

Environmental Report

Environmental Management

FHI started the Environmental Action Project in 1990 and has since worked actively to protect the environment. We released a new plan for conservation of the global environment, “FHI Environmental Conservation Program (Fiscal 2002–2006)” (New Voluntary Plan for the Environment) in May 2002. Under the program, we are tackling conservation of the environment with a united effort. Developing the activities to our domestic and overseas affiliated companies, we are trying to reduce environmental impacts as the FHI Group.

Environmental Policy

FHI believes that responding to the problems of the global environment is one of the important tasks of management. Based on its corporate philosophy, FHI has established an

Environmental Policy, a policy for carrying out environmental conservation. Under this policy, FHI has established guidelines for specific actions as the Operating Criteria.

Environmental Policy

(Established in April 1998)

FHI recognizes the integral relationship between the environment and its business activities and strives to provide products that are friendly to the earth, society, and people. FHI is protecting the environment to ensure our future.

Operating Criteria for Environmental Conservation

- 1) FHI is committed to environmental conservation and gives consideration to environmental impact at every step of product development, design, manufacture, sales, service, and disposal.
- 2) FHI observes the relevant laws, regulations, and agreements with communities and industries, while also promoting voluntary activities in accordance with its own environmental objectives and targets as determined by the Company.
- 3) FHI recognizes the importance of continual improvement and efforts to prevent pollution and encourages every employee to act with self-awareness and responsibility.
- 4) FHI endeavors to raise environmental consciousness by providing educational opportunities for its employees according to their job status and job description.
- 5) FHI regularly performs audits and inspections to improve its environmental conservation activities.
- 6) FHI is committed to interacting within the community and engaging in joint activities to further environmental preservation.

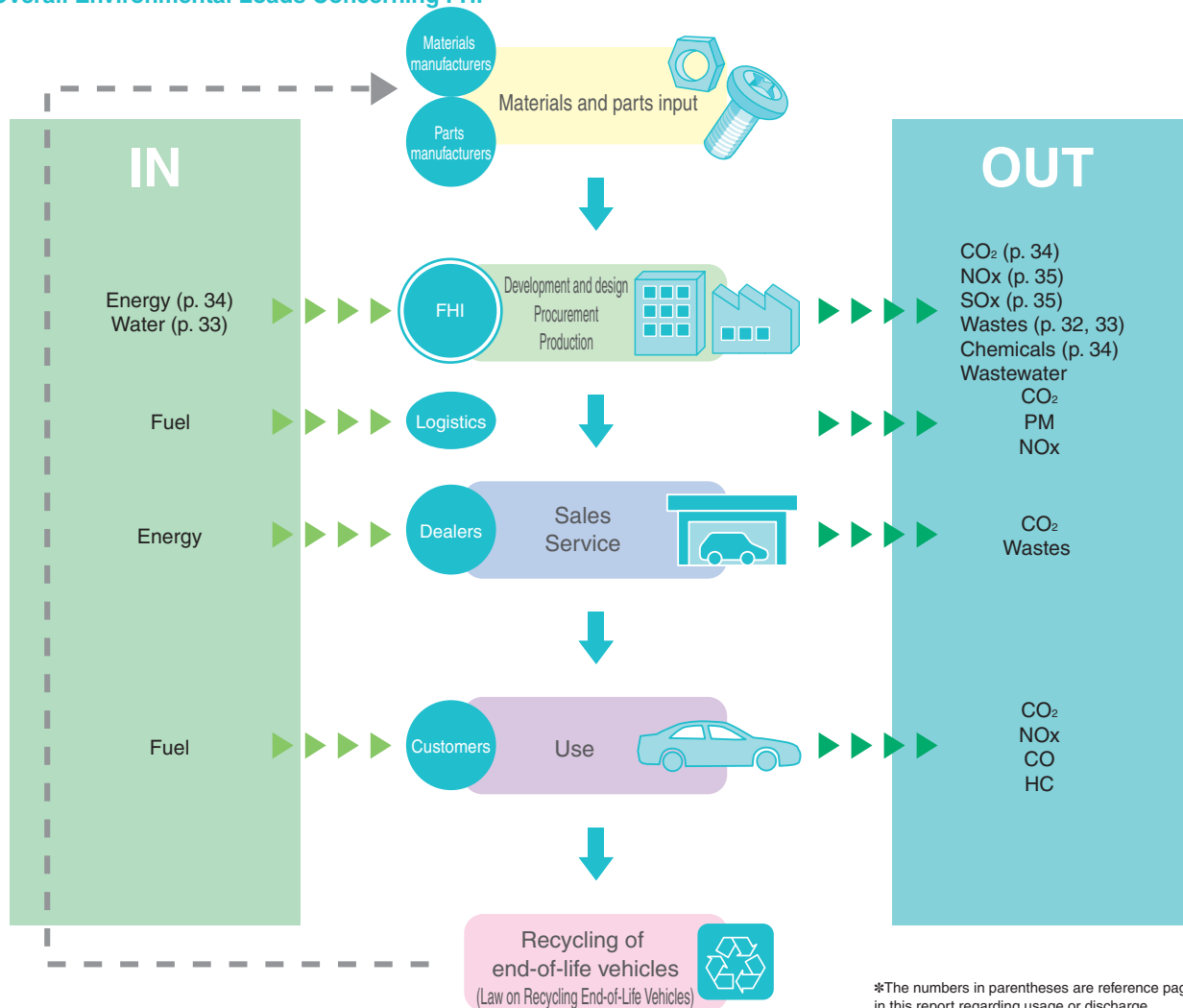
Corporate Activities and Environmental Impacts

FHI is a transportation manufacturer focusing on automobiles. Automobiles, which are convenient and comfortable vehicles, are now indispensable for us living in a modern society. On the other hand, however, automobiles require limited global resources as materials and fuels. Consequently, they emit CO₂, which causes global warming, as well as carbon monoxide

(CO), hydrocarbon (HC), and nitrogen oxides (NO_x) that pollute the air. FHI believes that automobiles make life more pleasant and reflect an affluent society but understands that automobiles have both advantages and disadvantages.

FHI accepts the task of conserving both the global environment and the benefits of automobiles by considering the environmental impacts and reducing the environmental loads through the lifecycle of development, production, use, disposal, and recycling.

Overall Environmental Loads Concerning FHI



*The numbers in parentheses are reference pages in this report regarding usage or discharge.

New Voluntary Plan for the Environment

Under the new voluntary plan for the environment, "FHI Environmental Conservation Program (Fiscal 2002–2006)" (see p.19–20), we consider living with society and realizing sustainable development, while improving the environment, as ideal. Our goals are to offer clean products from clean factories using clean logistics through clean dealers to our customers, in order to contribute to

society with our products and to make all the stages clean. Achievements of the items for which goals were set in fiscal 2003 are indicated in the table below.

