

Honda Environmental Annual Report 2004

This report has been compiled focusing
on the environmental conservation activities
Honda undertook in Japan in fiscal 2003.

2004



Corporate Profile & Financial Data

Company name Honda Motor Co., Ltd.

Head office 1-1, 2-chome Minami-Aoyama, Minato-ku, Tokyo

Established September 24, 1948

Company Representative

Takeo Fukui

President and Chief Executive Officer

Capital

¥86,067 million (as of the end of March 2004)

Sales (Results of fiscal 2003)

Consolidated: ¥8,162,600 million

Unconsolidated: ¥3,319,793 million

Total number of employees

Consolidated: 131,600 (as of the end of March 2004)

Unconsolidated: 27,187 (as of the end of March 2004)

Consolidated subsidiaries

317 subsidiaries (as of the end of March 2004)

Major products

Automobiles

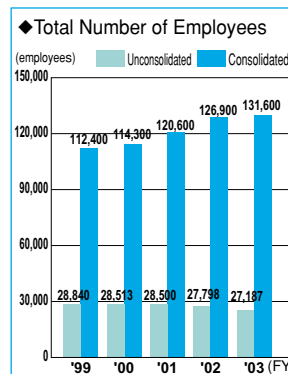
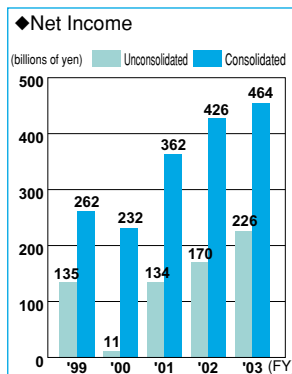
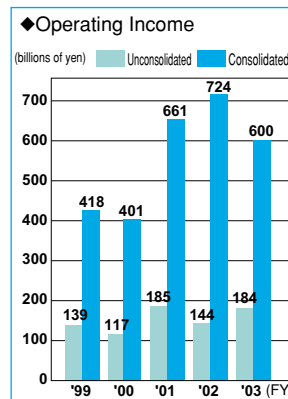
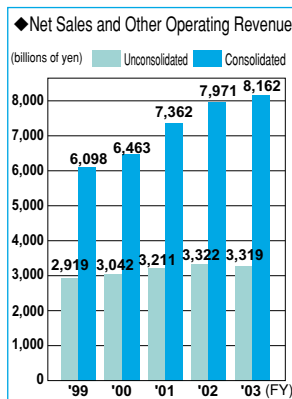
Standard-sized vehicles, compact vehicles, and mini vehicles

Motorcycles

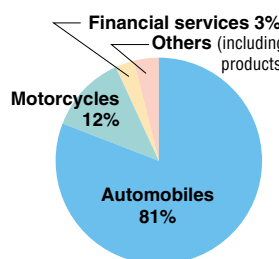
Motorbikes, minibikes, small motorcycles, ATVs, and personal watercraft

Power products

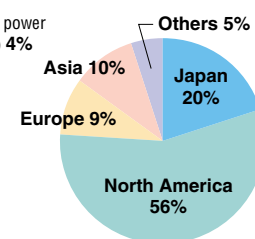
Agricultural equipment, generators, multipurpose engines, lawn mowers and outboard engines



◆ Sales by Business Area (consolidated: fiscal 2003)



◆ Net Sales and Other Operating Revenue by Region (consolidated: fiscal 2003)



Segments Covered by the Report

Period covered Fiscal 2003 (from April 1, 2003, to March 31, 2004)

Organizations covered Honda Motor Co., Ltd.; Honda R&D Co., Ltd.; Honda Motorcycle Japan Co., Ltd.; Honda Engineering Co., Ltd; and the following production companies and subsidiaries outside of Japan

• North America

Honda of America Mfg., Inc. (U.S.)
 Honda Transmission Mfg. of America, Inc. (U.S.)
 Honda Power Equipment Mfg., Inc. (U.S.)
 Honda of South Carolina Mfg., Inc. (U.S.)
 Honda Mfg. of Alabama L.L.C. (U.S.)
 Honda of Canada Mfg. (Canada)
 Honda de Mexico, S.A. de C.V. (Mexico)

• South America

Moto Honda da Amazonia Ltda. (Brazil)
 Honda Automoveis do Brasil Ltda. (Brazil)

• Europe

Honda of the U.K. Mfg., Ltd. (U.K.)
 Honda Europe N.V. (Belgium)
 Honda Belgium N.V. (Belgium)
 Honda Italia Industriale S.p.A. (ATESSA) (Italy)
 C.I.A.P. S.p.A. (Italy)
 Montesa Honda S.A. (Spain)
 Honda Turkiye A.S. (Turkey)
 Honda Europe Power Equipment S.A. (France)

• Asia and Pacific

Honda Automobile (Thailand) Co., Ltd. (Thailand)
 Thai Honda Mfg. Co., Ltd. (Thailand)

Asian Autoparts Co., Ltd. (Thailand)
 Honda Cars Philippines, Inc. (Philippines)
 Honda Philippines, Inc. (Philippines)
 Honda Parts Mfg. Co. (Philippines)
 Honda Taiwan Co., Ltd. (Taiwan)
 Honda Siel Cars India Ltd. (India)
 Hero Honda Motors Ltd. (India)
 Honda Motorcycle & Scooter India (Pvt.) Ltd. (India)
 Honda Siel Power Products Ltd. (India)
 P.T. Honda Prospect Motor (Indonesia)
 P.T. Astra Honda Motor (Indonesia)
 Honda Atlas Cars (Pakistan) Ltd. (Pakistan)
 Atlas Honda Ltd. (Pakistan)
 Honda Vietnam Co., Ltd. (Vietnam)
 Armstrong Auto Parts SDN. BHD. (Malaysia)
 Honda Autoparts Mfg., SDN. BHD. (Malaysia)
 Honda Malaysia Sdn. Bhd. (Malaysia)



• China

Dongfeng Honda Auto Parts Co., Ltd. (China)
 Dongfeng Honda Engine Co., Ltd. (China)
 Guangzhou Honda Automobile Co., Ltd. (China)
 Wuyang-Honda Motors (Guangzhou) Co., Ltd. (China)
 Jialing-Honda Motors Co., Ltd. (China)
 Honda Mindong Generator Co., Ltd. (China)
 Sundiro Honda Motorcycle Co., Ltd. (China)

Note: For overseas factories, please refer to "Related Data" and "Environmental Activities Outside of Japan" in this report.

Honda Environmental Information Disclosure

Honda publishes two types of brochures as its primary media for environmental information disclosure. These are the *Honda Environmental Annual Report* and *Honda ECOLOGY*, both of which are available to the general public on the Internet.

Name	Role	Frequency
 <p><i>Honda Environmental Annual Report</i></p>	<p>Environmental annual report</p> <p>Description of Honda's environmental conservation activities and results:</p> <ul style="list-style-type: none"> • Report and evaluation of the results of the previous fiscal year • Plans for the present fiscal year 	Annually
 <p><i>Honda ECOLOGY</i></p>	<p>Brochure describing environmental activities</p> <p>Outline of Honda's environmental activities:</p> <ul style="list-style-type: none"> • Basic stance concerning the environment • Environmental conservation activities conducted by each department • Future directions 	Every three years

We are using two different brochures to convey and disclose environmental information in order to reinforce and strengthen our two key concepts:

- It is vital that we convey accurate information on the progress made in our environmental commitment during the previous year by clearly distinguishing between “annual results” and “past results and future efforts.”

We see the *Honda Environmental Annual Report* as an integral part of our PDCA (Plan, Do, Check, and Action) Process, relating to our environmental commitment made over the entire report year.

- It is important to convey a full picture of our environmental commitment—past, present, and future—so that the general public are able to assess our results for the year for themselves. This furnishes them with the essential information by which we are judged.

We trust that the public will understand this and make the best use of the *Honda Environmental Annual Report* and *Honda ECOLOGY* to make an informed assessment.

The *Honda Environmental Annual Report* is issued in the summer every year and *Honda ECOLOGY* is revised every three years.

This report has been compiled on the basis of Honda's guidelines.



For related information, please refer to *Honda ECOLOGY*.

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Striving to Become a Company that People Will Want to Exist

■ Introduction

In 2003, at the Ninth Conference of the Parties to the United Nations Framework Convention on Climate Change (COP 9) in Milan, Italy, discussions were held on establishing detailed rules on implementing the Kyoto Protocol. Also the framework to reduce greenhouse gas emissions on a global scale is advancing steadily. However, in certain regions of the world a rapid growth of the economy or of the population is expected. Therefore it will be more urgent but also more difficult to resolve the diverse environmental issues surrounding us.

Honda has long been involved in environmental conservation activities. In 1992, we created the Honda Environment Statement, which clarifies our view on environmental conservation. Based on this statement, we conduct various activities that address environmental issues at every phase of our products' life cycle. Honda is conducting environmental conservation activities not because it is obligated to comply with regulations but because it wishes to preserve the environment for future generations. This reflects the Company's belief that continuing environmental conservation activities on a global scale is an important management responsibility.

■ Review of Activities in Fiscal 2003

In 1999, Honda released numerical targets to lower the exhaust emissions and improve the fuel economy of its products as well as the year in which these figures were to be attained. In fiscal 2003, Honda succeeded in achieving the targets it set for 2005, i.e., an approximate 75% reduction in total exhaust emissions of HC and NO_x for automobiles and an approximate 30% improvement in the average fuel economy for motorcycles. Of the nine targets it set, Honda has achieved six of them earlier than planned.

We were the first in the world to apply electronic fuel injection technology to 50cc scooters, which were subsequently introduced into the market. We were able to achieve technical breakthroughs and thus numerical targets a year or more in advance. We will accelerate efforts to improve exhaust emissions and fuel economy by further applying the technology to many of our small motorcycles.

We established the Green Factory Project, which aims by the year 2010 to reduce our factories' energy consumption per unit at our factories by 30% of the 1990 levels. In fiscal 2003, the energy consumption per unit at our

factories decreased approximately 18.9% illustrating that our efforts have brought about a significant benefit.

For those targets that were achieved earlier than expected, we will continue our efforts to realize further improvements.

As for exhaust gas from automobiles, all of our automobile models comply with the newly established 2005 exhaust emission regulations as of the end of March 2004, one or more years earlier than the required year. Six of our automobile models were approved as “★★★★ low emission vehicles,” which means that their exhaust emissions are 75% less than the exhaust emissions standards. As for improvement in fuel economy, 25 out of 31 models that were marketed in fiscal 2003 conformed to 2010 target standards for fuel economy, and the fuel economy of 18 of those 25 models was better than the 2010 target standards by 5% or more.

Honda is a company that pursues better mobility. In fiscal 2003, the HondaJet succeeded in an experimental flight. The fuel economy of the HondaJet, which has a self-developed airframe equipped with a self-developed turbofan engine, was improved approximately 40% compared with conventional airplanes. Thus, Honda is positively making an effort to improve mobility in new fields while paying attention to environmental conservation.

■ Toward the Future

Honda has continued efforts to create a new power train in place of internal combustion engines with an objective of realizing sustainable mobility. Twelve FCX fuel cell vehicles, which Honda started selling in 2002, were leased in Japan and the United States. Honda succeeded in developing the next generation of high-powered fuel cells, called the Honda FC STACK, which are significantly smaller and enable cars to be started below freezing point, something that was considered impossible in the past. Thus, Honda is making a positive effort to put such fuel cells into practical use.

To contribute to the realization of a recycling-oriented society. Honda started experimenting with a home energy station. This station can generate hydrogen fuel using natural gas and has a cogeneration function to generate heat and electricity. In addition, Honda applied self-developed next-generation thin-film solar cells to a water electrolysis hydrogen station that uses solar energy. We believe that these thin-film solar cells, which can be manufactured using a minimum amount of energy, will be one of core technologies for a recycle-oriented society. The aim of these efforts is to generate electricity using highly efficient solar cells, generate hydrogen from water using such electricity, and drive fuel cell vehicles using such hydrogen (these vehicles emit water only). This is a challenging effort to pursue the ultimate system to save energy.



Michiyoshi Hagino
Director in charge of environment
Senior Managing Director

Takeo Fukui
President and C.E.O.

■ Passing down a Clean Environment to Future Generations

Honda is engaged in various activities to become a company that people will want to exist. To pass down a clean environment to future generations, Honda has made positive efforts in conserving the environment.

Honda will continue its efforts to help solve those environmental issues that may change with the times by creating unique ideas. Honda will strengthen its efforts in various fields to meet the expectations of customers and society.

This report summarises the achievements of our activities in each fiscal year and is published annually to keep the public informed of our efforts. We would greatly appreciate it if you would read through this report and give us your frank opinion or comments that would help us continue to improve.

June 2004

Takeo Fukui
President and C.E.O.

Michiyoshi Hagino
Director in charge of environment
Senior Managing Director

Fundamental Principle and Vision

Honda, under the slogan “Blue Sky for Children,” has long been conducting environmental activities. In the 1990s, we improved our organizational structure step by step and created the Honda Environment Statement to clearly describe our attitude towards environmental issues. Since then, Honda has been improving its environmental conservation activities, regarding them as one of our most important themes.

Looking towards the future, Honda has set out its vision for 2010, based on a corporate culture of “freedom and openness, challenge and cooperation.” As mentioned in our vision statement, in order to pass on our joys to the next generation, we will strengthen our measures to achieve the challenging environmental improvement goals that we have set for ourselves. Through these activities, we aim to become a company that people want to exist.

Honda Environment Statement

As a responsible member of society whose task lies in the preservation of the global environment, company will make every effort to contribute to human health and the preservation of the global environment in each phase of its corporate activity. Only in this way will we be able to count on a successful future not only for our company, but for the entire world.

We should pursue our daily business interest under the following principles:

1. We will make efforts to recycle materials and conserve resources and energy at every stage of our products' life cycle from research, design, production and sales, to services and disposal.
2. We will make every effort to minimize and find appropriate methods to dispose of waste and contaminants that are produced through the use of our products, and in every stage of life cycle of these products.
3. As both a member of the company and of society, each employee will focus on the importance of making efforts to preserve human health and the global environment, and will do his or her part to ensure that the company as a whole acts responsibly.
4. We will consider the influence that our corporate activities have on the regional environment and society, and endeavor to improve the social standing of the company.

Established and announced in June 1992



Assessment of and Our Policy on the Environmental Load Generated by Our Corporate Activities

Honda is aware of its corporate responsibility for the environmental load generated by all of its corporate activities and the use of its products and embraces an uncompromising commitment to reduce this and to conserve the environment. To achieve this, it is essential to establish directions for specifically defined issues and set targets for action based on the impacts of our corporate activities and the use of our products on the global

environment.

Recognizing this, our approach is to define specific goals toward which we will work in an effort to resolve the issues that have been identified by using our life cycle assessment system (LCA), which assesses and analyzes the measurable environmental impact as of today.

◆ Environmental Management Policy in Our Domains

Domain	Output	Environmental Impacts	Major Goals
Product Development	CO ₂ Exhaust gas Noise	Global warming	<ul style="list-style-type: none"> ● Clean exhaust gas ● Improvement in fuel economy ● Noise reduction ● Improvement in recyclability
Purchasing	CO ₂ Waste Wastewater Exhaust gas Noise Chemical substances	Depletion of natural resources	● Promotion of Green Purchasing
Production		Air pollution	● Promotion of Green Factories
Transportation	CO ₂ Waste	Waste	
		Destruction of the ozone layer	● Promotion of Green Logistics
Sales	Waste parts CFC ₁₂ and HFC _{134a} Waste	Water pollution	● Promotion of Green Dealers (automobiles, motorcycles, and power products)
Disposal and Recycling (3R)	End-of-life products	Soil pollution	<ul style="list-style-type: none"> ● Increasing the recovery, recycling, and reuse of parts ● Technical support for the proper disposal and recycling of end-of-life products
Administration	CO ₂ Waste	Noise	● Promotion of Green Offices

Specific Targets to Be Achieved and Results

To give further impetus to its environmental conservation activities and achieve clear results in a more effective manner, Honda has set itself voluntary targets and is working toward their attainment. The following data give our targets and the level to which we attained them at the end of fiscal 2003. Our progress towards reaching our targets is presented in "Results of Environmental Conservation."

Specific Targets Announced in Fiscal 2001: Cleaner Exhaust Gas by 2005

Specific Targets		Progress Made in Fiscal 2003	Reference
Automobiles	To have most Honda passenger vehicles approved as "Ultra" low emission vehicles ¹ by the Ministry of Land, Infrastructure and Transport by 2005 ²	Percentage of the models that attained the objective: 43% In fiscal 2003, another nine models attained the objective.	Page 16

1. Because the Low Emission Vehicles' Approval scheme—which corresponds to the 2005 exhaust emissions standards—was introduced in October 2003, we will promote the attainment of "★★★★ low emission vehicle" approval and "★★★★ low emission vehicle" approval that correspond to the 2005 exhaust emissions standards, which are stricter than conventional ones.
2. Target in Japan

Specific Targets Announced before Fiscal 2001

Targets to Be Achieved by 2005 by Improving Clean Exhaust Gas Emissions and Fuel Economy (1999)

Specific Targets		Progress Made in Fiscal 2003	Reference
Automobiles	Up to fiscal 2005: To reduce the total exhaust emissions of HC and NO _x by approximately 75% for new vehicles (compared with fiscal 1995)*	HC: Reduced by 83.7% NO _x : Reduced by 83.7% (Attained)	Page 16
	Up to fiscal 2005: To achieve the new fuel efficiency standards of Japan for fiscal 2010 for all weight categories*	Achieved for 6 categories among 7 weight categories	Page 18
	Up to fiscal 2005: To improve the average fuel economy by approximately 25% (compared with fiscal 1995)*	Improved by approximately 35% (Attained)	Page 18
Motorcycles	Up to fiscal 2005: To reduce the total exhaust emissions of HC to approximately 1/3 for new vehicles (compared with fiscal 1995)	Reduced to approximately 31% more than 1/3 (Attained)	Page 20
	Up to fiscal 2005: To improve the average fuel economy by approximately 30% (compared with fiscal 1995)	Improved by approximately 33.7% (Attained)	Page 21
Power Products	Up to fiscal 2005: To reduce the average exhaust emissions of HC and NO _x by approximately 30% for new products (compared with fiscal 1995)	Reduced by approximately 36% (Attained)	Page 22
	Up to fiscal 2005: To improve the average fuel economy by approximately 30% (compared with fiscal 1995)	Improved by approximately 25%	Page 23

* Targets in Japan

Energy Saving and Reduction in Waste in the Production Domain

Specific Targets		Progress Made in Fiscal 2003	Reference
Up to fiscal 2001: 15% reduction in energy unit (compared with fiscal 1990)		(Attained)	Page 25
Up to fiscal 2010: 30% reduction in energy unit (compared with fiscal 1990)		Reduced by 18.9%	
Up to fiscal 2001: Achieving zero landfill disposal		(Attained)	Page 26

Recyclability Rate for New Models of Automobiles and Motorcycles

Specific Targets		Progress Made in Fiscal 2003	Reference
Automobiles	90% or more from 2000 onward	(Attained)	Page 32
Motorcycles	90% or more	(Attained)	Page 33

Lead Content in New Models of Automobiles and Motorcycles

Specific Targets		Progress Made in Fiscal 2003	Reference
Automobiles	By the end of 2003: 1/3 or less	(Attained)	Page 32
Motorcycles	Equal to or below the lead content in 1996	(Attained)	Page 33

Activities Already Successfully Completed

The following activities not featured in this report have already been completed successfully.

Automobiles:	Abolition of CFC12 in favor of HFC134a	Time completed
	Discontinuing the use of sodium azide ¹ (Mass-produced vehicles sold in Japan)	End of 1994
	Reducing the lead content in the covering of wire harnesses ²	End of 1998
	Up to fiscal 2002: To achieve a clean performance that exceeds the 2000 exhaust emissions standards of Japan by 50% or more for all vehicles ³	End of 2002
Motorcycles:	Reducing the lead content in the covering of wire harnesses	End of 1998
Power Products:	Reducing the lead content in the covering of wire harnesses	End of 1998

1. Sodium azide: Sodium azide's chemical symbol is NaN₃. It was the primary ingredient in the gas generator for automotive air bag systems. When an automobile that contains an air bag system that has not been activated is crushed, for example, the sodium azide is released into the atmosphere, where it forms a potential hazard to workers' health.

2. Wire harnesses: An automobile contains a huge number of wires (approximately 1,000) that form the wiring networks. Wire harnesses are used to systematically run the wires between terminals and connectors and facilitate their installation on vehicles.

3. Target in Japan

Results for Fiscal 2003 and Targets for Fiscal 2004

We continued our efforts of the previous year in fiscal 2003 with a commitment to achieving the high targets set for all domains in the life cycle of our products. Some activities achieved their set targets while others failed to attain their goals for various reasons, including changes in conditions. The outcomes of all activities whether "on target" or not were analyzed, and the findings were fed back to the targets and programs set for fiscal 2004 in our commitment to further reduce the environmental loads of our products.

	Major Commitments	Procedures	Fiscal 2003 Targets	Fiscal 2003 Results	Level of Attainment	Fiscal 2004 Targets	Reference		
Product Development	Clean exhaust gas	Automobiles	Expansion of "Ultra" low emission and "Excellent" low emission vehicles	Expansion of "Ultra" low emission vehicles	Nine additional models were approved as "Ultra" low emission vehicles (16 models in total).	◎	Expansion of "★★★ low emission vehicles" and "★★★ low emission vehicles"	Page 16	
		Motorcycles	Shift to 4-stroke engines	To be successively expanded	Attained for all 7 models released in fiscal 2003. Shift to 4-stroke engines: attained by 89.5% of the models	◎	Future extensions	Page 20	
		Power products	Comply with regulations in advance		Attained for all 5 models released in fiscal 2003	◎		Page 22	
		Development of alternative energy vehicles			Starting leasing of fuel cell vehicles	◎		Page 19	
			Release of the cogeneration system for households		◎	Page 23			
	Improvements in fuel economy	Upgrading efficiency by employing new technologies	Automobiles	Improvements in the average fuel economy by category	Attainment of the fiscal 2010 fuel economy standards of Japan for 6 categories	◎	Further improvements in fuel economy	Page 18	
			Motorcycles	Improvements in fuel economy for new models	30.5% improvement in the average fuel economy for all the models released in Japan in fiscal 2003	◎		Page 21	
			Power products	Improvements in fuel economy for new models	Outboard engine BF150: 20% improvement compared with the previous model	◎		Page 23	
	Purchasing	Promotion of Green Purchasing	Reduction in chemical substances contained in the products of suppliers (parts and materials)		Honda's chemical substance guidelines must be complied with for two substances and four categories.	Changeover was made for lead and a lead compound (one substance/three categories).	△	Changeover in accordance with Honda's chemical substance guidelines must be promoted.	Page 24
			Management of environmental impacts in suppliers' manufacturing process		Reduction in suppliers' CO ₂ emissions	Carbon intensity was reduced 4.0% compared with that in fiscal 2000 (for affiliated companies).	◎	Reduction in suppliers' CO ₂ emissions	Page 24
		Reduction in suppliers' landfill waste	63% reduction as compared with fiscal 2000 (regarding affiliated companies)	◎	Reduction in suppliers' landfill waste	Page 24			
Introduction of environmental management systems to suppliers		Promotion of the acquisition of ISO 14001 certification by all suppliers (75%)	Acquisition by 75% of suppliers (335 companies)	◎	Promotion of the acquisition of ISO 14001 certification by all suppliers	Page 24			
Production	Promotion of Green Factories	Improvements in energy efficiency		Energy unit: 21.9 CO ₂ -tons/¥100 million	Energy unit: 22.3 CO ₂ -tons/¥100 million	△	21.5 CO ₂ -tons/¥100 million	Page 25	
				CO ₂ emission volume: 485,000 CO ₂ -tons	CO ₂ emission volume: 445,000 CO ₂ -tons	◎	481,000 CO ₂ -tons	Page 25	
		Zero landfill disposal		(Continuance of zero landfill disposal)	(Continuance of zero landfill disposal)	◎	(Continuance of zero landfill disposal)	Page 26	
		Reducing the amount of incinerated waste		60% reduction as compared with fiscal 1998	61% reduction as compared with fiscal 1998	◎	65% reduction as compared with fiscal 1998	Page 26	
Transportation	Promotion of Green Logistics	Implementation of environmental management system for distribution companies		Joint environmental management by the four major companies	Organization of environmental information liaison meeting Four main companies acquired ISO 14001 certification.	◎	Continuance of joint implementation of the environmental management system by the four main companies	Page 28	
		Improvements in shipping efficiency		CO ₂ emission volume: 132,400 CO ₂ -tons (transport of completed automobiles)	CO ₂ emission volume: 107,229 CO ₂ -tons (transport of completed automobiles)	◎	CO ₂ emission volume: 114,900 CO ₂ -tons (transport of completed automobiles ¹)	Page 28	
Sales	Promotion of Green Dealers/ Green Distributors	Automobiles	Introduction of environmental management systems to dealers	Acquisition of the Best Green Dealer certification by 2,300 stores	Acquisition of the Best Green Dealer certification by 2,341 stores	◎	Further expansion of the Best Green Dealer-certified stores	Page 30	
		Motorcycles	Introduction of environmental management systems to distributors and dealers	Expansion of Honda Dream Stores	Launch of 6 environmentally friendly Honda Dream Stores	◎	Expansion of Honda Dream Stores	Page 31	
		Power products	Promotion of environmental conservation activities for dealers	Expansion of Green Dealers for power products	Start of the acquisition process by two dealers	◎	Expansion of Green Dealers for power products	Page 31	
Disposal and Recycling	Improved recyclability	Improvement in recyclability	Automobiles	Improvement in recycling rate	More than 90% achieved for models newly released or models whose design was changed in fiscal 2003 Recyclability rate of models marketed in fiscal 2003 was 90% or more	△	Improvement in actual recycling ²	Page 32	
			Motorcycles	Improvement in recycling rate		◎	Improvement in recyclability	Page 33	
			Power products						
	Increasing the recovery, recycling, and reuse of parts		Integration of the remanufacturing business and reuse business	Expansion of models for which reused parts can be applied	Number of models for which reused parts can be applied increased from 6 to 12.	◎	Expansion of recycling parts Expansion of models for which reused parts can be applied	Page 34	
Technical support for proper disposal and recycling of end-of-life vehicles		Technical support for proper disposal and recycling of end-of-life vehicles	Technological development for improving the ASR recycling rate ³	Start of joint efforts to improve the ASR recycling rate	△	Promotion of the establishment of a recycling system ³	Page 35		
Administration	Promotion of Green Office	Introduction of environmental management systems to offices	Full-scale implementation of environmentally friendly business activities ⁴	Being promoted by 54 divisions/offices	◎	Generalization of environmentally friendly business activities	Page 36		

1. While the fiscal 2004 target for CO₂ emission has increased as compared with the fiscal 2003 results, this increase is to allow for the planned growth in shipments. This target figure does, however, already include the (anticipated) reduction effect arising from the measures being taken to improve transport efficiency.
2. To improve the recycling rate for automobiles, efforts will be made to improve recyclability at development and design stages and to develop a system to treat used automobiles, including the development of technology and support.
3. To comply with the Automobile Recycling Law, which is to be implemented on a full scale from January 2005, efforts will be made to establish a recycling system, including the development of technology and support, to improve the ASR recycling rate.
4. At the Aoyama Office, which is implementing an environmental management system (EMS), environmental viewpoints are introduced to daily business activities. We call the development of business that takes the environment into consideration, "environmentally friendly business activities."

