our calculation method to the method recommended by the Ministry of Environment's "Guidelines Concerning Methods of Calculation of Emissions of Greenhouse Gases by Businesses (draft)".
- Refining includes data from the Yokkaichi Kasumi Power Station and Cosmo Matsuyama Oil Co., Ltd.
- Electric power sold refers to power sold by the Chiba Refinery, the Yokkaichi Kasumi Power Station and Cosmo Matsuyama Oil Co., Ltd. The CO2 emissions from refining is the amount after deduction of CO2 emissions, a result of such power generation.
- Figures here do not include environmental impacts associated with the construction of facilities.
- The figures for SOx emissions at the consumption stage are reported for reference. The figure indicates the potential SOx emissions based on sulfur content in products, and does not take into account SOx reductions resulting from desulfurization of emissions that occurs during use by customers. Thus, the actual figure for SOx emissions is expected to be lower than the figure reported here.
- The figures for CO2 and SOx emissions at the consumption stage include potential impacts of naphtha. Naphtha is used as an ingredient in petrochemicals and fertilizers, which by themselves do not emit CO2 or SOx.

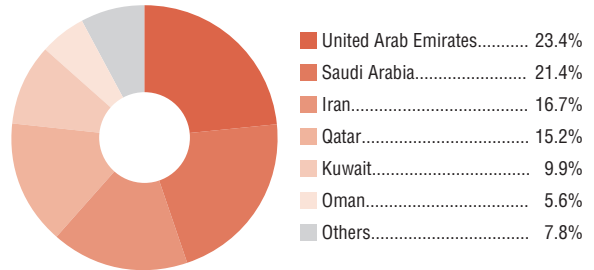
Crude Oil Production

We strive to reduce the environmental impact of crude oil production in the oil producing countries.

Overview of imports of crude oil

Cosmo Oil imports crude oil from the United Arab Emirates, Saudi Arabia, Iran, Qatar, Kuwait, Oman and other countries. Of these countries, the biggest exporter is the Emirate of Abu Dhabi, part of the United Arab Emirates, where we have been carrying out crude oil development since the 1960's and in 1968 we established Abu Dhabi Oil.

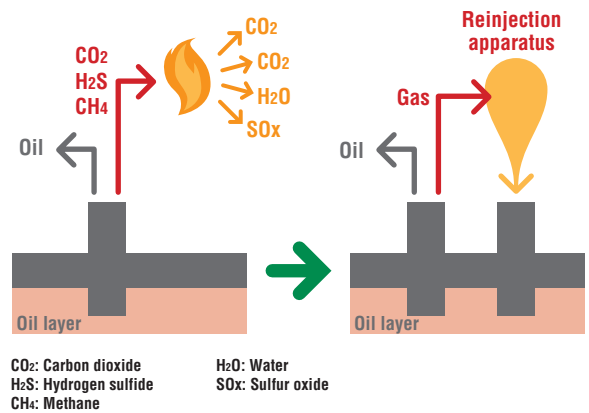
Crude Oil Import Percentages by Country in 2003



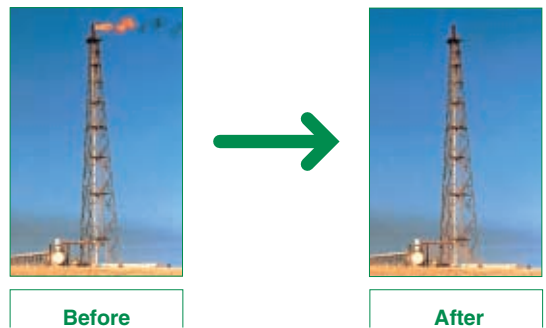
Benefit of the Zero Flare Project

At the Mubarraz, AR and GA*1 oilfields operated by Cosmo Oil's subsidiary Abu Dhabi Oil and its affiliate, Zero Flare was achieved on May 2001 — the whole volume of associated gas*2 which previously was burnt off into the air is being reinjected into the oil layer using a large compressor and there is no emission of SOx or CO2 (flare refers to the flame arising from burning the associated gas). The success of this project not only contributes to prevention of air pollution, but also reduces greenhouse gases by the equivalent of 200,000 tons of CO2 per year. This is equivalent to a forest absorbing 12,000 times the volume of CO2 that could be held by the Tokyo Dome.

Concept sketch of Zero Flare Project



Before and after the implementation of the Zero Flare Project



The first stage of Zero Flare, the sour gas injection project, was highly praised by the Abu Dhabi National Oil Company (ADNOC), and in 2000 was awarded 1st prize among 62 entrants in the ADNOC HSE Awards.

*1 AR and GA oilfields

AR refers to the Umm Al Ambar Oil Field, and GA to the Neewat Al Ghalan Oil Field. Abu Dhabi Oil and its affiliate Mubarraz Oil operate the AR, GA and Mubarraz Oil Fields, mix the crude produced by the 3 fields and ship it as *Mubarraz Blend*.

*2 Associated gas

Associated gas refers to gas that emerges from an oil field during crude oil production. There are two types of associated gas, sweet and sour. Sour gas refers to natural gas containing more than trace amounts of acid gas such as carbon dioxide and hydrogen sulfide.

Transportation and Stockpiling of Crude Oil

In addition to taking consideration to preserve the ocean environment when crude oil is being transported by sea, we strive to reduce tanker fuel expenditure.

Prevention of oil spills

Crude oil is carried on tankers, through the Straits of Malacca, to Japan.

For this voyage tankers have carefully selected, experienced crew, together with the latest technology such as collision prevention equipment and double hulls, with the aim of reducing to the minimum the chance of accidental oil spills. Great care is also devoted to preserving the ocean environment during loading and unloading of tankers, for example by ensuring that oil booms are used.



A practice drill for preventing the spread of an oil spill using an oil boom

Prevention of oil spills by double hull structure in case of accidents

Since 1998 we have been converting to double-hulled tankers in order to be ready for the contingency of maritime accidents. In the case of the double hull structure, even if the outer hull is breached, the oil will not leak from the tanks located within the inner hull. As of March, 2004, of our 10 time chartered VLCC (Very Large Crude Carriers), 6 are double-hulled, and we plan to have all of our time chartered tankers double-hulled during 2005.



Double-hulled tanker

Ratio of double-hulled tankers on regular line

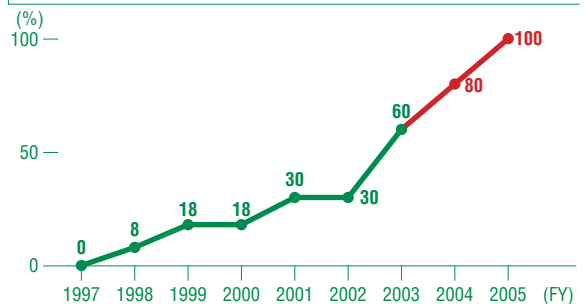
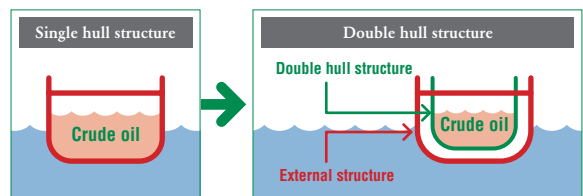


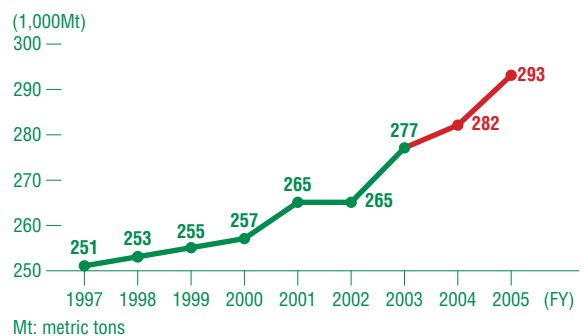
Diagram of double hull structure



Efficiency in transport

It takes 20 days for oil tankers from the oil producing countries to reach Japan. The contents of a 300,000-ton class tanker can fulfill Japan's total oil demand for half a day. In order to increase the efficiency of our transport operations, we are pursuing economies of scale by switching from 200,000-ton class tankers to 300,000-ton class tankers, and by combining shipments with the Nippon Oil Corporation, with which Cosmo Oil established the Nippon Global Tanker Company. Such upsizing and more efficient allocation of tankers also serve to decrease the amount of fuel required to operate tankers.

Average load weight



Stockpiling of crude oil

In order to secure a stable supply during emergencies, Japanese oil importers and refiners are required to maintain a stockpile of 70 days' supply of petroleum products, and as of the end of March, 2004 the stockpile is 74 days' supply. The government also maintains a stockpile of 88 days' supply, so the total private and public stockpile is 162 days' supply.

Refineries

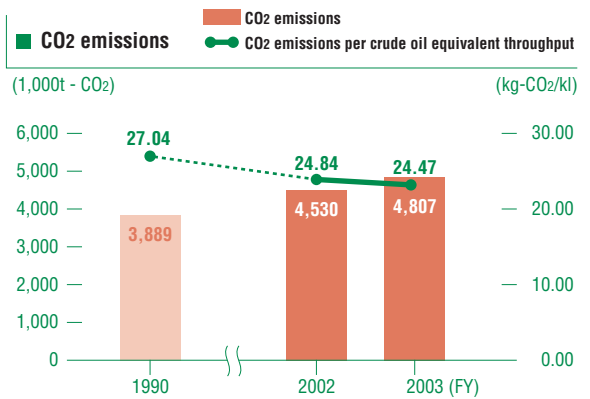
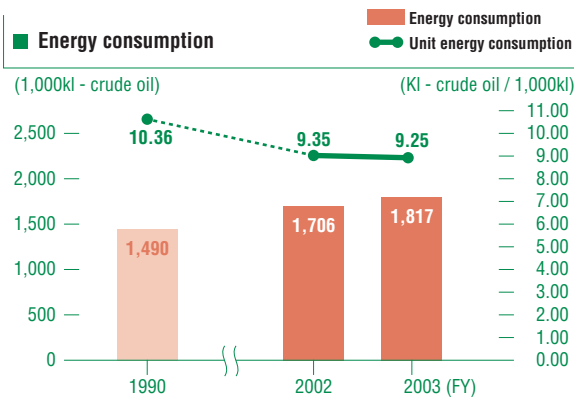
Climate change and energy conservation

We use energy efficiently by installing cogeneration systems.

Promoting efficient use of energy

At our refineries, we are committed to energy conservation through introduction of high-efficiency equipment and improvement of operational management systems. For example, we have installed cogeneration systems that utilize gas generated by the oil refining process or LP gas to promote efficient use of energy. In FY 2003, our fourth such system came on line. We also reinforced our control systems

for steam power and fuel consumption in our daily operations and introduced energy-saving technologies such as high-efficiency heat exchangers and inverter controls for rotary machines. As a result of these efforts, we are able to achieve a reduction in per unit of energy consumption of 10.7% (9.25kl - crude oil/1,000kl) in FY 2003, exceeding our goal (reduction by 8.3% from the FY 1990 level).



Reference For details, please see p.10,19-26 of Data Book.

Efficient use of resources

We endeavor to reduce industrial waste by employing the latest technologies and equipment.

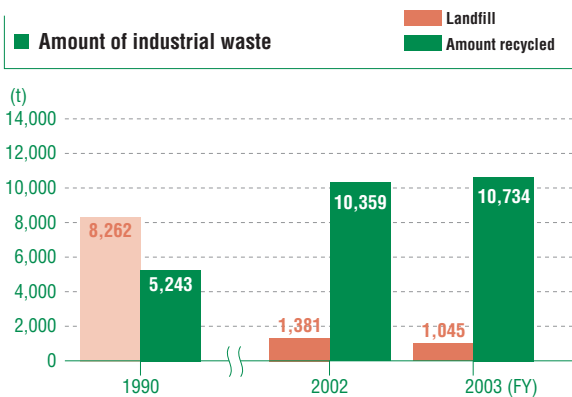
Reduction of industrial waste

Our refineries are endeavoring to reduce the landfill of industrial waste arising from the refinery process. Our efforts include reduction and separation of the waste generated. We also choose waste disposal methods that are conducive to recycling.

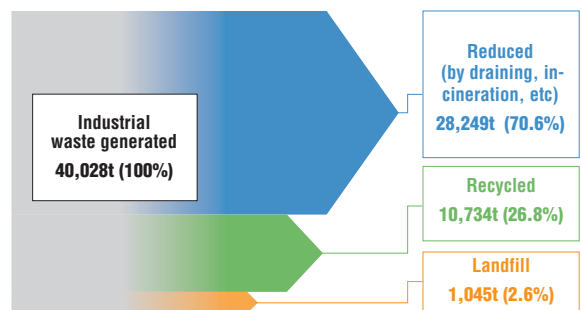
For example, we recycle and reuse catalysts used in the refining process and recover metals from catalysts and use it as a raw material for cement. We also endeavor to decrease the surplus sludge arising from the wastewater

process by draining or incineration and keep down the volume of such sludge by introducing new technologies. At our Sakaide Refinery, we have introduced a surplus sludge reduction system and achieved a 50% reduction of surplus sludge.

As a result of these efforts, the total amount of landfill from all of our four oil refineries for FY 2003 was 1,045 tons, an 87.4% reduction from the 1990 level, over the target of an 81% reduction for the second year in a row.



Flow of industrial waste (FY 2003)



Reference For details, please see p. 11, 19-26 of Data Book.

Management of chemical substances

We manage chemical substances appropriately.