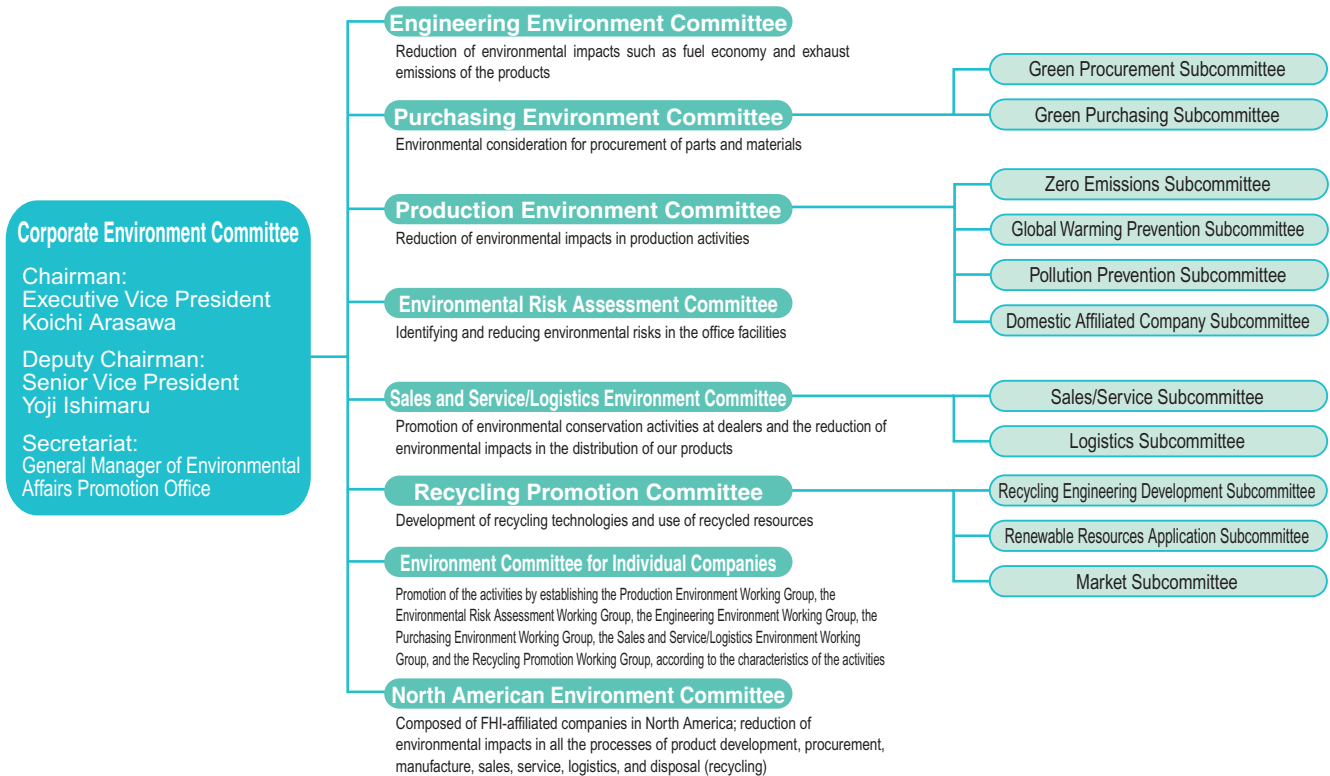
Goals and Achievements in Fiscal 2003

Items	Goals	Achievements	Page in this report
(Clean factories) Green procurement activities	[Industrial Products Division] Establish an environmental management system at suppliers by March 2004	○	p. 36
(Clean products) Clean exhaust gas	[Automobile Division] Start launching ultra-low emission vehicles into the market in 2003	○	p. 24

Organization

FHI sets the Corporate Environment Committee as the core of its environmental conservation activities, which determines policies and plans, ascertains results and achievements, and is actively involved in a variety of activities to reduce environmental impacts. The Corporate Environment Committee is composed of six specialized committees,

the Environment Committees for individual Companies, and the North American Environment Committee as follows. Specialized committees have the necessary subcommittees for promotion of practical activities. Subaru Automotive Business Unit and respective Companies have working groups under specialized committees for efficient activities to attain their goals. Members of the Corporate Environment Committee are chairpersons of the above specialized committees and representatives of all the offices including the Head Office.



Environmental Management System

FHI has acquired ISO 14001 certification in all of its main businesses.

Acquired ISO 14001 Certification

Business site		Certification date
Gunma Manufacturing Division	Main Plant	March 24, 1999
	Yajima Plant	
	Ohta North Plant	
	Oizumi Plant	
	Subaru Test & Development Center	
	Isesaki Plant	
Saitama Manufacturing Division		May 21, 1999
Utsunomiya Manufacturing Division (Aerospace Company, Eco Technologies Company)	Main Plant	July 2, 1999
	South Plant	
	South No. 2 Plant	
	Handa Plant	
Head Office		January 19, 2004
Tokyo Office		January 21, 2004

Note: The Gunma Manufacturing Division expanded the applicability of its certification to the Isesaki Plant after the assessment conducted in February 2004.

Certification in Fiscal 2003

The Head Office, with the automobile sales, management planning, personnel, and general affairs department, and the Tokyo Office, with the automobile research and development department for engine and transmission power units, acquired ISO 14001 certification in January 2004 after passing the main assessment in December 2003.

FHI-affiliated companies, Ichitan Co., Ltd., Subaru Physical Distribution Company, and Iwate Subaru, Inc., acquired ISO 14001 certification. In addition, Robin Manufacturing U.S.A. Inc. (RMI) also acquired certification.



