

Here we report on progress with the *Blue Earth 21*, Cosmo Oil's Medium-Term Environmental Plan.

Slogans of the Medium-Term Environmental Plan

- “Cosmo Oil—the environmental choice”
- “Committed to environmental excellence”
- “Fulfilling our responsibilities as a corporate citizen”
- “Environment and economics—both are important”

The *Blue Earth 21* plan uses slogans to convey the message of the Medium-Term Environmental Plan, which covers nine themes. Each department sets objectives and works to achieve them.

Progress in fiscal 2002

Because 2002 was the first year of the plan, our activities this year involved building a foundation for future actions. Progress on each theme is summarized in the table.

Plan for fiscal 2003

After reviewing the results for fiscal 2002, we set new priorities for fiscal 2003, intensifying efforts that all employees can participate in and reinforcing risk management. Specifically, we focus on reducing waste to zero at all facilities, promoting green purchasing and preventing soil pollution.

Zero emissions at all facilities

At refineries and oil storage depots

The aim is to achieve zero emissions, with an emphasis on utilization of technologies of the Cosmo Oil Group, promotion of the 3Rs, and shifting to the use of recyclable materials through green purchasing.

At offices

The aim is to achieve energy conservation and zero emissions at each site by forming a company-wide “Office Clean-up Team” and setting up the organizational structure to promote the 3Rs.

Green purchasing

Set guidelines for green procurement of materials, equipment and works.

Set standards for selection of green suppliers.

Protecting the soil

Prevent soil pollution.

Implement systematic soil inspections and the appropriate measures to prevent contamination.

Blue Earth 21 Medium-Term Environmental Plan 2002 performance review

Theme
1. Prevention of climate change: reduction of CO₂ emissions from business activities and introduction of new energy
Energy conservation
Utilization of the Kyoto Mechanisms
Introduction of new energy
2. Reduction of pollutant emissions: control of emission levels for air and water pollutants below the regulatory standards and reduction of industrial waste, etc., based on voluntary standards
Air pollution control
Water pollution control
Industrial waste reduction
Management of chemical substances
Reduction of VOCs based on voluntary standards
3. Prevention of soil pollution: assessment of current situation and promotion of preventive measures
Service stations
Other facilities
4. Material reduction: promotion of 3R activities (reduction, reuse, and recycling) and reduction of municipal waste
Paper
Daily use items
Water
5. Reduction of environmental impact of products: providing petroleum products with lower environmental impacts
Diesel fuel
Gasoline
6. Green purchasing: expansion of items covered by green purchasing
Material, equipment, and works
Office supplies
Purchasing from green suppliers
7. Research & development: development of petroleum products and environmental technologies related to business activities
Petroleum product development
Environmental technology development
New energy development
8. Environmental conservation projects: continuous efforts to support projects, particularly those related to prevention of climate change
Technical cooperation in environmental protection
Cosmo the Card Eco projects
Social contributions
9. Organization for environmental management: continuous efforts in environmental management and communication with multiple stakeholders
Environmental management
Communication

Objectives reviewed and set in fiscal 2002

Medium-term target (FY2004)	FY2003 Target	FY2002 Actual	See page
Reduce unit energy consumption at oil refineries by 9.2% from 1990 level.	-8.0% (vs. 1990)	-9.7% (vs. 1990)	35
Reduce fuel consumption for transportation.	Tanker trucks -19%	Tanker trucks -16.5%	41
Tanker trucks -20%, Coastal tankers -17% (vs. 1990)	Coastal tankers -16%	Coastal tankers -15%	
Promote energy conservation at offices	Preparing to expand to all business sites.	Assessed at head office.	36
Complete assessment of Kyoto Mechanisms utilization		Accumulated know-how on emission credits, CDM, etc.	15
Complete assessment of new energy		Initiated assessment of wind power generation.	-
Maintain the level of NOx, SOx and particulate emissions from oil refineries below the legal limit.		Maintained (complied with relevant regulations).	38
Maintain the level of COD discharge from oil refineries below the legal limit.		Maintained (complied with relevant regulations).	
Reduce amount of waste for 2002-04 (average) by 81% from 1990 level. Build a system to achieve zero emissions at every site.		-83%	36
Implement and promote management of chemical substances in accordance with laws and regulations.		Reported in accordance with PRTR Law.	37
Complete assessment of countermeasures linking oil refineries, storage depots, and service stations.		-	-
Promote preventive actions.		Completed risk assessment, conducted training programs, started setting new standards for facility management.	16
Service stations conduct self-inspections and take countermeasures.		Conducted self-inspections based on assessment results.	
Soil contamination assessment and countermeasures conducted by each business site.	Conduct systematic assessments and countermeasures	Conducted review of records, initiated soil contamination assessment at selected sites.	
Reduce amount of paper purchased by 40% from 2002 level.	-18% (vs. 2002)	Established a sorting and collection system at head office.	30
Achieve zero waste through sorting, collection and recycling at every site.	Expand to the other sites.	Implemented at some sites.	
Introduce wastewater recycling systems at service stations (2 or more locations).	4 locations	2 locations	-
Supply diesel oil that meets future regulations of sulfur content (50 ppm or lower).		Ready to supply	17
Develop capacity to supply products meeting the new long-term regulatory target (sulfur content 10 ppm or lower).		Assessed measures and directions.	18
Expand items covered under green purchasing to include more materials (e.g., construction materials), process supplies (e.g., chemicals and catalysts), and repair and maintenance works.	Set guidelines.	Investigated guidelines for green purchasing.	39
Increase percentage of items under green purchasing to 80%.	70%	Set guidelines for green purchasing and started purchasing	
Implement purchasing from green suppliers.	Set standards for green suppliers.	Investigated standards for green suppliers.	
Develop high-performance catalysts to reduce environmental impacts of products.		Developed catalysts for low sulfur diesel (residue, VGO and GO ultra - deep desulfurization).	16
Develop technologies to reduce and reuse catalysts and to reduce excess sludge in order to minimize waste.		Demonstrated a newly developed technology and confirmed a 50% reduction of sludge generation at a refinery.	
Develop a technology to analyze oil content in soil.		Now in process	
Develop technologies to adsorb and recover vapors including VOCs.		Sold two units of VOC recovery systems.	12
Develop fuel cell systems and technologies for the conversion of natural gas to liquid fuel (GTL: gas to liquid).		Demonstrated a pilot process for GTL.	19-20
VGO: vacuum gas oil GO: gas oil			
Transfer environmental technologies to other countries.		Provided technical assistance overseas.	27
Continuously implement or support projects for restoration and conservation of the environment in developing countries, environmental protection in Japan, and environmental education.		Implemented seven projects in various fields.	23
Continuously implement social action programs.		Continued various programs such as the clean-up campaign and Camp Waku Waku.	25-26
Share environmental awareness to develop human resources.		Incorporated environmental education into in-house training.	44
Effectively communicate environmental information with each type of stakeholder.		Actively promoted internal and external communication such as <i>Green Report</i> , environmental section on Web site, exhibition at Eco Products exhibition, and environmental advertisements.	28