Management in accordance with the PRTR law

Chemical substances used in our oil refineries include benzene and toluene in petroleum products and cobalt in catalysts used in the refining process.

We reported the amount of releases and transfers of these chemical substances for FY 2003 to the government in accordance with the PRTR Law.

Releases and transfers of the substances specified by PRTR law (FY 2003)

(Data includes Yokkaichi Kasumi Power Station)

Substance specified by PRTR law	Amount released				Amount transferred
	Air	Water	Soil	Total	
Ethyl benzene (kg/year)	1,340	0	0	1,340	0
Xylene (kg/year)	5,720	0	0	5,720	0
Cobalt and its compounds (kg/year)	0	0	0	0	3,800
1,3,5-Trimethylbenzene (kg/year)	28	0	0	28	0
Toluene (kg/year)	20,200	0	0	20,200	0
Nickel compounds (kg/year)	0	0	0	0	120,300
Benzene (kg/year)	5,320	0	0	5,320	0
Molybdenum and its compounds (kg/year)	0	0	0	0	132,000
Zinc compounds (Water soluble) (kg/year)	0	2,900	0	2,900	0
Antimony and its compounds (kg/year)	0	0	0	0	1,200
Dioxins (mg-TEQ/year)	0	29	0	29	0

Storage/management of PCB

We store PCB appropriately and report on the details to the government.

Reference For details, please see p. 19-26 of the Data Book.

Prevention of air and water pollution

We pay constant attention to air and water, implementing emission-reducing systems for SO_x and NO_x, activated sludge process, etc

Prevention of air pollution [sulfur oxides (SO_x) / nitrogen oxides (NO_x)]

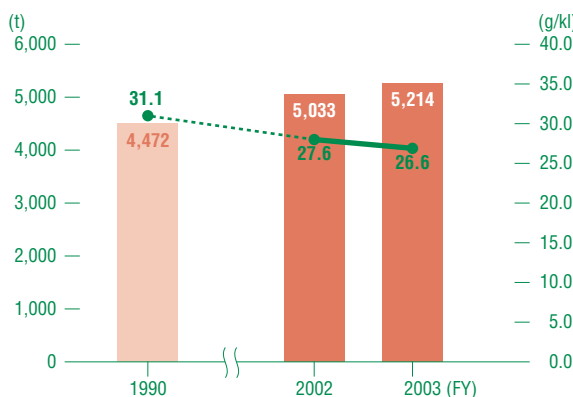
The refining process involves emissions such as SO_x and NO_x from heating furnaces and boilers. Our refineries are endeavoring to choose fuels with lower sulfur and nitrogen levels for heating furnaces and boilers. We introduce low NO_x burners to reduce the generation of thermal NO_x, a substance generated when nitrogen reacts with oxygen at combustion. We also introduce flue gas de-

sulfurization and denitrification equipment to remove generated SO_x or NO_x from exhaust gas. In addition, we remove small particles in exhaust fumes using electrostatic precipitators.

As a result of these efforts, all of our four oil refineries' emission levels are under the local legal limits.

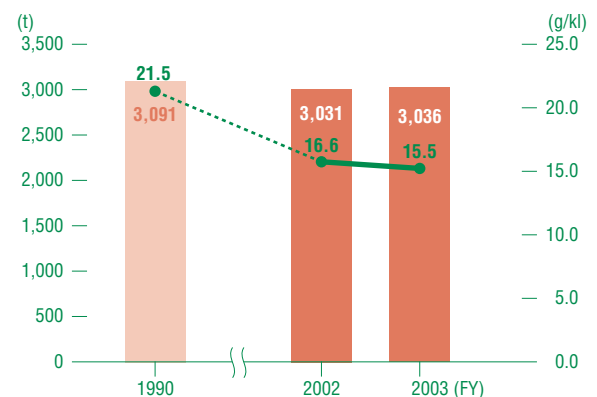
SO_x emissions

SO_x emissions
Emissions per crude oil equivalent throughput



NO_x emissions

NO_x emissions
Emissions per crude oil equivalent throughput



Reference For details, please see p. 12, 19-26 of the Data Book.

Hydrocarbons and benzene

Some petroleum products such as gasoline contain volatile components. To handle such products, we traditionally store them in a floating roof tank in order to control evaporation, and have also installed equipment that collects the hydrocarbons that evaporate when we ship the products. Benzene, specified as a hazardous air pollution substance, is a hydrocarbon. Through the measures described above, we endeavor to reduce the benzene content in gasoline as well as to control its emissions.



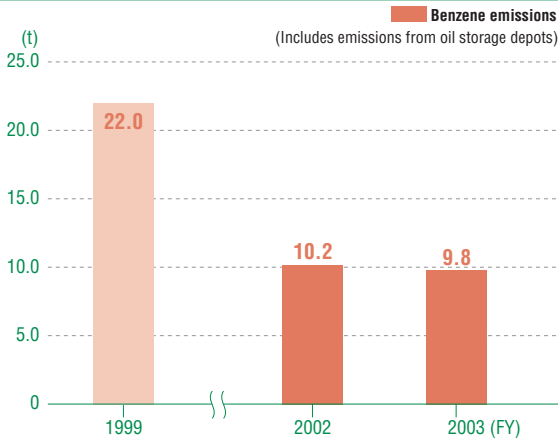
Hydrocarbon vapor recovery unit

Floating roof tank



Reference For details, please see p. 12 of the Data Book.

Hazardous Air Pollution Substance Emissions (Benzene)



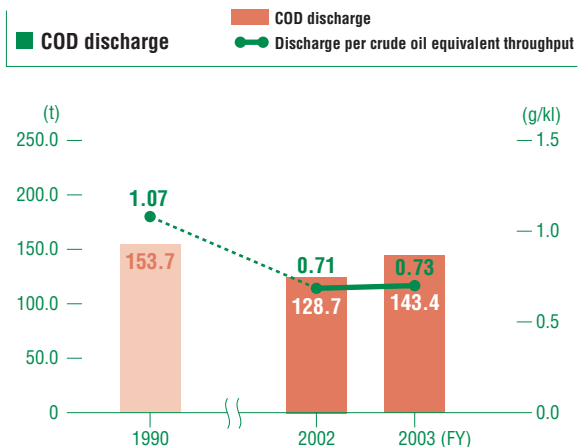
Dioxin emission control at waste incineration facilities

Strict controls are in place at those of our refineries that have waste incineration facilities, and as a result, the emission levels are under the limit.

Preventing water pollution and effective use of water resources

Seawater or industrial water is used in the oil refining process at our refineries. As oil content, etc may mix into wastewater that was used in the cleaning process in refining, we endeavor to prevent water contamination by removing oil content using an oil-water separation unit and other appropriate treatment such as activated sludge treatment. As a result of these efforts, all of our 4 refineries' wastewater levels are under the limits set by their respective regions. Nitrogen and phosphorous, in addition to the current COD, are now subject to total volume control since the coming into effect of the fifth water quality total pollutant control. In response to this, we have installed continuous automatic measuring equipment for nitrogen and phosphorous to measure the pollution of wastewater. We are also committed to water conservation by recycling industrial water used in cooling systems.

Reference For details, please see p. 11, 19-26 of the Data Book.



Offices

■ Prevention of climate change and energy conservation

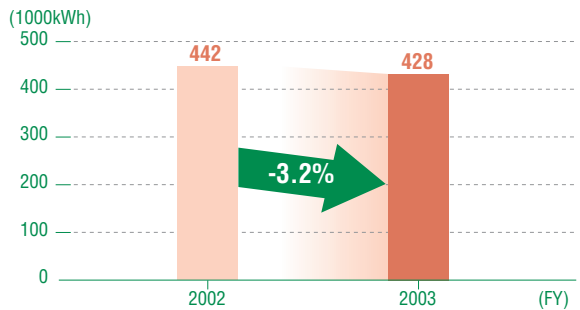
We are implementing day-to-day energy conservation activities.

At our head office, we are committed to energy conservation activities, such as adjusting room temperature on each floor, “no tie” campaign, switching off lights during lunch hours and dimming lights in corridors.

As a result, it has achieved a 3% reduction in electricity consumption in FY 2003 from the FY 2002 level.

Reference For details, please see p.10 of the Data Book

■ Electricity consumption at our office (head office)



■ Effective use of resources

We effectively use paper by moving to paperless systems and implementing a complete trash separation system.

➤ Going paperless

For the purpose of streamlining operations and effective use of paper resources, Cosmo Oil Group has been committed to going paperless by reviewing and computerizing various paper ledgers, slips, etc. As a result, we have reduced such paper by 33.3% in FY 2003 from FY 2002 level.

➤ Thoroughness in trash separation

We have placed “Recycling Boxes” on each floor in our head office for disposal of used paper, as part of promotion of thorough trash separation.

We are promoting reduction of waste and recycling of resources by reducing the number of trash bins on each floor and instead instituting “Clean-Corners” where trash is separated into 20 types, including waste other than paper.



A “Clean-Corner” at the head office

➤ Recycling of used paper

Used paper at our head office is separated into high quality paper, envelopes, newspapers and magazines and collected at the paper collection room. This used paper is then collected by recycling manufacturers and used as a resource for paper. Our Environmental Report 2003 and calendars are made of recycled paper, including used paper

from our head office.

We also collect miscellaneous paper such as notepads and labels, and recycle some of them into toilet papers for use at our head office. Furthermore, we are collecting used paper from the offices of our 4 refineries, totaling approximately 93 tons in FY 2003.

Recycling boxes



Used paper at head office is separated and taken to the paper collection room...

Collection by recycling agents



... and it is collected by recycling agents.

Recycled-paper products



It is transported to paper factories and recycled into tissue papers, etc.

Environmental Report 2003



Recycled paper is used for our Environmental Report, calendars, etc.

Reference For details, please see p. 30 of the Data Book.

Distribution

We promote energy saving and make our distribution systems more efficient – e.g. by introducing larger tanker trucks and coastal tankers.

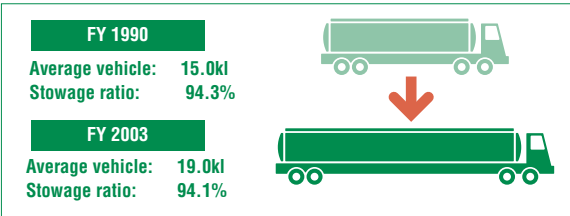
Improvement in the efficiency of distribution systems / energy conservation

Petroleum products are transported from refineries to oil storage depots and service stations by tanker truck and coastal tanker. Here at Cosmo Oil, from the early days we have endeavored to make our distribution systems more efficient to promote energy saving by introducing larger tanker trucks and coastal tankers, merger and abolition of oil storage depots and co-sponsorship of oil storage depots with other companies.

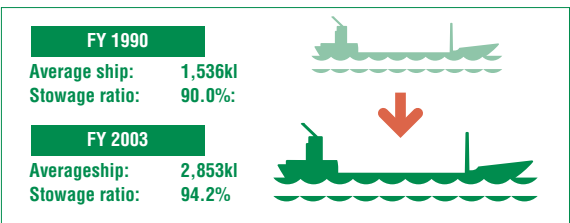


Larger tanker truck (left) and larger coastal tanker (below)

Average type of tanker truck and its stowage ratio *1



Average type of coastal tanker and its stowage ratio

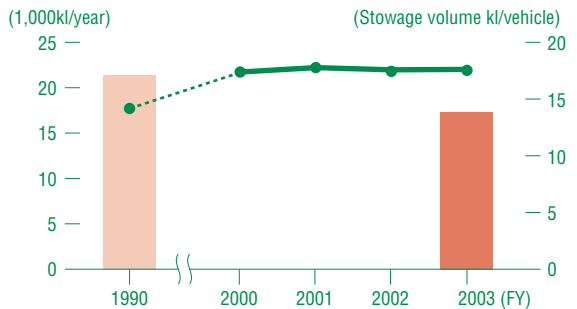


Land transportation

Land transportation by tanker truck is a major transportation system from refineries and oil storage depots to service stations and accounts for 40% of oil transportation in Japan along with maritime transportation. In our land transportation system, we aim to enhance energy saving by introducing larger vehicles and maintaining and raising the stowage ratio*2 to increase transported volume per delivery.

Fuel consumption in FY 2003 was reduced by 20 % from that of 1990. Introduction of the driver-controlled delivery system in FY 2003 enabled us to deliver at nighttime, which helped improve efficiency of transportation by reducing traffic jam and promoted energy saving. We continuously improve energy saving by expanding the driver-controlled delivery system and improving the efficiency of

Fuel consumption by tanker trucks

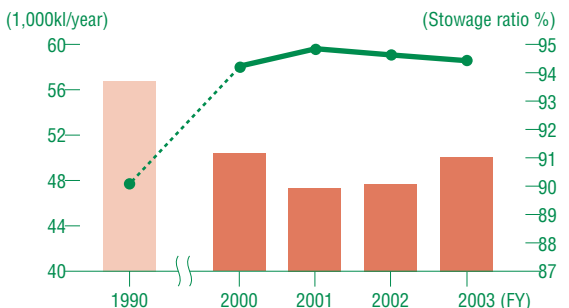


*1 Fuel consumption: Estimated from type, stowage ratio, fuel mileage and frequency of delivery of tanker trucks.

Maritime transportation

Petroleum products are transported from refineries to distribution bases and oil storage depots by coastal tankers weighing from several hundred to several thousand tons. Fuel consumption by coastal tankers in FY 2003 increased by approximately 5% due to the increase from the previous year in sales and maritime transportation volume, yet it is still 11% below the 1990 level. We have endeavored to improve the efficiency of transportation by promoting merger, abolition and the joint use of oil storage depots and introducing larger coastal tankers. We will continue to strive for energy saving by promoting night-time cargo handling and a high stowage ratio.