Assessment at the Sales Support Department (Head Office)

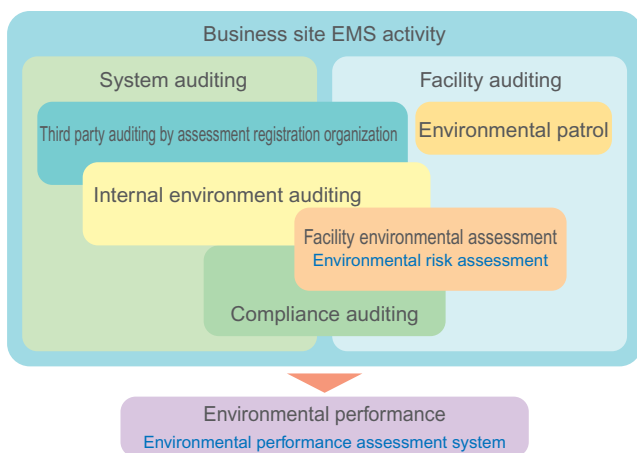


Interview with Mr. Kudo, vice president (right), who supervises environmental conservation (Tokyo Office)

Environmental Audits

FHI implements environmental audits from different aspects to see whether our environmental conservation activities are appropriate. At each business site, we conduct third party auditing by the ISO 14001 assessment and registration organization, internal auditing, and environmental patrol by the involved division. As unified company-wide auditing, we have implemented an environmental risk assessment for facilities using original company risk assessment standards since fiscal 2001. In fiscal 2002, we organized the environmental performance assessment system to check the activities of each business site and specialized committee. Based on this system, the secretariat of the Head Office conducts hearings and the chairman of the Corporate Environment Committee audits the self-evaluated activities. Through these audits, we are upgrading our environmental activities in all the business processes, including product development, manufacture, sales, and disposal.

Environmental Auditing System



Assessments by External ISO 14001 Assessment and Registration Organization

(*)	Type of assessment	Assessment date	Assessment
1)	Regular assessment	April 16-18, 2003	The EMS was evaluated as effectively operated and maintained, satisfying ISO standard requirements; although, there was a nonconformity, which did not influence the effectiveness of the EMS.
2)	Regular assessment	June 24-26, 2003	The EMS was evaluated as being operated and maintained satisfactorily with constant improvements according to ISO standard requirements; although, a minor nonconformity was identified.
3)	Certification assessment	December 16-19, 2003	There were nonconformities, which did not influence the effectiveness of the EMS. By taking corrective measures, the EMS was regarded as qualified for ISO 14001 certification.
4)	Certification assessment	December 17-19, 2003	There were no nonconformities. The EMS was regarded as qualified for ISO 14001 certification.
5)	Regular assessment	February 2-5, 2004	There were no nonconformities but two items required observation. The EMS was evaluated as being operated and maintained satisfactorily with constant improvements according to ISO standard requirements. The Iseesaki Plant was allowed to be integrated into the certification given to the Gunma Manufacturing Division.

- (*): 1) Saitama Manufacturing Division
 2) Utsunomiya Manufacturing Division
 3) Tokyo Office
 4) Head Office
 5) Gunma Manufacturing Division

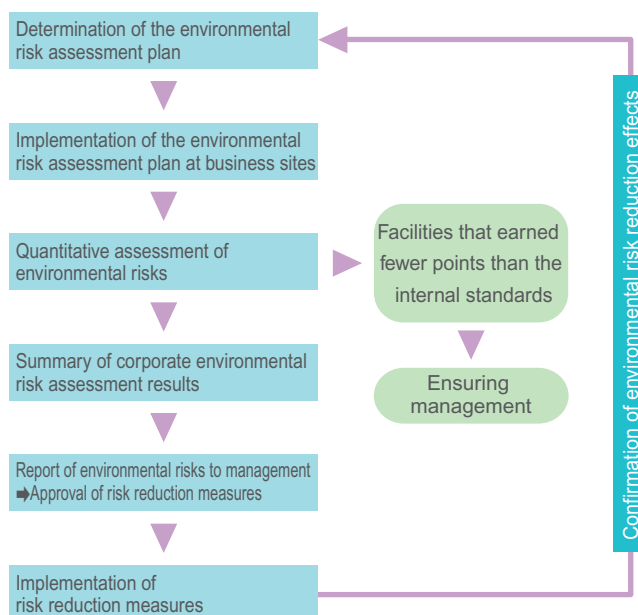
Environmental Risk Assessment for Prevention of Pollution

To minimize environmental risks and prevent pollution, the Environmental Risk Assessment Committee specifies the original environmental risk assessment approaches based on the concepts that “facilities break down” and “humans make operational errors.” In accordance with the approaches, we identify factors that cause environmental accidents to improve the cases with great risk. We regarded 80 cases as needing improvement in fiscal 2001, 54 cases in fiscal 2002, and 64 in fiscal 2003. We have completed the improvements for about 80% of them.

Environmental Risk Assessments and Improvements

Fiscal year	Number of risk assessments	Number of cases to be improved	Number of cases improved
2001	325	80	80
2002	795	54	54
2003	371	64	25

Risk Reduction Process Using Environmental Risk Assessment



Improved Cases

●Prevention of Overflow from the Circulating Water Pit

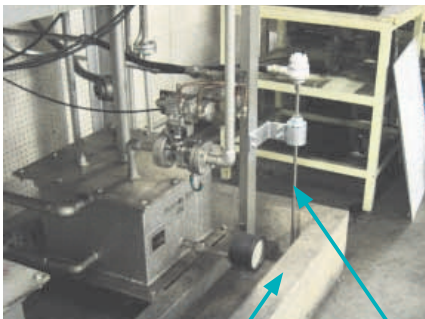
Eco Technologies Company reflected the environmental risk assessment results in modifying the painting booth for refuse collection vehicles. We attached the upper level limit sensor to the circulating water pit for the prevention of overflow. We also arranged detecting tubes at the four corners of the pit to see whether the liquid spilled over from the underground pit.



Level sensor attached to prevent overflow of the circulating water pit (Eco Technologies Company)

●Prevention of Spillage from Relay Tanks

Liquid relay tanks in the plants and laboratories control the supply from the remote storage tanks by detecting their own levels. If the upper level of the tank has been mistakenly detected, a great quantity of liquid spills over. By using a risk assessment, we improved the relay tanks with a single upper limit detection mechanism for prevention of overspills.



In the process where relay tanks for gasoline and oil are installed together, a level detector inside the relay tank dike stops the supply by transmitting signals. (Saitama Manufacturing Division)

Dike

Liquid sensor arranged

●Check of Improved Cases Identified by Risk Assessment

Members of the Environmental Risk Assessment Committee check improvements of cases identified by a risk assessment. The photo below shows that Committee members are checking improvements of a case identified at the Saitama Manufacturing Division on April 22, 2004.