Environmental Management

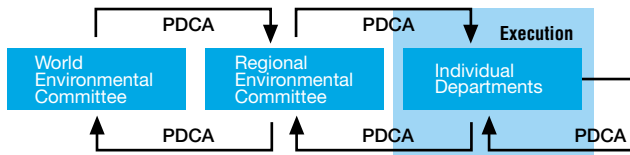
To give concrete meaning to the Honda Environment Statement, which specifies the general direction of the Company's environmental conservation activities, Honda has made efforts to establish and expand its organization in respect of the environment. For the smooth deployment of environmental conservation activities, we have established an environmental management system as described below.

General Policy

Honda's environmental action plans are established by individual active departments on the basis of medium-term policies determined by the Executive Committee. These plans are then discussed and approved at the Environmental Committee. After this, the individual responsible departments concerned push ahead with their commitment in accordance with these plans. The results are scrutinized and evaluated by the Environmental Committee and fed back to the next targets and plans to complete the PDCA* cycle at the regional level (Japan, North America, South America, Europe, Asia/Oceania, and China). Global issues that are shared worldwide are reported to the World Environmental Committee and fed back to the Medium-Term Policy Statement.

The hallmark of Honda's activities is that planning and execution are not left to specially appointed staff, but rather the individual employees of all departments are involved themselves. This is what Honda means when it says, "All members of the Honda organization are individually engaged in a positive commitment to environmental issues as part of their own duties."

* PDCA stands for Plan, Do, Check, Action.



Organization

In December 1991, Honda created the Environmental Committee to play a core role in dealing with environmental issues in Japan. Subsequently, the organization framework was extended to North America, South America, Europe, Asia/Oceania and China. In March 1995, the World Environmental Committee was set up to frame and promote world-spanning plans for our commitment.

In addition, we have created a system to effectively promote our efforts on organization-spanning themes. In this context, we initiated the Green Factory Project¹ in 1997 and the LCA Project in 2000. The New Recycle Project², established in 1997, completed its role in 2003 because recycling activities under the project are now fully conducted in all domains as normal business activities.

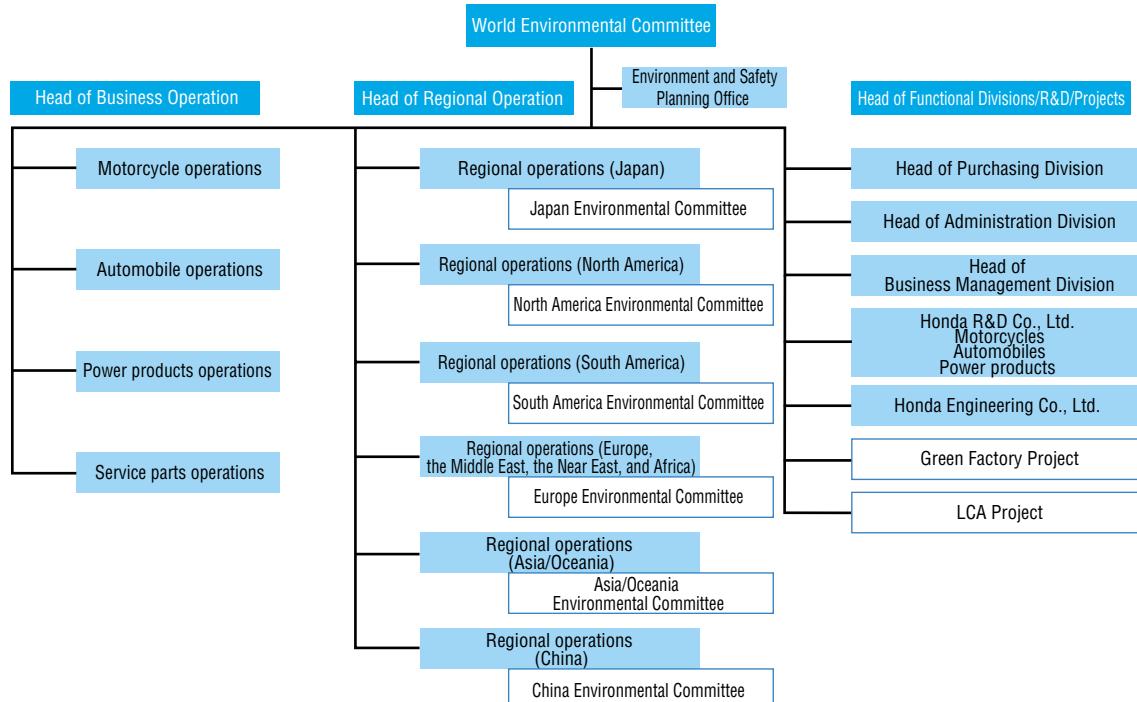
1. Green Factory Project

The Green Factory Project is an organization that promotes the Green Factory Plan, which aims at promoting new factory concept for a recycling-based society. Led by this organization, solutions to issues, such as energy-saving and waste reduction, are deployed to our factories throughout the world.

2. New Recycle Project

In this project, recycling activities, which involves recycling design and recycling technology as well as recovery and disposal systems, are deployed over the products' entire life cycle in anticipation of the future sustainable use of resources.

Organization for Global Environmental Conservation Activities



■ Role

■ World Environmental Committee

The World Environmental Committee deliberates world-spanning plans for our commitments in accordance with our medium-term policy. This committee decides environmental policies and conducts annual reviews of their execution and implementation.

■ Japan Environmental Committee

The objective of the Japan Environmental Committee is to enhance the level of execution of environmental conservation activities that are deployed in Japan. It reviews the annual PDCA cycle of individual active departments and establishes overall compatible targets. It also establishes new policies in accordance with an analysis of the situation of the individual active departments. Through these activities, the committee tries to maintain and improve its environmental activities to cover the entire life cycle of Honda's products on an ongoing basis.

● Sales Domain

The mission of the Sales Domain, which consists of motorcycles, automobiles, power products, and parts, is to meet current market needs in terms of the spread of environmentally friendlier products, the proper disposal of end-of-life products, and parts recycling.

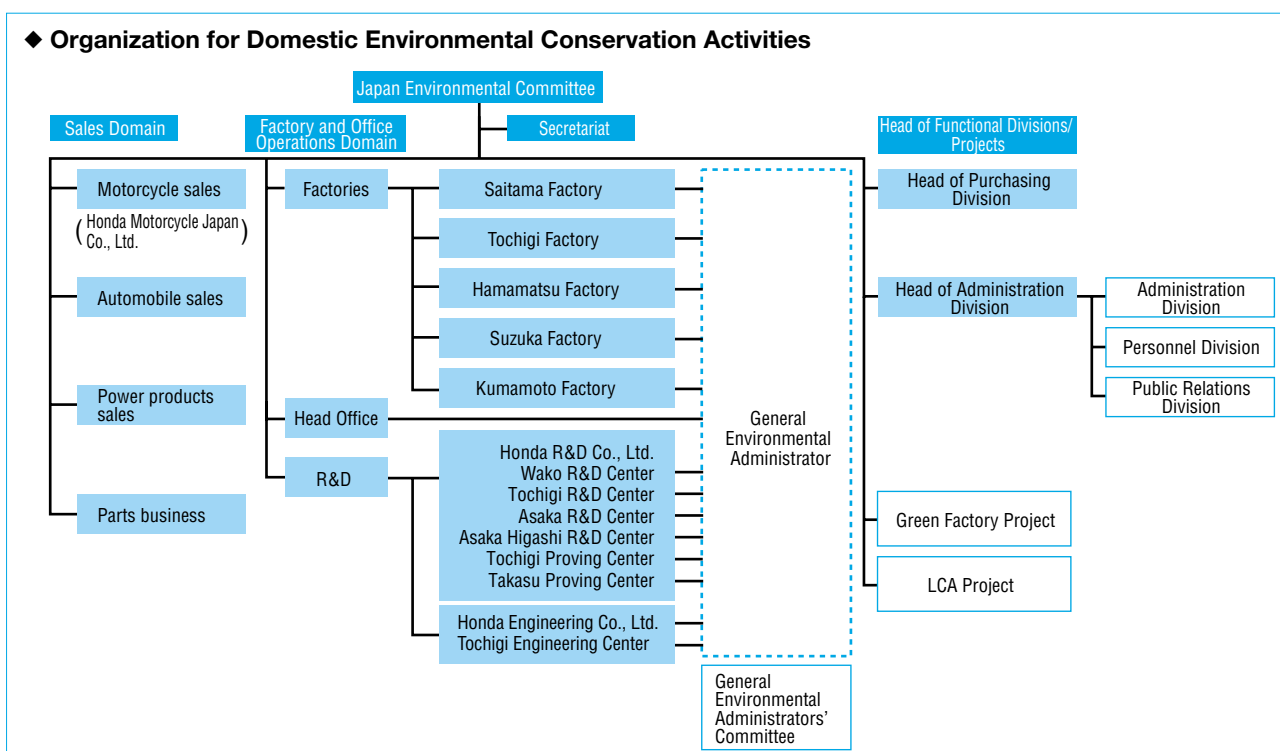
● Factory and Office Operations Domain

The Factory and Office Operations Domain comprises the active departments organized within our factories and offices. This domain is responsible for dealing with environmental issues at our factories and offices. The general environmental administrator* determines and carries out policy measures for the Factory and Office Operations Domain through the General Environmental Administrators' Committee. Here, the programs as a whole are facilitated by the Green Factory Project.

* General environmental administrators are responsible for environmental activities at their factory/office and for the running of the environmental organization. They also have a managerial responsibility for the environmental management system of the factory/office.

● Head of Functional Divisions/Projects

The Administration Division has the role of handling environmental issues for the entire range of PR, environmental training, and social activities in general. It comprises the General Affairs Department, which promotes such measures as the expanding use of environmentally friendly vehicles within the Company, the Personnel Department, which provides employees with environmental training, and the PR Department, which disseminates information on Honda's activities to society. The Purchasing Division promotes green purchasing to increase the proportion of materials and parts with less environmental impact within the total goods purchased by the Company. There are also projects on cross-divisional themes.



Environmental Management

Environmental Management by Honda's Business Sites (ISO 14001 and EMAS) E p. 36

Concurrently with the building of the environmental management system for Honda as a whole, each of the Company's business sites are introducing environmental management systems to continuously improve their ability to protect the environment and to more thoroughly control substances with environmental impacts.

Honda has actively engaged in acquiring ISO 14001 certification, the international standard for environmental management systems, mainly for its production operations.

In Japan, all of Honda's production plants acquired certification in fiscal 1998. Also as a part of the Green Office promotion, the Head Office building in Aoyama acquired ISO 14001 certification in 1999 as did six other regional offices in 2001.

We are also advancing the work to acquire certification for our main production plants in North America, South America, Europe, and Asia/Oceania and China. In Europe, we are promoting the acquisition of the EU's Eco Management and Audit Scheme (EMAS).

Honda's ISO 14001-certified business sites are as shown below*, totaling 41 sites as of the end of fiscal 2003. The number of EMAS-certified business sites in Europe is presently at three.

Please refer to the upper right table for business sites that acquired ISO 14001 and EMAS certification in fiscal 2003.

We will further promote the establishment of ISO 14001-certified (and EMAS-certified in Europe) environmental management systems within the Honda Group and encourage certified business sites to continue to be certified. Through these measures, we will promote the PDCA cycle at our business sites as continuous measures to reduce the environmental impacts of our business.

* Within the extent covered by this *Environmental Annual Report*
 Note: For details of certified business sites, please refer to the domestic and international data for each business site provided at the end of this report (pages 42 to 51).

Business Sites that Acquired the ISO 14001 Certification in Fiscal 2003

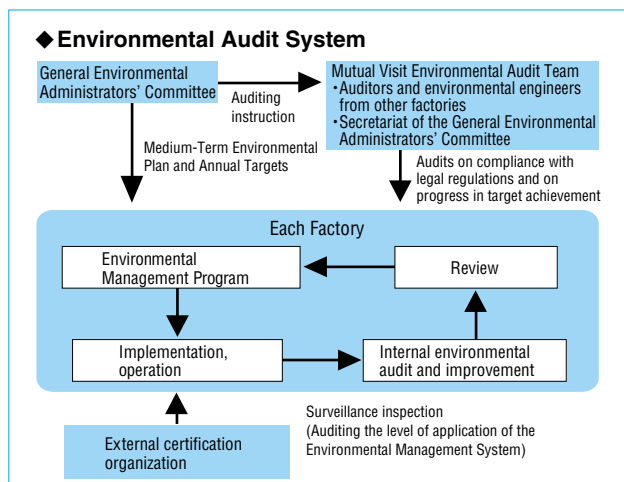
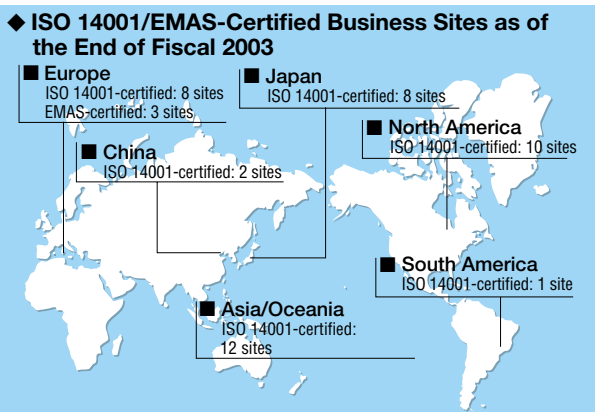
Name of Business Site	Location	Details of Business	Date of Certification
Honda of South Carolina Mfg.	U.S.A.	Automobiles, ATVs	January 2004
Honda Atlas Cars (Pakistan) Ltd.	Islamic Republic of Pakistan	Automobiles	September 2003
Honda Autoparts Mfg. SDN. BHD.	Malaysia	Automobile parts	December 2003

Environmental Audits

Environmental conservation activities at domestic sites are carried out in accordance with the environmental management program based on annual targets and the Medium-Term Environmental Plan, determined by the General Environmental Administrators' Committee. To confirm that the environmental management system is appropriately implemented through these activities and continuously improved, internal environmental audits and surveillance inspections by external certification organizations are carried out in our factories and offices.

In fiscal 2003, internal environmental audits and renewal/surveillance inspections by external certification organizations were conducted at our sites. The internal environmental audits led to 3 nonconformances and 162 minor recommendations and advices. The external inspections led to 1 minor recommendation and 73 findings. We promptly responded to these recommendations and comments. Furthermore, the Mutual Visit Environmental Audit* is carried out in factories to confirm the compliance and the level of progress made by them in achieving their targets of environmental conservation activities based on the Company's policy. The Mutual Visit Environmental Audit is conducted by engineers and auditors from other factories in accordance with instructions given by the General Environmental Administrators' Committee. In fiscal 2003, the Mutual Environmental Audit was conducted from June to August.

* The Mutual Visit Environmental Audit is implemented among factories. Peer audits are conducted between different non-production sites and between different divisions within the same non-production site.



■ Environmental Accounting

Honda is in the process of identifying the costs necessary for environmental conservation activities based on the following objectives:

- Environmental accounting is to provide a management tool in the environmental area.
- Environmental accounting offers indices for corporate evaluation and serves as a data source for disclosure to the public.

The following table shows the environmental conservation costs incurred by the Company in fiscal 2003.

Compared with the previous fiscal year, investment in R&D to develop fuel cell vehicles, reduce exhaust gas in existing engines, and improve fuel economy increased.

In fiscal 2002, Honda began to announce reduction amounts for major environmental impacts in the production domain as a result of environmental conservation activities. We will also study to identify economic benefits, including those criteria to calculate the effects of corporate environmental activities in each of our business domains.

Costs and Effects of Environmental Conservation Activities in Fiscal 2003

(Unit: Millions of yen)

Category	Details of Major Activities, etc.	Investment Amount	Expense Amount	Effects
Business areas costs	Pollution prevention costs	287	1,403	■ Production domain • Total CO ₂ emission: 445,000 tons Reduced by 37,000 tons compared with the previous fiscal year →See page 25. • Total emission of by-products: 179,500 tons Reduced by 23,200 tons compared with the previous fiscal year →See page 26. • Total VOC emission: 33.0 g/m ² Reduced by 3.5 g/m ² compared with the previous fiscal year →See page 26.
	Global environmental conservation costs	528	203	
	Resources cycling costs	434	1,223	
Upstream/downstream costs	<ul style="list-style-type: none"> • Green purchasing (balance) • Collection, recycling, reuse, and proper disposal of products manufactured and sold • Member fees and other charges paid to trade organizations 	0.4	761	
Management activity costs	<ul style="list-style-type: none"> • Provision of environmental training to employees • Building, operation, and acquisition of the certification of an environmental management system • Monitoring and measurement of environmental impacts • Organization in charge of environmental conservation measures 	2	1,166	
Research and development costs	<ul style="list-style-type: none"> • Research and development of products contributing to environmental conservation • Research, development, and planning for reducing environmental impacts in the manufacturing, distribution, and marketing processes 	14,060	119,720	
Social activity costs	<ul style="list-style-type: none"> • Environmental improvement measures, including nature protection, greening, and the preservation of beautiful scenery • Provision of support and information to local citizens • Donation and support to organizations engaged in environmental conservation activities • Disclosure of environment-related information and environmental advertisement 	0	983	
Environmental damage costs	<ul style="list-style-type: none"> • Restoration of polluted soil and underground water 	0	0.8	

1. The scope of the present calculations is as follows:

- Companies included in the accounts:
Honda Motor Co., Ltd.; Honda R&D Co., Ltd.; Honda Engineering Co., Ltd.
- Domains included in the accounts:
All domains in the life cycle of Honda products
- Targeted period:
April 1, 2003, through March 31, 2004

2. The published figures include some that have been estimated and some given as combined figures because of the difficulty of determining differential amounts.

3. For the tabulation, we referred to reference materials on environmental accounting, including guidelines and guidebooks published by the Ministry of the Environment of Japan.

4. This report publishes the specific results achieved in our efforts for each fiscal year. The aggregate total of our environmental conservation costs are quoted on a cash-flow basis in terms of the monetary amount less depreciation costs.

■ Environmental Training

1. Stratified Environmental Training Programs

Training programs are provided for Company employees at different levels so that all members of the Company will have a full recognition of their own responsibilities and be able to make progress in the Company's commitment to the environment as an integral part of their own work tasks. Environmental training programs are part of the Company's training curriculum, including the initial training offered to new employees and the training offered to employees who have worked for the Company for two to eight years.

The objective of the training program for new employees is to generate a proper understanding of Honda's commitment to environmental issues and train them to behave with a sense of environmental awareness within the context of their jobs after being assigned to individual departments. Furthermore, in fiscal 2001 we revised the basic training programs (HFC training) so

that environmental aspects are given more weight. These programs had been provided mainly to younger employees at our production sites to convey our corporate philosophy and to develop individual careers.

Because environmental problems are becoming more global, Honda makes employees more aware of the environment through these measures and encourages them to voluntarily act in an environmentally friendly manner in their business and private lives.

2. Environmental Training Based on the Environmental Management System

Every factory and office develops plans for education and training programs conducted on the basis of the environmental management system and holds regular training events for general personnel, operators who are engaged in specially designated work, and internal environmental auditors.

■ Promotion of Life Cycle Assessment (LCA) p. 56

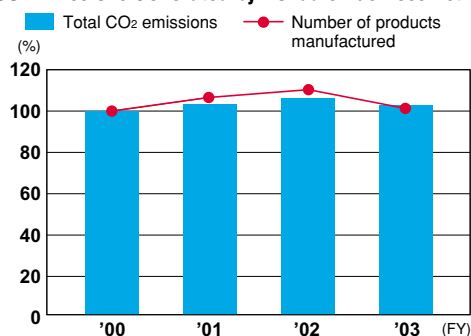
Honda established the Honda LCA Data System in March 2002. Using this system, we set annual CO₂ emission reduction targets for each department based on CO₂ emissions generated by that department in fiscal 2000 and promote the PDCA cycle from a quantitative aspect to reduce environmental impact.

In fiscal 2003, each domestic department (manufacturing, purchase, sales/service, and logistics) used the Honda LCA Data System to collect data and calculate CO₂ emissions generated by business operations. Compared with fiscal 2000, the number of products manufactured in fiscal years 2001 and 2002 increased 6% and 11.8%, respectively, while CO₂ emissions in fiscal years 2001 and 2002 increased only 2% and 5%, respectively, thanks to the efforts of our departments in reducing environmental impact. Carbon intensity per sales revenue has improved year after year since fiscal 2000. Now, using the Honda LCA Data System, we can clearly identify environmental impact by department and promote the PDCA cycle for each department.

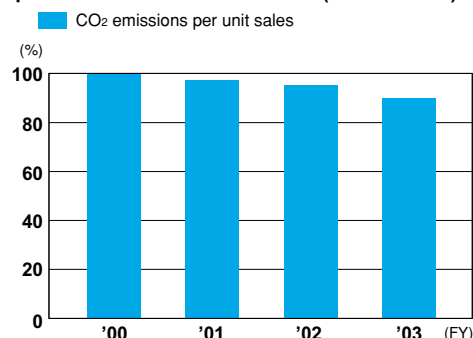
In the future, we will improve the efficiency of data collection and the accuracy of the collected data to steadily reduce our environmental impact. At the same time, we will introduce the Honda LCA Data System to the efforts of overseas sites in reducing environmental impact.

We also plan to utilize the Honda LCA Data System in the product development domain.

◆ CO₂ Emissions Generated by Honda's Business Activities



◆ CO₂ Emissions per Unit Sales in Honda's Business Operations Compared with the Fiscal 2000 Level (FY 2000: 100)



Notes:

1. CO₂ emissions are computed using a formula unique to Honda.
2. CO₂ emissions per unit sales are indicated as ton-CO₂ per ¥100 million.

■ Environmental Risk Management

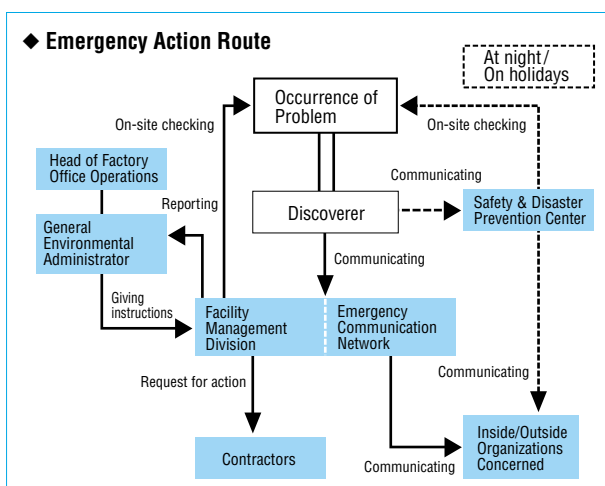
1. Product Recalls

The Company's policy on product recalls is in accordance with the statutes of its Quality Committee. In fiscal 2003, we submitted a notice on environment-related product recall to the Ministry of Land, Infrastructure and Transport. The details are as follows.

Model	Accord and Accord Wagon
Type	UA-CL7, LA-CL7, LA-CL8, LA-CL9, UA-CM2, LA-CM2, LA-CM3
Number of automobiles	29,494 units (automobiles manufactured from October 2, 2002, to May 8, 2003)
Product deficiency	Piping (length of breather tube and shape of breather pipe) of positive crankcase ventilation system (breather pipe and breather tube) is defective. If lightning acceleration is repeated when outside air temperature is low, the breather pipe may get out of place due to the vibration of the engine. As a result, blow-by gas may be emitted into the outside air when the engine is operated under high intensity.
Improvement	Breather pipe and breather tube are replaced by alternative ones.
Measures to make this defect known to users and maintenance shops	<ul style="list-style-type: none"> • Users: A notice was already mailed to users. • Maintenance shops: A notice was published in the bulletin issued by the Japan Automobile Service Promotion Association. • "No. 972" stickers were attached on the lower-left portion of the rear window of automobiles on which improvement work was done.

2. Action in Emergencies

For accidents or emergencies that may cause environmental pollution, individual factories and their individual departments have clearly defined procedures and priorities to prevent or mitigate pollution. Daily activities include regular emergency drills and training events to acquire and improve competence in accident and emergency defense procedures. There were no environment-related emergencies in fiscal 2003.



3. Compliance with Legal Acts and Regulations

All sites and offices of Honda promote environmental improvement activities in accordance with the Environmental Management System. For all environmental aspects, Honda has established, and strictly abides by, its own voluntary standards, which are more stringent than national or local regulations.

In April 2003, Honda established Honda Conduct Guidelines as part of its efforts to improve its corporate governance system. In the guidelines, compliance is defined as "compliance with laws, company rules, and social norms," and environmental conservation is defined as the "proper processing of waste and pollutants," "efficient use of natural resources and recycling," and "legally required measurements, recording and reporting." A director in charge of compliance was nominated as Compliance Officer. Honda began efforts to establish an integrated framework under which every organization will perform their duties toward compliance and risk management under the leadership of a director in charge.

There were no environment-related lawsuits filed against Honda in fiscal 2003.

4. Measures for Other Issues

Based on the important concept of "symbiosis with local communities," Honda actively promotes Green Factory activities and continuously takes measures to resolve environmental issues. We aim at being a company that can enjoy the confidence of local communities. We will continue to aim at becoming a company that local communities can take pride in.

To strengthen the monitoring of groundwater, we increased the number of observation wells established within the premises of our factories, which are used to monitor the soil and groundwater. As a result, it was confirmed that measured substances as used at the factories have never been released beyond the boundaries of the premises.

Also, we will continue to monitor groundwater in the premises of our factories and will voluntarily announce the results in our environmental annual reports and on our Web site.

1. Product Development Domain

Honda has actively taken environmental actions focusing on the product running (usage) stage because a large part of environmental load is generated in that stage of a product's life cycle. In 1999, Honda announced specific targets to be achieved by 2005 with the improvement of clean exhaust gas and fuel economy for its automobiles, motorcycles, and power products. Honda is now in the process of working towards achieving these targets.

Automobiles

Besides achieving cleaner exhaust gas and improved fuel economy for Honda automobiles, efforts are under way to develop products using alternative forms of energy.

Main targets for fiscal 2003 in Japan

- To increase the number of vehicles approved by the Ministry of Land, Infrastructure and Transport as "Ultra" low emission vehicles
- To achieve earlier compliance with the 2005 exhaust emissions regulations of the Ministry of Land, Infrastructure and Transport
- To improve average fuel economy for all vehicle weight categories

Main achievements in fiscal 2003 in Japan

- Nine additional models were approved as "Ultra" low emission vehicles (16 in total)
- Achieved compliance of all models with 2005 exhaust emissions regulations
 - Six models approved as vehicles with 75% lower emissions than the 2005 exhaust emissions standards
 - Fourteen models approved as vehicles with 50% lower emissions than the 2005 exhaust emissions standards
- Attained the fuel economy standards for fiscal 2010 for six categories among total seven

Achieving Cleaner Exhaust Gas E p. 14

Progress towards Targets to Be Achieved by 2005 with Cleaner Exhaust Gas

Honda has given high priority to cleaner exhaust gas emissions in gasoline-powered vehicles. We are working to reduce such emissions such as carbon monoxide (CO), hydrocarbons (HC), and nitrogen oxides (NO_x) contained in exhaust gas.