Fuel consumption for coastal tankers



*2 Stowage ratio: The ratio of actual stowage volume to capacity of tank.

SS (Service Station)

■ Service station environmental risk management

We implement environmental risk management using EM Points assessment.

➤ Introducing the Environmental Management Points system

We have carried out environmental risk management at our service stations since April 2003, when we introduced EM Points (Environmental Management Points), as one of the evaluation indices in the NAVI2003 sales promotion program, to assess the service stations' level of leak management, inspections at facilities and industrial waste management. We assessed the level of each service station's commitment to environmental management using EM Points at approximately 5,000 locations (including authorized dealers) in each half of FY 2003. According to the results of the assessments, both the recovery rate and the scored points improved in the second half of the year compared to the first half. We continue to provide appropriate guidance to our employees in order to further improve our management.



Check sheet for service station EM Point

➤ Implementation of educational activities

Based on the results obtained through the tools for service stations' environmental management, we held 8 environmental forums and 8 risk management seminars. We also made educational videos and distributed them to our employees. We have also added the Environmental Management Manual to the current SS Facilities Safety Inspections Records. In addition, we use the SS Soil-Environmental Safety Book prepared by the Petroleum Association of Japan with the aim of detecting leaks of petroleum at an early stage to prevent soil contamination.



SS Facilities Safety Inspections Records

➤ Conducting inspections of company-owned underground tanks

In addition to legally required inspections, we have been conducting voluntary inspections of underground tanks since FY 2002. To date we have already inspected most

of the company-owned service stations (approximately 900) and taken appropriate measures such as repair of facilities if necessary.

■ Eco-friendly service station

We promote the environmental responsiveness of service station, creating state-of-the-art eco-friendly service stations.

➤ Installation of solar panels

In FY 2003, we newly installed solar panels (photo voltaic systems) at four service stations, resulting in a total of 25 SS that utilize solar energy.



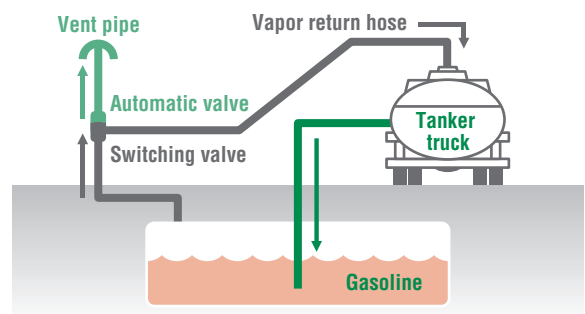
Solar panels at service station



➤ Introduction of hydrocarbon vapor recovery system

We install hydrocarbon vapor recovery system at our service station in order to control diffusion of hydrocarbon vapor*3. About 50% of the company-owned service stations have already installed the system.

■ Mechanism of vapor recovery system



*3 Hydrocarbon vapor: Hydrocarbon vapor is a type of hydrocarbon steam generated by gasoline, benzene or toluene. In most cases it diffuses from oil terminals, loading zones for oil tankers or distribution bases for chemical products. It is recognized as one of the causes of photochemical smog and malodor.

Research & Development

Development of products and technologies with lower environmental impact

We have worked on manufacturing of sulfur free diesel and practical application of long-life catalysts.

Development of high-performance desulfurization catalysts for sulfur free diesel oil manufacturing

Cosmo Oil has participated in the Research & Development on Petroleum Refining Pollutant Reduction Technology project *1 and developed high-performance desulfurization catalysts for sulfur free diesel fuel manufacturing. We have succeeded in increasing the desulfurization performance of catalysts almost threefold compared with conventional catalysts (500ppm) by modifying the structure of active sites (to multiple layers) to enhance their performance as well as increasing the number of active sites using our unique catalyst formation technology. These catalysts have enabled us to manufacture sulfur free diesel fuel (sulfur content of 10ppm or less) without a large scale capital outlay. Their long life (possibly four years of continuous use) is expected to result in a reduction of industrial waste. These catalysts have been undergoing verification testing at Chiba refinery since May 2004.

Finalization of direct desulfurization catalysts verification testing

Enhancing performance of the catalysts required for manufacturing of petroleum products from crude oil will lead to not only a cost reduction but also an environmental pollutant reduction. We have developed direct desulfurization catalysts that are 30% more durable than existing catalysts and confirmed their predefined level of performance by verification testing conducted from November 2002 to October 2003 using the direct desulfurization unit at Chiba refinery. They are currently in trial operation at Chiba refinery's direct desulfurization unit.



High-performance desulfurization catalysts for sulfur free diesel oil manufacturing

Development of new energy sources

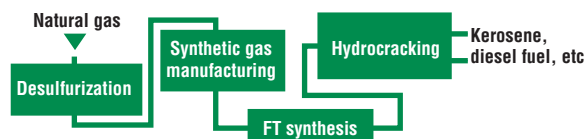
We are developing new energy sources with lower environmental impact.

GTL oil commercialization research

Cosmo Oil participated jointly with other companies in a project initiated by Japan National Oil Corporation : JNOC (currently Japan Oil, Gas and Metals National Corporation : JOGMEC) and successfully produced Japan's first GTL (Gas to Liquid) oil using our self-developed GTL catalysts at a Hokkaido pilot plant in 2002. Since GTL oil contains very little sulfur or aromatic substances, it is expected to be put to practical use as next generation kerosene/diesel fuel. We make further improvements to our self-developed catalysts while conducting commercialization research based on GTL oil utilization at the pilot plant, including study of GTL oil preparation that will meet the existing JIS requirements, evaluation of GTL diesel fuel emission gas, etc. Moreover, we took part in the Japan Hydrogen & Fuel Cell Demonstration Project (JHFC)*2 and succeeded for the first time in Japan in manufacturing hydrogen for fuel cells from GTL oil at the hydrogen station in Daikoku-cho, Yokohama, in 2003.

GTL

GTL stands for "Gas to Liquid" and refers to chemical conversion of natural gas to liquid fuel (GTL oil). The conversion process features simultaneous production of joint products including LPG, gasoline, kerosene, diesel, WAX, etc. Precise application for each fraction needs to be developed.



Advantages

- The resulting liquid fuel can contribute to a reduction of environmental impact because it is clean fuel containing very little environmental pollutants (sulfur, aromatic substances, etc.).
- It can contribute to the development of natural gas fields with impure gas.
- It can contribute to efficient utilization of remote or small to mid-sized gas fields with a transportation cost problem

Development of environmental technologies

We develop technologies to cut industrial waste and conserve soil environment.

Development of soil conservation technologies

We have established analytical technologies for fuel contaminated soil and assessment procedures for soil remediation by microorganisms. Several field tests were conducted at our sites using these technologies.

In 2003, we continued to work on the development of bioremediation technology to clean fuel components in soil or ground water.

*1 "Research & Development on Petroleum Refining Pollutant Reduction Technology" Project: A technology development project of the Petroleum Energy Center (PEC) commissioned by the New Energy and Industrial Technology Development Organization (NEDO) to reduce environmental pollutants in petroleum products.

*2 Japan Hydrogen & Fuel Cell Demonstration Project (JHFC): An initiative by the Ministry of Economy, Trade and Industry, consisting of the "Fuel Cell Vehicle Demonstration Study" and the "Demonstration Study of Hydrogen Fuelling Facilities For Fuel Cell Vehicles"

New Business Ventures

Expansion of comprehensive energy business

We expand our comprehensive energy business by developing new energy sources with lower environmental impact.

▶ Decentralized power source project

A decentralized power source system is an environmentally friendly power generation system by which energy (electricity and heat) is generated onsite at hospitals, factories and other users' premises at lower costs and at the same time exhaust heat (gas and motor heat) from power generation can be effectively utilized to increase energy utilization efficiency and reduce CO₂ emissions. We have operated the "Energy Service Business" including fuel supply management for decentralized power source systems using our existing distribution network, design, construction, maintenance and management of power generation and exhaust heat recovery facilities, and bearing the capital investment. By the end of FY 2003, we had secured contracts for a total of about 20,000kW. We have also continued to market kerosene heat pump air-conditioning products to meet the needs of users.

▶ Natural gas business

We joined LNG Chubu Co., Ltd., a liquid natural gas (LNG) marketing company established by Chubu Electric Power and its partners and began to supply LNG to city gas companies at the end of 2001. In FY 2003, we started supplying LNG to the industrial sector for the first time in Japan. In the same year, we secured 7 contracts and received LNG orders worth 16,000t per year. Having established Sakai LNG Company with the Kansai Electric Power Company and others and Sakaide LNG Company with Shikoku Electric Power Company and others, we are planning to expand the business of LNG receiving, storage, shipment, etc.

▶ Wind power generation

We are in the process of setting up a business operation focused on wind power generation as a clean, renewable energy source. We have conducted studies of wind conditions since 2003 in several locations including unused sites owned by the Company. We commenced construction of a wind power generation facility in Sakata City, Yamagata, in August 2004 and are planning to begin wholesale supply of wind generated power from December 2004.

▶ Fuel cells

We develop a stationary fuel cell system using hydrogen manufactured from petroleum fuel. We have also participated in the JHFC project and have been operating the JHFC Yokohama Daikoku Hydrogen Station to supply hydrogen to fuel cell vehicles since March 2003. Technologies for enhancing hydrogen manufacturing efficiency and hydrogen filling are being studied at this station. We have introduced Nissan Motor's fuel cell vehicle X-TRAIL FCV since March 2004 and are jointly researching hydrogen filling technology.



JHFC Yokohama Daikoku Hydrogen Station

▶ Independent Power Producer (IPP) business

We have built a power station with a capacity of 200,000kW in Kasumi, Yokkaichi City, Mie (Yokkaichi Kasumi Power Station) which commenced commercial operation in July 2003. It will provide Chubu Electric Power Company with a stable supply of electricity for the next 15 years. Yokkaichi Kasumi Power Station is designed to harmonize with nature and equipped with high-performance NO_x removal, desulfurization and electric precipitation devices and other environmental technologies as well as green space and conservation ponds.

Biodiversity Conservation – Biotopes at Yokkaichi Kasumi Power Station

Yokkaichi Kasumi Power Station has created conservation wetlands on the site in order to protect reedy ponds which are the breeding grounds for great reed warblers (*Acrocephalus arundinaceus*), a rare land bird species. Great reed warblers are summer birds that visit reedy areas near water to breed. A survey conducted in July 2003 confirmed two male great reed warblers on the grounds. Two rare plant species, *potamogeton pusillus* and *ruppia maritima*, are also conserved. *Potamogeton pusillus* is a type of rare algae that grows on a beach or in a river and *ruppia maritima* is also a type of algae that grows on a beach or in a mixture of salt and fresh water near a river mouth.



Expansion into new business fields

▶ 5-aminolevulinic acid (ALA) business

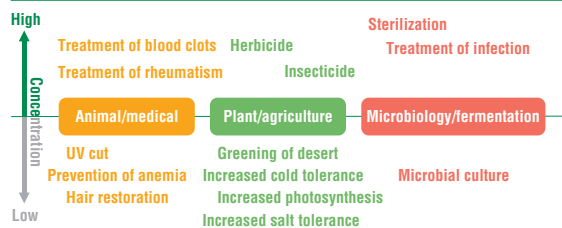
5-aminolevulinic acid is a naturally occurring amino acid which plays important roles in living organisms. Cosmo Oil has established a high quality, low cost method of manufacturing ALA by fermentation. We have also discovered that ALA can enhance CO₂ fixing capacity of plants and developed high-performance fertilizer containing ALA jointly with Seiva Co., Ltd., which has been well received by the greenhouse horticulture and other industries. ALA is also expected to be able to contribute to the resolution of environmental issues through greening of desert and other degraded areas.

▶ Rapid dioxin test kit "Immuno Eco DXN"



We have developed "Immuno Eco DXN", a rapid screening kit to measure the content of dioxin by immuno assay method and start test-marketing in December 2002. Our kit is currently adopted by five analytical service companies. The Ministry of Environment and the Ministry of Land, Infrastructure and Transport are evaluating various rapid measurement technologies including our kit. It is also highly evaluated in the study by the Ministry of Health, Labour and Welfare.

■ ALA application areas



*3 Immuno-assay method: A method to measure the level of a substance in a given sample by using the property of an antibody to specifically bind an antigen.



“Filling Up Your Hearts, Too”

As part of the “Living With Our Planet” Project, the Cosmo Oil Eco Card Fund is supporting environmental education in elementary schools in the hope of preserving this rich natural environment for the future generations. This photo was taken during an environmental education program in rice terrace, Samizu Village, Nagano Prefecture in 2003.

We aspire to create future value for all stakeholders and to be the trusted corporation of choice.

- 1 We promote business ethics in order to become a corporation trusted by society.
- 2 We endeavor to create future value in our relationships with stakeholders.
- 3 We actively disclose information and implement two-way communications.