Checking improvements of a case identified by an environmental risk assessment (Saitama Manufacturing Division)

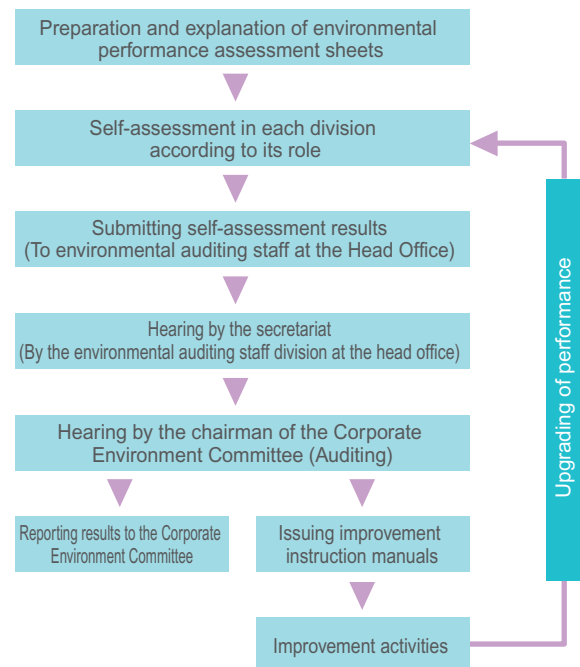
Environmental Performance Assessment System

The environmental performance assessment system was introduced in fiscal 2002 to check our environmental conservation activities company wide. The system reviewed in fiscal 2003 was composed of about 250 items. Each business site and specialized committee implements self-assessment on all applicable items to enhance autonomy in improvements. After a hearing by the secretariat of the Head Office, the chairman of the Corporate Environment Committee visits each business site to conduct a hearing (auditing) with the person responsible for the site on the self-assessment results. Thus, we unify our activities with verification of the achievements and identification of improvements. In fiscal 2003, the chairman conducted hearings at all nine divisions from March 25 through April 22, 2004.



The photo shows a hearing by the chairman at the Gunma Manufacturing Division. Mr. Arasawa, chairman of the Corporate Environment Committee and executive vice president (right center), and Mr. Kondo, chief general manager of the Gunma Manufacturing Division (at that time) (left front)

▶Environmental Performance Assessment Process

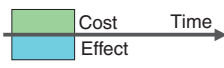



Environmental Accounting

Concept and Calculation of Environmental Costs and Economic Effects

With reference to the guidelines of the Ministry of the Environment (Year 2000 and 2002 Reports), FHI formulated its own guidelines according to its environmental conservation activity organization, based on which the environmental costs and economic effects are calculated. (Those for the group companies are also calculated based on our guidelines. See p. 47)

Definition and Categorization of Environmental Costs

1) Costs for reducing the environmental impact	Costs for reducing the environmental impact during the production process	
2) Investment costs	Costs for obtaining environmental conservation effects which continue for several terms	
3) Other costs	Costs not belonging to the above categories	
Investments in environmental facilities	For reference (facilities are included in the depreciation cost (in the same manner as in the financial accounting))	

Environmental Cost Calculation Method

For related costs (depreciation costs, maintenance and management costs, etc.) of the facilities that are used both for

environmental conservation and for other purposes, and for labor costs, either the aggregated balance or the pro rata aggregation is adopted. For example, the environmental cost of energy saving in a production facility is calculated as follows.

$$\text{Environmental costs} = K \times (\text{Depreciation costs, maintenance and management costs, and other costs of the facility})$$

where K, coefficient of environmental impact, is calculated as follows:

$$K = (\text{Total amount of investment} - \text{Cost of investment without energy saving purpose}) / (\text{Total amount of investment})$$

Economic Effects Calculation Method

Referring to the guidelines by the Ministry of the Environment and partially incorporating original FHI concepts, FHI determines the calculation methods based on the effects of the cost reduction and others available by reducing environmental loads. Specifically, the effects are calculated for each cost category.

For example, the effect of reduced waste treatment costs (waste treatment costs reduced by controlling the waste and changing the treatment methods) and the effect of reduced energy costs are calculated for each cost category. As for the economic effects of facilities (depreciable assets), the effects are calculated for the depreciation period. As for the environmental improvement measures without facilities, the effects are the difference from the costs in the previous year (the difference between cases where the improvement measure was implemented and cases where it was not). For the time being, however, because of the difficulty in estimating clear-cut figures, the economic effects in those categories, such as contributions to value-added products and the effect of risk aversion (evaded responsibilities for compensation), are excluded.

Results of Aggregated Environmental Costs and Effects in Fiscal 2003 (Subject: FHI (not consolidated) Period: April 2003 through March 2004)

Cost category in [] is based on the "Guidelines by the Ministry of the Environment" ^{※1}		Environmental costs			Main activities ★: New measures in fiscal 2003	Detailed pages	Facilities investment (¥million) Fiscal 2003
		Amount (¥million)					
		Fiscal 2003	Fiscal 2002	Fiscal 2001			
Costs for reducing environmental impacts (Production stage)	Waste treatment and recycling Waste reduction [①-3]	701	948	907	Paint sludge recycling plant Maintenance of the recycling center ★Introduction of the polish scum briquette system	32,33	45
	Energy conservation and CO ₂ emissions reduction [①-2]	376	295	249	Cogeneration system Introducing gas into the air conditioner and boiler Introducing invertors or improving other production systems	34	336
	Reduction of CFC-alternative discharge [①-2]	6	8	11	Recovery of air conditioner refrigerants	35	0
	Pollution control such as wastewater and exhaust gas treatment [①-1]	1,034	893	817	★Partial renewal of wastewater treatment and phosphorus measures ★Additional installation of the painting-deodorizing furnace ★Addition of the dike and oil-water separator tank	11,12 35,36	430
	Reduction of VOC discharge [①-1]	70	83	73	Facilities for collecting washing thinner	35	144
	Total costs to reduce environmental impacts	2,187	2,228	2,056			955
Investment costs	Education and ISO 14001 related matters [③]	476	465	486	Environmental education, training, and environmental improvement activities at the worksites ★ISO 14001 certification acquired by the Head Office and the Tokyo Office	10,11 15	-
	Product research and development [④]	20,088	21,766	20,998	Improvement of fuel economy, cleaner emissions, and better recycling efficiency Research and development of wind power generation	21-31 37-40	1,973
	Total investment costs	20,563	22,232	21,484			1,973
Other costs	Measures for end-of-life products [②]	259	146	77	Collection of used market bumpers →recycling Measures to cope with the Law on Recycling End-of-Life Vehicles	38,42	-
	Social contribution and other environmental measures [③⑤⑥⑦]	2,034	1,504	1,760	Cost increase due to changes in materials Preparation of environmental reports and cleaning around plants Planting trees, measures for environmental discrepancies etc.	63	7
	Total other costs	2,292	1,650	1,838			7
	Total cost	25,043	26,109	25,378			2,936