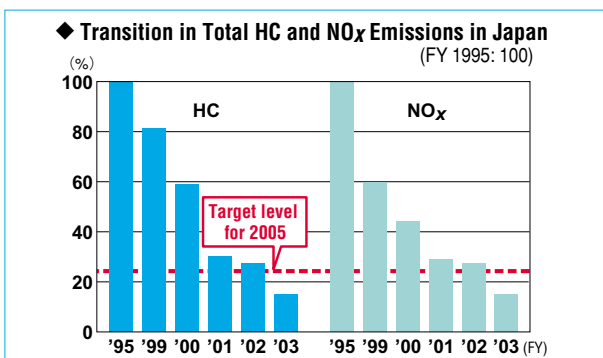
Targets

- Up to fiscal 2005: To reduce the total exhaust emissions of HC and NO_x by approximately 75% for new vehicles (compared with fiscal 1995)¹
- Up to fiscal 2005: To have almost all Honda passenger vehicles approved as "Ultra" low emission vehicles by the Ministry of Land, Infrastructure and Transport

Progress

In fiscal 2003, total exhaust emissions of HC and NO_x for new automobiles were reduced by approximately 83.7%, and the target for 2005 was attained.

- Total HC emission level: Reduced approx. 83.7% (compared with 1995)²
- Total NO_x emission level: Reduced approx. 83.7% (compared with 1995)²



Note: In fiscal 2003, when a new low emission vehicle approval scheme under the 2005 exhaust emissions standards was introduced, total emissions of HC and NO_x of those models subject to the 2000 exhaust emissions standards and older models were computed and totaled using the 10-15 mode, and total emissions of HC and NO_x of those models subject to the 2005 exhaust emissions standards were computed and totaled using the new test mode for the 2005 regulations. For those models subject to the 2005 exhaust emissions standards, total emissions of HC are computed in non-methane hydrocarbon (NMHC).

1. Target applicable to Japan
2. Results in Japan (excluding trucks)
3. In order to give greater impetus to the use of low emission vehicles, the Ministry of Land, Infrastructure and Transport of Japan has instituted this approval system. Low emission vehicles with HC and NO_x emission levels below the 2000 exhaust emissions standards are classed into three categories for approval.
 - 25% lower than the standards: "Good"
 - 50% lower than the standards: "Excellent"
 - 75% lower than the standards: "Ultra"

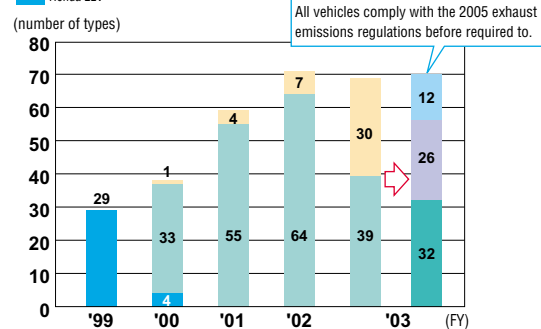
- The percentage of models approved as "Ultra" low emission vehicles³ by the Ministry of Land, Infrastructure and Transport increased from 10% (seven models, seven types) to 43% (16 models, 30 types).

Earlier Compliance with 2005 Exhaust Emissions Regulations

- On October 1, 2003, a new low emission vehicle approval scheme under the 2005 exhaust emissions standards was introduced. Therefore, Honda made all models comply with the 2005 exhaust emissions standards by March 2004. Six models (12 types) were approved as "★★★★ low emission vehicles,"⁴ and 14 models (26 types) were approved as "★★★ low emission vehicles."

Number of Types that Were Approved as a Honda LEV or "Excellent"/"Ultra" Low Emission Vehicle or Complied with the 2005 Exhaust Emissions Standards (Light Trucks Are Excluded)

- ★★★★ low emission vehicle (emissions are 75% lower than the 2005 exhaust emissions standards)
- ★★★ low emission vehicle (emissions are 50% lower than the 2005 exhaust emissions standards)
- Complies with the 2005 exhaust emissions regulations
- "Ultra" low emission vehicle (emissions are 75% lower than the 2000 exhaust emissions standards)
- "Excellent" low emission vehicle (emissions are 50% lower than the 2000 exhaust emissions standards)
- Honda LEV



Notes:

1. In fiscal 2003, when a new low emission vehicle approval scheme under the 2005 exhaust emissions standards was introduced, the number of those types that were approved as "Excellent" or "Ultra" low emission vehicles under the 2000 exhaust emissions standards is indicated together with the number of those types that were approved as "★★★★ low emission vehicles" (emissions that are 75% lower than the 2005 exhaust emissions standards) or "★★★ low emission vehicles" (emissions that are 50% lower than the 2005 exhaust emissions standards).
2. Honda LEV: All vehicles equipped with low emission vehicle (LEV) engines developed by Honda in 1996 and based on the Company's own standards
3. This is a new approval scheme established by the Ministry of Land, Infrastructure and Transport to accelerate the diffusion of low emission vehicles. Low emission vehicles with HC and NO_x emission levels below the 2005 exhaust emissions standards are classified into two categories for approval.
 - 50% lower than the standards: ★★★
 - 75% lower than the standards: ★★★★★

1. Models/Types and Sales Results for Honda LEVs and Vehicles Approved as Low Emission Vehicles by the Ministry of Land, Infrastructure and Transport of Japan

Honda has endeavored to expand the number of its models approved under the Low Emission Vehicles' Approval System by the Ministry of Land, Infrastructure and Transport of Japan. On October 1, 2003, a new low emission vehicle approval scheme under the 2005 exhaust emissions standards was introduced. Under this new scheme, six models (INSPIRE, ODYSSEY, etc.) were approved as "★★★★ low emission vehicles," and all models comply with 2005 exhaust emissions regulations.

◆ Low Emission Vehicles Marketed in Fiscal 2003 (Models Approved as "★★★★" or "★★★" Low Emission Vehicles under the 2005 Exhaust Emissions Regulations)

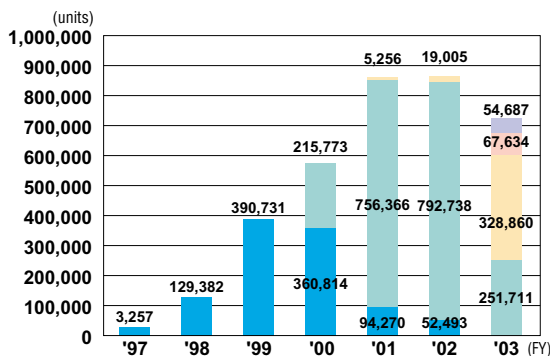
Approved as "★★★★ low emission vehicles" (75% lower than the 2005 standards) 6 models	Approved as "★★★ low emission vehicles" (50% lower than the 2005 standards) 14 models ²
INSPIRE	ELEMENT
ODYSSEY (S, M, L)	STEP WAGON
MOBILIO ¹	STEP WAGON SPADA
Fit ¹	LIFE
Fit ARIA ¹	STREAM (Absolute)
CIVIC GX ¹	9 other models

1. Models with minor changes

2. The number of models approved as "★★★ low emission vehicles" increased to 16, if light trucks (ACTY, VAMOS HOBIO Pro) are included.

◆ Transition in the Sales Results in Japan

- "★★★★ low emission vehicle" (emissions are 75% lower than the 2005 exhaust emissions standards)
- "★★★ low emission vehicle" (emissions are 50% lower than the 2005 exhaust emissions standards)
- "Ultra" low emission vehicle (emissions are 75% lower than the 2000 exhaust emissions standards)
- "Excellent" low emission vehicle (emissions are 50% lower than the 2000 exhaust emissions standards)
- Honda LEV



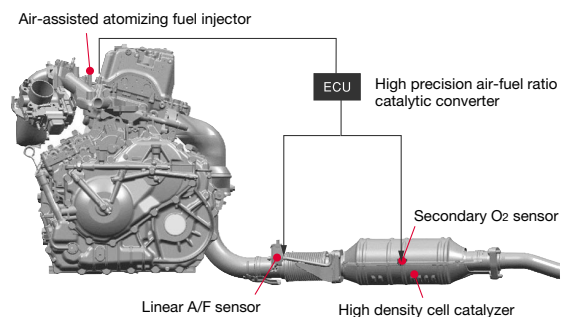
Note: Figures quoted for the years prior to the establishment of the Low Emission Vehicles' Approval System of Japan (FY 1997-1999) refer to Honda LEV conforming vehicles.

2. Improvement in the Emission Performance of Honda's Main Models

The ODYSSEY, marketed in October 2003, was approved as a "★★★★ low emission vehicle" (emissions that are 75% lower than the 2005 exhaust emissions standards) by the Ministry of Land, Infrastructure and Transport. To reduce air pollutants (HC and NO_x), a rear exhaust system adopting a low heat mass exhaust pipe is employed. The cleaning performance of the high density cell catalyzer was improved as much as possible thanks to the precise control of the air-fuel ratio by sensors (linear A/F sensor and secondary O₂ sensor). Also, air-assisted atomizing fuel injectors provide a near-complete combustion, resulting in cleaner combustion gas. Honda, thus, realizes the highest level of cleaning performance.

* A catalytic converter is a device that cleans air pollutants contained in exhaust gas. A catalyzer is activated when the temperature reaches a certain level, and it is therefore important to raise the temperature quickly to maximize the exhaust gas cleaning performance of a catalytic converter.

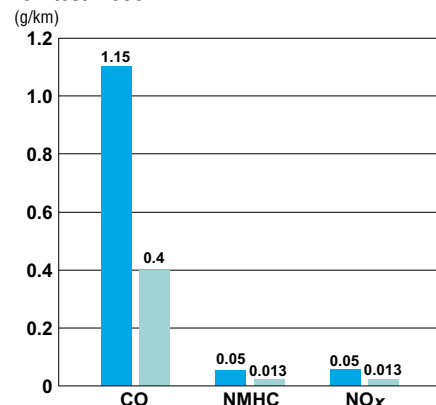
◆ Major Technologies Used in 2.4L DOHC I-VTEC Engines Mounted in the ODYSSEY



◆ Emissions from the ODYSSEY Compared with the 2005 Exhaust Emissions Standards of the Ministry of Land, Infrastructure and Transport (New Test Mode)

- The 2005 exhaust emissions standards of Japan
- Emissions from the ODYSSEY

● New test mode



1. Product Development Domain

Improvement in Fuel Economy p. 16

Progress towards Targets to Be Achieved by 2005

Honda has introduced various technologies for improving fuel economy as a way of reducing CO₂ emissions, which are responsible for global warming. As a result, the ELEMENT, STEP WAGON, STEP WAGON SPADA, INSPIRE, and ODYSSEY, marketed in fiscal 2003, all met the fuel economy standards for fiscal 2010.

Targets

- Up to fiscal 2005: To achieve the new fuel efficiency standards of Japan for fiscal 2010 for all weight categories
- Up to fiscal 2005: To improve the average fuel economy by approximately 25% (compared with fiscal 1995)

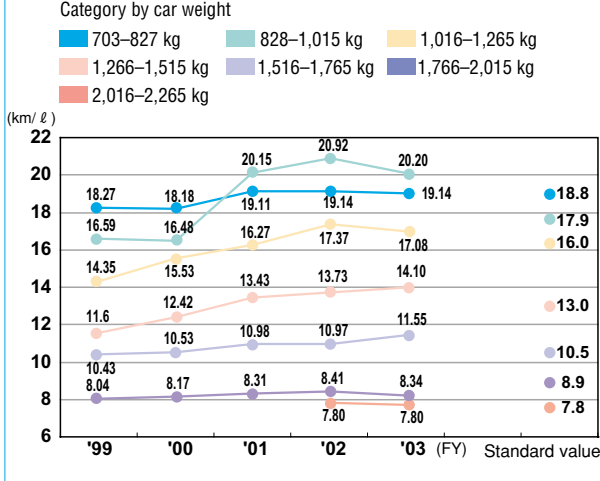
* Targets in Japan

Progress

As a result of the efforts described later, we were able to achieve the following progress in fiscal 2003.

- The 2010 Fuel Economy Standards of Japan were attained in six out of the seven vehicle weight categories.

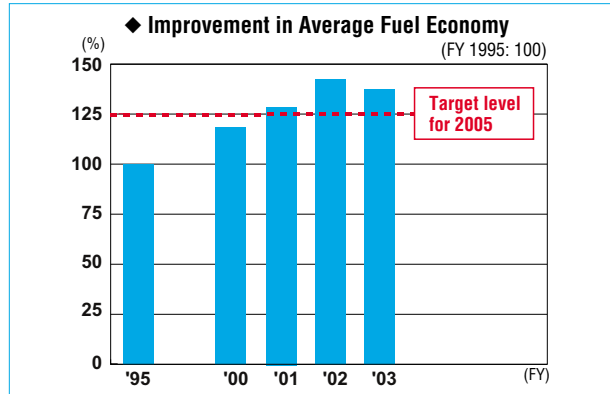
Transition in Average Fuel Economy by Category in Accordance with the 2010 Fuel Economy Standards of Japan



Average fuel economy

Average fuel economy was improved by approximately 35% (compared with fiscal 1995)* and achieved the objective for 2005 (improvement in average fuel economy by approximately 25%) consecutively for two years from fiscal 2003.

* Average fuel economy in Japan (for gasoline-powered vehicles)

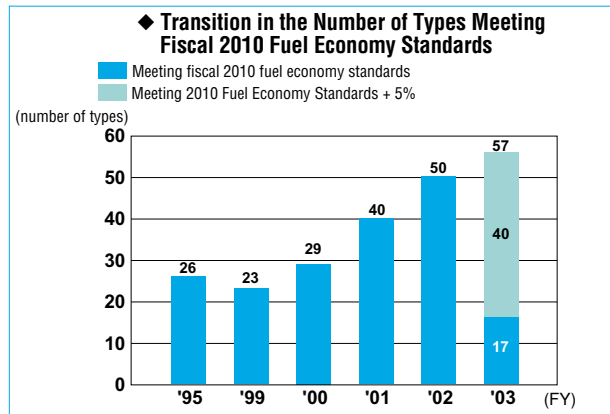


1. Types Conforming to 2010 Fuel Economy Standards and Shipment Results¹

In accordance with an amendment to the Energy Saving Law of Japan, the fiscal 2010 targeted values for fuel economy of Japan were announced. Honda is making efforts to increase the types that exceed the values. Of the types sold in fiscal 2003, 25 models (57 types)² meet the standards. (See table below.) The number of vehicles shipped in fiscal 2003 that meet these standards was 648,137, approximately 90% of all Honda vehicles shipped within Japan. Eighteen models (40 types)² meet one of the conditions for receiving preferential treatment under the Green Tax System as of April 1, 2004 (one of the conditions is the 2010 Fuel Economy Standards + 5%). (Preferential treatment takes effect in April 2004.)

1. Shipment results reported to the Ministry of Land, Infrastructure and Transport and the Ministry of Economy, Trade and Industry

2. Includes cars other than new models and remodeled cars



Models	Types Meeting the Standards
⊙INSPIRE	All types
⊙STEP WAGON SPADA	All types
○VAMOS HOBIO Pro	All types, excluding 4WD 4ATs
○STEP WAGON	All types
○LIFE	All types, excluding 4WD TURBOs
○ODYSSEY	All types
○STREAM ¹	All types, including the newly added Absolute
ELEMENT	All types
VAMOS HOBIO	FF 5MT
Plus 16 other models ²	

1. A new model type was added.

2. Other than new models and remodeled cars

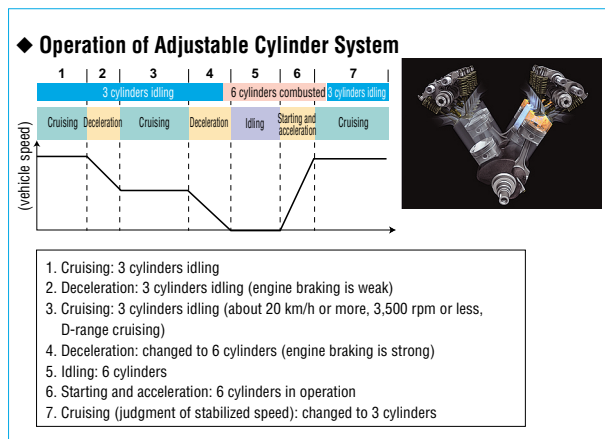
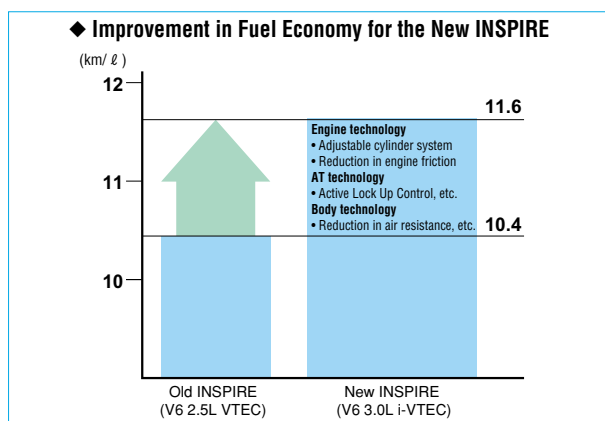
⊙: All types meet the 2010 Fuel Economy Standards + 5%

○: Some types meet the 2010 Fuel Economy Standards + 5%

2. Fuel Economy for Main Models

The new INSPIRE, marketed in June 2003, achieved a high fuel economy of 11.6km/ℓ* (regular gasoline), which corresponds to the fuel economy for the 2.4L in-line four-cylinder engine, while achieving the highest output of 184 kW (250 ps) and a high torque of 296N•m (30.2 kg•m). This was made possible by the newly developed V6 3.0L i-VTEC engine, for which Variable Cylinder Management System (either six-cylinder or three-cylinder combustion may be selected, depending on cruising conditions) was adopted.

* Fuel economy in 10-15 mode (This figure was obtained during an inspection made by the Ministry of Land, Infrastructure and Transport.)



Alternative Fuel Vehicles E p. 18

1. Natural-Gas Vehicles

The sales of the CIVIC GX, which is powered by natural gas—a more abundant and cleaner-burning fuel than oil—amounted to 79 vehicles in fiscal 2003.

2. Fuel Cell Vehicles

To deal with increasing environmental problems, including global warming, air pollution, and the depletion of resources, Honda has been developing a new power train to replace its internal combustion engines. As a result, we released the FCX, which is a fuel cell vehicle using an ultimately clean power train powered by hydrogen. Since December 2002,

when the FCX was simultaneously delivered to customers in Japan and the United States, five FCXs had been leased in Japan and seven FCXs in the United States by March 2004 (12 in total). The FCX, powered by a newly developed, downsized, and high-powered next-generation fuel cell called the Honda FC STACK, which enables the car to be started at -20°C , was certified for commercial use by the Minister for Land, Infrastructure and Transport on September 24, 2003. For practical applications, the FCX has undergone test runs on public roads with other tests involving starting up at low temperatures and driving performance in Hokkaido. The FCX, powered by the Honda FC STACK, played the role of lead car at the 80th Tokyo-Hakone Collegiate Ekiden Road Relay Race in January 2004 and traveled a total of 216.4 km. In this race, the FCX's performance at starting at low temperatures and driving was excellent. In the future, tests on public roads will be carried out in both Japan and the United States. Honda is scheduled to market the FCX, powered by the Honda FC STACK, in 2005.



The FCX, powered by the Honda FC STACK

Noise Reduction

Honda also focuses on the development of technology to reduce exterior noise. Such noise sources as the air intake, exhaust, and engine are responsible for most exterior noise. The new ODYSSEY, marketed in October 2003, achieved the similar level of exterior noise (to 74 db, which is lower than the regulation standard of 76 db) compared with that of the previous model by reducing exterior noise caused by the engine and intake/exhaust due to the adoption of the following technologies while the output of its engine was increased.

Reduction in engine noise

- Highly rigid cylinder block
- Adoption of “silent chains” (low-noise chains) for the timing belt
- Highly rigid crankshaft
- Secondary balancer
- Light crank pulley
- Intake air resonator chamber placed on the engine
- Acoustic material in the engine room

Technology to reduce intake noise

- High-volume air cleaner
- High-volume main resonator chamber

Technology to reduce exhaust noise

- Twin silencer

1. Product Development Domain

Motorcycles

In the area of motorcycles, we made further progress in expanding the use of 4-stroke engines to achieve cleaner exhaust emissions. We have also made efforts to introduce new technologies to improve fuel economy and applied these technologies to small motorcycles.

Main targets for fiscal 2003 in Japan

- To expand the use of 4-stroke engines
- To improve the fuel economy of new models

Main achievements in fiscal 2003 in Japan

- Adopted 4-stroke engines for all models released in fiscal 2003 (4-stroke motorcycles as a percentage of all motorcycles manufactured by Honda: 89.5%)*
- Improved the average fuel economy by 30.5% for all models marketed in fiscal 2003*

*Results in Japan

Achieving Cleaner Exhaust Gas E p. 20

Progress towards Targets to Be Achieved by 2005 with Cleaner Exhaust Gas

Targets

Up to fiscal 2005: To reduce total exhaust emissions of HC* to approximately 1/3 for new motorcycles (compared with fiscal 1995)

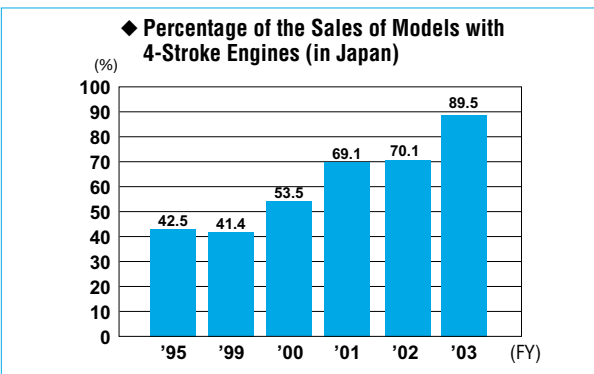
* Total for Japan, the United States, the European Union, and Thailand

Progress

In fiscal 2003, HC emissions from new motorcycles were kept at 30.9% of the 1995 level, a 3.3 percentage point increase over the previous year's level. HC emissions were maintained at about 1/3 of the 1995 level despite the fact that sales* increased 15.2% (sales increased 45% in Thailand).

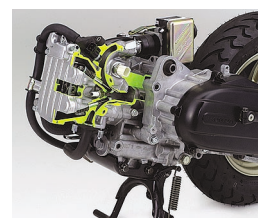
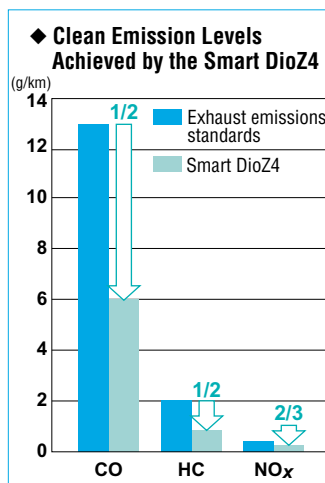
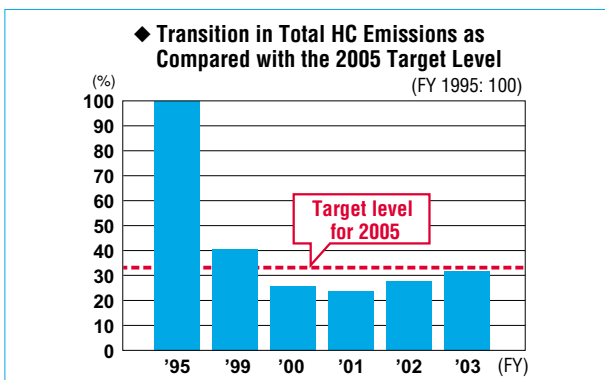
In Japan, HC emissions stood at approximately 16.2% of the 1995 level, about a 3 percentage point decrease from the previous year's level, as sales of 4-stroke motorcycles accounted for approximately 90% of total sales in the domestic market.

* Total for Japan, the United States, the European Union, and Thailand



1. Improvement in Emission Performance of Honda's Main Models

Honda promotes cleaner exhaust gases both in Japan and throughout the world. In fiscal 2003, we continued to apply electronically controlled fuel injection (FI) technology to small motorcycles to realize cleaner exhaust gases for 4-stroke motorcycles. Following the Pantheon marketed in Europe in fiscal 2002, Smart DioZ4 50cc scooters marketed in the domestic market in January 2004, which have the smallest cylinder employing FI technology for a mass-produced motorcycle in the world, realized clean emission levels equal to 1/2 or less (CO and HC) and 2/3 (NO_x) of the exhaust emissions standards in Japan.



■ Improvement in Fuel Economy E p. 22

Progress towards Targets to Be Achieved by 2005 for Improvements in Fuel Economy

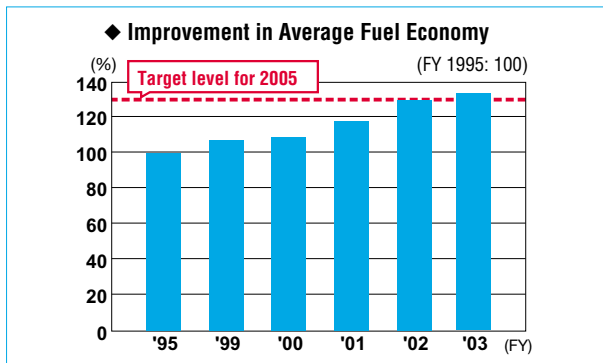
Targets

Up to fiscal 2005: To improve the average fuel economy* by approximately 30% (compared with fiscal 1995)

* Total average for Japan, the United States, the European Union, and Thailand

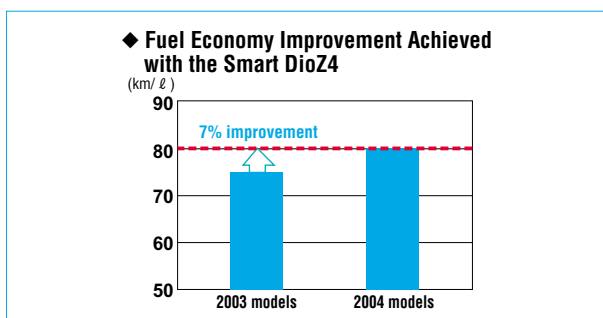
Progress

Honda expanded the use of 4-stroke engines in motorcycles not only in Japan but also overseas. As a result, the average fuel economy in fiscal 2003 improved 33.7% over that in 1995, and the improvement rate surpassed the target of 30%. The average fuel economy in Japan also improved 30.5% over the 1995 level. Honda announced earlier that its FI technology would be applied to 50cc motorcycles by 2005. In January 2004, however, we succeeded in marketing the Smart DioZ4 one year earlier, which has the smallest cylinder employing FI technology for a mass-produced motorcycle in the world, in the domestic market.