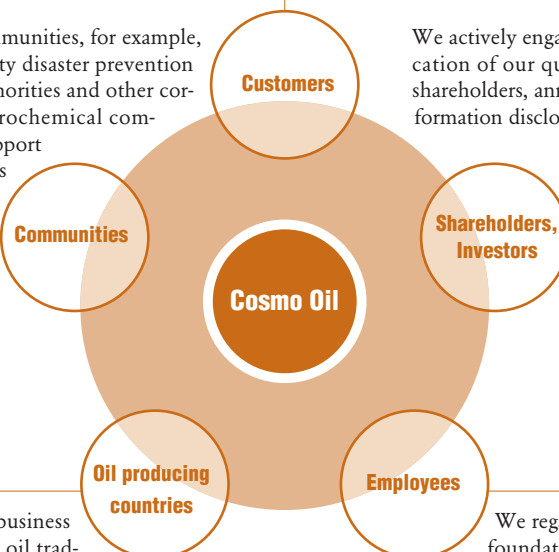
Relationships with stakeholders

In order to maintain trust of the stakeholders who support Cosmo Oil and to remain a corporation they want to continue dealing with, we endeavor to provide value for them through our business activities as well as actively disclosing information and implementing two-way communications.

In order to build the Cosmo network loved by all customers, we are listening to our customers and working to provide valuable services including improved levels of service, establishment of safety, etc.

As a constituent member of communities, for example, our refineries develop community disaster prevention systems in cooperation with authorities and other corporations in the vicinity of petrochemical complexes. We also promote and support community activities such as cleaning and local events.

We actively engage in IR activities including publication of our quarterly newsletter (C's MAIL) to shareholders, annual report, facts book, etc. and information disclosure on our website.



Our ties with our long standing business partners are not limited to crude oil trading. We have been working on conservation of the environment and promotion of safety management technologies in these oil producing countries using our human and technological resources. We also develop human resource and cultural exchanges.

We regard respect for human rights as the foundation of our corporate activities and endeavor to provide a more attractive work environment in which our employees can not only work safely and comfortably but also realize their potential.

To be a corporation trusted by society

We, the Cosmo Oil Group, maintain a high standard of ethics and actively promote strict compliance, risk management, information disclosure, etc. in order to remain a trustworthy corporate group. At the same time, we are committed to clarity and transparency of our decision making process and operating structure.

Reinforcing corporate ethics

Our aim is to become a highly ethical corporation. In order to maintain and promote the Cosmo Oil Group Management Vision and the Cosmo Oil Group Corporate Activity Guideline, the Corporate Ethics Committee, chaired by the President of Cosmo Oil Company and directly reporting to the Board, takes the lead in setting annual policies and action plans which are checked and reviewed by the management. The Guideline is published in Japanese, English and Arabic.

Reference For details, please see p. 2 of the Data Book (The Cosmo Oil Group Corporate Activity Guideline).

Compliance awareness among all members of the Group and maintenance and promotion of ethics are supported by the awareness and morals of individuals. At the Cosmo Oil Group, we have appointed Corporate Ethics Promotion Officers in all our business sites and group companies to promote and

strengthen ethics while our Corporate Ethics Promotion Office is promoting strict compliance by our employees through the following activities.

- Ensuring all employees carrying/with the management vision card (business card size)
- Organizing briefings for Corporate Ethics Promotion Officers
- Organizing training seminars for employees

Reference For details, please see p. 17 of the Data Book.

- Surveying employees to determine their levels of understanding (March 2004)

A helpline has been set up so that employees can discuss any legal or ethical concerns they may face in day-to-day work. Discussions on the helpline are protected by company regulations so as not to disadvantage the users.

Establishing highly transparent management systems

Here at the Cosmo Oil Group, we promote corporate governance to improve transparency and efficiency of corporate management, speedy execution of operational duties, risk management and strict compliance in order to enhance value for all stakeholders.

Corporate governance structure

In our organizational structure relating to management decision making, enforcement and supervision, the Board of Directors is the highest decision making body and the Executive Committee is the advisory body for CEO. To keep managerial and executive functions separated from supervisory functions, audits are conducted by the Board of Auditors appointed by the General Meeting of Shareholders. Managerial (executive) appointment and remuneration are considered by appraisal and selection committees set up to ensure transparency.

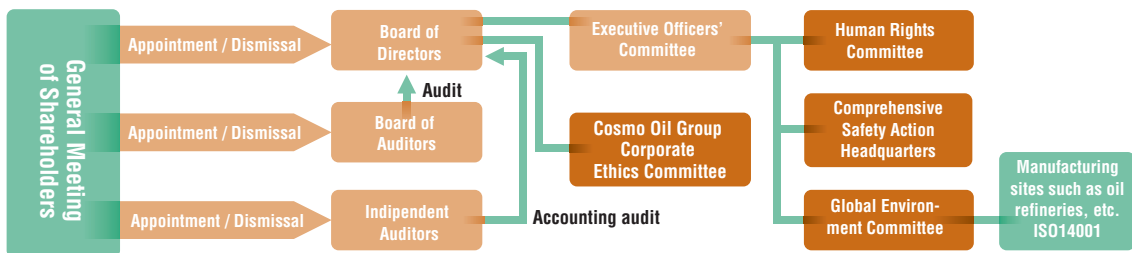
Risk management system

Minimizing business risk and preventing problems from occurring are fundamental requirements for ongoing stability of management. In 2003, we implemented the PDCA (Plan, Do, Check and Action) cycle starting from an annual review of risks for all business activities. The progress is monitored by the internal auditing office and reported to the management.

Promotion of socially responsible management

In the past, our efforts to discharge our social responsibilities were made in individual areas. Since April 2004 when we set up a section to deal with all areas of social responsibilities, we have been developing a lateral structure to carry out a group-wide promotion to clarify responsibilities and ramp up our efforts. We have committees reporting directly to the management in the areas of corporate ethics, environment, safety and human rights.

Management structure



Socially important issues

Although the Cosmo Oil Group has been endeavoring to reinforce compliance and enhance transparency of corporate activities in order to discharge our social responsibilities and exist in harmony and coexistence with society, we have experienced some regrettable incidents that have caused concern in the community. We investigate the causes of these incidents as well as endeavor to prevent them by raising the awareness of all our employees and making necessary improvements to our facilities.

The Leakage of Personal Information of the Cosmo the Card Members

Leakage of personal information

On April 8, 2004, we received an enquiry from a customer regarding possible leakage of Cosmo the Card credit card customer information. The customer received suspicious direct mail containing characteristic spelling or terms that were used in the name and address when the customer registered or updated personal details.

Our investigation has found evidence that some data was downloaded from a particular server that stored membership data (up to 923,239 records) that had been extracted previously for the purpose of system development. We consider that it is extremely likely that all or part of the 923,239 records of personal information were leaked.

Initial response

Following the enquiry, we set up a task force on April 13 according to our emergency measures regulations and began an investigation in cooperation with an external specialist investigation service company and in consultation with the police. In view of concerns and damage that fraudulent invoices and direct mail might cause to our customers, we held a press conference even before we confirmed a possibility of information leakage and at the same time we warned our card holders about fraudulent billing through notification in newspapers, our website, direct mail, etc.

Preventive measures

In preparation for the enactment of the Personal Information Protection Law, we began the development of a personal information handling system in 2003 and established a personal information protection policy, privacy policy and personal information protection code. These measures came into operation on April 1, 2004, just before this incident occurred.

We accept the gravity of the situation and are endeavoring to raise awareness about the importance of the personal information protection policy, the privacy policy and the personal information protection code and their strict operation and management by conducting information sessions at all business sites and group companies and through individual guidance under the direction of the officer in charge of personal information management promotion (Director of Administrative Affairs).

We have also taken measures to make our facilities more secure by reinforcing physical access control, making partial modifications to office layout and establishing a 24-hour security camera surveillance system as well as proceeding with the introduction of an advanced security system with biometric identification system as part of technical countermeasures.

In addition to enhancement to operation and management, we take seriously the extremely high possibility that customer information was leaked from our contractor and are reinforcing management of contractors by the newly established Information Planning Department.

We will continue to raise awareness about compliance and refine internal management systems throughout the Cosmo Oil Group in order to prevent this type of incident from re-occurring.

Alleged Antimonopoly Law Violation Concerning Supply of Petroleum Products to the Defense Agency

Allegation of Antimonopoly Law violation

On November 9, 1999, a criminal charge was laid against us for an alleged violation of the Antimonopoly Law in relation to tendering for petroleum products supplied to the Procurement Department of the Defense Agency by oil wholesalers.

Cosmo Oil argued in court that the bidding was done in accordance with the rules of the Procurement Department at the time and that our actions were lawful. However, after an unusually long period of deliberations extending to more than 4 years, Cosmo Oil was found guilty by the Tokyo High Court on March 24, 2004.

Our response to the judgment

While we take the court judgment seriously and are endeavoring to improve the transparency of our business activities through information sessions and seminars within the Group to prevent any conduct that would invite suspicion, we consider that fair reconsideration of our arguments against the judgment is required and have accordingly appealed to Supreme Court.

Thorough safety management is the starting point of our corporate activities.

Establishment of the Safety Guidelines

Cosmo Oil regards safety management as the starting point of corporate activities and has an activity guideline for safety in place in order to carry out our social responsibilities. "We shall take the maintenance and development of safe and stable operation as one of the most important problems, and aim at securing the safety of not only the employee but also local populace in the work place that handles combustibles and high-pressure gases, etc., and aim at living together with the local society." (Cosmo Oil Group Corporate Activity Guideline)

We have been working hard to make our workplace safe and healthy and achieved zero operational accidents at our refineries.

In FY 2003, we recorded no operational accident at refineries, no labor accident with lost work time and one labor accident with no lost work time. Our Chiba Refinery maintained its No.1 position in the oil industry for its record of total hours of no accident record (15,700,000 hours as of end December 2003). We had two operational accidents at our oil storage depots. We have investigated their causes, considered preventive measures and applied these measures to other business sites in an effort to prevent them from re-occurring. In view of serious accidents that the industry experienced in 2003, the Company and its affiliated companies have re-checked works management procedures and reviewed emergency response manuals for earthquakes, etc. to ensure more thorough safety management.

Reference For details, please see p. 18 of Data Book.

Framework for safe operation at refineries, etc

At our refineries where large quantities of combustibles are handled, our employees and cooperating companies are working together to secure the safety of the refineries and other facilities. The health and safety committee chaired by the head of each refinery carries out planning of various safety promotion activities and reports their results. The measures for prevention of operational and work accidents include the development of activities that enhance the safety awareness of each employee such as early risk detection training, the application of preventive measures developed from accidents to other business sites and the training of employees by safety education and the use of training simulators.

Introduction of the Safety Management System at refineries

Our refineries conducted safety management reinforcement activities for 2 years to March 2003 which included the expansion of the coverage of age-related deterioration diagnosis for facilities, active participation in facilities maintenance in the operation division and the reinforcement of change control for facilities and operation. In FY 2003, we established the PDCA-Type Refinery Safety Management System (SMS) which systematically integrated the results of our previous safety management activities and safety management reinforcement activities for continuous improvement of safety management standards. From FY 2004, we will incorporate the equipment safety assessment system into the SMS and commence full operation of the system in order to further reinforce our safety management regime.

The SMS Concept



Thorough safety management by prevention and swift response

Safety management requires both a prevention aspect and a swift response aspect to minimize damage in the event of a disaster. We are endeavoring to improve safety management by implementing both equipment ("hard") measures and procedure ("soft") measures for both aspects at each stage of our operations - refineries, oil storage depots, distribution (tanker trucks and coastal tankers) and service stations.

Prevention and early detection

Early detection of abnormalities is important in preventing accidents and disasters. Our early detection efforts include the monitoring of day-to-day operating conditions, regular inspections of facilities, careful patrol and the installation of abnormality detection devices.

Hard measures

Refineries and oil storage depots

- Safety considerations in facilities design
- Installation of safety devices
- Installation of abnormality monitoring devices

Distribution

- Installation of oil contamination prevention devices

Service stations

- Safety considerations in facilities design
- Installation of anti-electrostatic sheeting
- Installation of anti-overflow facilities

Soft measures

Refineries and oil storage depots

- Thorough management of operation, works and facilities
- Early risk detection activity (early risk detection training, reporting minor concerns)
- Organization-wide utilization of information gained from accidents
- Operation skills training using educational simulators
- Education system based on competency mapping
- Small group activities, etc.

Distribution

- Establishment of a safety assessment system for transportation companies
- Establishment of an audit program by the head office
- Dissemination of safety management information and driver education information

Service stations

- Displaying posters raising anti-electrostatics awareness of customers
- Clear marking of guidepaths
- Non-smoking signage
- Monitoring of self-service stations by employees

Response to accidents

In preparation for fires, our refineries have heavy-duty chemical fire engines and an in-house fire brigade has been set up and carries out regular fire drills. In the event of any oil spillage during loading and unloading, our wharves have oil booms to prevent the spread of oil in the ocean. As a measure against marine pollution from major oil spills, Cosmo Oil has joined the Petroleum Association of Japan's Oil Spill Co-operative Organization and set up a base for storing oil spill prevention equipment and materials at its refinery in Yokkaichi (Base No.3) as part of the mutual support system.