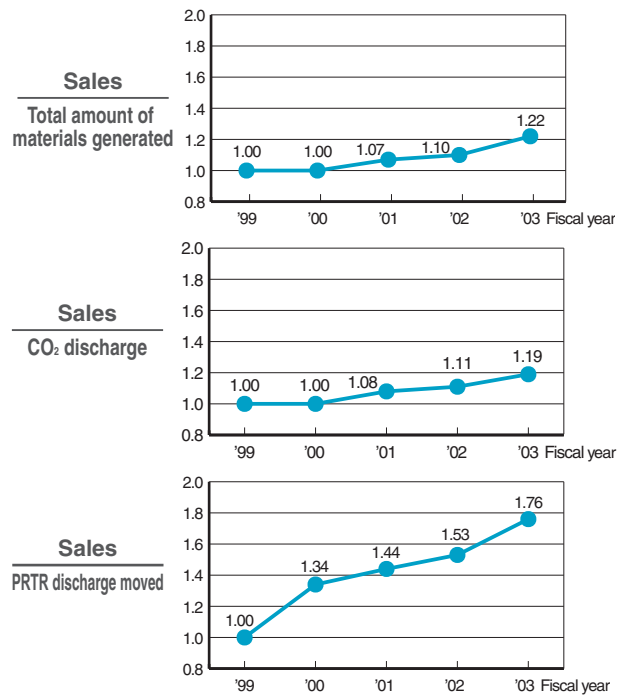
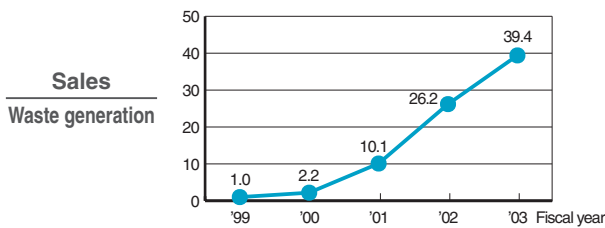
※1. Cost categories based on the Guidelines by the Ministry of Environment: ① Costs in the business area; ①-1 Pollution prevention cost; ①-2 Global environment conservation cost; ①-3 Resource circulation cost; ② Upstream and downstream cost; ③ Management activity cost; ④ Research&Development cost; ⑤ Social activity cost; ⑥ Environmental damage cost; and ⑦ Other costs.

Environmental Costs and Economic Effects in Fiscal 2003

Environmental costs were ¥25 billion, a reduction of ¥1.1 billion (4%) from the ¥26.1 billion of the previous year. This was because product environmental research and development costs decreased. Economic effects totaled ¥2 billion, an increase of ¥0.8 billion (67%) from the ¥1.2 billion of the preceding year. This was mainly because energy costs decreased and sales profits for valued materials increased. With fewer costs than the previous year, environmental performance (quantitative effects) improved remarkably. In addition, the Head Office and the Tokyo Office acquired ISO 14001 certification. In the Legacy and the R2, weight reduction was actualized and fuel economy was improved. The system to respond to the Law on Recycling End-of-Life Vehicles has been in progress.

Study of Environmental Management Indexes

Environmental efficiency of business activities, which is one of the environmental management indexes, was regarded as [sales ÷ environmental loads], and calculated with the environmental loads in the production process. The results are indicated in the following graph.



Environmental efficiency has been steadily enhanced for waste generation, total waste generation, CO₂ discharges, and PRTR discharges moved. (The fiscal 1999 levels were regarded as benchmarks.)

We will further study additional environmental management indexes appropriate for reviewing management and environmental activities.

Economic effects				Environmental performance (quantitative effects)					
	Amount (¥million)			Category	Unit	Fiscal 2003	Increase/decrease from fiscal 2002	Fiscal 2002	Fiscal 2001
	Fiscal 2003	Fiscal 2002	Fiscal 2001						
Reduced costs through waste control and treatment method changes. Profit from the sales of valued materials obtained through recycling	1,263	675	499	Amount of matter generated	ton	75,917	-6,408	82,325	85,536
				Amount of waste generated	ton	182	-85	267	697
				Amount of landfill	ton	6	-7	13	41
Reduced energy costs	465	257	157	Energy consumption per production	KL/¥100 million	14.53	-0.65	15.18	15.55
				CO ₂ emissions	thousand tons	236	-10	247	256
Reduced virgin material purchasing costs by reusing recovered air conditioner refrigerants	3	2	3	Emissions of greenhouse gases other than CO ₂	ton-CO ₂	379	11	368	366
Reduced costs by replacing cleaning agents (chemical agents)	9	8	8	PRTR chemicals*2					
				Amount handled	ton	3,874	14	3,860	3,858
				Amount released and transferred	ton	1,252	-151	1,403	1,503
Reduced paint and solvent usage	282	264	273	VOC discharge (automobiles only)	g/m ²	47.2	-2.3	49.5	51.7
Total savings from environmental impact reduction effects	2,022	1,205	939						
-	-	-	-						
(Total investment effects) N/A for the time being	0	0	0						
Reduced virgin material purchasing costs by using recycled materials	22	20	21						
Reduced costs by changing raw materials	0	0	16						
Total other effects	22	20	37						
	2,044	1,226	976						

Note: As figures are rounded, some totals are not precise.
*2 PRTR chemicals: Totaling the chemicals, of which annual amounts handled are one ton or more (0.5 tons or more for Specified Class I Designated chemicals).

◆ Estimated market effects by improving fuel economy (Legacy)

- Reduced CO₂ emissions: 12,079 tons (annually)
- Customer economic effects: ¥563 million (annually)

Calculation: $\sum [(A/B_1 - A/B_2) \times C \times D]$

A: Annual mileage (calculated in 10,000 km based on the "Statistical Report on Motor Vehicle Transport" by the Ministry of Land, Infrastructure and Transport)

B₁: Fuel economy of old model cars (10-15 mode, km/liter)

B₂: Fuel economy of new model cars (ditto)

C: Coefficient of gasoline CO₂ discharge (Customer economic effects are calculated with the gasoline unit price of ¥110/liter: National average premium unit price by the Oil Information Center)

D: Number of new model cars sold in fiscal 2003

Environmental Education

It is true that our business activities have some relationship with global warming, as well as the environmental problems of increasing waste, air pollution, and water contamination. It is important in product development and plant production activities to recognize and reduce such impacts on the environment. FHI provides a variety of environmental education: education and training based on the Environmental Management System (EMS), education for different levels of employees ranging from new recruits to those receiving promotions, and necessary specialized education. In addition, we utilize all opportunities to carry out instructive activities, including environmental campaign months and environmental lectures.

Adoption of E-Learning

The head office is composed of common divisions, the Automotive Business Unit, the Aerospace Company, the Eco Technologies Company, and many other divisions. Therefore, e-learning over the intranet was introduced because of the difficulty in providing lectures directly to employees. E-learning is a very convenient educational means: each employee can learn at his or her own convenience and check comprehension soon after learning with a check test. Through the e-learning system, all employees, including directors, participate in the lectures to understand environmental management.