1. Improvement in Fuel Economy for Main Models

In fiscal 2003, Honda continued to apply FI technology to small motorcycles to further improve the fuel economy of 4-stroke motorcycles. The fuel economy of the Smart DioZ4 sold in the domestic market in January 2004 was improved by 7% (at a constant speed of 30 km/h) compared with that of older models equipped with a 4-stroke carburetor-type engine.

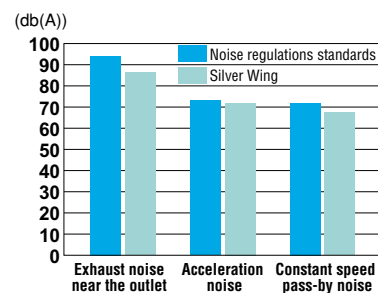


■ Noise Reduction E p. 23

1. Efforts to Reduce Noise

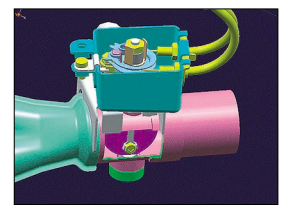
For the Silver Wing 400/600, sold in the domestic market in March 2004, we achieved a level of noise reduction that is below the third noise regulation standards for small motorcycles in Japan (made stricter in October 2001) by using the following noise reduction technologies.

◆ Quietness Performance for the Silver Wing



Exhaust noise

- The variable exhaust system that controls the diameter of the exhaust pipe according to driving condition is placed on the exhaust pipe manifold. This system improved output characteristics and achieved an excellent level of quietness as a result of the exhaust noise reduction.



Variable exhaust system

Drive system

- The drive belt cover was made larger, a full-floating structure was adopted, and acoustic material was added, to reduce noise from the drive system.



Silver Wing 600

Motorcycles Complying with the Third Noise Regulation Standards of Japan

CBR600RR (released in June 2003)
Shadow 750 (released in December 2003)
Silver Wing 400/600 (released in March 2004)

1. Product Development Domain

Power Products

For power products, our environmental commitment is to comply with stringent regulations in advance, in focusing on cleaner exhaust gases, and improved fuel economy in all product areas.

Main targets for fiscal 2003 in Japan

- To comply with stringent regulations in advance
- To improve the fuel economy for new product models

Main achievements in fiscal 2003 in Japan

- Achieved compliance with regulations in advance for all models released in fiscal 2003
- Improved fuel economy by 20% for the BF150 outboard engine

Achieving Cleaner Exhaust Gas Targets for 2005 and Progress E p. 24

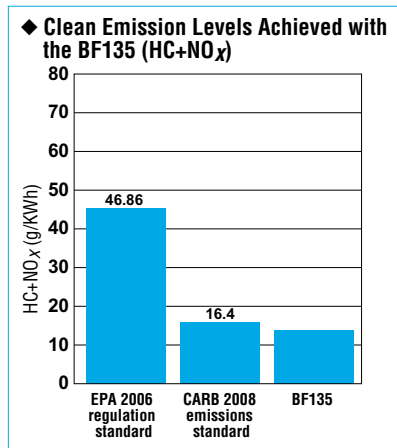
Targets

Up to fiscal 2005: To reduce the average exhaust emissions* of HC and NO_x by approximately 30% for new products (compared with fiscal 1995)

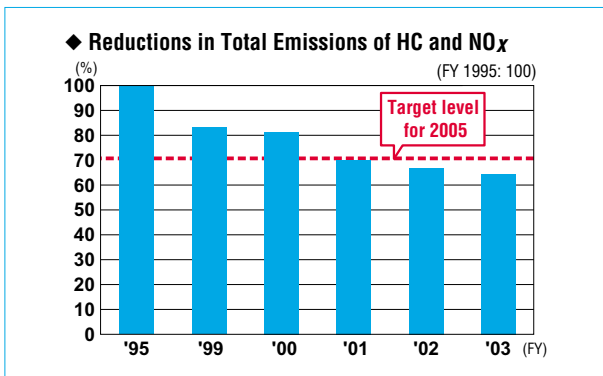
*Average emission levels worldwide

Progress

We were able to achieve an approximate 30% reduction in average HC and NO_x emission levels in fiscal 2001. In fiscal 2003, we succeeded in realizing an approximate 36% reduction by continuously taking measures described below.



BF135



1. Improvement in Emission Performance of Honda's Main Models

The exhaust emissions of the BF150 and BF135 outboard engines, marketed in September 2003, were far lower than the 2006 regulation standards of the U.S. Environmental Protection Agency (EPA) and the voluntary industry standards in Japan. In addition, exhaust emissions of these engines satisfied the 2008 exhaust emission standards imposed by the California Air Resources Board (CARB), which are the most stringent regulations in the world.

The hybrid HSS1170i snow blower, marketed in November 2003, is equipped with a Honda e-SPEC* engine, which has the best emission performance in the world and satisfies the secondary voluntary emission standards in Japan (2008) as well as the phase 2 regulations of the U.S. EPA. The GX35 ultracompact 4-stroke universally inclinable engine (cylinder volume: 35.8cc), marketed in August 2003, satisfies the phase 2 regulations of the U.S. EPA and Tier II standards of CARB, which are the most stringent standards in the world. The emission performance of the GX35 is at the highest level in its class. The GX35 realized early compliance with the secondary voluntary emission standards in Japan (2011) and the EU's stage 1 (2004) and stage 2 (2007) emission regulations.



GX35

* Honda names the environmental conservation technology in power products as e-SPEC, which represents Honda's determination to pass down a rich natural environment to next generations. The name e-SPEC is given to power products that employ the highest level of environmental conservation technology in the world.

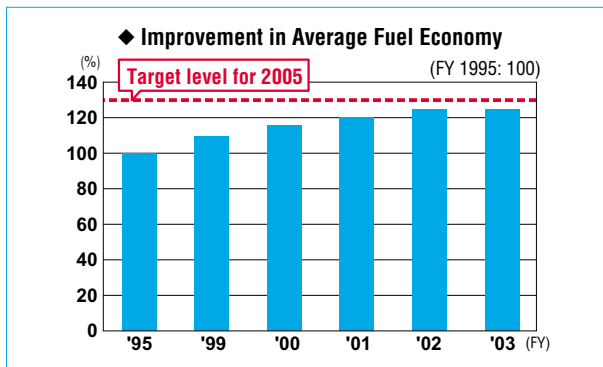
■ Improvement in Fuel Economy E p. 26 Targets for 2005 and Progress

Targets

Up to fiscal 2005: To improve the average fuel economy by approximately 30% (compared with fiscal 1995)

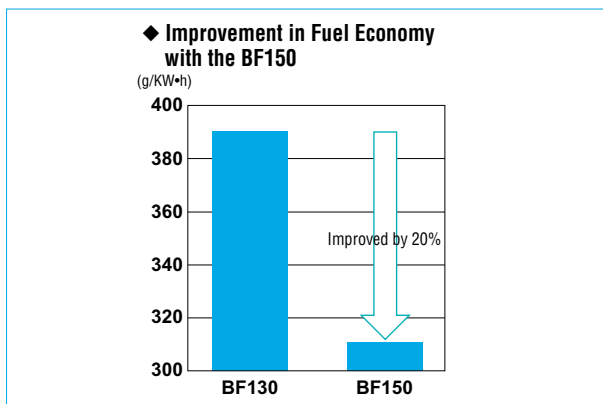
Progress

We were able to improve the average fuel economy by approximately 25% by the end of fiscal 2003 as a result of the following efforts.



1. Efforts to Improve Fuel Economy

We introduced various technologies to the major models released in fiscal 2003 in order to improve their fuel economy. The BF150 and BF135, as mentioned above, realized a lean burn by adopting a fuel injection system (Honda PGM-FI) equipped with an LAF sensor, the world first application to outboard engines. The fuel economy of these models improved roughly 20% compared with that of the BF130.



The aforementioned HSS1170i snow blower adopts a hybrid system: the snow blower unit is powered by an engine, and the driving unit is powered by a motor. When in operation, the snow blower's driving speed is automatically adjusted by a computer according to the load on the engine. As a result, the manual speed-adjusting operation is reduced and fuel economy is improved.

■ Alternative Fuel Vehicles E p. 27

Honda started marketing its own gas cogeneration unit for household use through gas companies in March 2003 in order to reduce energy consumption in ordinary households. The total thermal efficiency for power generation and hot water supply achieves 85%, and compared with traditional thermal power generation-based energy supply systems, a 20% reduction in CO₂ emissions can be expected (according to calculations made by Honda in comparison with electricity from thermal power generation and hot water supplied from a gas-powered unit). In fiscal 2003, 5,149 units of the ECOWILL cogeneration system, which adopts Honda's small gas cogeneration unit for household use, were sold.



■ Noise Reduction

1. Efforts to Reduce Noise

We introduced the following technologies to reduce noise from our major power products released in fiscal 2003.

HSS1170i

The external noise of the hybrid HSS1170i snow blower was reduced by employing the following technologies. (Noise heard by an operator was reduced by 1/2 compared with that of older models.)

- Complete shielding of the engine and a large muffler
- Transmission integrating the driving motor and driving unit
- Vertical engine with a built-in dual balancer



HSS1170i

2. Purchasing Domain

In the purchasing domain, Honda has set green purchasing guidelines to increase the proportion of materials and parts which have reduced environmental impact.

Main targets for fiscal 2003 in Japan

- To comply with Honda's chemical substance guidelines for two substances (four categories)
- To reduce suppliers' CO₂ emissions
- To reduce suppliers' landfill waste
- To promote the acquisition of ISO 14001 certification by all suppliers (75% of all suppliers acquired certification)

Main achievements in fiscal 2003 in Japan

- Implemented a changeover of lead and a lead compound (one substance, three categories)
- Reduced CO₂ emissions per unit energy consumption by 4.0% from the fiscal 2000 level (including affiliated companies only)*
- Reduced landfill waste by 63% from the fiscal 2000 level (affiliated companies only)*
- Certification acquired by 335 companies (75% of suppliers)

*Affiliated companies: subsidiary companies and associated companies based on the Securities and Exchange Law

Promotion of Green Purchasing E p. 38

1. Green Purchasing Guidelines

In 2001, Honda set green purchasing guidelines to aggressively promote the green procurement of materials and parts. (See the framework of Honda's green purchasing guidelines below.)

In cooperation with our suppliers, we started to deal with specific management items and targets toward 2010.

1) Management of chemical substances

With respect to the changeover of lead and a lead compound (one substance, three categories) specified in Honda's chemical substance guidelines, we completed the changeover of those substances specified in the relevant law and voluntarily promoted the changeover of substances not specified in the relevant law. In the future, we will promote the changeover of hexavalent chromium.

2) Reduction in environmental impact caused by suppliers in manufacturing parts

In fiscal 2003, making full use of the Honda LCA System, we made efforts to reduce CO₂ emissions and landfill waste. As a result, CO₂ emissions from suppliers were reduced by 4.0% in energy unit compared with that in fiscal 2000. Also, landfill waste from suppliers decreased 63% compared with that in fiscal 2000. These were made possible by cooperation between Honda and its suppliers.

In fiscal 2004, we will continue to promote the management of chemical substances and reduction in the use of substances that cause environmental impact according to our green purchasing guidelines.

3) Promoting the acquisition of ISO 14001 certification by Honda's suppliers

In fiscal 2003, Honda worked towards its target of having all of its suppliers acquire ISO 14001 certification. This resulted in the certification of 335 companies, which account for 75% of all Honda suppliers.

2. Efforts in Relation to the Purchase of Spare Parts

1) Recycling of used dies

Because most molds are made of steel, used molds are recycled. CO₂ emissions from iron making with used molds are about 25% of those from iron making using iron ore. Therefore, the recycling of used molds should be actively promoted. However, many molds are stored for a long time because parts from old molds are used for repair parts, and it is difficult to determine when to dispose of the mold.

In fiscal 2002, Honda began providing its suppliers with information on parts and the criteria for disposing of molds. Based on this information, in fiscal 2003, our suppliers have standardized disposal operations and actively promote the recycling of used molds.

Achievements in Fiscal 2003

Number of dies disposed of: 46,000
Equivalent weight: 14,500 tons

◆ Framework of Honda's Green Purchasing Guidelines

Honda Green Purchasing	Classification	Management Item	Target
Products	Management of chemical substances contained in products (purchased parts)	Content of chemical substances in products (parts and materials)	Compliance with the schedule set forth in Honda's guidelines on chemical substances*
		CO ₂ emission volume	2010: 6% reduction over 2000
Manufacturing	Management of environmental impacts by suppliers	Waste amount (reduction of landfill)	2007: Zero landfill
		Promoting environmental management systems at suppliers	2005: Completion in Japan 2008: Completion in other countries
Corporate System	Promoting environmental management systems at suppliers	Further acquisition of ISO 14001 certification	

* Honda's guidelines on chemical substances: The guidelines show the schedule for reducing, abolishing the use of, or replacing chemical substances with environmental impacts, including those regulated in Europe (lead, mercury, cadmium, hexavalent chromium) and those voluntarily regulated by Honda.

3. Production Domain

In the production domain, Honda aggressively reduced the use of energy and resources and promotes zero emissions to develop Green Factories.

Main targets for fiscal 2003 in Japan

- Energy unit: 21.9 CO₂-tons/¥100 million
- CO₂ emissions: 485,000 CO₂-tons
- Incineration of waste: 60% reduction over the fiscal 1998 level

Main achievements in fiscal 2003 in Japan

- Energy unit: 22.3 CO₂-tons/¥100 million
- CO₂ emissions: 445,000 CO₂-tons
- Incineration of waste: 61% reduction over the fiscal 1998 level

* The "production domain" section covers five factories: Saitama, Tochigi, Hamamatsu, Suzuka, and Kumamoto.

Promotion of Green Factories E p. 30

1. Energy and Resource Saving

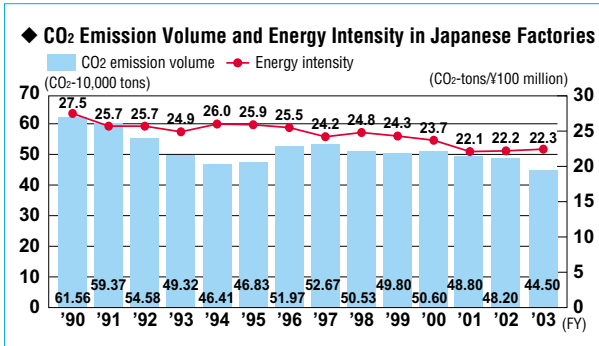
Targets and Progress for Fiscal 2003 on Promoting Energy Saving

Targets

To reduce the energy unit to 21.9 CO₂-tons/¥100 million (20.4% reduction compared with fiscal 1990)

Progress

In fiscal 2003, unit energy consumption stood at 22.3 CO₂-tons/¥100 million (an 18.9% decrease from the 1990 level).



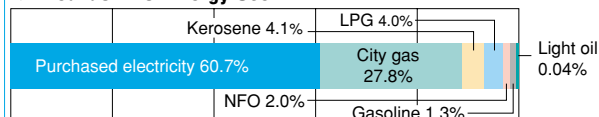
1) Energy saving

CO₂ emissions at Honda factories were 445,000 CO₂-tons in fiscal 2003, down 7.7% from the previous fiscal year (482,000 CO₂-tons) and down 27.8% from fiscal 1990. CO₂ emissions were 8.2% lower than the target of 485,000 tons due to the following energy-saving measures and factors related to production and climate.

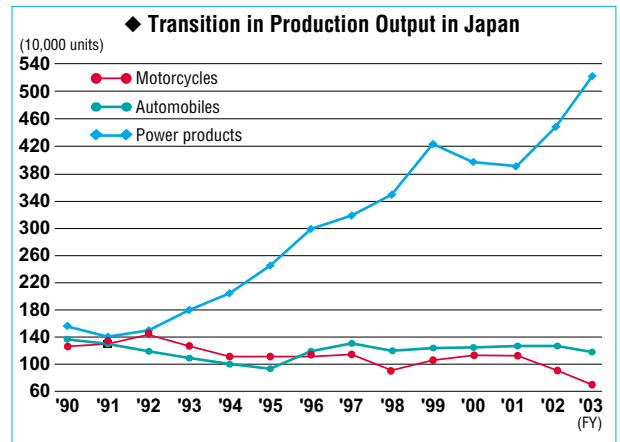
Energy-Saving Measures

- Reduction by streamlining production lines
- Adoption of inverter drives for the painting booth and fans
- Changeover of fuels (from LPG to LNG)
- Reduction in air pressure
- More efficient operation of cogeneration units (Suzuka and Saitama Factories)
- Solar-power generation (Hosoe Plant of Hamamatsu Factory and Kumamoto Factory)
- Effective use of the power-monitoring system

Breakdown of Energy Use



At our factories, we will continue to promote energy saving, introduce new energy sources, and efficiently manage energy use through LCA activities.



Notes:

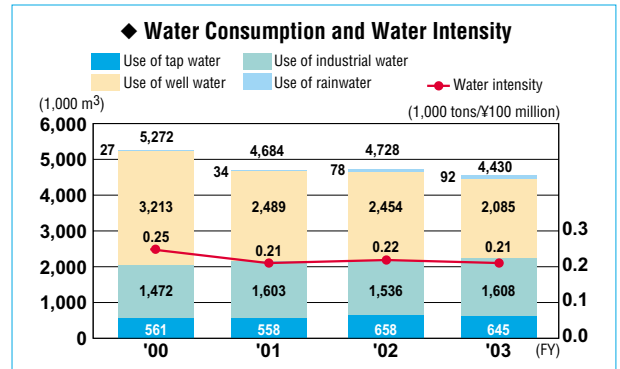
- CO₂ emission volume and water consumption are influenced by changes in the production output.
- Starting from fiscal 1999, ATV's, which were previously classified as a products, have been reclassified as a motorcycles.

The following CO₂ conversion factors were used:

Electricity:	0.404 (CO ₂ -ton/MWh)
City gas:	2.015 (CO ₂ -ton/1,000 Nm ³)
Kerosene:	2.532 (CO ₂ -ton/kℓ)
Gasoline:	2.246 (CO ₂ -ton/kℓ)
Light oil:	2.576 (CO ₂ -ton/kℓ)
LPG:	3.031 (CO ₂ -ton/ton)
NFO:	2.716 (CO ₂ -ton/kℓ)

2) Resource saving (water consumption)

Water consumption at domestic factories in fiscal 2003 totaled 4,430,000 m³. Water consumption decreased 16% from the previous year's level. Water saving was achieved by the following measures.



Water Saving Measures Taken in Fiscal 2003

- Collection of blow-down water from cooling towers
- Introduction of equipment to recycle cooling water used in the forging process
- Utilization of rainwater (Kumamoto Factory and Hosoe Plant of Hamamatsu Factory)

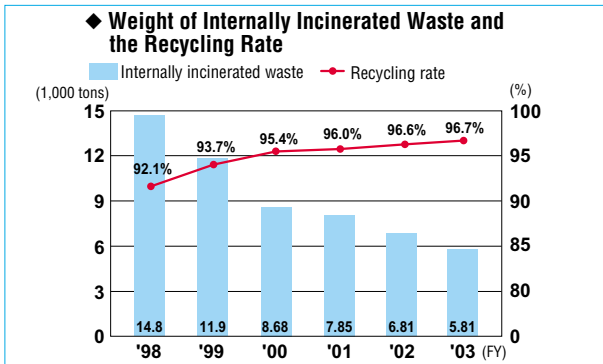
3. Production Domain

2. Zero Emissions

1) Reduction in waste (by-products)

Efforts toward zero landfill outside own premises were continued at all domestic factories in fiscal 2003. In addition, we are making efforts to reduce the total amount of by-products and the amount of waste incinerated.

The amount of waste incinerated was approximately 6,000 tons, down 61%, achieving the target of a 60% reduction over the fiscal 1998 level. We will further reduce waste incineration by improving waste segregation and by working aggressively to reduce the total amount of by-products, notably by implementing measures to prevent the generation of waste.



*The data on internally incinerated waste indicated in the fiscal 2003 annual report were partially wrong. Incorrect data have been duly amended in this report.

$$\text{Recycling rate} = \frac{\text{Total amount of by-products} - \text{Amount incinerated}}{\text{Total amount of by-products}} \times 100$$

$$\text{Total amount of by-products} = \text{Total amount of waste} - \text{Amount of internally concentrated liquid waste}$$

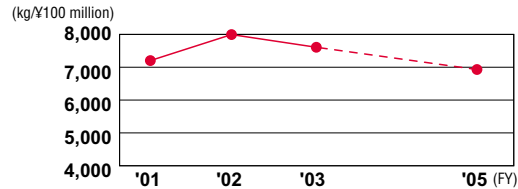
◆ Breakdown of Waste Associated with Production Activities

Type	Fiscal 1990	Fiscal 2002	Fiscal 2003
External land fill	18.1	0	0
Intermediate external disposal	8.2	0.057	0.011
Internal incineration	17.0	6.81	5.81
Internal concentration	0.0	4.45	4.37
Recycling	139.6	194.08	170.58
Total amount of by-products	182.9	203.66	179.47

Excluding burnt residues

● The plan for reducing the generation of by-products, which was developed based on the law concerning the Promotion of the Utilization of Recycled Resources, sets the target for fiscal 2005 as shown in the upper right graph. In fiscal 2003, metal waste and waste from the molding process decreased 13% and 44%, respectively, while total production amount decreased 10% compared with the previous year's level.

◆ Shift in the Generation of By-products



2) Prevention of air and water pollution

Air and water quality is closely monitored to maintain the level of our voluntary standards, which are more stringent than the regulations on gas emissions from combustion systems and those on factory effluents. (For specific measurement results, refer to "Factory Data" on page 42 and subsequent pages.)

(1) Volatile organic compound (VOC)*

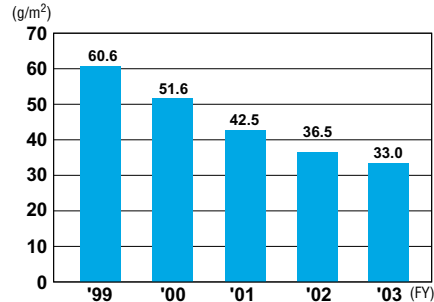
VOC emissions are caused mainly by paint solvents used on cars. In fiscal 2003, we measured VOC emissions at Saitama, Suzuka, and Tochigi Factories. In fiscal 2003, the average VOC emissions from these factories were 33.0 g/m², down 10% from the previous fiscal year. The reduction was achieved by the following measures.

VOC Reduction Measures Taken in Fiscal 2003

- Exhaustive reduction in waste and loss (improvement in the recovery of thinners for cleaning, etc.)
- Improvement in coating efficiency (introduction of a highly efficient coating equipment)
- Integration of lines (streamlining three lines into two at Suzuka Factory)

The measures implemented in the automobile coating process will also be applied to the motorcycle and power product coating processes, and the use of water-based paints on automobiles will be promoted to further reduce VOC emissions.

◆ Transition in the Amount of VOC Emissions



*VOCs mainly consist of organic solvents contained in paints and adhesives. VOCs remain toxic for a long time, and cause the depletion of the ozone layer in the stratosphere and photochemical smog in the troposphere. Therefore, VOCs are regulated in many countries around the world.

3) Chemical emission (PRTR)*

The table below gives statistical results for fiscal 2003 for substances falling within the scope of the PRTR Law. The amount handled in fiscal 2003 totaled approximately 9,065 tons, an approximate 11% decrease from the previous fiscal year's level. The emission levels discharged into the air/hydrosphere amounted to roughly 1,830 tons, down

approximately 25% from the previous fiscal year. We will continue our efforts to reduce such substances as well as VOCs. (Please see page 42 and subsequent pages for data on each of Honda's factories.)

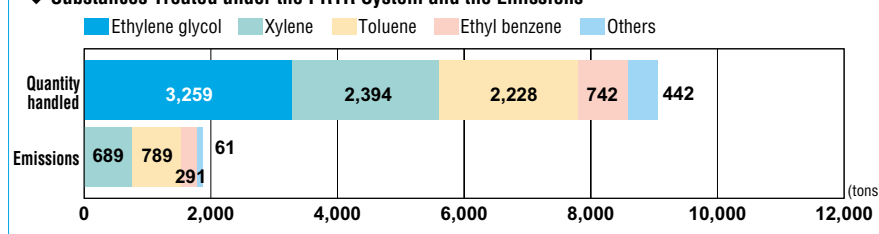
* PRTR (Pollution Release and Transfer Register) system: law concerning the reporting of specified chemical substances released into the environment and the promotion of improvements in their management.

◆ Results of Fiscal 2003 Survey in Japan by Honda*

Primary specified chemical substances Notification items based on the PRTR Law (Unit: kg (Dioxins: mg-TEQ))

Substance No. ²	CAS No.	Name of Substance	Quantity Handled	Released into the Air	Released into Public Water Areas	Total Released	To Sewage	External Disposal Waste ³	Total Transfer Amount	Recycling ⁴	Quantity Removed	Consumption (Shipped Amount)
1	—	Water-soluble zinc compounds	57,415	0	122	122	218	17,798	18,016	0	0	39,277
16	141-43-5	2-Amino ethanol	1,276	0	0	0	573	703	1,276	0	0	0
30	25068-38-6	Bisphenol A-type epoxy resin	106,391	47	0	47	0	1,706	1,706	0	732	103,906
40	100-41-4	Ethyl benzene	742,391	291,153	0	291,153	0	1,156	1,156	259,974	35,204	154,904
43	107-21-1	Ethylene glycol	3,259,337	0	0	0	0	0	0	0	0	3,259,337
63	1330-20-7	Xylene	2,393,682	688,719	0	688,719	0	13,410	13,410	783,214	106,209	802,130
217	75-69-4	Trichlorofluoromethane	5,438	100	0	100	0	5,338	5,338	0	0	0
224	108-67-8	1,3,5-trimethylbenzene	97,552	56,095	0	56,095	0	610	610	28,269	12,578	0
227	108-88-3	Toluene	2,227,689	789,244	0	789,244	0	3,712	3,712	63,674	127,049	1,244,010
231	7440-02	Nickel	2,577	0	0	0	0	0	0	0	0	2,577
232	—	Nickel compounds	9,836	0	223	223	1,313	3,992	5,305	0	0	4,308
272	117-81-7	Bis Phthalate (2-ethyl-hexyl)	81,496	0	0	0	0	1,553	1,553	0	65	79,878
283	—	Hydrogen fluoride or its water-soluble salts	1,830	0	0	0	0	0	0	0	1,830	0
299	71-43-2	Benzene	58,060	134	0	134	0	0	0	402	1,874	55,650
307	—	Poly (oxyethylene) = alkylether	3,826	0	0	0	132	600	732	0	3,094	0
310	50-00-0	Formaldehyde ⁵	—	3,103	0	3,103	0	0	0	0	0	0
311	—	Manganese and its compounds	15,243	0	868	868	532	3,710	4,242	0	0	10,133
312	—	Molybdenum and its compounds	1,005	0	0	0	0	1,005	1,005	0	0	0
		Total (unit: kg)	9,065,044	1,828,595	1,213	1,829,808	2,768	55,293	58,061	1,135,533	288,635	5,756,110
179	—	Dioxins (unit: mg-TEQ)	—	77.52	2.70	80.22	0.47	2,384.72	2,385.19	0.00	0.00	0.00

◆ Substances Treated under the PRTR System and the Emissions



- Study conducted on 354 types of primary specified chemical substances falling within the scope of the law concerning the reporting of releases into the environment of specified chemical substances and for promoting improvements in their management (Law Promoting the Management of Chemical Substances). Substances treated on a scale of 1,000 kg or more.
- Numbers of primary specified chemical substances falling within the scope of the Law Promoting the Management of Chemical Substances.
- Amount recycled by paying recycling costs
- Amount sold to external recycling firms
- The dash in the "Quantity handled" column means "not applicable" because the substances are reaction products.