Hard measures

Refineries and oil storage depots

- Installation of fire prevention and fire fighting facilities and equipment
- Installation of safety and protective devices
- Deployment of heavy-duty chemical fire engines
- Deployment of oil booms at wharves

Distribution

- Installation of fire prevention and fire fighting facilities and equipment
- Carrying equipment and materials on board
- Installation of radios on tanker trucks

Service stations

- Installation of fire extinguishers and fire fighting equipment
- Installation of fire walls

Soft measures

Refineries and oil storage depots

- Development and establishment of an emergency response body
- Fire drills (at each business site and jointly with neighborhood and local fire brigades)
- Development of mutual support system
- Preparation of manuals

Distribution

- Development and establishment of an emergency response body
- Education and training relating to accidents and problems during transportation
- Preparation of manuals
- Support by the operations manager

Service stations

- Fire drills
- Disaster prevention education
- Preparation of service station risk and safety management manual



Comprehensive emergency drill



In-house fire brigade (fire engines)



In-house fire brigade drill



Marine emergency drill

Creating a work environment that enables all employees to feel

In order to achieve “Harmony and Symbiosis between Companies and Society” as declared in our Management Vision, we are implementing various measures based on our policies of “respect for the individual (humanity and individuality)” and “harmony in the organization.” We consider that Cosmo Oil’s corporate culture encompasses the recognition that each person is an invaluable existence with personal dignity, having respect for others, fulfilling one’s roles with knowledge, ability and conscience, and fulfilling social responsibilities as a corporate citizen.

Reference For details, please see p. 17-18 of Data Book.

Respect for human rights

The Cosmo Oil Group promotes prevention and elimination of all human right violations as declared in the Cosmo Oil Group Corporate Activity Guideline. In order to achieve the goal and further promote the existing human rights educational and promotional activities, we established the new Human Rights Committee in 2004. For our overseas business activities, the Guideline have stipulations about respect for local culture, customs and indigenous people’s rights, decision making criteria as to whether we should continue to carry on business in a country with serious human rights problems,

impact assessment in a area where a large-scale investment is made for the first time, respect for the United Nations’ basic principles regarding the behavioral standards of law enforcement officers, and protection of these principles and the rights of employees and local residents in security operation.

WEB

▶ <http://www.cosmo-oil.co.jp/company/corpo/guideline.html>

✦ Excerpts from the Cosmo Oil Group Corporate Activity Guideline

● Human rights respect

- We shall pursue our business with sincerity, respecting the different cultures and the dignity and rights of individuals in all the countries where we operate. We shall support the principles in the Universal Declaration of Human Rights.
- We shall not discriminate in the community on the basis of the birth, the nationality, the race, the creed, the religion, the sex, the age, the presence or absence of disability and so on.

✦ 2003 Human Rights Enlightenment Competition

In the 2003 competition organized by the human rights enlightenment seminar promotion committee, the following slogans won the best prize.

● Employees section

No discrimination is the manifesto for humanity.

● Family section

A small circle becomes a big circle and forms a kind society
Join us and hold hands for our future society in harmony
I can only form a small circle. You and I can form a bigger circle. All of us together can form a big kind society.

Personnel system

Building a tough, but kind and happy company

Based on the concept that the Cosmo Oil Group is a place of self-realization for each employee, we provide our employees challenging opportunities and develop and operate various personnel programs

for them to maximize their potential.

As part of these activities, we started the performance- and competency-based personnel system in January 2000.

✦ Objectives of the personnel system

- Clear definition of each employee’s roles and responsibilities
- Fair evaluation based on the degree to which one’s expected roles are fulfilled
- Fair remuneration reflecting the result of the evaluation
- Human resource and competency development by providing feedback on the evaluation.

✦ Employees satisfaction survey

We conducted the “Cosmo Survey” to find out how satisfied our employees were with our personnel system in December 2002. The survey results have been collated, analyzed and made available for all employees.

We will review and consider the issues identified by the survey in cooperation with each department and the labor union in order to improve our personnel system.

Labor union

Cosmo Oil’s labor union is based on the union shop system and has 2,799 members (at the end of March 2003). The Company has a labor agreement with the union which stipulates that any issue that has an impact on employment conditions such as employee status and employment must be discussed between the two parties in ad-

vance. The top management and the union have discussions regularly at the Management Council and the Central Labor-Management Council, and each workplace has a Regional Labor-Management Council, Safety and Health Committee and Health Committee which meet as frequently as required.

themselves advancing and growing.

Educational programs

We have developed education programs focused on letting a person grow rather than growing a person.

➤ Tiered educational seminars

Low to mid-level employees..... Educational seminars to foster “respect for individuals living in an organization” and to nurture “autonomous human resources.”

Mid-level employees and managers... Education seminars to nurture “human resources who can create value.”

We have also been conducting CSR (corporate social responsibilities) seminars for managers since 2003. Each of the tiered educational seminars incorporates seminars on the environment, human rights and corporate ethics (compliance) as compulsory subjects.

➤ Career support

Individuals have different views on what is rewarding for them and what kind of person they want to be.

It is important that each employee thinks about his or her idea of a rewarding career that is needed to lead a satisfying life in society and makes an effort to realize it.

■ Career support for employees

Cosmo Oil Group ensures that our employees gain skills and knowledge required for each stage of their career through the tiered educational seminars.

The career paths of the employees are reviewed and confirmed annually between the employees and their superiors in Cosmo Oil Group. This information is passed on to the Company and taken into account at the time of personnel changes to cater for our employees' career objectives. In fiscal 2000, we introduced the in-house staff recruitment system by which employees can apply for job vacancies directly without having to go through their superiors and the selection of successful applicants is entirely a decision of each department. We provide support for employees who attend external or correspondence courses for the purpose of self-education or obtaining qualifications.

■ Post-retirement career support

Due to review of the social security system, including welfare pensions and unemployment insurance, there is growing anxiety about life after retirement at the age of 60. We introduced a re-employment support program in October 2002 in order to help to dispel such anxiety. “Lifetime employment” as the key word, we conduct Life Planning Seminars for those who have turned 55 to help them take stock of their career, consider what they want to do before and after retirement and what their long-term vision for life is. We also hold Pre-Retirement Seminars for those who are about to retire and Second Career Seminars for those who wish to find another job after retiring from Cosmo Oil. Our group company, Cosmo Business Support Career Center, has a counseling service as well as providing employment information to the participants of the Second Career Seminars.

Creating a field for self-realization

➤ Supporting child-rearing, career development and smooth return to work

From fiscal 2004, we are providing our employees with courses on business skills development and cooking for working fathers and mothers as well as an on-line service tool to provide useful information to facilitate return-to-work and child rearing.

➤ Employment of the disabled

We carry out employee training to raise awareness and endeavor to create a work environment where disabled employees can work to their full potential without hindrance.

➤ Creating comfortable work environment for safety and health

Our employee health care activities include providing a regular health check-up, providing health guidance by industry doctors, and setting up the “Hello Health Consultation 24” service providing access to external services for health, medical and mental health consultations.

Becoming a company able to provide service of value to customers

➤ Towards the next generation of business networks, with value for our customers

The largest contact point between our customers and Cosmo Oil is our service stations. Therefore, improvement in service quality and ensuring safety at service stations are important tasks for us. Our company aims at creating “the next generation of business network with value for our customers,” enabling us to deal with customers’ individual needs in a timely fashion.

Value that customers expect in their "car life"

We will evolve into a next-generation business addressing the value that customers expect in their car life.

There are two main types of value customers expect in their car life; value in fuel oil and value in car care (car maintenance).

➤ Response to the “value” in fuel oil

Promoting the conversions of existing stations into, and the establishment of, new self-service stations

According to the findings from the surveys conducted by Petroleum Association of Japan, 45% of customers prefer self-service. Our company is promoting the conversion of existing service stations into self-service stations and the establishment of new self-service stations in order to meet such customer needs. Current figure shows that 8% of our existing service stations are self-service, accounting 20% of total sales.

➤ Response to customers’ needs for “value” in car care

Toward a comprehensive "car life" solution that also covers potential needs

Car care needs can be categorized into products of which customers readily understand the need for replacement (e.g. oil, tires, car inspection, etc.) and products for which such timing is difficult for customers to judge (e.g. batteries, coolant water, etc.). We believe that providing appropriate advice tailored to each car’s condition will contribute to improving customer satisfaction with the “value” that they expect to gain from their car life.

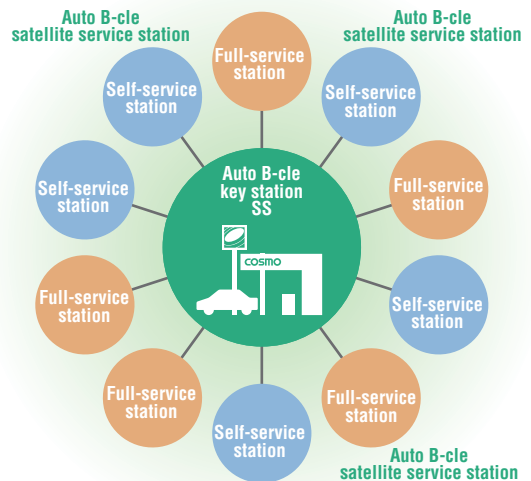
Service station network

By developing “Auto B-cle” and networking our service stations, we address diversifying customer needs.

In order to provide a "car life solution" which can respond to the diversifying needs of our customers, we have developed the concept of an "Auto-B-cle", located next to service stations, to serve as an inspection/maintenance shop that has sophisticated car wash equipment and sells car care products including tires and batteries. We endeavor to address the various car care needs of our customers, aiming to become a consulting station close to our customers where they can visit at any time and ask us anything about their cars. We also promote networking between large-scale Auto B-cle "key stations" with inspection/maintenance shops and small to medium scale Auto B-cle satellite service stations.

This allows us to provide our customers with Auto B-cle service through satellite service stations even in areas where there is no key station in the neighborhood.

■ Service station network



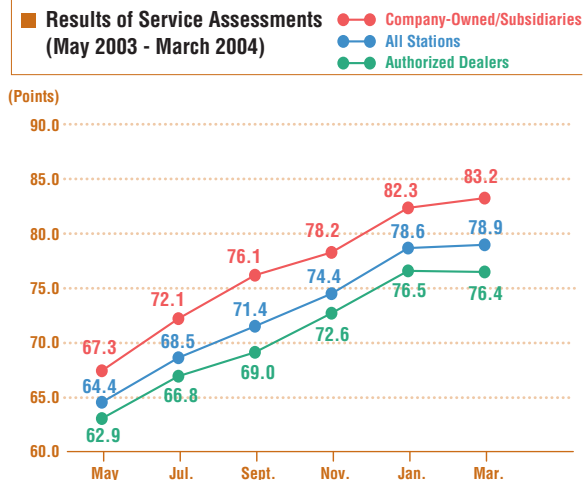
Auto B-cle

Service assessment at service stations

We conduct assessments at SSs every two months, taking immediate action for improved service quality.

For a service station to be trusted by its customers, it is essential to follow the basic rule of retailing. Our basic rule is "To Keep Faith with Customers." Our service stations promise four service qualities to customers — Friendliness, Cleanliness, A Sense of Security and High Quality. We conduct service assessments every two months. Inspection monitors inspect our service quality from a customer's point of view, for items such as Impression, Operation and Sales Activity, and grade each item on a scale of one to four: strongly wish to visit again, wish to visit again, not sure or do not wish to visit again.

We conduct these assessments with a short interval of two months in order to feed back the results promptly to each service station for prompt improvement and motivate customers to come back to our stations. In order to facilitate such prompt improvement, we issue the "Guidebook for the Use of Service Assessment Results at Service Stations", which includes descriptions of the purpose of service assessments and directions for appropriate response to the results, and distribute it to each service station.



Barrier free service stations

We are expanding barrier free service stations by implementing accessible bathrooms and ramps for wheelchair users, together with the Service Station Order Card for hearing impaired customers.

Our service stations operate in harmony with the local community by supplying fuel to it. On the basis of our wish for more people in local areas to take advantages of our service just because our service stations are so close to them, we are promoting expansion of barrier free service stations by implementing accessible bathrooms

and ramps for wheelchair users. There are reportedly 30,000 hearing impaired drivers in Japan. We have implemented the "Service Station Order Card for the Hearing Impaired" to enable hearing impaired customers to order fuel smoothly. This card was introduced thanks to a suggestion by one of our hearing impaired employees.



Service Station Order Card

WEB ► <http://www.cosmo-oil.co.jp/ss/society/index.html>

Cosmo customer center

We strive for accurate, polite and timely responses to our customers, and to ensure that their voices are reflected in improvements to our services and operations.

We established the "Cosmo Customer Center" in October 2000 to promote two-way communication with customers.

In FY2003, we received an average of almost 309 comments per month from our customers via toll-free telephone line and email, broken down into questions (57%), complaints (23%), requests (17%), and other contacts (3%).

The Cosmo Customer Center is an integrated department to gather, categorize and analyze these comments. This allows us to respond to our customers accurately, quickly and politely, communicate comments from our customers to the related departments and make sure to reflect these comments in improving our service and operation, striving to further improve customer satisfaction.

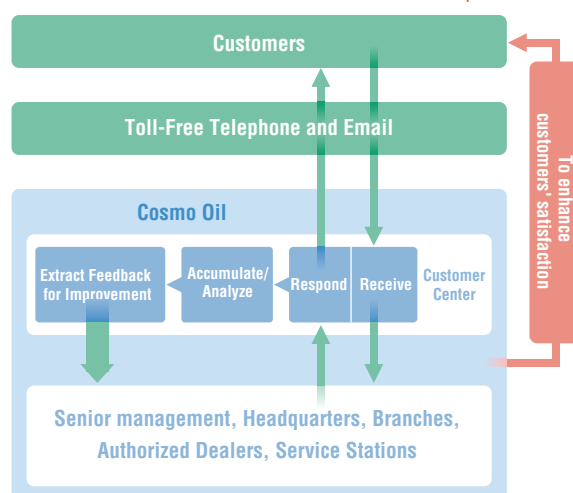
We also issue a "Service Station Customer Support Guidebook", which explains the important points in responding to customers' comments by referring actual examples and good/bad responses in customer support, and distribute it to each service station, endeavoring in this way to lay the foundation for customer support.