Emergency Drills Based on EMS

At every worksite, we conduct a drill according to specific procedures so that we can take appropriate action to prevent or minimize the impact of an accident or emergency if it should happen.



Emergency drill in case heavy oil A should leak from a pipe (Gunma Manufacturing Division). We are well prepared for an emergency by conducting drills for checking the flow direction and using sandbags.

Subaru Safety Environment Association (Suppliers)

At the Gunma Manufacturing Division, the Subaru Safety Environment Association was established for the improvement of environmental activities of its local suppliers. Through the conference, the Association exchanges information on environmental



Subaru Safety Environment Association (Education for new recruits of a member company)

conservation such as energy saving, waste reduction, and pollution control. The association also supports environmental education to new recruits of the member companies (in April and June 2003).

Educational Activities through Lectures and Presentations

In November 2003 at the Head Office, FHI gave a lecture on environmental management to company executives, inviting Mr. Iwatsuki, senior managing director of Denso Corporation, as the lecturer. The Gunma Manufacturing Division invited Mr. Watanabe, general manager of the Global Environment Division of Denso Corporation, to give a presentation on his company's environmental conservation efforts in June, when an environmental campaign was implemented.



Environmental Case Study Presentation at the Utsunomiya Manufacturing Division



Message from Chief General Manager, Kondo (at that time) at the "Energy Conservation Case Study Presentation" at the G.M.D.

The Utsunomiya Manufacturing Division held environmental case study presentations twice a year (in August 2003 and February 2004 for fiscal 2003).

In March 2004, the Gunma Manufacturing Division conducted the "Energy Conservation Case Study Presentation" for the ninth time, where ten teams, including the engineering and indirect divisions, participated.



Signboard that says "Stop Idling" (Gunma Manufacturing Division)

The Gunma Manufacturing Division installed signboards saying "Drive Safely/Stop Idling" for safe driving that is friendly to the environment at the main entrances and exits of the parking lot in each plant.

Environmental Incidents

Environment-Related Complaints

In fiscal 2003, FHI received six complaints about noise. The Gunma Manufacturing Division received a complaint on noise from air conditioning work being conducted at its main plant for 24 hours. The Isesaki Plant received a complaint due to the sound of an alarm near the boundary to the premises. They were settled by improving the work and moving the alarm buzzer. Eco Technologies Company (Utsunomiya City) received complaints due to noise caused by the work to relocate the plant and due to the honking of horns by refuse collection vehicles during the inspection process. The two cases were settled by improving the work and changing the work procedure. In addition, we received five complaints about offensive odors. They were caused by exhaust air from the coating booth of the main plant of the Gunma Manufacturing Division and by paint odors from the Eco Technologies Company. We responded to all the cases by improving the exhaust position and installing deodorizing equipment. In addition, we changed the paints and improved the facilities.

Product Recalls

In fiscal 2003, there were no environment-related product recalls.

Environmental Communication

FHI has arranged contact channels to maintain communication with local residents and distributed environmental information in a variety of ways. FHI also introduced its approaches to environmental conservation on its Web site (<http://www.fhi.co.jp>).

In October 2003, the Utsunomiya Manufacturing Division organized an exchange meeting with twelve neighborhood community associations near the plant, where a plant tour was arranged and environmental measures were explained. In October, over 20 environmental advisors from the Gunma Prefectural Government visited the Gunma Manufacturing Division to study environmental measures at its plants. Also in fiscal 2003, we

prepared environmental ads for journals and magazines. In July 2003, the Subaru Visitor Center was opened at the Yajima Plant of the Gunma Manufacturing Division. The center has a recycling lab to introduce the methods Subaru uses to tackle environmental issues. FHI participates in the Environmental Management Forum sponsored by Nikkei Business Publications.



Environmental advisors visiting the plant (Gunma Manufacturing Division)

Media to Transmit Environmental Information

English version



Japanese version



Digest version



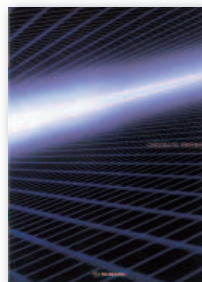
Environmental reports*1



Recycling Lab (the photo shows the exhibition of recycled bumpers) in the Subaru Visitor Center (Gunma Manufacturing Division)



Environmental information according to car models*1



Company brochure



"Shuho," the in-house newsletter



Environmental advertisement (for the new Subaru R2 minicar)



Environmental page in the product catalogue (Subaru R2)



International photo news (for elementary schoolchildren and junior high school students)

*1. You can access the environmental report and the environmental information according to car models on our Web site: <http://www.fhi.co.jp/english/envi/top/index.html>

Overall Achievements in Fiscal 2003 and Fiscal 2004 Plans

▶ Environmental Management

Fiscal 2003		Fiscal 2004 goals
Goals	Achievements	
Establish environmental management system at the Head Office and the Tokyo Office	<ul style="list-style-type: none"> The Head Office and the Tokyo Office acquired ISO 14001 certification The Isejima Plant was also approved as a site under the certification of ISO 14001 The North American Environment Committee meeting was held 	Further establish EMS
Further improve information in the 2003 Environmental Report (environmental achievements in fiscal 2002)	Partially mentioned the social report in the 2003 Environmental Report (environmental achievements in fiscal 2002)	Further improve information in the 2004 Environmental Report (environmental achievements in fiscal 2003)

▶ Development Process and Products

Category	Fiscal 2003		Fiscal 2004 goals
	Goals	Achievements	
Fuel economy	<ul style="list-style-type: none"> Continue fuel economy improvement for every full model change and annual model change Satisfy fiscal 2010 fuel economy standards earlier in fiscal 2006 	<ul style="list-style-type: none"> Met fiscal 2010 fuel economy standards in three ranks out of five for passenger vehicles and in six ranks out of six for mini-sized trucks 	Implement as planned
Exhaust emissions	<ul style="list-style-type: none"> Start introducing "ultra low emission" vehicles with the 2000 standard emission gas reduced 75% or vehicles with the 2005 standard emission gas reduced 50% in 2003, and shift 80% of all passenger cars to either low emission vehicles by 2005 	<ul style="list-style-type: none"> Introduced low emission vehicles with the 2005 standard emission gas reduced 50% for some models of the new Legacy and R2 	Implement as planned
Noise	Further reduce all noise levels of the car	Developed low-noise power units, drive lines, and other components in the annual improvement of all Subaru vehicles	Reduce all noise levels of the car for further reduction of environmental noise
Clean energy vehicles	<ul style="list-style-type: none"> Hybrid vehicles: Introduce hybrid vehicles to the market by fiscal 2006 Natural gas vehicles: Introduce the new Legacy B4 CNG to the market in spring 2004 Fuel cell vehicles: Start developing next-generation FCVs 	<ul style="list-style-type: none"> Development of secondary batteries for hybrid and fuel cell vehicles: NEC Lamion Energy, Ltd., a new company established jointly with NEC, went ahead with development of automotive manganese lithium-ion combination batteries, which are much thinner, lighter, and cheaper yet with higher performance than existing ones Natural gas vehicles: Proceed with development of NGVs based on the new Legacy toward introduction to the market 	<ul style="list-style-type: none"> Hybrid vehicles: Proceed with development toward introduction to the market by fiscal 2006 Development of secondary batteries for hybrid and fuel cell vehicles: Proceed with development as planned Natural gas vehicles: Introduce NGVs based on the new Legacy to the market