■ Honda Green Conference

The Honda Green Conference is a big environmental event that has been held since 1999 to help further reduce the environmental impacts of the entire Honda Group. At the conference, excellent examples of environmental conservation activities conducted at Honda's business sites are presented so that all participants can share this useful information. Honda believes that it is important for all its factories, research facilities, and suppliers to cooperate together to promote environmental activities and encourages all to participate in the conference. In fiscal 2003, the Fifth Honda Green Conference was held at Kumamoto Factory.

In addition to presentations by 16 teams selected from among Honda's domestic business sites, the activities of Honda of the U.K. Manufacturing (HUM) and Honda of America Manufacturing, Inc. (HAM) were introduced as special examples from overseas. Honda will further increase the

number of participants in the Green Conference to promote future environmental activities.



Speakers (Departments)

Keihin Corporation/Environmental Conservation Dept.	Administration & Legal Division
Takao Kinzoku Kogyo Co., Ltd./Manufacturing Division	Parts Business Division/Parts Supply Dept.
Nippon Konpo Unyu Soko Co., Ltd./Sales Dept. 1	Tochigi Factory/Mohka Plant
Musashi Seimitsu Industry Co., Ltd.	Saitama Factory/Business Administration Division
Honda Foundry Co., Ltd./Kawagoe Plant	Hamamatsu Factory/Automobile Plant
Honda Clio Aichi/Owari-Asahi Office	Suzuka Factory/Paint & Plastics Plant
Honda Lock Mfg. Co., Ltd./Miyazaki Plant	Kumamoto Factory/Motorcycle Plant
Honda R&D Co., Ltd./Tochigi R&D Center	Special example/HAM (U.S.)
Honda Engineering Co., Ltd./5G	HUM (U.K.)

4. Transportation Domain

In the transportation domain, Honda has introduced environmental management systems and improved transportation efficiency by energy-saving driving and modal shift. Also, to reduce the amount of packaging waste, we are aggressively promoting a packaging method that uses returnable materials or less material.

Main targets for fiscal 2003 in Japan

- To jointly implement the environmental management system with four major transportation companies
- To improve transportation efficiency: CO₂ emission of 132,400 CO₂-tons (for transport of completed automobiles)

Main achievements in fiscal 2003 in Japan

- ISO 14001 certification acquired by all four major companies.
- Held periodic meetings to exchange environmental information with main transportation companies
- Improved transportation efficiency: CO₂ emission of 107,229 CO₂-tons (transportation of completed automobiles)

Promotion of Green Logistics E p. 40

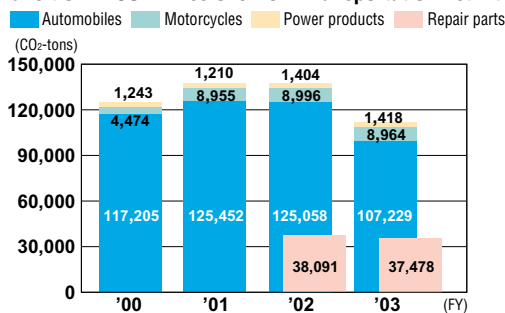
1. Introduction of Environmental Management Systems to Transportation Companies

In the transportation domain, our efforts concentrated on the establishment of environmental management systems. In fiscal 2003, all four major companies have acquired ISO 14001 certification.

2. Improving Transportation Efficiency

In fiscal 2003, total CO₂ emissions from the transportation of automobiles, motorcycles, power products, and repair parts amounted to 155,089 CO₂-tons.

◆ Transition in CO₂ Emissions from Transportation Activities



CO₂ emissions from the transportation of completed automobiles: 107,229 CO₂-tons

By encouraging affiliated transportation companies to promote energy-saving driving and replace old vehicles with new ones to improve average fuel economy, we reduced CO₂ emissions from the transportation of Honda products. Although the number of completed automobiles transported decreased 10% from that in fiscal 2002, CO₂ emissions from their transportation decreased 14% from the fiscal 2002 level by increasing the backhauling ratio and transportation by ship.

In the future, we will expand transportation by ship (modal shift) to further reduce CO₂ emissions from the transportation of our products.

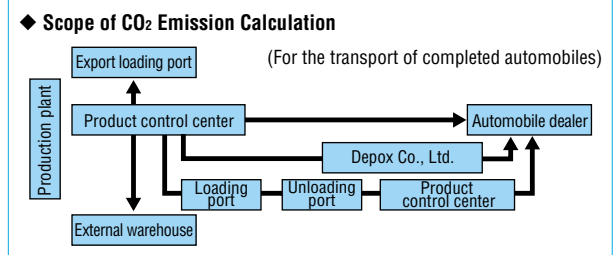
The following main measures were taken in fiscal 2003.

Main Measures

- Change to transportation by ship (modal shift) was introduced in three additional prefectures.

◆ CO₂ Reductions due to Measures to Improve the Transportation Efficiency, Which Resulted in Total Emission Increase Less than Transportation Volume Increase (Fiscal 2003)

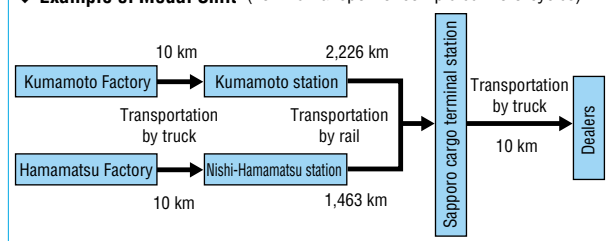
Item	Target	Date Started	Reduction (in CO ₂ -tons)
Transportation by ship in additional areas	Automobiles	June 2003	542
Total reduction			542



CO₂ emissions from the transportation of completed motorcycles: 8,964 CO₂-tons

Kumamoto Factory has long been transporting motorcycles by rail to the Kanto and Hokkaido regions. In July 2003, Hamamatsu Factory switched its mode of transporting motorcycles to Hokkaido from ship to rail and reduced emissions by 5.6 CO₂-tons.

◆ Example of Modal Shift (For the transport of completed motorcycles)



CO₂ emissions from the transportation of repair parts: 37,478 CO₂-tons

For CO₂ emissions from the transportation of repair parts, we were able to achieve a reduction of 613 CO₂-tons, exceeding the reduction target of 433 CO₂-tons. A reduction in emissions was made possible because external warehouses were no longer used, all repair parts were stored in warehouses in the Sayama area, depots were consolidated, and the transportation distance was shortened.

3. Cleaner Exhaust Gases from Transportation

The transportation companies concerned informed Honda on how they comply with ordinances on environmental conservation enacted by the Tokyo Metropolitan Government and three neighboring prefectural governments. We inspected their trucks and confirmed that they complied with the ordinances.



Inspection of trucks

■ Reduction in Packaging Materials by Product Category E p. 41

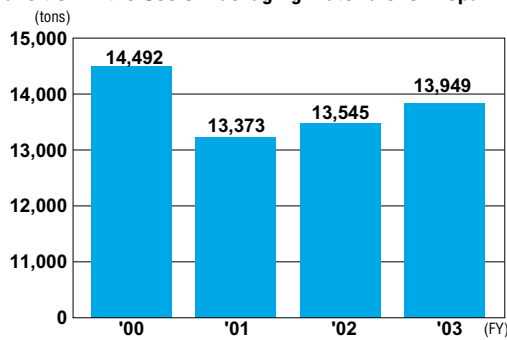
1. Activities to Reduce Packaging Materials Used for Repair Parts

1) Reduction in the use of packaging materials for repair parts

In fiscal 2003, the total use of packaging materials for repair parts amounted to 13,949 tons, up 404 tons from the previous fiscal year. This increase was caused mainly by the fact that returnable containers did not meet the needs of the market and that the total use of returnable containers was lower than expected. As a result of taking the following measures to minimize the use of packaging materials, we were able to save the equivalent of 225 tons of packaging materials in fiscal 2003.

In the future, we will develop and introduce new returnable containers.

◆ Transition in the Use of Packaging Materials for Repair Parts



2) Activities to reduce packaging materials

Examples of Reducing the Use of Wooden Pallets



Before improvement (wooden pallets)



After improvement (steel pallets)

◆ Reduction in Packaging Materials

- Reduction in the use of cardboard (plastic bags instead of cardboard boxes)
- Steel pallets instead of wooden pallets

2. Activities to Reduce Packaging Materials Used for Knockdown (KD) Parts*

1) Expanded use of returnable internal containers

By using returnable internal containers for the export of parts to the United Kingdom, the amount of cardboard materials used in exporting goods was reduced by 490 tons.

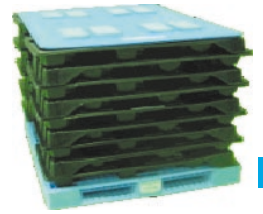
* Knockdown parts refer to parts for knockdown shipments (unassembled sets of parts to be delivered overseas and assembled at the overseas destination).

2) Expanded use of returnable external cases

In countries where we use returnable external cases (10 countries), such cases accounted for 75% of the total number of cases used in the transportation of products. In fiscal 2003, the use of returnable external cases was not expanded to other countries.

3) Development of a new type of returnable cases

We developed returnable containers for drive system parts supplied to other companies in order to reduce waste generated during the transportation process.



New type of returnable cases

3. Export of Completed Motorcycles

For the import of scooters from China (Today and Spacy), we achieved zero waste by using returnable pallets in the transportation process. For the export of motorcycles, we promoted the use of non-cardboard packaging materials or returnable steel cases to reduce the amount of packaging materials used.



Returnable motorcycle pallets

◆ Reduction in Packaging Materials in the Export of Completed Motorcycles (Fiscal 2003)

- Reduction in the use of steel materials: 2,330 tons
- Reduction in the use of cardboard materials: 1,800 tons

4. Transportation of Power Products

By using returnable steel cases for the domestic transportation of medium-sized and large outboard engines, we reduced the use of steel and cardboard materials.

◆ Reduction in Packaging Materials in the Transportation of Power Products (Fiscal 2003)

- Reduction in the use of steel materials: 8 tons
- Reduction in the use of cardboard materials: 4 tons

5. Sales Domain

In the sales domain, we are in the process of introducing our own environmental management system to Honda automobile dealers and are making efforts to ensure the appropriate disposal of end-of-life products and substances, such as CFC12 or HFC134a. Also, we are extending similar activities to the motorcycles and power products areas.

Main targets for fiscal 2003 in Japan

- To increase the number of Best Green Dealers to 2,300
- To increase the number of Honda Dream Stores
- To increase the number of Green Dealers of power products

Main achievements in fiscal 2003 in Japan

- Increased the number of Best Green Dealers to 2,341
- Opened six environmentally friendly Honda Dream Stores (17 in total)
- Started the certification process by two dealers

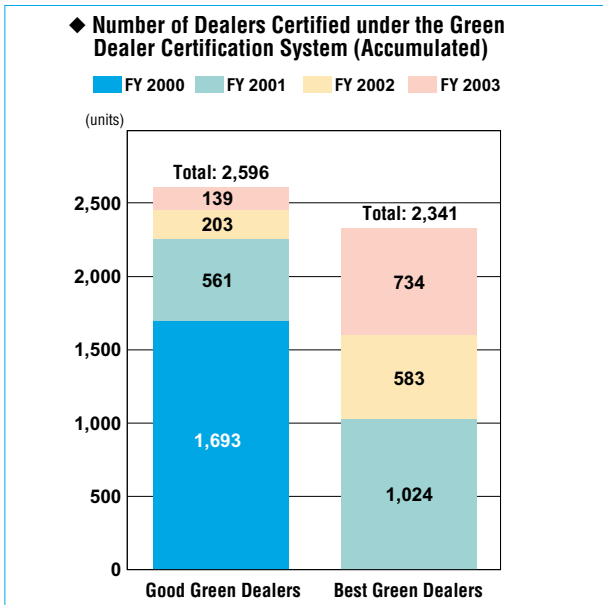
Promotion of Green Dealers (Automobiles) E p. 42

1. Introduction of Environmental Management Systems

We have been promoting the introduction of environmental management systems to Honda automobile dealers. Dealers certified as “Good Green Dealers” or “Best Green Dealers” under the Green Dealer Certification System* in fiscal 2002 are shown in the figure below.

We will continue to increase the number of dealers certified as Best Green Dealers and further encourage dealers to reduce CO₂ emissions.

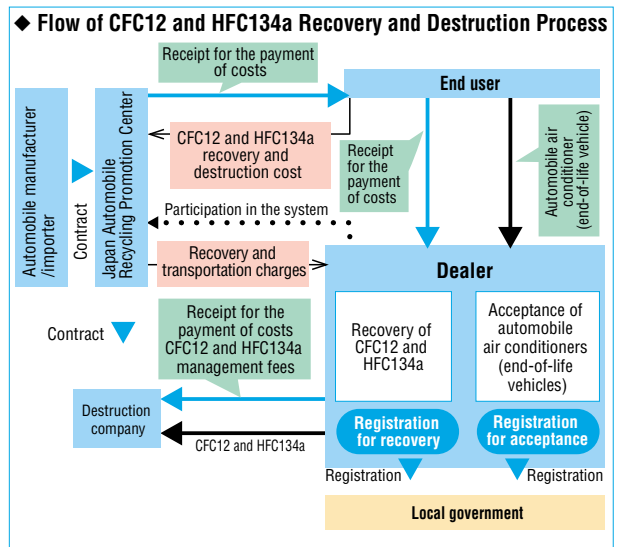
* Honda established this proprietary environment management system on the basis of the know-how obtained through acquiring ISO 14001 certification. The Honda Green Dealer Certification System is implemented in two steps. The Good Green Dealer Certification is awarded to dealers who comply with legal regulations and improve the environment whereas the Best Green Dealer Certification, which is on a higher level, is awarded to dealers who improve their environmental efficiency.



2. Proper Disposal of End-of-Life Vehicles

1) Proper disposal of CFC12 and HFC134a

To comply with the CFC Collection and Destruction Law of Japan, in effect in October 2002, we encouraged dealers to register as companies engaged in the collection and recovery of CFC12 and HFC134a with local governments. In July 2003, we prepared the *Fluorocarbons Recovery and Destruction Law Compliance Manual* and other documents to promote the proper treatment of CFCs and delivered the documents to all dealers. In December 2003, we developed an LCA system to obtain the CFC-related data (the amount of CFCs destroyed, recycled, and stored) that all dealers are required by law to report and began letting dealers introduce the system on a trial basis.



The *Fluorocarbons Recovery and Destruction Law Compliance Manual* and other documents

2) Compliance with the Automobile Recycling Law

To help dealers comply with the Automobile Recycling Law of Japan (to be fully implemented in January 2005), we issued *Recycle Navigation*, which contains all the latest news on this law. *Recycle Navigation* explains the law in detail and provides information on briefings about the law that are held by administrative organizations and information on what is being done by related organizations and the industry. We continue to promote the recycling system by providing the latest information on the law.



3. Other Activities

1) We implemented the following measures to promote environmental improvement activities at dealers based on our environmental management systems.

- Distribution of a poster encouraging waste reduction and energy conservation to all dealers (June 2003)
- Distribution of a brochure giving a guidance for waste reduction and energy conservation to all dealers (June 2003)
- Publication of *GD Press* (an environmental information magazine for dealers)
- Participation in the Honda Green Conference (by Honda Clio Aichi)



Expansion of Environmental Commitment to the Motorcycle and Power Products Areas

1. Motorcycles

1) Distributor

The Osaka Branch of Honda Motorcycle Japan underwent a renewal inspection for the first time after acquiring ISO 14001 certification. On January 15, 2004, the certification was renewed. In the third year after being certified, the motorcycle company established a 5%-reduction target in energy consumption and waste generation from the previous year's level. The company's performance in reducing energy consumption and waste generation far exceeded its target. This commendable performance was possible because the company's employees were encouraged to be more environment-conscious and reduce costs.

2) Dealers

In March 2002, we opened Honda Dream Tachikawa in Tachikawa City, Tokyo, as the first Honda Dream Store, which is a new type of store for sports bikes. With the opening of this store, we started the development of Green Dealers for motorcycles.

Aiming to establish a network of as many as 200 Honda Dream Stores throughout Japan, we opened six stores in fiscal 2003 (17 in total). In fiscal 2004, we will accelerate the expansion of the Honda Dream Store network to satisfy the needs of many more customers and in parallel with the promotion of the Green Dealer System.

2. Power Products

In fiscal 2003, under the theme of reducing environmental impact, we were determined to make our dealers the best green dealers in the industry and encouraged them to issue manifests concerning the disposal of industrial waste as well as to recycle packaging materials. In fiscal 2003, two companies began efforts to acquire Green Dealer certification. Thirty dealers introduced the manifest system (64 dealers in total). To promote the recycling of packaging materials, 150 of our dealers, including sales offices for power products, began attaching the recycling mark to the cardboard used for external packages and plastic containers used for internal packages. We will implement more measures to expand the number of Green Dealers and encourage our 100 dealers for power products to issue manifests.

6. Disposal and Recycling (3R) Domain

Honda gives priority to the recyclability of its products. Based on the 3R (reduce, reuse, and recycle) concept, we carefully select materials and structures for our products at the product development stage.

Main targets for fiscal 2003 in Japan

- Automobiles: To improve the recycling rate
- Motorcycles and power products: To improve recyclability

Main achievements in fiscal 2003 in Japan

- Motorcycles and automobiles: Achieved 90% or more recyclability for models newly released or changed in fiscal 2003
- Power products: Achieved 90% or more recyclability for all five models marketed in fiscal 2003

● Automobiles

■ 3R Design E p. 48, p. 49

1. 3R Assessment System

Since fiscal 2001, we have been using 3R preliminary assessment system to evaluate and improve the 3R design of newly developed models.

2. Design for Reduction (Reduction in Waste Generation)

For the Odyssey, which was marketed in October 2003, the following designs for reduction were adopted.

1) Downsized or lightened parts and components

Construction modification	Small ABS modulator	Small auto-tensioner
	Evaporator (thinning of tubes)	Condenser (thinning of tubes)
	Camshaft, cylinder block, and crank pulley	
Material changes	Aluminum rear brake caliper	
	Floor mat, roof lining, and door molding	
	Exhaust manifold using high-tensile materials	

2) Extension of service life

Engine oil	10,000 km → 15,000 km
LLC (long life coolant)	Interval: 3 years → 11 years
Oil filter	20,000 km → 30,000 km
ATF (automotive transmission fluid)	Interval: 40,000 km → 80,000 km

3. Design for Recyclability

For all models newly released or changed in fiscal 2003, we achieved 95% or more recyclability by implementing the following measures:

1) Design for easier dismantling

Example of construction modification (Odyssey)

- Using a resin trim cord for fixing the front seat surface instead of using C-rings

Example of integrated parts (Odyssey)

- Crankshaft
- Connecting rod

2) Standardization of resin materials (promotion of olefin resin)

For all new models and changed models released in fiscal 2003, highly recyclable olefin resins are now used in injection-molded interior parts. Also, material identification marks are displayed on all resin parts large enough for such labeling.

Standardization of resin materials

Promoting the Use of Olefin Resin	
Side sill garnish	Bumper face
Pillar decoration	Inner fender
Instrument panel	Door lining
	Others

3) Use of recycled materials (resins)

In fiscal 2003, we used 4.4 kg of recycled resins for the Odyssey and will further increase the use of recycled materials.

■ Reduction in Substances with Environmental Impacts

1. Reduced Use of Lead

Honda is making progress in reducing its use of lead. The new models released in fiscal 2003 uses 1/3 or less lead than was used in 1996. For the Inspire, Life, and Odyssey, the use of lead was reduced to 1/10 by implementing the following new measures in addition to measures already being taken.

Additional Measures Taken for the New Inspire, Life, and Odyssey

- Adoption of lead-free electrodeposition coating materials
- Use of lead-free wheel balancers

2. Reduced Use of Other Substances with Environmental Impacts

Honda has been replacing other substances with environmental impacts based on its guidelines on chemical substances.

3. Reduction in HFC134a

We expanded the application of air conditioners that reduce the use of HFC134a by approximately 10% compared with the 1995 level and adopted it for 21 out of 27 passenger vehicle models and three out of six mini models in 2003. Regarding the future of air conditioners without HFC134a, we have been conducting the following activities since last year.

- Collection of information to understand the industry's movements and the current level of technology
- Technical examination of adopting such air conditioners for automobiles

● Motorcycles

■ 3R Design

1. 3R Assessment System

Since 1992, Honda has been checking each of its new models with its 3R preliminary assessment system in order to improve 3R-related performance.

2. Design for Reduction (Reduction in Waste Generation)

1) Extension of service life

The domestic use of Honda's original puncture-proof technology called "tuffup tube" reached one million in August 2000 and further expanded to as many as 2 million in April 2004, showing steady growth.

3. Design for Recyclability

1) Improved recyclability

To further improve recyclability, we implemented a system using the latest IT technology to collect and compute recycling-related data. Using this system, we will promote product designs that improve recyclability to 95%. Honda marks the name of the material on even small resin parts as much as possible.

2) Use of recycled resin

We are also expanding the adoption of recycled resin to fenders and under-covers. For each CBR600RR model, which was marketed in fiscal 2003, approximately 3.1 kg of recycled resin per vehicle is used.

■ Reduction in Substances with Environmental Impacts

1. Reduction in the Use of Lead

- The application of lead-free free-cutting steel* was further expanded. This steel is used for the crankshafts of almost all models equipped with in-line 4-cylinder engines. This steel was also used in more than 60% of all models of the V-type 2-cylinder engines in fiscal 2003.
- A lead-free wheel balancer that has been in use since fiscal 2003 is gradually being used for cast wheels and spoke wheels of new models.
- We began reducing the amount of lead that is used in aluminum or copper alloy to make them cut easier. For each CB400SF model, we were able to reduce the amount of lead by about 5 g.

* Steel to which other metal elements (usually sulfur or lead) are added to make machining easier.

2. Reduction in Other Substances with Environmental Impacts

Honda has been replacing various substances based on its guidelines on chemical substances. Since December 2002, we have replaced approximately 20% of those parts containing a tiny amount of hexavalent chromium with hexavalent chromium-free parts.

● Power Products

■ Design for Recyclability

With a goal of improving the recyclability to 95% of all parts and materials used by fiscal 2004, we are making every effort to reduce shredder dust and utilize heat recovery energy.

1) Improved recyclability

We were able to achieve an average recycling rate of 93.5% (based on our own computation formula) for five models marketed in fiscal 2003.

■ Reduction in Substances with Environmental Impacts

1. Reduction in the Use of Lead

In accordance with our chemical substance guidelines, we are promoting the use of lead-free harnesses, paints, and carbon brushes in motors.

2. Reduction in the Use of Other Substances with Environmental Impacts

In accordance with our chemical substance guidelines, we are promoting the use of cadmium-free contacts, etc., and the use of hexavalent chrome-free chromate-treated parts.

6. Disposal and Recycling (3R) Domain

Honda is promoting a recycling system for end-of-life products, including technological development and assistance. Our efforts also concentrate on increasing the recovery of parts, including end-of-life bumpers, the expansion of their recycling and reuse, and improvements in the actual recycling rate.

Main targets for fiscal 2003 in Japan

- To expand the number of models in which reused parts are used
- To develop technology that improves the ASR recycling rate

Main achievements in fiscal 2003 in Japan

- Increased the number of applicable models from 6 to 12
- Started coordinated efforts to improve the automobile shredder residue (ASR) recycling rate

● Repair Parts

■ Increasing the Recovery, Recycling, and Reusing of Repair Parts E p. 48

1. Expansion of the Honda Recycle Parts Business

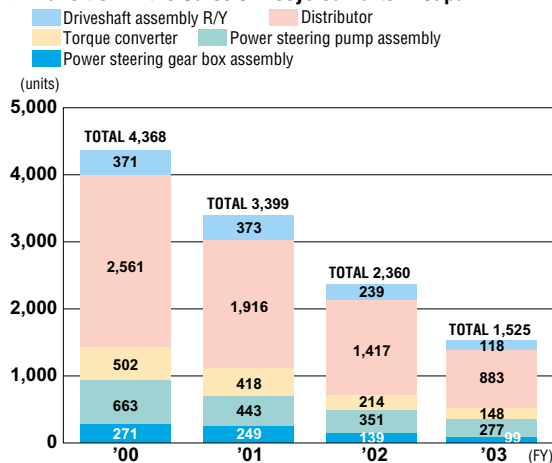
Since 1998, Honda has sold the recycled highly functional parts such as torque converters. In July 2001, we started selling reused parts and these already marketed recycled parts as Honda Recycle Parts.

1) Recycled parts

(1) Expansion of the lineup and sales performance

In recent years, the number of models in operation in which reused parts can be applied has decreased, and both performance and durability of functional parts have improved. As a result, sales of repair parts have decreased. In consideration of these changes in circumstances, in fiscal 2003 we began to review those recycled parts that should be developed.

◆ Transition in the Sales of Recycled Parts in Japan



(2) Present reuse of parts

By effective use of recovered parts and material recycling efforts, we achieved a reuse rate of 89%.

Recycled Parts



2) Reused parts

Starting in July 2001 in the Kanto District and expanding to the rest of Japan in January 2002, reused parts and genuine parts could be ordered at the same time through Honda's genuine parts distribution channel, providing convenience for purchasers.

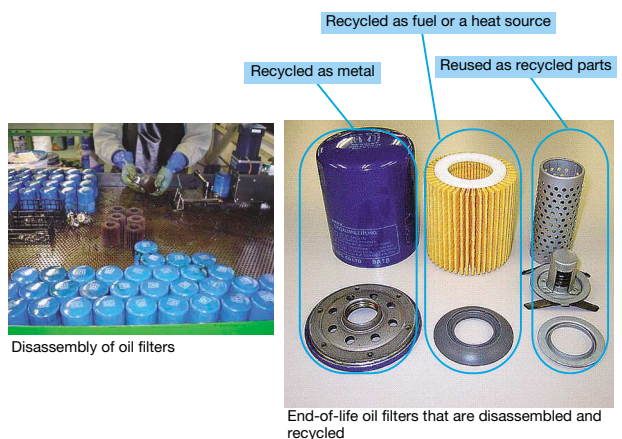
Reused parts comprise second-hand parts (16 items) that are selected and removed from end-of-life vehicles two generations before and removed parts (9 items) that are taken away to install optional parts. In fiscal 2003, we increased the number of applicable models from 6 to 12 to improve the number of choices available to customers. We will continue our efforts to increase the number of applicable models.

Reused Parts



2. Recovery and Recycling of Oil Filters

In fiscal 2003, we began recycling consumable parts. In the past, end-of-life oil filters were incinerated or landfilled. Such end-of-life oil filters are now collected, disassembled, and recycled as metal or fuel, and some of the components are reused as mass-production parts. We will strive to increase the quantity of end-of-life oil filters collected.