WEB ► <http://www.cosmo-oil.co.jp>

Toll-Free Telephone ► 0120-530-372 (from within Japan only)

Role of customer center

To reflect customers' comments in better service and products



Fulfilling the role of a corporate citizen living on the earth

➤Promoting environmental activities together with customers, community, NGOs.

Petroleum products generate large environmental impact when they are used. We consider it important to develop and provide petroleum products with less environmental impact as well as to work on environmental protection together with our customers. With these considerations in mind, we promote the following events where our customers can easily participate in environmental protection activities.

Cosmo the Card Eco

This card was created when our customers' and Cosmo Oil's wish "to do something for Earth" became one.

With "Living with Our Planet" as its slogan, Cosmo the Card Eco is implementing activities in support of environmental conservation activities and of education for children, who will bear the burden in the next generation, both within Japan and overseas, focusing mainly on prevention of climate change. The activities are supported by donations from Cosmo the Card Eco members (they donate 500 yen when they join, and continue to donate that amount every subsequent year in the month in which they joined) and by donations from Cosmo Oil. The number of members has reached almost 75,000 in the two years since the inauguration of the project. To implement effective support, the staff is promoting environmental restoration and protection projects and the "Living with Our Planet" project, discussing and listening to opinions from local residents and public administration together with project partners.



Cosmo the Card Eco



"Living with Our Planet" Project

With prevention of climate change as the main theme, we promote activities focused on global environmental protection and environmental education for the next generation in cooperation with NGOs operating in the local areas, considering "what we can do" and "what we should do" as a corporate citizen of the earth.



Tropical Rainforest Protection

Papua New Guinea and Solomon Islands

As a first step to preserving the tropical rainforests, which absorb carbon dioxide greatly, this project supports the spread of forest-friendly, recycling-oriented farming practices.



Recycling-Oriented Farming Support

Philippines

This project supports the sustainable development of the region that is based on recycling-oriented farming in which Cassava leaves are recycled.



South Pacific Support

Kiribati

With rising sea levels, which are regarded to be caused by global warming, this project supports island countries that are faced with damage such as the salinization of well water and the erosion of coastlines.



Support for Environmental Education

Japan

This project supports environmental education in schools through the provision of such curricula as an environmental education program for "Integrated Studies" at schools.



Silk Road Afforestation

China

In collaboration with local residents and governments, this project promotes afforestation along the Silk Road in the name of combating desertification.



Environmental Schools Support

Japan

Through simultaneously experiencing and learning about the natural and social environments, this project supports the nurturing of children who are capable of working for the environment independently.

Column

The Corporation's Commitment to the "Century of the Environment"



Kei Karasawa
Professor, Tokyo International University
Professor Emeritus, Ritsumeikan University



Both corporations and citizens are facing increasing pressure to adapt to structural changes in economies (markets) and societies engendered by today's globalization, market-oriented economic reform and accelerating computerization. While the flourishing of private-sector initiative, regional economic integration beyond the framework of national life and the progress of the IT revolution underlie this pressure, it is also essential to tackle global environmental issues. In this "Century of the Environment," it is the responsibility of every economic entity to realize globally sustainable development, and for this reason corporations are expanding their movements toward new roles and social contributions more actively each year and the community's expectations in this regard are also rising.

Recognizing that "the roles of corporations have expanded further in order to reduce environmental impact given by the whole society and promote the building of a sustainable society," as pointed out by the chairman Mr. Okabe, Cosmo Oil has been committed to various activities for environmental protection and social contribution from an early stage. Oil continues to be the most basic substance supporting the world economy and society through its roles not only as a precious source of energy but also as the fundamental material of everything, one of the biggest trading products, a unique substance that has become a financial commodity and moreover, the creator of massive amounts of petrodollars. At the same time, as vividly demonstrated during the era of high economic growth, oil has a significant impact on the environment and the potential to deprive our economy and society of sustainability through its combustion. With development and competition currently being promoted globally through acceleration of economic globalization and computerization, oil consumption is rapidly increasing especially in the developing countries, and emissions of environmental pollutants such as carbon dioxide are also increasing globally.

At this juncture, especially because it is an oil company, Cosmo Oil's management strategies and prioritizing of the environment are meaningful and pioneering and have a significant economic and social impact. Their "Cosmo the Card-Eco" program is particularly notable. This program aims not only to reduce the environmental impact in each of Cosmo's oil related business activities but also to achieve both global environmental conservation and economic development, working together with different layers such as customers, NGOs, governments and so forth. The Tropical Rainforest Protection Projects in Papua New Guinea and the Solomon Islands are part of the above program. These are unique international projects that focus on both environmental conservation and sustainable development of the local community, and the company's relations with NGOs are also noteworthy as an indication of Japan's new direction for development cooperation.

In March 2004 in Rabaul, Papua New Guinea, I had an opportunity to observe in detail the current status of support provided for the development of settled organic farming, including the rice-milling machines donated by Cosmo Oil and rice polishing by the local people. Organic farming linking rice farming with pig farming is suitable to the conditions of Papua New Guinea. Cosmo has ambitious targets to stop rainforest destruction and solve the food shortage and the poverty problem there.

Recently, it is often said that in a number of industries, there is a growing trend to shift from the conventional mass production systems where industries depend on natural resources into product manufacturing and market oriented production systems which focus on intelligence, information and technology. I plan to observe closely Cosmo Oil's ongoing handling of its commitment to give top priority to the environment.

Trial use of CO₂ “emissions rights”

As part of our activities to deal with the issues of climate change and CO₂, we are making use of “emissions rights” resulting from CO₂ absorbed by forests we support.

▶ Cosmo Oil’s emissions rights

Cosmo Oil is supporting the eucalyptus forest of approximately 5,100 ha in the South West of Australia. We obtained emissions rights based on the CO₂ absorption by the forest, totaling 24,000 tons in 2002 and 47,489 tons in 2003. The CO₂ absorption is audited by a Norwegian forestry management company, Jaakko Poyry Consulting and Asahi & Co. (currently KPMG AZSA & Co.)

▶ Providing Cosmo the Card Eco members with CO₂ free-gasoline and diesel oil

We have implemented the “CO₂ free-gasoline” program since 2002 to offset the CO₂ emission from gasoline purchased by Cosmo the Card Eco members in a month by emissions rights. 11,195 tons of CO₂ emissions from gasoline were offset by emissions rights in December 2002 and 16,228 tons of CO₂ emissions from gasoline and diesel oil were offset in December 2003, meaning the same amount of CO₂ was absorbed by the rainforest in Australia.

▶ First in Japan to offer “CO₂ Sequestration Certificate” to individual customers

To share our thoughts and actions for the prevention of climate change with as many people as possible, we have been selling “CO₂ Sequestration Certificate” for 500 yen per ton of CO₂ at various environment related events in which we have participated since January 2003. We have also started selling the certificates on our website since February 2004, in response to requests from many people who could not attend the event but were interested in purchasing the certificates. Over the past 18 months, approximately 3,000 certificates have been delivered to individual customers. Revenue from the sales is used for environmental activities that we are promoting together with the Cosmo the Card Eco members.

The “Click Fund”

Each time that the icon for a particular environmental project is clicked on our website, Cosmo Oil makes a donation of one yen per click on behalf of the visitor.

This is a system to enable visitors to donate one yen automatically by choosing an environmental protection project they want to support on Cosmo Oil’s website and clicking its icon. This system allows Cosmo Oil to make a donation on behalf of the visitors who click the icon. Since its start on 14 February 2003, the amount of donation has totaled 1,378,230 yen as of the end of March 2004.

WEB ▶ <http://www.cosmo-oil.co.jp/kankyo/charity/index.html>

For better understanding

What are emissions rights?

Emissions rights are the rights to emit certain amount of CO₂ equivalent to the amount absorbed by the growing trees planted. We have been supporting the planting of eucalyptus trees in Australia since 2001, obtaining emissions rights for the amount of CO₂ equivalent to the absorption by the forest measured and verified by specialized agencies.

How emissions rights work

CO₂ Absorption by Planted Trees

Energy Conservation, etc.



Emissions rights are the rights to emit certain amounts of greenhouse gases such as CO₂ equivalent to the absorption by the growing trees planted or reduced by energy saving, etc.

Green House Gas Emissions
Approx. 1.33 billion tons per annum in Japan
Including CO₂ emissions of approx. 1.25 billion tons

Per capita annual CO₂ emissions in Japan are approximately half that in the US; however, they are still more than 4 times those of China. Japan’s emissions account for 5.2% of global annual emissions, and are the 4th highest in the world.

Source: Report published by Ministry of the Environment in 2002

Source: Website of Japan Center for Climate Change Actions (Data 2000)



CM

Introducing our environmental advertising

“Preserve the Forests”

30 secs.
October 2002 and on



STILL BLUE



Narration:

Slash-and-burn agriculture can be carried out in harmony with nature. However, with the impact of population increase, etc. the cultivated lands are expanding faster than forest recovery.



This is a cause of the destruction of tropical rain forests.



We are supporting people in the villages of Papua New Guinea, who are struggling to shift from slash-and-burn agriculture to settled farming.



Sound logo

Filling Up Your Hearts, Too.
Cosmo Oil



“Efforts for Farming”

30 secs.
February 2004 and on



STILL BLUE



Narration:

A South Pacific village has recently started rice farming.



The people of the village want their rice crops to go on supporting the village and their life in harmony with nature.



We have established a farm in this village in order to expand settled organic farming. Sometimes environmental activities make people's wishes come true.



Sound logo

Filling Up Your Hearts, Too.
Cosmo Oil



Developing in cooperation with the global community

➤ Promoting international cooperation through technical support and environment protection activities

Cosmo Oil Group is exchanging personnel and culture as well as implementing technical cooperation and technology transfers with Middle Eastern countries where we have strong business connections and developing countries where future economic growth is anticipated, wishing to assist in the sustainable development of, and to build and maintain amicable relationships with these nations.

Overseas cooperation activities

In collaboration with government agencies and overseas corporations, we are promoting the implementation of various development and research projects and energy conservation model projects.

Our main activities are the implementation of technical assistance for various development and research projects and energy conservation model projects. Examples include training programs inside and outside of Japan and overseas studies funded by Japan Cooperation Center, Petroleum (JCCP), dispatch of experts on both long- or short-term basis to overseas projects implemented by the Japan International Cooperation Agency (JICA) and studies relating to improvement of the global environment improvement undertaken by the New Energy and Industrial Technology Development Organization (NEDO). Our company supports these activities by working with the relevant government agencies.



Workshop at Sakai refinery



Workshop in Yemen



Workshop at Chiba refinery



Laboratory training



➤ Studies of environmental technology and resource/environmental conservation technology at the refineries in the United Arab Emirates (UAE).

As an example of the technical assistance to Abu Dhabi National Oil Company (ADNOC), Cosmo Research Institute and Cosmo Engineering have jointly submitted practical and technical recommendations for resource/environmental protection measures to be taken at Ruwais Refinery operated by TAKREER (Abu Dhabi Oil Refining Company). In 2003, we conducted technical studies on the feasibility of eliminating flare gas emissions by reducing and/or recovering them. We also conducted technical studies aimed at finding a way to recover vapors released into the atmosphere while loading naphtha tankers.

➤ Technical studies for environmental protection at an oil refining facility in Iran

Following technical studies in relation to the recovery of vapor emitted into the atmosphere at the MTBE tanker track shipment base at Bandar Abbas Refinery, we have been working on specific studies for designing, building and operating a plant since FY 2003.

➤ Implementation of model project with Indonesian State Oil Company

Cosmo Oil and Cosmo Engineering are working on a "Model project to recover flare gas and hydrogen from refining" at the Indonesian state oil company's Balikpapan Refinery in East Kalimantan. This project is one of NEDO's "International model projects for improvement of energy efficiency", and has been designated as a priority project, the first such project in the oil refining industry. It is scheduled to be launched at the end of FY 2004. This model project is expected to contribute to the promotion of more efficient energy use as well as to international cooperation for preventing climate change.

➤ Refinery inspection and wastewater treatment FS (feasibility studies) program at Oman National Oil Company

In FY 2003, we conducted a technical study at the Oman National Oil Company's Mina al Fahal Refinery and finalized a proposal for wastewater and utility facilities. In FY 2004, we are formulating a total improvement plan utilizing our experiences and track record.

Activities in oil producing country Abu Dhabi

We are engaged in a wide range of programs going beyond business activities, such as exchange of personnel, technical assistance and cultural exchange.

Through our subsidiary Abu Dhabi Oil and the UAE-Japan Society, we have long been engaged in a wide range of programs going beyond business activities since 1960s. These programs include exchange of personnel, technical assistance and cultural exchange. Abu Dhabi Oil undertakes a core role in the Japanese community in Abu Dhabi, and promotes a wide range of exchange programs. They not only implement Japanese culture and student exchange programs but have also started interacting with local NGOs.

➤ Safety and stable operation at Abu Dhabi Oil

Cosmo Oil's subsidiary Abu Dhabi Oil operates with a staff of approximately 330 people on site including 140 employees with 18 different nationalities (including approx. 50 Japanese employees) and full-time contractors. They endeavor to maintain safe and stable operations through establishment of an emergency communication system and introduction of a HSE (health safety & environment) management system. As a part of marine pollution prevention measures, Abu Dhabi Oil is also preparing for emergency situations in collaboration with the Petroleum Association of Japan by storing oil leakage prevention materials and equipment such as oil fences and participating in an Emergency Mutual Support Committee sponsored by six companies operating in the Abu Dhabi sea area.