▶ Production Stage

Category	Fiscal 2003		Fiscal 2004 goals
	Goals	Achievements	
Waste reduction	<ul style="list-style-type: none"> Control generation of waste Promote activities for zero emission of landfill waste 	<ul style="list-style-type: none"> Amount of waste generated: Reduced generated waste by 32% from the previous year Amount of landfill waste: The amount was six tons in fiscal 2003 but zero emission was realized in October and thereafter 	Control generation of waste
Energy conservation	<ul style="list-style-type: none"> Improve energy consumption per production by 1% or more than the fiscal 2002 level Work to accomplish CO₂ discharge reduction goal (6% reduction compared to the fiscal 1990 level by fiscal 2006) 	<ul style="list-style-type: none"> Improved energy consumption per production by 4.3% from the previous year Reduced CO₂ discharges by 13.7% compared with the fiscal 1990 level 	<ul style="list-style-type: none"> Work to accomplish energy consumption per production goal (28% reduction compared with the fiscal 1990 level by fiscal 2006) Work to accomplish the CO₂ discharge reduction goal (6% reduction compared to the fiscal 1990 level by fiscal 2006)

Category	Fiscal 2003		Fiscal 2004 goals
	Goals	Achievements	
Reduction of environmental impact substances (Automotive Business Unit)	Work to accomplish paint VOC reduction goal (45 g/m ² or less by fiscal 2006)	Reduced generation of paint VOC (per unit area) to 47 g/m ² , a 57% reduction compared with the fiscal 1995 level	Work to accomplish paint VOC reduction goal (45 g/m ² or less by fiscal 2006)
Green procurement	<ul style="list-style-type: none"> Automotive Business Unit: Establish EMS at all suppliers by March 2004 by supporting suppliers presently with no such systems Industrial Products Company: Establish EMS at all suppliers by March 2004 Eco Technologies Company: Start green procurement activities Expand green procurement 	<ul style="list-style-type: none"> Automotive Business Unit: 92% of the suppliers established EMS Industrial Products Company: Established EMS at all suppliers by March 2004 Aerospace Company: Organized the green procurement working group Eco Technologies Company: Started green procurement activities Expanded the scope of green procurement in the Gunma region 	<ul style="list-style-type: none"> Automotive Business Unit: 95% or more of the suppliers establish EMS Industrial Products Company: Continue activities Aerospace Company: Promote establishment of EMS at suppliers Eco Technologies Company: Promote establishment of EMS at suppliers Try to expand green procurement : Develop commercialization of eco products in the Head Office area

Note: Reduction of CFC alternatives in the automobile production lines we have mentioned is excluded here, since its goal (a 90% or more reduction of discharges to the atmosphere per unit compared with the fiscal 1996 level by fiscal 2005) was achieved in fiscal 2001, and it is now maintained and controlled.

▶ Recycling

Category	Fiscal 2003		Fiscal 2004 goals
	Goals	Achievements	
Improvement of recycling efficiency	<ul style="list-style-type: none"> Continue to develop technologies for easier dismantling and higher recycling efficiency Promote further expansion of use in PP-grade integrated materials Complete development of basic technologies on ELV (End-of-Life Vehicles) recycling and start studying their practical application 	<ul style="list-style-type: none"> Incorporated recycling design for easier dismantling and higher recycling efficiency in the new Legacy and R2 Promoted establishment of a system to cope with the Law on Recycling End-of-Life Vehicles Adopted more PP-grade integrated materials in expanded areas Promoted study of practical application on recycling of ELVs, particularly airbag treatment, and glass and ASR recycling 	<ul style="list-style-type: none"> Continuously incorporate technologies developed for easier dismantling and higher recycling efficiency in new cars Complete establishment of a system to cope with the Law on Recycling End-of-Life Vehicles to be enforced on January 1, 2005 Continuously promote study of practical application on ELV recycling
Recycling volume	Increase the number of used bumpers collected from the market	Collected about 37,700 used bumpers	Increase the number of used bumpers collected from the market
Reduction of environmental impact substances	<ul style="list-style-type: none"> Promote technological development of lead substitutes and continue to study further reduction of usage Continuously promote technological development of hexavalent chromium substitutes and their application 	<ul style="list-style-type: none"> Promoted action to cope with the EU directive on restriction of environmentally hazardous substances (Ban on the use of lead, mercury, cadmium, and hexavalent chromium, in principle, from July 2003) 	<ul style="list-style-type: none"> Promote replacement technologies for parts and environmentally hazardous substances newly subject to control in 2004 and thereafter by the EU directive Promote measures for the voluntary action program under the "Environmentally Hazardous Substances Reduction Goals for New Model Cars" by the Japan Automobile Manufacturers Association
Sales and services	<ul style="list-style-type: none"> Promote environmental activities by dealers 	<ul style="list-style-type: none"> Held the meeting of personnel in charge of promotion of environmental activities at all dealers Iwate Subaru Inc. acquired ISO 14001 certification 	<ul style="list-style-type: none"> Cope with the Law on Recycling End-of-Life Vehicles without delay Further promote environmental conservation activities by dealers

▶ Logistics

Category	Fiscal 2003		Fiscal 2004 goals
	Goals	Achievements	
Promote logistics efficiency and control generation of waste	<ul style="list-style-type: none"> Further rationalize transportation of completed vehicles Control generation of packing material waste 	<ul style="list-style-type: none"> (Transportation of completed vehicles) Increased the number of vehicles transported jointly with other companies (Transportation of repair parts) Transportation to the Hokkaido region was shifted from ships to the railroad, while from the truck to the railroad to the Kyushu region 	Further promote reduction of environmental impacts in logistics

▶ FHI Environmental Conservation Program (Fiscal 2002 through Fiscal 2006)