Disassembly of oil filters

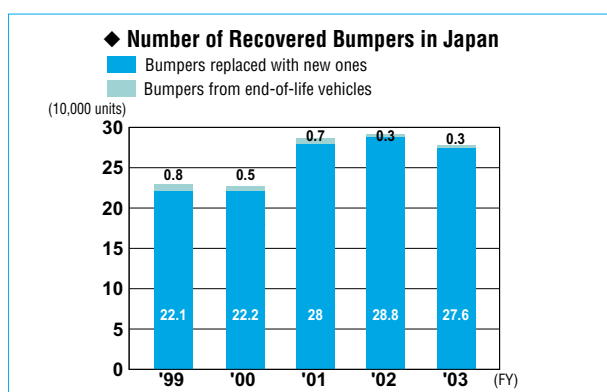
End-of-life oil filters that are disassembled and recycled

3. Recovery and Recycling of Bumpers

In fiscal 2003, we recovered 279,114 bumpers (977 tons) from Honda automobile dealers and general servicing and repair companies. As a result, 1,248 tons of recycled resin were used.

Number of Bumpers Recovered in Fiscal 2003 and the Amount of Resin Recovered: 279,114 Bumpers, 977 Tons

Bumpers replaced for repair: 276,317 bumpers, 967 tons
End-of-life vehicle bumpers: 2,797 bumpers, 10 tons

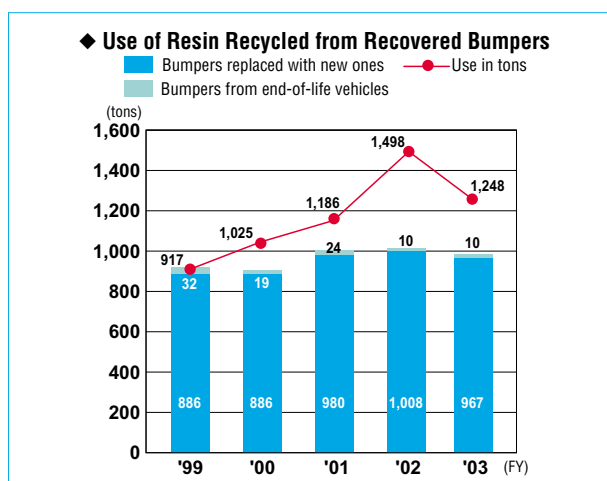


Use of Recycled Resin: 1,248 Tons*

* The use of recycled resin exceeds the amount of resin recovered because the former includes the use of resin recovered from bumpers found defective in the production process and the recycled resin stored since the previous year.

Products Made from Recycled Resin

Automobiles: splash shield, splash guard, bumper for repair, etc.
Motorcycles: under cover



● End-of-Life Products (Automobiles and Motorcycles)

■ Improving the ASR Recycling Rate

Automobile shredder residue (ASR) is generated during the treatment process of end-of-life automobiles after metals and other materials are recovered. Therefore, it is not easy to recycle ASR. Honda began a concerted effort with ASR recycling facilities to establish a system that improves the ASR recycling rate*. To comply with the Automobile Recycling Law, which will be fully implemented in January 2005, we will work towards the early establishment of the recycling system to improve the ASR recycling rate, including technological development and assistance.

* At the (4th) joint meeting between the Automobile Recycling Working Group, the Waste and Recycling Subcommittee, the Environmental Panel, the Industrial Structure Council, and the Automobile Recycling Expert Committee, the Waste and Recycling Panel of the Central Environment Council, both Councils concluded that the ASR recycling rate should meet the following levels.

The ASR recycling rates that should be achieved by automobile manufacturers, etc., are established at levels that can help attain the goal of having a recycling rate of all end-of-life vehicles of 95% by and after 2015 (this goal corresponds to the target level specified in the EU Directive of End-of-Life Vehicles) as specified in the End-of-Life Vehicle Recycling Initiative (established in 1997). Allowing for the lead time in establishing ASR recycling facilities, ASR recycling rates are to be gradually raised through fiscal 2015.

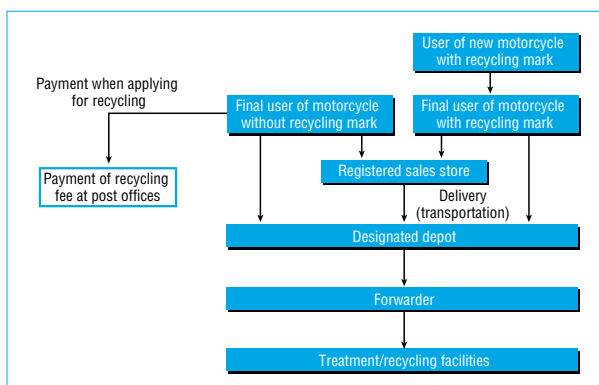
In and after fiscal 2005: ASR recycling rate should be 30% or more.

In and after fiscal 2010: ASR recycling rate should be 50% or more.

In and after fiscal 2015: ASR recycling rate should be 70% or more.

■ Establishing a Recycling System for Motorcycles

Along with the implementation of the Automobile Recycling Law, studies are being made on the establishment of a domestic recycling system for motorcycles. Unlike automobile recycling, these studies are voluntary initiatives by domestic motorcycle manufacturers and importers. In fiscal 2003, details of motorcycle recycling were almost finalized by motorcycle manufacturers and importers in cooperation with related government organizations, related industry groups, and other stakeholders. The motorcycle recycling scheme mentioned below is scheduled to be implemented in the autumn of 2004.



7. Administration Domain

Honda has been actively conducting environmental activities in the administration domain at its Head Office building in Aoyama and other offices. From now on, we will further promote environmental activities in our daily businesses.

Main targets for fiscal 2003 in Japan

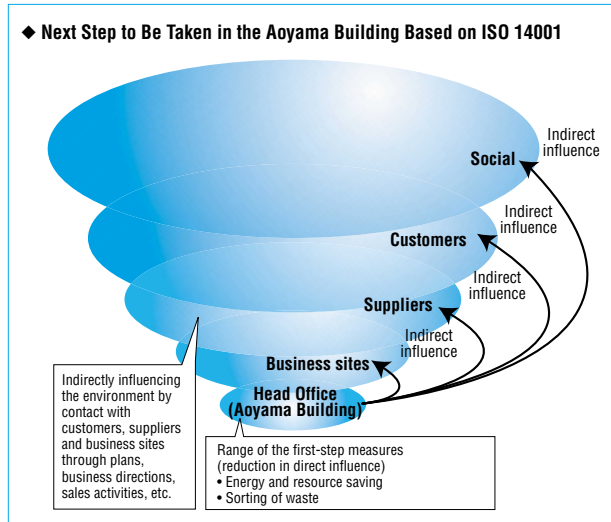
- To fully implement environmental conservation activities in daily business

Main achievements in fiscal 2003 in Japan

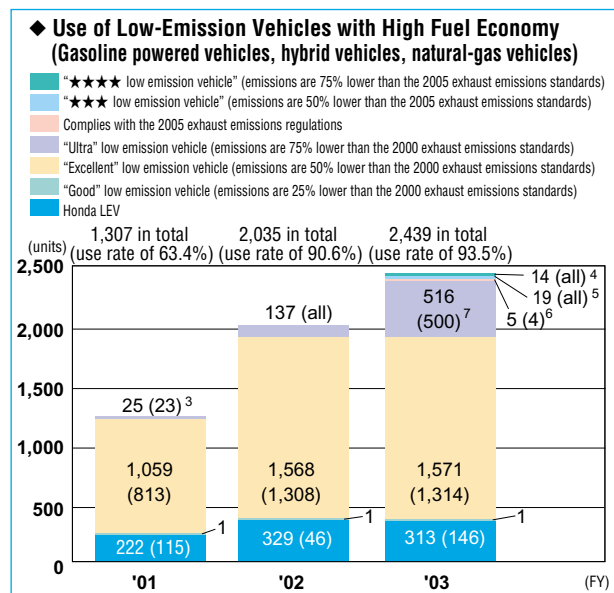
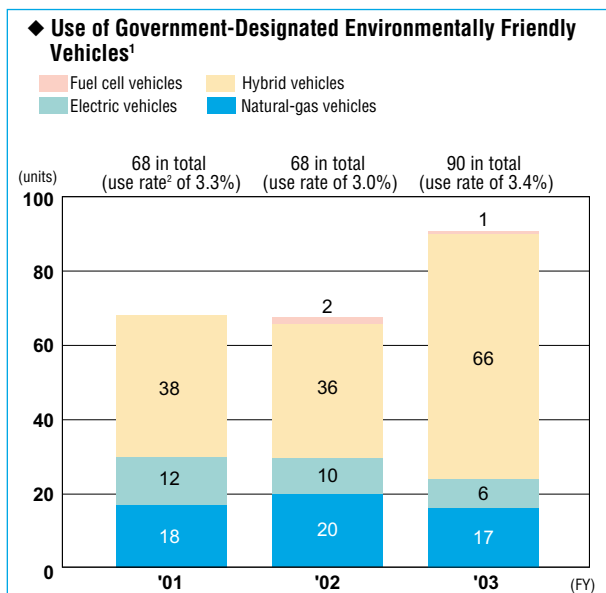
- Fifty-four departments and offices now promote environmental conservation activities.

Promotion of Green Offices E p. 44

Honda's Aoyama Head Office acquired ISO 14001 certification in November 1999 and has since been committed to reducing the environmental impacts caused by its business activities. Employees are now engaged in activities to reduce their environmental impacts as part of their office work, and the environmental impacts directly caused by Head Office have been reduced. In fiscal 2002, new measures were implemented on an experimental basis to introduce environmental viewpoints into daily business activities at the Aoyama Head Office building. In fiscal 2003, 54 departments and offices implemented environmental conservation activities based on the recognition that business activities conducted at Head Office can indirectly cause significant environmental impacts outside the office. To realize green offices that are environmentally conscious in all business activities and to conserve the global environment, we will implement every sort of environmental improvement activity.



Related Data: Use of environmentally friendly/low-emission vehicles as company-owned cars at the main business sites



- Non-gasoline vehicles meeting the government's green procurement criteria. For gasoline powered vehicles, see 4-7.
- The use rate is the ratio of environmentally friendly vehicles or low emission vehicles to all the vehicles owned by business sites (2,063 in fiscal 2001 and 2,247 in fiscal 2002 and 2,609 in fiscal 2003).
- The figure in parentheses shows the number of vehicles meeting the fuel efficiency standards of Japan for fiscal 2010.
- Of the "★★★★★ low emission vehicles," those that satisfy the 2010 fuel economy standards (all vehicles) are qualified for the Japanese government's green procurement. All of these vehicles satisfy the 2010 fuel economy standards + 5%.
- Of the "★★★ low emission vehicles," those that satisfy the 2010 fuel economy standards (all vehicles) are qualified for the Japanese government's green procurement. All of these vehicles satisfy the 2010 fuel economy standards + 5%.
- Of the vehicles that satisfy the 2005 exhaust emissions standards, those that satisfy the 2010 fuel economy standards (four vehicles) are qualified for the Japanese government's green procurement. Two of the four vehicles satisfy the 2010 fuel economy standards + 5%.
- Of "Ultra" low emission vehicles, those meeting the fuel efficiency standards for Japan for fiscal 2010 (500) also meet the government's green procurement criteria.

Social Activities

In the area of social activities, we are promoting global nature conservation activities facilitated by the Green Renaissance Office, and our business sites are conducting cooperative activities with local communities. Also, through various media, including the Internet and printed brochures, and by holding related events, we are disseminating diverse environmental information to the society at large.

Green Renaissance Activities E p. 58

1. Support Reforestation Activities in Japan

Honda has been supporting and participating in a reforestation project called the Riverhead Forest (Tone River) Revitalization Project by Volunteers. This event, which preserves and revitalizes nature through afforestation, is held by the CCC Creative Plant's Gunma Project at the source of the Tone River and in the upper reaches of the Minakami-Naramata Dam. In fiscal 2003, a total of 83 Honda employees, including retired personnel, volunteered to help thin out* alders in August and plant beech trees in November. In August 2003, Honda, the Aso town office, and the Aso Green Stock Foundation started afforestation activities to restore 1.5 hectares of natural forest on a mountain in Aso town. In fiscal 2004, employees of Kumamoto Factory will participate in afforestation activities as volunteers.

Many business sites will start to participate in similar activities in Japan.



To fell trees except those to be cultivated

Thinning out trees (reforestation activity conducted in Minakami)

2. Plans for the Reforestation of Deserts in China: The Joyful Forest Project

The Joyful Forest Project was started in 2000 to help prevent rapid desertification through sand-arresting afforestation in the Horchin Desert in the Autonomous Region of Mongolia in the People's Republic of China. Since its start, Honda has been giving financial support and dispatching volunteers to the project as well as participating in the formulation of specific projects.

In fiscal 2003, a volunteer afforestation project was scheduled to take place in May and September. Due to the outbreak of severe acute respiratory syndrome (SARS) in overseas countries, however, the project was suspended. Although the Japanese volunteers were not able to visit the site, an NPO and local residents conducted afforestation activities as usual. As the increased greening of the site is reported, we will continue the project.

In February 2004, a photo exhibition for the Joyful Forest



A photo exhibition for the Joyful Forest is held at the Honda Welcome Plaza.

was held at the Honda Welcome Plaza on the first floor of the Aoyama Head Office building. The photo display showed photos of the desert before afforestation, the gradual greening of the site during the afforestation process, and the actual afforestation activities by the volunteers.

3. Eco Wagon

The Eco Wagon is a program that is mainly designed for children to help them experience and study nature. Honda holds this event in cooperation with retired Honda employees. The Eco Wagon visits schools in a Honda wagon loaded with natural materials obtained from the sea and mountains. In fiscal 2003, approximately 17,000 people participated in the program in the Kanto, Hamamatsu, and Suzuka areas. Participants were given the opportunity to actually touch materials, such as thinned wood, and children in particular were given the chance to improve their awareness of nature. Teachers and children participating in the program stated their desire to participate in this program again in the future. The Eco Wagon program was implemented mainly for teachers and children of schools located in the neighborhood of Honda's factories.



Activities by the Eco Wagon

◆ Number of Eco Wagon Participants and Frequency of the Event

Locations	Frequency of Event	Number of Participants
Kanto area	111 times	9,793
Hamamatsu area	40 times	2,611
Suzuka area	49 times	4,522
Total	200 times	16,926

Social Activities

Cooperation in Environmentally Friendly Vehicle Fairs and Support for Environment-Related Seminars

Honda has exhibited its environmentally friendly vehicles at environment-related events held mainly by the national and local governments and has given support to environment-related seminars held at such fairs. In fiscal 2003, we exhibited our vehicles at or gave support to a total of 19 environment-related events.



An environment-related event

Cooperative Activities with Local Communities

Every Honda business site is in the process of implementing environmental exhibitions, clean-up activities, and taking part in local environmental events as a corporate commitment toward cooperating with local communities. In fiscal 2003, we conducted activities under the theme “Let’s adopt an environment-friendly lifestyle” for Environment Month. Also, continuing from the previous fiscal year, various activities were conducted to attain the objectives of “cooperative activities in closer harmony with local communities” and “enhancement of the environmental morale of employees.” Honda employees joined in 43 local environmental events, in which a total of approximately 180,000 people participated. The environmental exhibitions held by Honda business sites, in which each person demonstrated their own form of commitment towards cooperation with their local communities, attracted an increasing number of exhibitors and

participants from local communities. Thus, Honda’s cooperative activities have certainly taken root in local communities.

Support to NGOs and Environment-Related Foundations

In fiscal 2003, the Philanthropy Office offered support to five organizations engaged in environment-related social activities.

Other Activities

Honda conducts various other social activities besides environment-related ones.



Social activities described on the Honda Web site



Introduction of Green Renaissance Activities

Environment-Related Prizes and Awards Won by Honda

Name of Prize	Sponsor	Prize Winner	Date of Award
Saitama Factory was awarded the Japan Cogeneration Center Chairman’s prize at the Fiscal 2002 Excellent Cogeneration System Commendation	Japan Cogeneration Center	Honda Motor Co., Ltd. Saitama Factory	May 2003
Awarded the 30th Environment Prize for the FCX	The Hitachi Environment Foundation; Nikkan Kogyo Shimbun, Ltd.; and Japan’s Ministry of the Environment	Honda R&D Co., Ltd.	June 2003
Awarded the Energy Conservation Center, Japan Chairman’s Prize, at the Fiscal 2003 Commendation for Outstanding Examples of Energy Saving for the ECOWILL system, which adopts Honda’s small cogeneration unit for household use	Energy Conservation Center, Japan (ECCJ)	Honda Motor Co., Ltd., plus five other companies	February 2004

■ Environmental Communication

As an integral part of our environmental management commitment, we are engaged in a wide range of communication activities to enhance mutual understanding between ourselves and our stakeholders, including our customers and the local communities where our factories and offices are located.

Moreover, we provide a range of environmental information to the general public through various media and the Internet.

1. Establishment of a Liaison Section

Liaison sections are set up based on the environmental management system to coordinate communication at the local level in dealing with opinions and requests from residents in the community. Every factory and office organizes environmental exhibitions as part of their cooperative activities with the local communities in which they operate.

2. Dissemination of Environmental Information through the Media and Events

Honda discloses environmental information related to its corporate activities by the following means.

Brochures	<ul style="list-style-type: none"> • <i>Honda Environmental Annual Report</i> (Environmental annual report) • <i>Honda ECOLOGY</i> (Description of environmental commitment) • Publication of other booklets on environmental topics
Internet	<ul style="list-style-type: none"> • Honda Web site http://www.world.honda.com/environment/ (Disclosure of a full range of environment-related information, including the above brochures)
Facilities	<ul style="list-style-type: none"> • FAN FUN LAB http://www.honda.co.jp/fanfunlab/ (Environment-related exhibition at the Twin Link Motegi facility) • HELLO WOODS http://www.honda.co.jp/hellowoods/ (Field events letting participants experience nature through play in which nature at the Twin Link Motegi is a key element)
Events	<ul style="list-style-type: none"> • Cooperation with environmentally friendly vehicle fairs, etc. (Active participation in various events organized by national and local government authorities as well as companies) • Holding environmental exhibitions • Presentation events for the announcement of new vehicles and/or new technology
Advertising	<ul style="list-style-type: none"> • Corporate advertising (e-TECH) • Product advertising/product catalogs

3. Risk Communication Meeting

In March 2004, Honda's Saitama Factory implemented a model project on risk communication in chemical substances in cooperation with the Saitama prefectural government to provide local residents with information on the factory's environmental conservation activities, including measures to reduce environmental risks, and to deepen mutual understanding and trust.

As a means of active disclosure, Honda and the Saitama prefectural government jointly held a risk communication meeting under the main theme of reducing environmental risks caused by chemical substances. This meeting was attended by 80 people from community associations, NPOs, and enterprises in the neighborhood of Saitama Factory. This meeting contributed to deepening mutual understanding and trust between Honda and participants over the factory's environmental conservation activities, including measures to reduce environmental risks.



Risk communication meeting



Environmental Data by Products Sold in Japan

Note: Only data for models with a large sales turnover is given. For data on all our products please refer to the following Web site:
<http://world.honda.com/environment/2004report/index.html>

Automobiles: Environmental Data for New Models and Remodeled Automobiles Sold in Japan in Fiscal 2003 (Major Models)

Model Name	ELEMENT	VAMOS Hobio	VAMOS Hobio Pro	STEPWGN	STEPWGN SPADA	INSPIRE	LIFE ⁵	ODYSSEY	STREAM		
Main type listed	-	L	Pro	24L	S	30TL	F	Absolute	Absolute		
Marketing date	4/18/03	4/25/03	4/25/03	6/6/03	6/6/03	6/19/03	9/5/03	10/24/03	12/4/03		
Type	CBA-YH2	ABA-HM3	GBD-HJ1	CBA-RF7	CBA-RF5	DBA-UC1	CBA-JB5	ABA-RB1	CBA-RN5		
Engine (motor) type	K24A	E07Z	E07Z	K24A	K20A	J30A	P07A	K24A	K20B		
Total engine displacement (cm ³)	2,354	656	656	2,354	1,998	2,997	658	2,354	1,998		
Running gear	Type of drive line ¹	4WD	MR	MR	FF	FF	FF	FF	FF		
	Transmission	4AT	3AT	3AT	Electronically controlled 5-speed AT	Electronically controlled 4-speed AT	Electronically controlled 5-speed AT (S Matic)	4-speed electronically controlled AT (with prosmatic/lockup)	Electronically controlled 5-speed AT (S Matic)	Continuously variable automatic transmission (7-speed mode)	
Vehicle weight (kg)	1,560	980	970	1,570-1,630	1,540-1,600	1,530-1,580	840-860	1,640-1,710	1,470-1,490		
Emission gas concentration	Complies with 2005 CO ₂ emission standards ²										
	Complies with 2007 CO ₂ emission standards ³										
	Level approved under MLIT's low-emission vehicle approval system ⁴										
10.15+11 mode	Figures reported to MLIT (g/km)	CO	0.60	0.80	1.00	0.60	0.60	0.40	0.60	0.60	
		HC									
		NMHC	0.025	0.05	0.025	0.025	0.025	0.013	0.025	0.05	0.025
		NO _x	0.025	0.05	0.025	0.025	0.025	0.013	0.025	0.05	0.025
Fuel economy	10-15 mode (km/ℓ)	10.6	15.8	15.8	11.2	12.0	11.6	19.8	11.0	15.0	
	CO ₂ emissions (g/km)	219.0	146.9	146.9	207.3	193.5	200.1	117.3	211.1	154.8	
	Complies with 2010 Fuel Economy Standard										
	Complies with the "2010 fuel efficiency standards + 5%" target										
Designation of local government-designated low emission vehicle	8 prefectures/cities, including Tokyo	6 prefectures/cities in the Kyoto-Osaka-Kobe area									
Vehicles liable to green tax system											
Noise level (examined by MLIT)	Exhaust noise near the outlet (dB (A))/Engine (rpm)	83/4,125	85/4,000	85/4,000	87/4,500	87/4,875	80/4,500	78/4,200	83/5,000	81/4,000	
	Acceleration noise (dB (A))	74	74	74	74	74	74	74	73	74	
	Constant speed pass-by noise (dB (A), 50 km/h)	69 (50)	69 (50)	69 (50)	68 (50)	68 (50)	69 (50)	68 (50)	68 (50)	69 (50)	
Air conditioner	Refrigerant HFC134a consumption (g)	550	550	550	700	700	550	400	750	550	
Lead consumption	JAMA's 2005 target met (1/3 of 1996)										
	JAMA's 2006 target met (1/10 of 1996)										

- FF stands for "front-engine/front-wheel drive," MR stands for "midship-engine/rear-wheel drive," and 4WD stands for "four-wheel drive."
- Complies with long-term CO₂ emission standards for passenger vehicles and light-duty vehicles
- Complies with long-term CO₂ emission standards for light trucks

- Three stars () indicate that the emission level of the vehicle was reduced 50% of the 2005 CO₂ emission standards (certified), and four stars () indicate that the emission level of the vehicle was reduced 75% of the 2005 CO₂ emission standards (certified).
- Comes equipped with 155/65R13 tires

Automobile Exhaust Emissions Standards of Japan : New Test Mode (g/km)

Item	Passenger Vehicle	Light Truck
	2005 Standards	2007 Standards
CO (carbon monoxide)	1.15	4.02
NMHC (non-methane hydrocarbons)	0.05	0.05
NO _x (nitrogen oxides)	0.05	0.05

2010 Fuel Economy Standards of Japan (Gasoline-Powered Passenger Vehicle)

Vehicle weight / Taxable weight (kg)	-702	703-827	828-1,015	1,016-1,265	1,266-1,515	1,516-1,765	1,766-2,015	2,016-2,265	2,266-
10-15 mode fuel consumption (km/ℓ)	21.2	18.8	17.9	16.0	13.0	10.5	8.9	7.8	6.4

2010 Target (2010 Fuel Efficiency Standards + 5%) for Gasoline-Powered Passenger Vehicles

Vehicle weight / Taxable weight (kg)	-702	703-827	828-1,015	1,016-1,265	1,266-1,515	1,516-1,765	1,766-2,015	2,016-2,265	2,266-
10-15 mode fuel consumption (km/ℓ)	22.3	19.7	18.8	16.8	13.7	11.0	9.3	8.2	6.7

Ministry of Land, Infrastructure and Transport in Japan Low Emission Vehicle Approval Standard: New Test Mode (g/km)

Item	Passenger Vehicle		Light Truck	
	50% Emission Reduction Level against FY 2005 Standards (Low Emission Vehicle)	75% Emission Reduction Level against FY 2005 Standards (Low Emission Vehicle)	50% Emission Reduction Level against FY 2005 Standards (Low Emission Vehicle)	75% Emission Reduction Level against FY 2005 Standards (Low Emission Vehicle)
CO (carbon monoxide)	1.15	1.15	4.02	4.02
NMHC (non-methane hydrocarbons)	0.025	0.013	0.025	0.013
NO _x (nitrogen oxides)	0.025	0.013	0.025	0.013

Noise Regulation Values of Japan

Exhaust noise near the outlet	standard value	dB(A)	96
Acceleration noise	standard value	dB(A)	76
Constant speed pass-by noise	standard value	dB(A)	72

Motorcycles: Environmental Data for New Models and Remodeled Motorcycles Sold in Japan in Fiscal 2003 (Major Models)

Model Name		XR250-Motard	CBR600RR	Spacy 100	Dio	Shadow 750	CB400 SUPER FOUR	Smart Dio Z4
Marketing date		4/26/03	7/4/03	9/13/03	11/20/03	12/25/03	12/25/03	2/21/04
Type		BA-MD30	BC-PC37	BC-JF13	BA-AF62	BC-RC50	BC-NC39	BA-AF63
Engine model/type		MD17E air-cooled 4-stroke	PC37E water-cooled 4-stroke	JF13E air-cooled 4-stroke	AF61E air-cooled 4-stroke	RC50E water-cooled 4-stroke	NC23E water-cooled 4-stroke	AF63E water-cooled 4-stroke
Total engine displacement (cm ³)		249	599	102	49	745	399	49
Transmission	Constant mesh	6-speed return	6-speed return	—	—	5-speed return	6-speed return	—
	Continuously variable	—	—	Continuously variable (V-Matic)	Continuously variable (V-Matic)	—	—	Continuously variable (V-Matic)
Vehicle weight (kg)		134	199	101	77	252	190	81
Emission gas concentration (values examined by MLIT)	CO (g/km)	10.5	10.5	10.5	10.5	10.5	10.5	6.4
	HC (g/km)	1.40	1.60	1.60	1.60	1.60	1.60	1.00
	NO _x (g/km)	0.24	0.24	0.24	0.26	0.24	0.24	0.26
Fuel consumption rate (km/ℓ)	60 km/h constant speed test value	40.0	29.0	45.0	—	37.0	37.0	—
	30 km/h constant speed test value	—	—	—	65.0	—	—	80.0
Noise level (values examined by MLIT)	Exhaust noise near the outlet dB(A)	94/83 (4,000 rpm)	94/89 (5,750 rpm)	90/82 (3,750 rpm)	84/81 (4,000 rpm)	94/88 (2,750 rpm)	94/86 (5,500 rpm)	84/82 (4,000 rpm)
	Acceleration noise dB(A)	73/72	73/72	71/70	71/70	73/72	73/72	71/70
	Constant speed pass-by noise dB(A)	71/67 (40 km/h)	72/69 (50 km/h)	68/65 (27 km/h)	65/63 (18 km/h)	72/69 (50 km/h)	72/68 (50 km/h)	65/63 (15 km/h)

Motorcycle Exhaust Emissions Standards of Japan

Item	Regulation Values	
	4-stroke	2-stroke
CO (carbon monoxide) g/km	13.0	8.00
HC (hydrocarbons) g/km	2.00	3.00
NO _x (nitrogen oxides) g/km	0.30	0.10

Noise Regulation Values of Japan (Effective on and after October 1, 2001)

Item	Class A Motorcycle 50cc or Less	Class B Motorcycle Over 50cc to 250cc or Less	Light Vehicle Over 125cc to 250cc or Less	Small Vehicle Over 250cc
	Constant speed pass-by noise, standard value dB(A)	65	68	71
Exhaust noise near the outlet, standard value dB(A)	84	90	94	94
Acceleration noise, standard value dB(A)	71	71	73	73

Main data are values submitted in the type certification application form in accordance with the Road Vehicle Act.