➤ Great appreciation by Abu Dhabi government

Abu Dhabi Oil's efforts for safety and environment are also highly appreciated by Abu Dhabi National Oil Company (ADNOC). Their "Sour gas injection project" won the highest award in FY 2000 at "ADNOC HSE AWARD" that has been held annually since FY 1998, their "Tank gas recovery project" won the second prize in the Environment Division in FY 2002, and their "Work environment improvement in process vessel" won the second prize in the Health Division in FY 2003.

➤ Promoting local afforestation by mangrove plantation, etc.

Abu Dhabi Oil has been actively promoting local afforestation by planting trees in their office site in the City of Abu Dhabi, man-

grove plantation on Mubarras Island, etc. Since 2003, we have also begun planting young cherry trees in our office site.



Mangrove forest on Mubarras Island



Office in Abu Dhabi



Cherry trees planted along fence in backyard

Exchange of personnel

We are committed not only to technology and know-how transfers but also to continuous development and exchange of personnel in order to promote crossborder understanding.

In FY 2003, we planned and held workshops both in Japan and overseas with financial support by JCCP, hosting long- and short-term internship students on 57 occasions and a total of 273 trainees participated in the workshops.

A broad range of studies, including environmental, energy conservation and refining technologies, and distribution, sales, personnel management and R&D, is covered in the workshops. To support the spread of integrated education, in February 2003 we sponsored

an international conference (Abu Dhabi (UAE): philosophy "education 2003"), whose aim was to discuss the issue of borderless education utilizing internet technology, attended by officers of our company.

Reference ➤ For details, please see p. 18 of Data Book.

To be a company that is honest and transparent to our shareholders

➤ Promotion of reform toward maximization of corporate value

We endeavor to reform into a high-profit structure capable of achieving our mid-term business plan at an early stage and sustaining stable performance regardless of changes in the price of crude oil or deterioration of market conditions. We are also practicing a highly transparent corporate management, disclosing corporate information appropriately and widely to the public, as well as to shareholders and investors.

We report below on the progress of our consolidated mid-term business plan.

➤ Economic performance in FY 2003 value

Our performance in this term has dramatically improved from that of the previous year, despite only achieving 81% of target. The target for the FY 2003 remains 66 billion yen.

Although our performance in this term dramatically improved from that of the previous year, we failed to achieve our initial target for operating income. In FY 2003, sales of kerosene and heavy fuel oil A for heating purposes decreased due to the warm winter. Accordingly, our non-consolidated operating income excluding the affect of inventory valuation was 22.5 billion yen (4.5 billion yen below the non-consolidated operating profit target of 27 billion yen).

In our consolidated income, the price of crude oil hovered at a high level throughout the term, which was favorable for Abu Dhabi Oil. However, the negative impact of the stronger yen and the temporary decrease in production volume was so significant that

■ Operating income

	Non-consolidated	Consolidated
Operating income	13 billion yen	25.2 billion yen
Achieved operating profit (excl. effects of inventory valuation)	22.5 billion yen	34.7 billion yen
Operating income	27 billion yen	43 billion yen
Target ratio	83.3%	80.7%

consolidated operating income was 34.7 billion yen (8.3 billion yen below the target of 43 billion yen).

➤ Progress in value creation and rationalization plan

Steady achievement in value creation

In FY 2003, we started "Medium-Term Busines Plan," which is a three year plan aiming at rationalization of the whole Cosmo Oil Group and creation of value. The income improved by value creation had a steady result of 7.7 billion yen, over the target of 7 billion yen (percentage of target: 110.2%). On the other hand, the income improved by rationalization was 6.8 billion yen, below the initial target of 7.2 billion yen (percentage of target: 94.7%). We will make a further effort to achieve the unachieved target in FY 2005, the last year of our plan.

Measures for income improvement by value creation

In Sales Division, we achieved 4.6 billion yen of value creation, promoting new establishment of large scale self-service stations. In Supply Division, we were able to achieve 1.8 billion yen of income improvement by rationalization of oil refining costs and changing operation of the current equipment to manufacturing high-value added products. In our new business, the IPP has started operations in Yokkaichi Kasumi Power Station, producing 1.3 billion yen of income.

■ Value creation / rationalization

	Rationalization	Value creation
Initial plan	7.2 billion yen	7 billion yen
Result	6.8 billion yen	7.7 billion yen
Achievement ratio	94.7%	110.2%

Measures for income improvement by rationalization

In Supply Division, we were able to cut more costs than we planned and achieved a good result. However, in Sales Division we could not achieve our target because we accelerated establishment of new self-service stations and hence could not cut promotional expenses as we planned and because implementation of rationalization of the distribution system was delayed.

➤ We disclose corporate information appropriately and implement positive communication activities.

We publish a newsletter to shareholders (C's MAIL), Annual Report, etc. for the purpose of positive communication with shareholders and investors, informing them clearly of our management vision / business policy and disclosing appropriately corporate information such as our business and financial situation.

We also endeavor to disclose corporate information appropriately and widely to the public as well as to shareholders and investors, through a variety of information communication network such as the internet.

WEB ▶ <http://www.cosmo-oil.co.jp/ir/index.html>



Annual Report



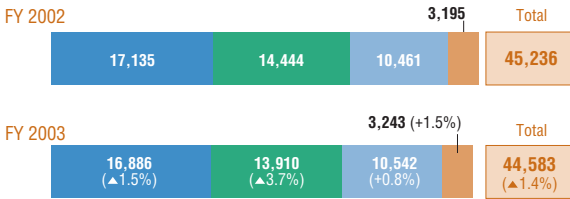
C's MAIL

Financial information

Sales situations (sales for each type of oil)

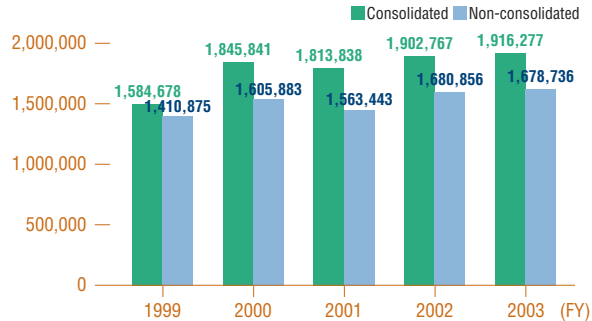
Unit: 1000kl-t

Gasoline / naphtha Kerosene / diesel fuel Heavy fuel oil Others



Sales

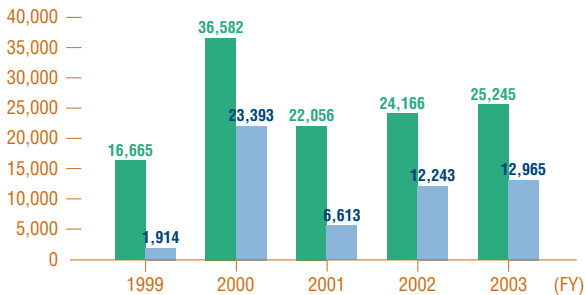
Unit: million yen (fractions rounded off)



Operating income

Unit: million yen (fractions rounded off)

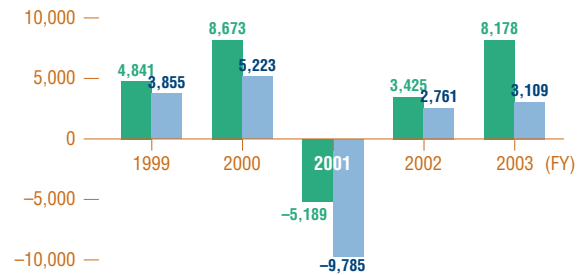
Consolidated Non-consolidated



Net income

Unit: million yen (fractions rounded off)

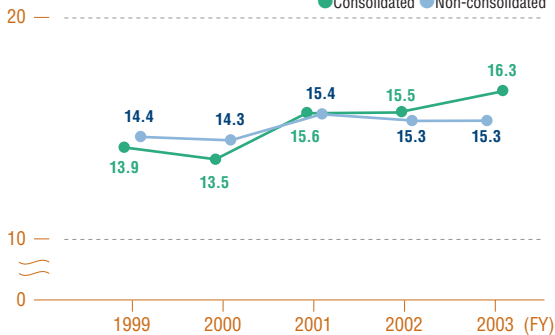
Consolidated Non-consolidated



Shareholders' equity ratio

Unit: %

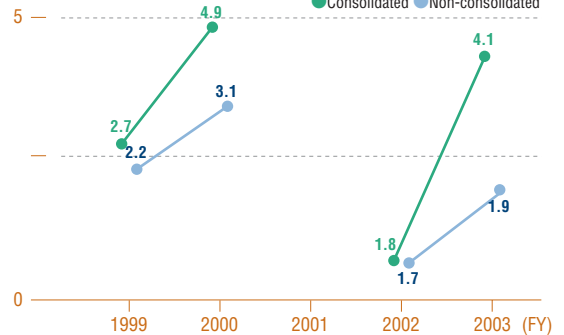
Consolidated Non-consolidated



ROE

Unit: %

Consolidated Non-consolidated



SRI information

Cosmo is included in Socially Responsible Investment (SRI) funds

In assessment of companies by shareholders and investors, SRI is receiving attention lately. SRI is an evaluation which includes assessment of companies' fulfillment of environmental and social responsibility, not only of their financial performance. Our company has been included in the FTSE*4 Good Global Index since March 2003 and the Morning Star SRI Index since July 2003.

*4 FTSE: A joint venture company of the Financial Times and the London Stock Exchange



Environmental communication

Cosmo Oil endeavors to actively release information to more people and listen sincerely to all our customers through various communication tools and media. This helps us find the right direction in which to go.

Environmental publications / websites

We are aiming to create magazines and websites where we can share our passion for the earth of tomorrow.

▶ TERRE*

“TERRE” issued its inaugural issue in March 2004 with the concept of an environmental cultural magazine which hands down the great wisdom of humankind to the next generation. From an environmental viewpoint, the magazine delves into the great life and philosophy of people of the past and present. We hope that knowing the human wisdom of learning from nature will provide readers an opportunity to consider what we should do now.



*terre: “earth” or “ground” in French

▶ Earth environment book

— For kids, future citizens of the earth

We created this book as a reference material for integrated studies in elementary schools as well as for our company’s environmental education program, by summarizing messages for children from 48 people practicing environmental protection activities, wishing to provide opportunity for children to think about the environment and get involved in environmental activities together with adults. This book also contains 9 columns to answer children’s questions such as “What happens to trash after it is separated?”, “What will happen if global warming progresses?”, etc.



▶ Blue Earth Forest

This book is published by TOKYO FM Broadcasting as part of “Cosmo earth conscious act.” This book was written by author Kiri Segawa and illustrated by rock musician Kiyoshiro Imawano with a wish to communicate to children a feeling that we are actually living on the earth.



▶ Econets Web site

Econets is an environmental education website designed to enable children to gradually increase their environmental awareness while having fun. It is also designed for adults to learn about environmental issues together with children. We are also going to hold workshops for people to actually experience nature.



WEB ▶ <http://www.cosmo-oil.co.jp/econets/index.html>

Exhibitions

We held an event where we introduce Cosmo Oil Group’s environmental activities and think with visitors about energy and environment.

▶ Eco-Products 2003

In this exhibition, we introduced Cosmo Oil and five other group companies’ activities for environmental protection and environmental business. Discussion with children about the issues of environment and energy was held through an “Eco-quiz” and a booth-tour. We also sold rice, handicrafts (fair-trade products), which are produced in environmental contribution activities sites of Cosmo Oil Eco Card Fund, and “CO₂ Sequestration Certificate” (please see p. 41), with an explanation of their production background, in order to enable visitors to get involved in environmental activities in lighthearted way. We devote the profits to fund activities. This was the third time we participated in eco-products.



Eco-Quiz in progress

Environmental advertising

We implement environmental advertising through TV commercials and newspapers in order to kindle the interest of more and more people in environment.

▶ Transmitting messages and activities through various channels

We are communicating the true condition of the global environment and Cosmo Oil's activities through advertisements on TV and newspapers. The contents of our advertisements on TV and newspapers are also available on our website.

Website "TVCM on the Web"

WEB ▶ <http://www.cosmo-oil.co.jp/tvcm/index.html>



▶ Award-winning advertisements

Our environmental advertisements have been granted a variety of awards from other organizations. Some of our award-winning advertisements in 2003 are shown here.

The 71st Mainichi Advertising Design Awards "Silver division award"



Preserve the Forests

Established in 1931, the Mainichi Advertising Design Awards are the oldest of the many advertising awards in Japan. The awards are given to the advertisements that carry epochal impact and message power. Cosmo

Oil's Environmental advertisement series, *Preserve the Forests* won the silver division award.

The 17th Tokyo Shimibun Readers' Choice Color Advertising Award "Highest Award"



Tomorrow's Sky

In most awards, prize-winners are usually selected by specialists or creators, but in the case of Tokyo Shimibun Readers' Choice, it is the readers who select the winners, not specialists, so the advertisement is supported by the readers. Our *Tomorrow's Sky* won the highest award in the Color Advertising Division for the second year in a row.

ported by the readers. Our *Tomorrow's Sky* won the highest award in the Color Advertising Division for the second year in a row.