Items		Goals and actions
Clean factories	Promoting energy saving and curbing global warming	<ul style="list-style-type: none"> ◆ Aim to reduce energy consumption per production by 28% compared to the fiscal 1990 level by fiscal 2006 ◆ Aim to reduce CO₂ emissions by 6% from production plants compared to the fiscal 1990 level by fiscal 2006
	Control and reduction of environmental pollutants at production plants	<ul style="list-style-type: none"> ◆ Establish stricter standards than current voluntary standards for newly established and remodeled environmental facilities in order to reduce the burden on the air and water ◆ Reduce emissions of chemical substances listed in the pollutant release and transfer register (PRTR) in the environment ◆ Reduce Volatile Organic Compound (VOC) emissions in car production lines to the level below 45 g/m² on average by the end of fiscal 2006
	Reducing wastes generated at the production plants	<ul style="list-style-type: none"> ◆ Aim at further advances in zero emissions and zero levels of landfill disposal both directly and indirectly ◆ Promote recycling of waste materials and using them as parts of products, as well as curbing their generation
	Saving water resources	<ul style="list-style-type: none"> ◆ Reduce the amount of water used in the production plants
	Green procurement activities	<ul style="list-style-type: none"> ◆ Request a research report from suppliers on the environmental pollutant content and establishment of an environmental management system. The following are the target dates for establishing the environmental management system: <ul style="list-style-type: none"> • Automobile division: 95% or more of the suppliers, including overseas ones, will establish a system by March 2005 • Industrial products division: by the end of March 2004 ◆ Promote green procurement activities in other divisions including the aerospace division ◆ Develop green procurement activities with overseas suppliers (automobile division) <ul style="list-style-type: none"> • Research starts in fiscal 2002 on the status of introducing the environmental management system and of the environmental pollutant content
Clean products	Improving fuel economy	<p>[Automobiles]</p> <ul style="list-style-type: none"> ◆ Continue to improve fuel economy for every full model change and annual model change ◆ Achieve fiscal 2010 fuel economy standards for all weight ranks by fiscal 2006 <p>[Multipurpose engines]</p> <ul style="list-style-type: none"> ◆ Aim to improve the average fuel economy of multipurpose engines by 15% (compared to the 1995 level) by 2005
	Clean exhaust gas	<p>[Automobiles]</p> <ul style="list-style-type: none"> ◆ Produce excellent low emission vehicles (E-LEV) or good low emission vehicles (G-LEV) for all models, except for a few, by autumn 2002 ◆ Start to put ultra low emission vehicles (U-LEV) into the market in 2003 and produce ultra low emission vehicles for more than 80% of passenger vehicles by 2005 <p>[Multipurpose engines]</p> <ul style="list-style-type: none"> ◆ Aim to reduce the average emissions of HC and NO_x from multipurpose engines by 30% (compared to the 1995 levels) by 2005
	Developing products using clean energy	<p>[Automobiles]</p> <ul style="list-style-type: none"> ◆ Limited introduction of the Legacy B4 CNG to the market by autumn 2002 ◆ Introduce hybrid vehicles to the market by fiscal 2006 ◆ Develop fuel cell powered vehicles for the next generation <p>[Multipurpose engines]</p> <ul style="list-style-type: none"> ◆ Introduce multipurpose engines compliant with CNG and LPG fuel during fiscal 2002
	Improving recyclability	<ul style="list-style-type: none"> ◆ Improve recyclable design for new models and contribute to a recycling rate of 95% in 2015 <ul style="list-style-type: none"> • Improve dismantability in the recycle market such as re-use • Use easy-to-recycle plastic materials more extensively

Items		Goals and actions
Clean products	Reducing substances with environmental impacts	<p>[Automobiles]</p> <ul style="list-style-type: none"> ◆ Promote development of technologies, which substitute substances with environmental impacts, aiming at faster application to developing vehicles ● Further reduce the amount of lead to less than 10% of that of 1996 after January 2006 ● Stop using mercury after January 2005 except in the following parts: <ul style="list-style-type: none"> Liquid crystal displays, combination lamps, discharge head lamps, room fluorescent lighting ● Stop using cadmium after January 2007 ● Stop using hexavalent chromium after January 2008 <p>[Multipurpose engines]</p> <ul style="list-style-type: none"> ◆ Promote reducing the amount of environmental pollutants, such as lead and hexavalent chromium, for multipurpose engines
	Reducing exterior noise	<ul style="list-style-type: none"> ◆ Promote developing technology to reduce noise that can realize both fuel economy improvement and exhaust emissions reduction
	Curbing global warming regarding air conditioning refrigerants	<ul style="list-style-type: none"> ◆ Promote further reduction in the amount of refrigerant (HFC 134a) per vehicle
	Research on traffic environments	<ul style="list-style-type: none"> ◆ Work further on Intelligent Transport Systems (ITS) that realize a safe and comfortable motorized society
Clean logistics	Reducing environmental impacts in logistics	<ul style="list-style-type: none"> ◆ Improve logistics efficiency and work on reducing the amount of packing materials
Clean dealers	Promoting environmental conservation activities at dealers	<ul style="list-style-type: none"> ◆ Support environmental conservation activities by dealers ◆ Promote recycling and proper disposal during the distribution and disposal stages <ul style="list-style-type: none"> ● Collect and destroy specified chlorofluorocarbon (CFC12), collect CFC12's substitute (HFC134a), collect and dispose of airbags, and collect warning flares ◆ Continue to collect used bumpers ◆ Work to comply with the Law on Recycling End-of-Life Vehicles
Management extension	Implementing social actions	<ul style="list-style-type: none"> ◆ Continue to participate in environmental events, communicate with local residents at plants, and deal with visitors to plants ◆ Continue to participate in cleaning and tree-planting activities in the area around each plant ◆ Offer support and cooperation to environmental activity groups
	Disclosing environment-related information	<ul style="list-style-type: none"> ◆ Publish environmental reports consistently and release environmental information through publicity channels from time to time ◆ Improve the content of environmental reports (e.g., compliance with guidelines and reports including group businesses)
	Implementing environmental education and educational campaigns	<ul style="list-style-type: none"> ◆ Implement environmental education incorporated into the company education system. Implement educational campaigns through company newsletters and various media ◆ Continue to implement lectures and in-company presentations of improvements
	Establishing an environmental management system	<ul style="list-style-type: none"> ◆ Establish an environmental management system at business sites presently with no such systems and continuously improve the environmental management system at ISO 14001-acquired sites ◆ Implement internal environmental audits and environmental facility risk assessments ◆ Strengthen the liaison with related companies and establish consolidated environmental management system
Others	Promoting environment-related projects	<ul style="list-style-type: none"> ◆ Promote environment-related businesses, such as wind power generation systems and environmental equipment and devices

Note: In green procurement activities of "clean factories," the content on establishment of the environmental management system in the automobile division was partially changed.