Power Products: Environmental Data for New Models and Remodeled Products Sold in Japan in Fiscal 2003 (Major Models)

Category		Outboard Motor		Multipurpose Engine	Snow Plow	Backpack Power Sprayer			
Marketing date		9/30/03		8/26/03	11/1/03	3/12/04			
Type name		BF135A	BF150A	GX35	Snowra HSS1170i	WJR1015/1015H	WJR1515/1515H	WJR2520/2520H	
Type		BARJ/BASJ	BANJ/BAPJ	ZOZA	SAEJ	WAHJ	WAJJ	WALJ	
Engine type		BEARJ	BEANJ	GX35	GXV390	GX25			
Total engine displacement (cm ³)		4-stroke direct cylinder		Air-cooled, 4-stroke single-cylinder OHC	Air-cooled, 4-stroke OHV	Air-cooled, 4-stroke single-cylinder OHC			
Weight (kg)		2,354		35.8	389	25			
Fuel economy		Dry weight: 226		Dry weight: 3.88 Equipped weight: 3.33	163	7.6	9	9.4	
Emission gas concentrations	Fuel consumption rate (g/kWh(g/PS-h)) (at continuous rated output)	350	320	—	—	—	—	—	
	Fuel consumption rate at maximum output (g/kWh)	350	320	—	—	—	—	—	
	Engine unit	EPA Phase 2 compliance with multipurpose engine emission standards ¹	(Not applicable)						
		CARB Tier 2 compliance with multipurpose engine emission standards ¹	(Not applicable)						
	Outboard motor	Compliance with the voluntary standards of the Japan Land Engine Manufacturers Association	(Not applicable)						
		EPA 2006 compliance with marine engine emission standards ¹	(Not applicable)	(Not applicable)	(Not applicable)	(Not applicable)	(Not applicable)	(Not applicable)	(Not applicable)
		CARB 2008 compliance with marine engine emission standards ¹	(Not applicable)	(Not applicable)	(Not applicable)	(Not applicable)	(Not applicable)	(Not applicable)	(Not applicable)
		Compliance with Europe Bodensee Regulation Stage 1	—	—	(Not applicable)	(Not applicable)	(Not applicable)	(Not applicable)	(Not applicable)
		Compliance with Europe Bodensee Regulation Stage 2	—	—	(Not applicable)	(Not applicable)	(Not applicable)	(Not applicable)	(Not applicable)
		Compliance with the 2006 voluntary standards of the Japan Boating Industry Association	—	—	(Not applicable)	(Not applicable)	(Not applicable)	(Not applicable)	(Not applicable)
CO (g/kWh (g/HP-h))		—	—	391 (291) ³	396 (293) ⁴	245 (329) ⁵			
HC+NO _x (g/kWh (g/HP-h))		14.12 ²		41 (30)	—	31 (23)			

1. Similar models have obtained an emissions permit in the United States, but products marketed in Japan are not guaranteed to meet those standards.

2. The indicated value is for BF 135A. The emission concentration for BF 150A is lower.

3. The indicated value is for GX31, which is in the same category as GX35 but is used for application purposes because of its higher value.

4. The indicated value is for GX340, which is in the same category as GXV390 but is used for application purposes because of its higher value.

5. The indicated value is for GX22, which is in the same category as GX25 but is used for application purposes because of its higher value.

Multipurpose Engine Emissions Standards

Item	Stationary, Less than 66cc	Stationary, 225cc or More
Applicable models	GX35 WJR1015 / 1015H, WJR1515 / 1515H, WJR2520 / 2520H	Snowra HSS1170i
EPA regulations (Phase 2) (g/kWh-hr)	CO (Including aging deterioration)	610
	HC	50
	NO _x (Including aging deterioration)	(12.1) ¹

1. The CO value for snow blowers is stipulated, but HC and NO_x values are not.

Item	Stationary, Less than 66cc	Stationary, 225cc or More
Applicable models	GX35 WJR1015 / 1015H, WJR1515 / 1515H, WJR2520 / 2520H	Snowra HSS1170i
CARB Tier2 regulations (g/bhp-hr)	CO (Including aging deterioration)	400
	HC	54
	NO _x (Including aging deterioration)	(9) ¹

1. The CO value for snow blowers is stipulated, but HC and NO_x values are not.

Voluntary Standards of the Japan Land Engine Manufacturers Association (g/kWh)	Unmobile Engine Equipment	
	Stationary, Less than 66cc	Stationary, 225cc or More
Applicable Models	GX35 WJR1015 / 1015H, WJR1515 / 1515H, WJR2520 / 2520H	Snowra HSS1170i
2003 primary standards (new engine regulations)	CO	519
	HC	(1.519) ¹
	NO _x	50
2008 secondary standards (in-use regulations) ²	CO (Including aging deterioration)	610
	HC (Including aging deterioration)	50
	NO _x	(12.1) ¹

1. Regulation standard within a defined accumulated operation time

2. Snow blowers are not included in the list of items that need to be voluntarily regulated.

Marine Engines Emissions Standards

Applicable models	Power (kW)	
	BF135A	BF150A
2006 EPA regulations (g/kWh-hr)	11.0	14.7
2006 voluntary standards of Japan Boating Industry Association (g/kWh-hr)	—	56.1
2008 CARB regulations (g/kWh-hr)	—	56.1
Europe Bodensee Regulation Stage 1 (g/kWh-hr)	20.2	20.2
Europe Bodensee Regulation Stage 1 (g/kWh-hr)	CO	540
	HC	22
	NO _x	25
Europe Bodensee Regulation Stage 2 (g/kWh-hr)	CO	650
	HC	23
	NO _x	37

Data of Japanese Factories

(Supplementary explanation) The tables are based on measurements taken between April 2003 and March 2004.

- Water Quality**
- Items given are those substances for which measurements are required by the Water Pollution Control Law and bylaws of local government authorities.
 - The listed data had been obtained by statistical processing of our monthly data. Measurements of substances not listed here are conducted on an ongoing basis to ensure that they are in line with regulatory standards.

- Air Quality**
- Items given are those substances for which measurements are required by the Water Pollution Control Law and bylaws of local government authorities.
 - The equipment measured includes boilers, drying ovens, incinerators, etc.

Honda Motor Co., Ltd.

Water Quality, Air Quality, and PRTR

Saitama Factory

Address: 1-10-1 Shin-Sayama, Sayama City, Saitama Prefecture
 Established: 1964
 Main products: Legend, Odyssey, Accord, etc.

Number of employees: 5,483 (as of March 31, 2004)
 Water discharge points: Sewage system (domestic and industrial wastewater), Iruma River (indirect cooling water)
 ISO 14001 acquired: January 1998

Water Quality Domestic/industrial wastewater (sewage system)

Item	Unit	Regulation Standards (Incl. Agreed Standards)	Voluntary Regulation Standards	Measurement Results	
				Maximum (minimum)	Average
Hydrogen ion concentration	pH	5-9	5-9	7.3 (6.6)	6.9
Biochemical oxygen demand (BOD)	mg/l	600	360	360 (89)	215
Suspended solids (SS)	mg/l	600	360	69 (10)	30
Oil content	mg/l	30	18	18 (4.4)	9.8
Copper and its compounds	mg/l	3	2	Less than 0.1	Less than 0.1
Soluble iron and its compounds	mg/l	10	6	Less than 0.5	Less than 0.5
Soluble manganese and its compounds	mg/l	10	6	0.9 (0.5)	0.7
Fluorine content	mg/l	8	5	2.3 (Less than 1.0)	1.7
Cadmium and its compounds	mg/l	0.1	0.06	Less than 0.01	Less than 0.01
Cyanides	mg/l	1	0.6	Less than 0.1	Less than 0.1
Lead and its compounds	mg/l	0.1	0.06	0.012 (Undetected)	0.003
Chromium (VI) compounds	mg/l	0.05	0.3	Less than 0.05	Less than 0.05

Note: Please refer to the following Web site for more information on cooling water discharged to rivers: <http://world.honda.com/environment/2004report.html>

Air Quality

Item	Unit	Regulation Standards (Incl. Agreed Standards)	Voluntary Regulation Standards	Measurement Results	
				Maximum (minimum)	Average
Particulates	g/Nm ³	0.05	0.025	Less than 0.002	Less than 0.002
		0.1	0.05	Less than 0.002	Less than 0.002
		0.2	0.1	0.004 (Less than 0.002)	Less than 0.002
		0.25	0.125	0.001 (Less than 0.001)	Less than 0.001
Nitrogen oxides	ppm	70	10	8.6 (7.6)	8.2
		130	75	75 (57)	66
		150	90	77 (30)	50.9
		180	90	33 (26)	29.5
		230	115	110 (29)	59
	250	125	120 (110)	115	
Hydrogen chloride	ppm	500	200	45	45
Sulphur oxides	Nm ³ /h	8.05	4.03	0.45	0.45
Dioxins	ng-TEQ/Nm ³	2.5	0.1	0.027	0.027

PRTR Listed Substances

(Unit: kg)

Substance	Volume Handled	Volume Discharged		Volume Transferred		Recycling	Volume 100 Disposed	Volume Consumed (Transferred to Products)
		Atmosphere	Public Waters	Sewage	Waste Disposal Sites Outside Company			
Soluble zinc compounds	22,346	0	0	218	3,604	0	0	18,524
Bis Phenol A epoxy resins	53,631	0	0	0	1,422	0	729	51,480
Ethyl benzene	464,510	194,692	0	0	0	168,533	28,892	72,393
Ethylene glycol	1,719,234	0	0	0	0	0	0	1,719,234
Xylene	1,079,172	294,763	0	0	0	385,788	69,942	328,679
Trichlorofluoromethane	5,438	100	0	0	5,338	0	0	0
1,3,5-Trimethyl benzene	40,991	32,082	0	0	0	0	8,909	0
Toluene	1,245,715	523,274	0	0	0	23,572	107,684	591,185
Nickel compounds	5,342	0	0	1,313	2,427	0	0	1,602
Bis (2-ethylhexyl) phthalic acid	67,757	0	0	0	1,416	0	65	66,276
Benzene	31,777	48	0	0	0	0	1,874	29,855
Polyoxyethylene alkyl ether	1,332	0	0	132	600	0	600	0
Formaldehyde	—	2,382	0	0	0	0	0	0
Manganese and its compounds	6,536	0	0	532	2,407	0	0	3,597
Total	4,743,781	1,047,341	0	2,195	17,214	577,893	218,695	2,882,825
Dioxins (unit: mg-TEQ)	—	0.82	0	0	835.52	0	0	0

Tochigi Factory Takanezawa Plant

Address: 2900 Kami-Takanezawa Ohaza, Takanezawa
Cho, Shioya Gun, Tochigi Prefecture
Established: 1990
Main products: NSX, S2000, Insight

Number of employees: 344 (as of March 31, 2004)
Water discharge point: Gogyo River via Haga
Industrial Park Joint Treatment Plant
ISO 14001 acquired: September 1997

Water Quality

Item	Unit	Regulation Standards (Incl. Agreed Standards)	Voluntary Regulation Standards	Measurement Results	
				Maximum (minimum)	Average
Hydrogen ion concentration	pH	5.8–8.6	5.8–8.6	7.8 (6.9)	7.3
Biochemical oxygen demand (BOD)	mg/l	25	12.5	^{3.9} (Less than 0.1)	1.1
Chemical oxygen demand (COD)	mg/l	25	12.5	9.3 (1.8)	5.7
Suspended solids (SS)	mg/l	50	25	^{5.2} (Less than 1.0)	2.9
Oil content	mg/l	5	2.5	^{1.4} (Less than 0.5)	0.5
Zinc and its compounds	mg/l	5	2.5	^{0.32} (Less than 0.1)	0.32
Soluble iron and its compounds	mg/l	3	1.5	—	0
Soluble manganese and its compounds	mg/l	3	1.5	—	0
Fluorine content	mg/l	8	6.5	—	—
Nitrogen content	mg/l	20	10	—	—

Air Quality

Item	Unit	Regulation Standards (Incl. Agreed Standards)	Voluntary Regulation Standards	Measurement Results	
				Maximum (minimum)	Average
Particulates	g/Nm ³	0.3	0.15	0.002 or less	0.002 or less
				0.5	0.25
Nitrogen oxides	ppm	180	90	70	63
				250	125
Sulphur oxides	K value	7	3.5	0.1 or less	0.01 or less

PRTR Listed Substances

Substance	Volume Handled	Volume Discharged		Volume Transferred		Recycling	Volume 100 Disposed	Volume Consumed (Transferred to Products)
		Atmosphere	Public Waters	Sewage	Waste Disposal Sites Outside Company			
Ethyl benzene	2,852	202	0	0	45	0	56	2,549
Ethylene glycol	46,782	0	0	0	0	0	0	46,782
Xylene	24,129	2,988	0	0	655	61	444	19,981
Toluene	51,893	9,187	0	0	656	9,640	923	31,487
Benzene	780	15	0	0	0	0	0	765
Total	126,436	12,392	0	0	1,356	9,701	1,423	101,564

(Unit: kg)

Tochigi Factory Mohka Plant

Address: 19 Matsuyama Cho, Mohka City,
Tochigi Prefecture
Established: 1970
Main products: Engine parts, suspension parts, etc.

Number of employees: 1,190 (as of March 31, 2004)
Water discharge point: Kokai River via Gogyo River
ISO 14001 acquired: September 1997

Water Quality

Item	Unit	Regulation Standards (Incl. Agreed Standards)	Voluntary Regulation Standards	Measurement Results	
				Maximum (minimum)	Average
Hydrogen ion concentration	pH	5.8–8.6	5.8–8.6	8.4 (6.7)	7.6
Biochemical oxygen demand (BOD)	mg/l	25	12.5	9.9 (0.7)	3.2
Suspended solids (SS)	mg/l	50	25	9.1 (1.2)	2.7
Oil content	mg/l	5	2.5	1.2 (0.1)	0.3
Phenol	mg/l	1	0.5	Less than 0.1	—
Zinc and its compounds	mg/l	5	2.5	^{0.58} (Less than 0.05)	0.22
Soluble iron and its compounds	mg/l	3	1.5	^{0.6} (Less than 0.05)	Less than 0.5
Soluble manganese and its compounds	mg/l	3	1.5	^{0.03} (Less than 0.01)	—
Colon bacillus colony count	No./cm ³	3,000	1,500	22 (0)	5.7
Nitrogen content	mg/l	120	60	12 (8.8)	—
Phosphorous content	mg/l	16	8	^{0.3} (Less than 0.05)	0.03
Cyanides	mg/l	1	0.5	Less than 0.1	Less than 0.1

Air Quality

Item	Unit	Regulation Standards (Incl. Agreed Standards)	Voluntary Regulation Standards	Measurement Results	
				Maximum (minimum)	Average
Particulates	g/Nm ³	0.3	0.15	^{0.05} (Less than 0.005)	0.025
Nitrogen oxides	ppm	180	135	110 (60)	85.8
Sulphur oxides	K value	8	4	Less than 0.1	Less than 0.1

PRTR Listed Substances

Substance	Volume Handled	Volume Discharged		Volume Transferred		Recycling	Volume 100 Disposed	Volume Consumed (Transferred to Products)
		Atmosphere	Public Waters	Sewage	Waste Disposal Sites Outside Company			
Soluble zinc compounds	8,910	0	18	0	8,892	0	0	0
Xylene	22,395	10	0	0	0	0	0	22,385
Molybdenum and its compounds	1,005	0	0	0	1,005	0	0	0
Total	32,310	10	18	0	9,897	0	0	22,385

(Unit: kg)

Data of Japanese Factories

Hamamatsu Factory

Address: 1-13-1 Aoi Higashi, Hamamatsu City, Shizuoka Prefecture
 Established: 1954
 Main products: Motorcycles, power products, automatic transmissions for automobiles, etc.

Employees: 4,223 (as of March 31, 2004, including Hosoe Plant)
 Water discharge point: Isaji River, Danzu River (rainwater only)
 ISO 14001 acquired: March 1998 (automobile, motorcycle factory), April 1997 (power products factory)

Water Quality

Factory wastewater (sewage)

Item	Unit	Regulation Standards (Incl. Agreed Standards)	Voluntary Regulation Standards	Measurement results	
				Maximum (minimum)	Average
Hydrogen ion concentration	pH	5.7-8.7	5.7-8.7	7.9 (7.3)	7.5
Biochemical oxygen demand (BOD)	mg/ℓ	300	150	116 (38.2)	66.3
Suspended solids (SS)	mg/ℓ	300	150	128 (38.8)	86.6
Oil content	mg/ℓ	35	17.5	6.5 (Less than 2.5)	4.1
Zinc and its compounds	mg/ℓ	5	2.5	0.49 (0.06)	0.21
Soluble iron and its compounds	mg/ℓ	10	5	0.2 (0.2)	0.2
Fluorine content	mg/ℓ	15	7.5	0.3 (0.2)	0.25
Lead and its compounds	mg/ℓ	0.1	0.05	0.04 (Less than 0.01)	0.02
Dioxins	pg-TEQ/ℓ	10	5	3.4	3.4

Note: Please refer to the following URL for more information on cooling water discharged to rivers:
<http://world.honda.com/environment/2004report.html>

Air Quality

Item	Unit	Regulation Standards (Incl. Agreed Standards)	Voluntary Regulation Standards	Measurement Results	
				Maximum (minimum)	Average
Particulates	g/Nm ³	0.10	0.05	Less than 0.02	Less than 0.02
		0.20	0.10	Less than 0.02	Less than 0.02
		0.30	0.15	Less than 0.02	Less than 0.02
Nitrogen oxides	ppm	150	75	67 (35)	52.3
		180	90	73 (9)	33.5
		250	125	100 (87)	94
Hydrogen chloride	mg/Nm ³	700	350	240	240
		80	40	Less than 2.8	Less than 2.8
Sulphur oxides	Nm ³ /h	2.32	1.21	0.36 (Less than 0.07)	0.215
Dioxins	ng-TEQ/Nm ³	5	2.5	1.1	1.1
		10	5	0.011	0.011
Chlorine	mg/Nm ³	30	15	Less than 0.9	Less than 0.9
Fluorine compounds	mg/Nm ³	3	1.5	1.1 (Less than 0.7)	0.9

PRTR Listed Substances

Substance	Volume Handled	Volume Discharged		Volume Transferred		Recycling	Volume 100 Disposed	Volume Consumed (Transferred to Products)
		Atmosphere	Public Waters	Sewage	Waste Disposal Sites Outside Company			
2-amino ethanol	1,276	0	0	573	703	0	0	0
Ethylbenzene	13,732	3,543	0	0	1,111	1,092	0	7,986
Ethylene glycol	206,116	0	0	0	0	0	0	206,116
Xylene	113,482	40,469	0	0	12,755	5,458	0	54,800
1,3,5-Trimethyl benzene	2,531	1,921	0	0	610	0	0	0
Toluene	89,261	10,011	0	0	3,056	8,004	0	68,190
Nickel	2,577	0	0	0	0	0	0	2,577
Benzene	3,034	12	0	0	0	363	0	2,659
Total	432,009	55,956	0	573	18,235	14,917	0	342,328
Dioxins (unit: mg-TEQ)	—	14.00	0	0.47	160.50	0	0	0

(Unit: kg)

Hamamatsu Factory Hosoe Plant

Address: 5794-1 Kiga Aza Ohtsubo, Hosoe Cho, Inasa Gun, Shizuoka Prefecture
 Established: 2001
 Main products: Outboard engines

Employees: Included as Hamamatsu Factory employees (as of March 31, 2002)
 Water discharge point: Lake Hamana (rainwater only)

Water Quality

No applicable facilities

Air Quality

Item	Unit	Regulation Standards (Incl. Agreed Standards)	Voluntary Regulation Standards	Measurement Results	
				Maximum (minimum)	Average
Particulates	g/Nm ³	0.10	0.05	Less than 0.02	Less than 0.02
Nitrogen oxides	ppm	150	75	64	57

PRTR Listed Substances

Substance	Volume Handled	Volume Discharged		Volume Transferred		Recycling	Volume 100 Disposed	Volume Consumed (Transferred to Products)
		Atmosphere	Public Waters	Sewage	Waste Disposal Sites Outside Company			
Ethylbenzene	6,820	27	0	0	0	117	0	6,676
Xylene	34,101	136	0	0	0	587	0	33,378
Toluene	50,015	200	0	0	0	861	0	48,954
Benzene	2,273	9	0	0	0	39	0	2,225
Total	93,209	372	0	0	0	1,604	0	91,233

(Unit: kg)

**Suzuka
Factory**

Address: 1907 Hirata Cho, Suzuka City, Mie Prefecture
Established: 1960
Main products: Civic, Fit, etc.

Employees: 7,218 (as of March 31, 2004) (including 284 at the Head Office)
Water discharge point: Suzuka River
ISO 14001 acquired: February 1998

Water Quality

Item	Unit	Regulation Standards (Incl. Agreed Standards)	Voluntary Regulation Standards	Measurement Results	
				Maximum (minimum)	Average
Hydrogen ion concentration	pH	5.8-8.6	5.8-8.6	7.3 (6.6)	6.9
Biochemical oxygen demand (BOD)	mg/l	Maximum 65/ average 50	Maximum 58/ average 45	18 (3)	6.3
Chemical oxygen demand (COD)	kg/day	192.5	173.2	181.5 (37)	122.1
Suspended solids (SS)	mg/l	Maximum 90/ average 70	Maximum 81/ average 63	19 (4)	9.6
Oil content	mg/l	1	0.9	0.9 (Less than 0.9)	0.2
Zinc and its compounds	mg/l	5	2.5	0.31 (0.07)	0.12
Total chromes	mg/l	2	1	Below detection limit	Below detection limit
Colon bacillus colony count	No./cm ³	3,000	1,500	70 (Undetected)	6
Nitrogen content	kg/day	214.7	193.2	12.8 (3.2)	9.0
Phosphorous content	kg/day	21.2	19.0	1.42 (0.32)	1.1
Cadmium and its compounds	mg/l	0.1	0.05	Below detection limit	Below detection limit
Cyanides	mg/l	1	0.5	Below detection limit	Below detection limit
Lead and its compounds	mg/l	0.1	0.05	Below detection limit	Below detection limit

Air Quality

Item	Unit	Regulation Standards (Incl. Agreed Standards)	Voluntary Regulation Standards	Measurement Results	
				Maximum (minimum)	Average
Particulates	g/Nm ³	0.05	0.025	Less than 0.01	Less than 0.01
		0.10	0.050	Less than 0.0001	Less than 0.0001
		0.25	0.125	0.040	0.002
Nitrogen oxides	ppm	70	35	32.0	17.1
		150	75	66.7	23.9
		180	90	83	28.6
		230	115	51	24.5
		250	125	112.8	110.4
Hydrogen chloride	mg/Nm ³	700	350	2.3	2.3
Sulphur oxides	K value	14.5	7.25	0.019	0.012
Dioxins	ng-TEQ/Nm ³	10	0.1	0.03	0.0245

PRTR Listed Substances

Substance	Volume Handled	Volume Discharged		Volume Transferred		Recycling	Volume 100 Disposed	Volume Consumed (Transferred to Products)
		Atmosphere	Public Waters	Sewage	Waste Disposal Sites Outside Company			
Soluble zinc compounds	26,159	0	104	0	5,302	0	0	20,753
Bis Phenol A epoxy resins	50,420	0	0	0	284	0	3	50,133
Ethyl benzene	238,105	81,681	0	0	0	89,475	6,081	60,868
Ethylene glycol	1,231,611	0	0	0	0	0	0	1,231,611
Xylene	885,098	200,413	0	0	0	349,287	19,678	315,720
1,3,5-Trimethyl benzene	54,030	22,092	0	0	0	28,269	3,669	0
Toluene	722,930	219,914	0	0	0	16,047	17,071	469,898
Nickel compounds	4,494	0	223	0	1,565	0	0	2,706
Bis (2-ethylhexyl) phthalic acid	13,739	0	0	0	137	0	0	13,602
Hydrogen fluoride and soluble salt	1,830	0	0	0	0	0	1,830	0
Benzene	20,196	50	0	0	0	0	0	20,146
Polyoxyethylene alkyl ether	2,494	0	0	0	0	0	2,494	0
Formaldehyde	—	721	0	0	0	0	0	0
Manganese and its compounds	8,707	0	868	0	1,303	0	0	6,536
Total	3,259,813	524,871	1,195	0	8,591	483,078	50,826	2,191,973
Dioxins (unit: mg-TEQ)	—	61.00	2.70	0	990.00	0	0	0

(Unit: kg)

Data of Japanese Factories

Kumamoto Factory

Address: 1500 Hirakawa Ohaza, Ohzu Machi, Kikuchi Gun, Kumamoto Prefecture
 Established: 1976
 Main products: Minibike, Mini vehicle engines, multipurpose engines, transmission parts for passenger vehicles, etc.