The 12th Chunichi Shimibun Good Design Awards "Award for Excellence"



No Flare

In the Chunichi Shimibun Good Design Awards, winners are first chosen by readers, followed by a second assessment by specialists. The judgment criteria include the completeness of expression and the quantity and quality of information as well as how informative it is for people's life and how topical and social it is. Our *No Flare* won the Award for Excellence.

and quality of information as well as how informative it is for people's life and how topical and social it is. Our *No Flare* won the Award for Excellence.

Environmental Report

Since FY 2001, we have been attentively listening to all our customers, publishing annual reports and disclosing information.

Since FY 2001, we have been disclosing information on our environmental activities by publishing our environmental report each year. In FY 2002, we also commenced annual publication of our "Green Report", which is a simplified version of the environmental report. This year, we renewed the conventional "Environmental Report" and renamed it "Sustainability Report" in order to disclose information more comprehensively on our corporate activities aimed at sustainable development of both corporation and society. We also included solid information on many aspects of our activities in addition to the environmental aspect. As for our economic activities, we disclose detailed information in our annual report, securities report, sales report, and business report. We are also publishing the fiscal year activity report "Living with

Our Planet" to introduce our environmental contribution activities with Cosmo the Card Eco members. These reports are also available on our website.



Eco activities statement

Green report

Environmental report

Community involvement and support of the arts

We continuously implement community projects with three basic themes: long-term stability regardless of business performance, voluntary participation by employees, and Cosmo Oil's originality.

Cosmo children's earth school

We provide children, the next generation, with the opportunity to experience the fun and splendor of nature.

Since 2002, we have been operating Cosmo Nature Art Workshop for Kids to educate children about the environment.

➤ Nature art workshop for children

In May 2003, we organized Nature Art Workshop for Children – Paradise in the Forest, inviting the artist Jimmy Ohnishi as an instructor.

Date	Saturday, May 31, 2003, 9:30-15:00
Venue	National Science Museum, Institute for Nature Study (Minato-ku Tokyo)
Details	The goal of this art workshop was to help children realize the importance of natural environment by letting them experience the fun and beauty of nature. Children painted pictures of something in nature that they felt attractive on a big canvas and artist Jimmy Ohnishi, the facilitator, made "Album of the forest" from their paintings, adding his own paintings and story.
Participants	27 children in the third to sixth grade in elementary school invited from the public through newspaper advertisement, etc.
Cooperating organizations	Wonder Art Production, Center for Environmental Studies
Staff	10 employee volunteers from Cosmo Oil Group



Postcards of "Album of the forests"



➤ The 11th Cosmo Waku Waku Camp

In August 2003, as a part of "Cosmo Nature Art Workshop for Kids" program, we held "the 11th Cosmo Camp Waku Waku", a nature experience program planned for traffic-accident orphans of elementary school age. This three-day two-night nature discovery program included activities such as mountain stream exploration and making musical instruments using waste materials such as plastic bottles, etc. and was managed principally by our 19 employee volunteers.



Cosmo Oil - Voice of the Earth

We are making a new attempt to listen to the inner voices of "People" and "Nature".

Since FY 2002, we have been holding concerts on the theme of "thinking about the relationship between people and nature".

In March 2004, the 2nd Cosmo Oil – Voice of the Earth concert "Blessing from nature" was held. We made a new attempt to listen to the inner voice of "people" and "nature" through violinist Naoya Yoshida's performance of the opera Carmen on a musical instrument made of a tree of the forest (violin), representative Japanese-style painter Reiji Hiramatsu's folding screen painting with a fine

description of the four seasons, jazz pianist Chihiro Yamanaka's improvisation and Junichi Matsuoka's lighting performance.



Date	Monday, March 15, 2004, Open: 18:00, Start: 19:00
Venue	Tokyo Opera City Concert Hall
Description	Part1: Music space where trees of the forest sing – Carmen Violinist: Naoya Yoshida Pianist: Megumi Kawasaki Percussionist: Noriko Kijiya Part2: Art space with illuminations, fine arts and music – Forest Scene Japanese-style painter: Reiji Hiramatsu Jazz pianist: Chihiro Yamanaka Jazz pianist: Loszlo Gardony Art director: Reiji Hiramatsu (Japanese-style painter)
Staff	7 employee volunteers from Cosmo Oil Group

WEB ▶ <http://www.cosmo-oil.co.jp/phil/index.html>

Cosmo Earth Conscious Act

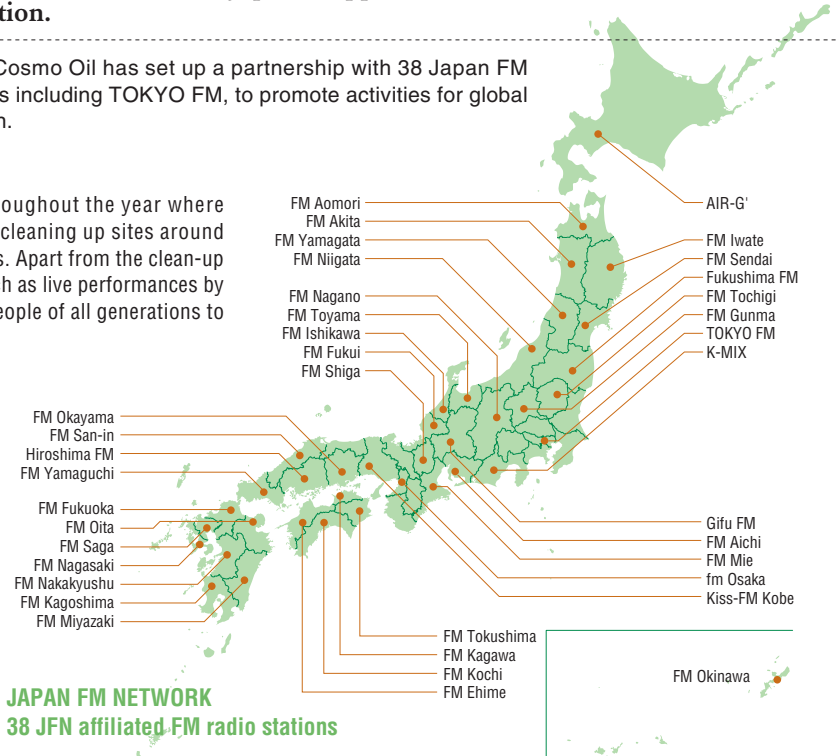
We have joined hands with FM radio stations all over Japan to appeal to the entire world for environmental conservation.

For the "Cosmo Earth Conscious Act", Cosmo Oil has set up a partnership with 38 Japan FM Network (JFN) affiliated FM radio stations including TOKYO FM, to promote activities for global environmental protection and conservation.

➤ Clean-up campaigns

We sponsor environmental activities throughout the year where participants can get close to nature while cleaning up sites around Japan including mountains, rivers and lakes. Apart from the clean-up activities, we provide a variety of events such as live performances by artists and sporting events to encourage people of all generations to participate.

Campaigns held in FY 2001-2003	
Event sites	124 sites
Total participants	55,298 people
Garbage collected	841,894 liters



➤ Earth Day Concerts

Earth Day Concerts have been held annually on April 22 since 1990. Artists both Japanese and foreign who empathize with our concept "Earth Consciousness—the Heart that We Love and Feel the Earth", collaborate to sing of their love for the earth.

Performers in FY 2003	Kiyoshiro Imawano, Motoharu Sano, Mitsuhiro Oikawa, and Rimi Natsukawa
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➤ Lecture and exhibition by Ken Noguchi

We have held annual lectures delivered by alpinist Ken Noguchi around Japan since FY 2002 to think with participants about environmental issues typified by waste problems on Mt. Everest and Mt. Fuji. We also hold exhibitions of litter that Mr. Noguchi brought back from a clean-up expedition of Mt. Everest and panels to introduce conservation activities for rare flora and fauna in Japan. In FY 2003, we held such events in six cities including Tokyo and Osaka.



➤ Communicating messages about environment through radio programs

In FY 2003, we began broadcasting of a regular FM radio program, Cosmo Earth Conscious Act – Living with Our Planet. This storytelling-type program aims to introduce the beautiful nature that exists on the earth to the listeners. The performer is a musician, Hitomitoi.

"Living with Our Planet"	JFN 38 radio stations 7:40-7:55 on Sunday, etc.
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*The schedule was changed to 10: 55-11:00 on Saturday, etc. for FY 2004.

Third-Party Comment

We asked Mr. Toshihiko Goto, a specialist in initiatives relating to corporate social responsibility and information disclosure, Chair of the Environmental Auditing Research Group and Member of Board of Directors of the Global Reporting Initiative (GRI), to read and comment on the Cosmo Oil Group Sustainability Report 2004.

Comments on the Cosmo Oil Group Sustainability Report 2004

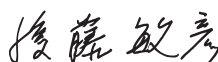
Your slogans “Living with Our Planet” and “Filling Up Your Hearts, Too” are interesting and euphonic in Japanese. I believe that the establishment of a good corporate culture will form the foundation for “honest corporate activities relied upon by the customers”. In that corporate culture, not only the management but also each and every employee realizes the concept conveyed in these slogans. This kind of corporate culture will help establish the corporate brand. The corporate brand also belongs to the customers who enjoy the company’s service. Cosmo the Card Eco is a symbol of two-way communication between company and customers, and a barometer for measuring the corporate branding activity. In my opinion the key to successful branding is good communication with the various stakeholders in regards to the core business.

It is the first step of implementing the systematic efforts to establish the CSR & Environmental Affairs Office, aiming at more active involvement in activities to realize the sustainable society, which I advised you to take last year. I appreciate your implementation of my advice and look forward to your future performance. Aiming to become a comprehensive energy company, with “Environment” as the main theme in realizing the sustainable society, your company is endeavoring to realize the corporate vision conveyed in the slogan “Cosmo Oil – the environmental choice”. There is a consistency in the preface, the vision, the policies and other documents, but it will be even better if they lead to the more specific commitments and numerical targets.

For example, you list the following 3 types of environment-related measures: First, global environmental conservation and the reduction of the environmental impact of business activities; Second, technological development; and Third, search for new energy sources aiming to become a comprehensive energy company. It is commendable that you have quantified some of your activities in the Blue Earth 21 plan. However, it is desirable to quantify items of second and third as well. Considering the Crisis Scenario Report edited by the US Department of Defense in October 2003, “New energy source development” in anticipation of a crisis is an urgent task from the viewpoint of risk management, whether the threat actually materializes or not.

The Sustainability Report 2004 is much easier to read as a report since the points I indicated last year have been considerably improved. However, glancing at the Blue Earth 21 plan, it is still a little difficult to understand how individual measures are related to the three environmental themes. It is also a commendable device to organize various data in the Data Book separately from the main book. However, if the Data Book is designed for specialist readers, there is room to make the main book easier for the public to read. To be more specific, regarding the PRTR not only the measurements but also the reduction plan or year-to-year comparisons should be included in the book.

Another device is that the social part of the report is organized in terms of the relationships with stakeholders. The comparison with GRI Guidelines in the Data Book can also be used as a checklist for the completeness of the social aspects. To complete the items relevant to stakeholders needs, dialogue with stakeholders will also be necessary. It is currently a common problem among corporations that it is inevitable to write most of the social items in a qualitative and descriptive manner, but I would like to see Cosmo Oil Group be the first to solve this problem by enhancing the content of the Data Book.



Toshihiko Goto

Chair, Environmental Auditing Research Group
Member, Board of Directors of Global Reporting Initiative (GRI)

Independent Review Report



Independent Review Report on the "Cosmo Oil Group Sustainability Report 2004"

To the Board of Directors of Cosmo Oil Co., Ltd.

1. Purpose and Scope of our Review

We have reviewed the "Cosmo oil group Sustainability Report 2004" and the "DATA BOOK" (collectively, the "Sustainability Report") of Cosmo Oil Co., Ltd. (the "Company") for the year ended March 31, 2004. The review consisted of performing certain procedures as described below in relation to the collection, compilation and calculation of the information included in the Sustainability Report. As this is the fourth year of our review, any indicators for years prior to the year ended March 31, 2001 were not subject to these procedures.

Our work does not constitute an audit or examination. We therefore do not express an opinion on the accuracy or completeness of the indicators or databases used to compile the information or the representations made by the Company in the Sustainability Report.

2. Procedures Performed

We have performed the following review procedures agreed to by the Company's management;

- 1) Obtained the information supporting the environmental, social and economic performance indicators and the environmental accounting indicators for the purpose of understanding the processes and the procedures of the Company for collecting the data information used to compile the Sustainability Report.
- 2) With respect to the environmental, social and economic performance indicators and the environmental accounting indicators in the Sustainability Report, tested quantitative accuracy of the indicators on a sample basis and compared them on a sample basis with the supporting data compiled from the information collected by the Company.
- 3) With respect to the descriptive information in the Sustainability Report other than the indicators referred to in the above procedures, interviewed the Company's responsible personnel, made on-site inspections of a refinery and compared such descriptive information with the data collected by the Company or the data found in certain published materials.

3. Results of the Procedures Performed

As a results of the procedures performed;

- 1) We are not aware of any material modifications that should be made to the environmental, social and economic performance indicators, or the environmental accounting indicators in the Sustainability Report in order for them to comply with the Company's policies and procedures for gathering and reporting such information.
- 2) We are not aware of any material modifications that should be made to the descriptive information other than the indicators in the Sustainability Report to be consistent with the information collected by the Company and other information we obtained.

Azsa Sustainability Co., Ltd.

AZSA Sustainability Co., Ltd.

Tokyo, Japan
August 30, 2004




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