Number of employees: 2,927 (as of March 31, 2004)
 Water discharge point: Kikuchi River via Hyuga River and Koushi River
 ISO 14001 acquired: November 1997

Water Quality

Item	Unit	Regulation Standards (Incl. Agreed Standards)	Voluntary Regulation Standards	Measurement Results	
				Maximum (minimum)	Average
Hydrogen ion concentration	pH	5.8–8.6	6.5–7.9	7.9 (7.1)	7.5
Biochemical oxygen demand (BOD)	mg/l	7	3.5	1.6 (0.6)	0.9
Suspended solids (SS)	mg/l	10	5	6.0 (1.0)	2.8
Oil content	mg/l	1	0.5	0.7 (Less than 0.5)	Less than 0.5
Phenol	mg/l	0.05	0.025	Less than 0.025	Less than 0.025
Copper and its compounds	mg/l	0.3	0.15	Less than 0.05	Less than 0.02
Zinc and its compounds	mg/l	1.5	0.75	0.13 (Less than 0.005)	0.09
Soluble iron and its compounds	mg/l	3	1.5	0.1 (Less than 0.05)	0.07
Soluble manganese and its compounds	mg/l	Should not be detected	Should not be detected	Undetected	Undetected
Total chromes	mg/l	0.1	0.05	Less than 0.02	Less than 0.02
Cadmium and its compounds	mg/l	Should not be detected	Should not be detected	Undetected	Undetected
Lead and its compounds	mg/l	Should not be detected	Should not be detected	Undetected	Undetected
Chromium (VI) compounds	mg/l	0.05	0.025	Less than 0.04	Less than 0.04

Air quality

Item	Unit	Regulation Standards (Incl. Agreed Standards)	Voluntary Regulation Standards	Measurement Results	
				Maximum (minimum)	Average
Particulates	g/Nm ³	0.05	0.025	0.002 (Less than 0.001)	Less than 0.001
		0.1	0.05	0.01 (Less than 0.001)	Less than 0.001
Nitrogen oxides	ppm	150	75	22 (Less than 9.0)	13.4
		180	90	21 (Less than 7.0)	17.6
		230	115	58 (Less than 7.0)	29.0
		250	125	14	14
Hydrogen chlorides	mg/Nm ³	700	350	15	15
Sulphur oxides	K value	6.42	3.21	Less than 0.038	Less than 0.038
Dioxins	ng-TEQ/Nm ³	10	0.1	0.16	0.16

PRTR Listed Substances

(Unit: kg)

Substance	Volume Handled	Volume Discharged		Volume Transferred		Recycling	Volume 100 Disposed	Volume Consumed (Transferred to Products)
		Atmosphere	Public Waters	Sewage	Waste Disposal Sites Outside Company			
Bis Phenol A epoxy resins	2,340	47	0	0	0	0	0	2,293
Ethyl benzene	16,372	11,008	0	0	0	757	175	4,432
Ethylene glycol	55,594	0	0	0	0	0	0	55,594
Xylene	235,305	149,940	0	0	0	42,033	16,145	27,187
Toluene	67,875	26,658	0	0	0	5,550	1,371	34,296
Total	377,486	187,653	0	0	0	48,340	17,691	123,802
Dioxins (unit: mg-TEQ)	—	1.70	0	0	398.70	0	0	0

Groundwater

Results of Groundwater Test Taken at Plants and Factories in Japan in Fiscal 2003

Substance Detected	Legal Limit	Branch		
		Saitama Factory	Tochigi Factory, Takanezawa Plant	Tochigi Factory, Mohka Plant
Chromium (VI)	0.05 mg/ℓ or less	Less than 0.005	Less than 0.005	Less than 0.005
Lead	0.01 mg/ℓ or less	0.004–less than 0.001	Less than 0.001	0.002–less than 0.001
Cadmium	0.01 mg/ℓ or less	Less than 0.001	Less than 0.001	Less than 0.001
Total mercury	0.0005 mg/ℓ or less	Less than 0.00005	Less than 0.001	Less than 0.0005
Alkyl mercury	Should not be detected	Less than 0.00005	Less than 0.0005	Less than 0.0005
Total cyanides	Should not be detected	Less than 0.1	Less than 0.1	Less than 0.1
PCB	Should not be detected	Less than 0.00005	Less than 0.0005	Less than 0.0005
Selenium	0.01 mg/ℓ or less	0.001	Less than 0.001	Less than 0.001
Fluorine	0.8 mg/ℓ or less	0.17–less than 0.08	Less than 0.2	Less than 0.2
Boron	1.0 mg/ℓ or less	Less than 0.1	Less than 0.1	Less than 0.1
Arsenic	0.01 mg/ℓ or less	Less than 0.001	Less than 0.001	Less than 0.001
Benzene	0.01 mg/ℓ or less	Less than 0.001	Less than 0.001	Less than 0.001
Dichloromethane	0.02 mg/ℓ or less	Less than 0.002	Less than 0.002	Less than 0.002
Tetrachloride carbon	0.002 mg/ℓ or less	Less than 0.0002	Less than 0.0002	Less than 0.0002
1,2-dichloroethane	0.004 mg/ℓ or less	Less than 0.0004	Less than 0.0004	Less than 0.0004
1,1-dichloroethylene	0.02 mg/ℓ or less	Less than 0.002	Less than 0.002	Less than 0.002
Cis-1,2-dichloroethylene	0.04 mg/ℓ or less	Less than 0.004	Less than 0.004	Less than 0.004
1,1,1-trichloroethane	1.0 mg/ℓ or less	Less than 0.002	Less than 0.0005	Less than 0.0005
1,1,2-trichloroethane	0.006 mg/ℓ or less	Less than 0.0006	Less than 0.0006	Less than 0.0006
Trichloroethylene	0.03 mg/ℓ or less	Less than 0.003	Less than 0.001	0.020–less than 0.001
Tetrachloroethylene	0.01 mg/ℓ or less	0.002–less than 0.001	Less than 0.0005	0.0019–less than 0.0005
1,3-dichloropropane	0.02 mg/ℓ or less	Less than 0.0002	Less than 0.0002	Less than 0.0002
Thiram	0.006 mg/ℓ or less	Less than 0.0006	Less than 0.0006	Less than 0.0006
Simazine	0.003 mg/ℓ or less	Less than 0.0003	Less than 0.0003	Less than 0.0003
Thiobencarb	0.02 mg/ℓ or less	Less than 0.002	Less than 0.002	Less than 0.002
Organic phosphorus compound	Should not be detected	Less than 0.1	—	—

Substance Detected	Legal limit	Branch		
		Hamamatsu Factory	Suzuka Factory	Kumamoto Factory
Chromium (VI)	0.05 mg/ℓ or less	Less than 0.02	Less than 0.04	Less than 0.005
Lead	0.01 mg/ℓ or less	Less than 0.005	Less than 0.005	Less than 0.001
Cadmium	0.01 mg/ℓ or less	Less than 0.001	Less than 0.001	Less than 0.001
Total mercury	0.0005 mg/ℓ or less	Less than 0.0005	Less than 0.0005	Less than 0.00005
Alkyl mercury	Should not be detected	Less than 0.0005	Undetected	Less than 0.0005
Total cyanides	Should not be detected	Less than 0.1	Undetected	Less than 0.001
PCB	Should not be detected	Less than 0.0005	Undetected	Less than 0.0005
Selenium	0.01 mg/ℓ or less	Less than 0.002	0.001	Less than 0.001
Fluorine	0.8 mg/ℓ or less	Less than 0.1	Less than 0.1	0.28–less than 0.08
Boron	1.0 mg/ℓ or less	Less than 0.05	0.03	Less than 0.01
Arsenic	0.01 mg/ℓ or less	Less than 0.005	Less than 0.005	Less than 0.001
Benzene	0.01 mg/ℓ or less	Less than 0.001	Less than 0.001	Less than 0.001
Dichloromethane	0.02 mg/ℓ or less	Less than 0.002	Less than 0.002	Less than 0.002
Tetrachloride carbon	0.002 mg/ℓ or less	Less than 0.0002	Less than 0.0005	Less than 0.0002
1,2-dichloroethane	0.004 mg/ℓ or less	Less than 0.0004	Less than 0.0004	Less than 0.0004
1,1-dichloroethylene	0.02 mg/ℓ or less	Less than 0.002	Less than 0.002	Less than 0.002
Cis-1,2-dichloroethylene	0.04 mg/ℓ or less	Less than 0.004	Less than 0.004	Less than 0.004
1,1,1-trichloroethane	1.0 mg/ℓ or less	Less than 0.0005	Less than 0.001	Less than 0.03
1,1,2-trichloroethane	0.006 mg/ℓ or less	Less than 0.0006	Less than 0.0006	Less than 0.0006
Trichloroethylene	0.03 mg/ℓ or less	0.004	Less than 0.002	Less than 0.003
Tetrachloroethylene	0.01 mg/ℓ or less	0.0030	Less than 0.0005	Less than 0.001
1,3-dichloropropane	0.02 mg/ℓ or less	Less than 0.0002	Less than 0.0002	Less than 0.0002
Thiram	0.006 mg/ℓ or less	Less than 0.0006	Less than 0.0006	Less than 0.0006
Simazine	0.003 mg/ℓ or less	Less than 0.0003	Less than 0.0003	Less than 0.0003
Thiobencarb	0.02 mg/ℓ or less	Less than 0.002	Less than 0.002	Less than 0.002
Organic phosphorus compound	Should not be detected	Less than 0.1	—	Less than 0.1

The figures in the chart are the certified measurements of a measurement company, and have been listed with no amendment.

Legend

- Undetected, less than _____ : Indicate that figures are the minimum amount detectable by the measuring equipment used and that nothing was detected

Data of Japanese Factories

Honda R&D Co., Ltd.

Wako R&D Center

Address: 1-4-1 Chuo, Wako City, Saitama Prefecture
 Established: 1960 (spin-off from Honda Motor Co., Ltd.)
 Main Products: General automobile research (design and research of automobiles and various basic research and development)
 Water discharge point: Wastewater Treatment Center, located in the Arakawa Right Bank District (sewage)

Water Quality

Item	Unit	Regulation Standards (Incl. Agreed Standards)	Voluntary Regulation Standards	Measurement Results	
				Maximum (minimum)	Average
Hydrogen ion concentration	pH	5.0-9.0	5.0-9.0	8.9 (7.6)	8.3
Biochemical oxygen demand (BOD)	mg/l	600	300	310 (21)	116.3
Suspended solids (SS)	mg/l	600	300	370 (36)	152.3
Oil content	mg/l	30	15	11 (2)	4.9
Nitrogen content	mg/l	240	120	93 (9)	45
Phosphorous content	mg/l	32	16	5 (1)	3

Air Quality

Item	Unit	Regulation Standards (Incl. Agreed Standards)	Voluntary Regulation Standards	Measurement Results	
				Maximum (minimum)	Average
Particulates	g/Nm ³	0.1	0.05	Less than 0.01	Less than 0.01
Nitrogen oxides	ppm	150	75	81 (14)	49.3
Sulphur oxides	K value	9	—	Less than 0.2	Less than 0.2

PRTR Listed Substances

(Unit: kg)

Substance	Volume Handled	Volume Discharged		Volume Transferred		Recycling	Volume 100 Disposed	Volume Consumed (Transferred to Products)
		Atmosphere	Public Waters	Sewage	Waste Disposal Sites Outside Company			
Ethyl benzene	1,383	139	0	0	47	0	700	497
Xylene	8,316	948	0	0	282	0	4,146	2,941
Toluene	12,719	598	0	0	379	0	6,869	4,873
Total	22,417	1,684	0	0	707	0	11,715	8,311

Asaka R&D Center/ Asaka Higashi R&D Center

Address: 3-15-1 Senzui, Asaka City, Saitama Prefecture
 Established: 1973
 Main Products: Research and development of motorcycles and power products
 Water discharge point: Arakawa Right Bank District Regional Sewage System

Water Quality

Item	Unit	Regulation Standards (Incl. Agreed Standards)	Voluntary Regulation Standards	Measurement Results	
				Maximum (minimum)	Average
Hydrogen ion concentration	pH	5.0-9.0	5.8-8.6	8.7 (6.7)	7.1
Biochemical oxygen demand (BOD)	mg/l	600	420	340 (3.0)	92.9
Suspended solids (SS)	mg/l	600	420	330 (1.2)	120.2
Oil content (fat and vegetable oil)	mg/l	30	21	25.5 (Less than 1.0)	3.4
Phosphorous content	mg/l	32	22.4	10.3 (0.23)	4.67
Nitrogen content	mg/l	380	266	103 (0.31)	37.0

Air Quality

Item	Unit	Regulation Standards (Incl. Agreed Standards)	Voluntary Regulation Standards	Measurement Results	
				Maximum (minimum)	Average
Particulates	g/Nm ³		0.15	0.005 (0.005)	0.005
Nitrogen oxides	ppm		125	72 (37)	60
Sulphur oxides	K value	9	0.32	0.098 (0.0046)	0.076

PRTR Listed Substances

(Unit: kg)

Substance	Volume Handled	Volume Discharged		Volume Transferred		Recycling	Volume 100 Disposed	Volume Consumed (Transferred to Products)
		Atmosphere	Public Waters	Sewage	Waste Disposal Sites Outside Company			
Ethyl benzene	10,811	26	0	0	326	0	10,459	0
Xylene	51,787	54	0	0	592	0	51,141	0
Toluene	88,687	157	0	0	1,924	0	86,606	0
Benzene	3,401	1	0	0	0	0	3,400	0
Total	154,686	238	0	0	2,842	0	151,606	0

Tochigi R&D Center

Address: 4630 Shimotakanesawa, Haga Machi, Haga Gun, Tochigi Prefecture

Established: 1982 (Tochigi Laboratory, Wako Research Center)

Main Products: General automobile research (design, trial production, and testing of engines, bodies, and chassis)

Water discharge point: Nomoto River via Haga Industrial Park Treatment Center (domestic and industrial water)

Water Quality

Item	Unit	Regulation Standards (Incl. Agreed Standards)	Voluntary Regulation Standards	Measurement Results	
				Maximum (minimum)	Average
Hydrogen ion concentration	pH	5.6–8.6	5.6–8.6	7.6 (6.6)	7.2
Biochemical oxygen demand (BOD)	mg/l	25	12.5	1.6 (0.2)	0.8
Chemical oxygen demand (COD)	mg/l	25	12.5	16 (5.3)	7.6
Suspended solids (SS)	mg/l	50	25	4 (0)	0.9
Oil content	mg/l	5	2.5	0.8 (Less than 0.5)	0.4
Zinc and its compounds	mg/l	5	5	0.3 (0.22)	0.26
Total chromes	mg/l	2	2	Less than 0.1	Less than 0.1
Nitrogen content	mg/l	20	—	20 (11)	15.5
Phosphorous content	mg/l	2	1.4	0.7 (0.1)	0.22

Air Quality

Item	Unit	Regulation Standards (Incl. Agreed Standards)	Voluntary Regulation Standards	Measurement Results	
				Maximum (minimum)	Average
Particulates	g/Nm ³	0.15	0.075	0.006 (0.005)	0.0055
				0.2	0.14
Nitrogen oxides	ppm	230	161	Less than 8.3	Less than 8.3
				250	175
Hydrogen chlorides	ppm	700	490	63 (55)	68.0
Sulphur oxides	Nm ³ /h	7	4.9	0.11 (0.1)	0.105
Dioxins	ng-TEQ/Nm ³	10	0.1	0.041	0.041

PRTR Listed Substances

(Unit: kg)

Substance	Volume Handled	Volume Discharged		Volume Transferred		Recycling	Volume 100 Disposed	Volume Consumed (Transferred to Products)
		Atmosphere	Public Waters	Sewage	Waste Disposal Sites Outside Company			
Ethyl benzene	41,766	739	0	0	13	0	41,014	0
Ethylene glycol	1,126	23	0	0	2	0	1,101	0
Xylene	342,739	6,005	0	0	180	0	336,554	0
Toluene	704,357	12,387	0	0	150	0	691,820	0
Benzene	22,184	393	0	0	7	0	21,784	0
Total	1,112,172	19,547	0	0	352	0	1,092,273	0
Dioxins (unit: mg-TEQ)	—	0.11	0.03753	0	82.05	0	—	0

Honda Engineering Co., Ltd.

Tochigi Technical Center

Address: 6-1 Hagadai, Haga Machi, Haga Gun, Tochigi Prefecture

Established: 1990

Main Products: General machinery and equipment (machine tools, development, design, and manufacture of dies)

Employees: 1,297 (as of March 31, 2004)

Water discharge point: Nomoto River via Haga Industrial Park Treatment Center (domestic and industrial water)

ISO 14001 acquired: July 1997

Water Quality

Item	Unit	Regulation Standards (Incl. Agreed Standards)	Voluntary Regulation Standards	Measurement Results	
				Maximum (minimum)	Average
Hydrogen ion concentration	pH	5.6–8.6	5.6–8.6	7.6 (6.6)	7.4
Biochemical oxygen demand (BOD)	mg/l	25	12.5	1.6 (0.2)	2.0
Chemical oxygen demand (COD)	mg/l	25	12.5	16 (5.3)	6.5
Suspended solids (SS)	mg/l	50	25	4 (Less than 1)	2.4
Zinc and its compounds	mg/l	5	5	0.09 (0.06)	0.08
Soluble manganese and its compounds	mg/l	10	10	0.01 (Less than 0.01)	Less than 0.01
Total chromes	mg/l	2	2	Less than 0.02	Less than 0.02
Nitrogen content	mg/l	20	10	8.1 (0.8)	4.0
Phosphorous content	mg/l	2	1.4	1.2 (0.4)	0.7

Air Quality

Item	Unit	Regulation Standards (Incl. Agreed Standards)	Voluntary Regulation Standards	Measurement Results	
				Maximum (minimum)	Average
Particulates	g/Nm ³	0.2	0.1	Less than 0.005	Less than 0.005
				0.3	0.15
Nitrogen oxides	ppm	180	90	42.5	42.5
Hydrogen chlorides	ppm	40	20	3.2	3.2
Sulphur oxides	Nm ³ /h	1.51	0.76	Less than 0.09	Less than 0.09
Dioxins	ng-TEQ/Nm ³	—	—	—	—

PRTR Listed Substances

(Unit: kg)

Substance	Volume Handled	Volume Discharged		Volume Transferred		Recycling	Volume 100 Disposed	Volume Consumed (Transferred to Products)
		Atmosphere	Public Waters	Sewage	Waste Disposal Sites Outside Company			
Xylene	5,400	66	0	0	506	0	4,828	0
Toluene	12,000	94	0	0	349	0	11,557	0
Nickel compounds	525.2	0	0.2	0	525	0	0	0
Total	17,925.2	160	0.2	0	1,380	0	16,385	0

Data of Overseas Factories

North America

Item	Company name	Honda of America Mfg., Inc. (HAM)				Honda Transmission Mfg. of America, Inc.
		Marysville Auto Plant	Marysville Motorcycle Plant	East Liberty Auto Plant	Anna Engine Plant	
	Country	United States of America	United States of America	United States of America	United States of America	
	Main product	Automobiles	Motorcycles, ATVs	Automobiles	Engines	Automobile parts
Energy	Electricity (1,000 kWh)	238,480	17,753	115,788	223,147	29,267
	Natural gas (1,000 kcf)	1,269	205	759	559	88
Water	Water usage (1,000 gal.)	252,255	25,628	122,858	119,330	3,345
Waste	Recycle (US ton)	67,750	1,946	20,121	62,674	2,387
	Other waste treatment (US ton)	2,575	298	1,204	5,317	199
	Total waste (US ton)	70,326	2,244	21,325	67,990	2,586
ISO 14001 acquired		Dec. 1998	Dec. 1998	Aug. 1998	Dec. 1998	June 1998

Item	Company name	Honda Power Equipment Mfg., Inc.	Honda of South Carolina Mfg., Inc.	Honda Mfg. of Alabama L.L.C.	Honda of Canada Mfg. (HCM)		Honda de Mexico S.A. de C.V.
					Plant 1	Plant 2	
	Country	United States of America	United States of America	United States of America	Canada	Canada	Mexico
	Main product	Power products	4-wheel ATVs	Automobiles	Automobiles	Automobiles	Motorcycles, automobiles, power product parts
Energy	Electricity (1,000 kWh)	14,887	26,738	124,423	75,707	88,687	18,675
	Natural gas (1,000 kcf)	51	44	593	528	647	76
Water	Water usage (1,000 gal.)	7,589	8,038	138,145	74,541	114,285	45,039
Waste	Recycle (US ton)	2,816	5,597	27,670	23,873	2,187	2,619
	Other waste treatment (US ton)	225	2,294	0	921	1,186	0
	Total waste (US ton)	3,041	7,891	27,670	24,794	3,373	2,619
ISO 14001 acquired		May 2002	Jan. 2004	In progress	Sept. 1998	Oct. 1999	Dec. 1999

Note: kcf = 1,000 cubic feet
US ton = 2,000 pounds

South America

Item	Company name	Moto Honda da Amazonia Ltda.	Honda Automoveis do Brasil Ltda.
	Country	Brazil	Brazil
	Main product	Motorcycles	Automobiles
Energy	Electricity (1,000 kWh)	77,177	16,376
	Diesel oil (ℓ)	368,868	0
	LPG (kg)	1,615,083	1,102,250
	Kerosene (ℓ)	4,387,721	0
	Gasoline (ℓ)	380,448	405,000
Water	Well water (m³)	996,029	97,213
Waste	Recycled waste (ton)	20,225	3,984
	Incinerated on-site (ton)	868	0
	Stored on-site (ton)	68	0
	Disposed at external landfill (ton)	774	41
	Other external disposal (ton)	0	335
	Total waste (ton)	21,935	4,363
ISO 14001 acquired		Oct. 1998	In progress

Europe

Item	Company name	Honda of the U.K. Manufacturing Ltd.	Honda Europe N.V.	Honda Belgium N.V.	Honda Italia Industriale S.P.A. (ATTESA)
	Country	United Kingdom	Belgium	Belgium	Italy
	Main product	Automobiles, engines	Distribution of completed automobiles and parts	Automobile parts	Motorcycles, power products
Energy	Electricity (1,000 kWh)	124,497	7,267	8,514	6,797
	Fuel (ℓ)	0	35,514	34,294	0
	Natural gas (m³)	19,147,826	78,150	319,692	1,215,607
	LPG (kg)	0	0	0	0
	Steam (GJ)	0	0	11,219	0
	Total (1,000 kWh)	332,463	8,437	15,893	18,455
CO ₂ (ton)		57,172	2,432	2,864	3,846
Water	Water usage (m³)	645,912	9,788	9,631	18,435
Waste	Recycled waste* (ton)	22,066	1,843	1,094	846
	Incinerated on-site (ton)	0	0	7	0
	Disposed at external landfill (ton)	1,676	0	272	868
	Total waste (ton)	23,742	1,843	1,373	1,714
ISO 14001 acquired		March 1998	June 1998 (Completed automobile distribution) June 1999 (HE)	March 1997	Jan. 1999

*Including thermal recycling

Europe

Item	Company name	C.I.A.P. S.p.A.	Montesa Honda S.A.	Honda Turkiye A.S.	Honda Europe Power Equipment S.A.
	Country	Italy	Spain	Turkey	France
	Main product	Motorcycle parts	Motorcycles	Automobiles	Power products
Energy	Electricity (1,000 kWh)	1,036	3,240	4,018	1,286
	Fuel (ℓ)	0	0	12,894	0
	Natural gas (m ³)	148,948	162,871	0	254,840
	LPG (kg)	0	0	1,053,785	0
	Steam (GJ)	0	0	0	0
	Total (1,000 kWh)	2,609	4,983	16,653	4,054
CO ₂ (ton)		904	2,145	2,105	721
Water	Water usage (m ³)	2,230	19,088	81,130	5,042
Waste	Recycled waste (ton)	239	598	58	608
	Incinerated on-site (ton)	0	0	191	0
	Disposed at external landfill (ton)	11	103	60	79
	Total waste (ton)	250	701	249	687
ISO 14001 acquired		June 1999	Dec. 1998	Dec. 1999	Jan. 1999

*Including thermal recycling

Asia/Oceania (Results from January 2003 to December 2003)

Data for Asian Autoparts Co., Ltd. and Armstrong Auto Parts SDN. BHD. are currently being reviewed.

Item	Company name	Honda Automobile (Thailand) Co., Ltd.	Thai Honda Mfg. Co., Ltd.	Honda Cars Philippines, Inc.	Honda Philippines, Inc.	Honda Parts Mfg. Co.	Honda Taiwan Co., Ltd.	Honda Sier Cars India Ltd.	Hero Honda Motors Ltd.
	Country	Thailand	Thailand	Philippines	Philippines	Philippines	Taiwan	India	India
	Main product	Automobiles	Motorcycles, power products	Automobiles	Motorcycles, power products	Automobile parts	Automobiles	Automobiles	Motorcycles
Energy	Electricity (kWh)	48,940,332	38,752,000	7,740,421	5,027,917	3,306,744	11,098,250	3,614,503	6,232,723
	Crude oil (ℓ) ¹	208,031		794,511	1,136,083		117,250	2,638,239	11,805,355
	LPG (kg) ²	934,854	2,237,228	570,670	511,420	8,012	360,507	551,700	4,996,573
CO ₂ (ton)	6,036,578	5,630,153	1,877,001	1,759,262	470,432	1,500,880	2,724,000	12,922,563	
Water	Water usage (ℓ)	641,297,000	279,493,000	155,908,800	51,007,960	18,000,000	55,928,000	244,998	867,499,000
Waste	Recycled waste (ton)	15,892	5,737	2,512	1,076	304	2,954	1,760	10,981
	Disposed on-site (ton)	69	1,591	101	13			142	1,391
	External disposal (ton)	802	20		9		742	0	53
	Total waste (ton)	16,763	7,091	2,608	1,097	304	3,696	1,902	12,426
ISO 14001 acquired		Dec. 1998	Dec. 1998	Dec. 1998	In progress	In progress	In progress	April 2001	June 1999

1. Oils converted as crude oil 2. Gases converted as LPG

Item	Company name	Honda Motorcycle & Scooter India (Pvt.) Ltd.	Honda Sier Power Products Ltd.	P.T. Honda Prospect Motor	P.T. Astra Honda Motor	Honda Atlas Cars (Pakistan) Ltd.	Atlas Honda Ltd.	Honda Vietnam Co., Ltd.	Honda Malaysia Mfg. SDN. BHD.
	Country	India	India	Indonesia	Indonesia	Pakistan	Pakistan	Vietnam	Malaysia
	Main product	Motorcycles	Power products	Automobile parts	Motorcycles	Automobiles	Motorcycles	Motorcycles	Automobile parts
Energy	Electricity (kWh)		2,406,020	15,790,920	54,708,148	5,195,901	5,683,111	19,818,750	10,494,690
	Crude oil (ℓ) ¹	6,434,471	380,621	1,131,130	5,521,733	666,384	1,361,832	301,701	204,022
	LPG (kg) ²	805,191	14,192	0	529,000		1,063,845	2,532,647	678,907
CO ₂ (ton)	5,225,682	545,895	2,847	10,489,730	1,045,157	2,174,789	4,474,969	1,852,403	
Water	Water usage (ℓ)	324,795,000	57,481,000	159,550,000	— ³	116,486	28,716,588	197,151	153,094
Waste	Reused/recycled (ton)	4,646	574	2,558	9,050	1,900	3,223	2,787	0
	Disposed on-site (ton)	151	26	0		50	14	1,820	0
	External disposal (ton)	0	0	274	721		339		1,829,427
	Total waste (ton)	4,797	600	2,832	9,771	1,950	3,576	4,607	1,829,427
ISO 14001 acquired		Dec. 2002	Dec. 1999	In progress	Sept. 2000	Sept. 2003	In progress	Sept. 2001	Dec. 2003

1. Oils converted as crude oil 2. Gases converted as LPG 3. The final figure will be posted on our Web site after calculation

China (Results from January 2003 to December 2003)

Item	Company name	Dongfeng Honda Auto Parts Co., Ltd.	Dongfeng Honda Engine Co., Ltd.	Guangzhou Honda Automobile Co., Ltd.	Wuyang-Honda Motors (Guangzhou) Co., Ltd.	Jialing-Honda Motors Co., Ltd.	Honda Mingdong Generator Co., Ltd.	Sundiro Honda Motorcycle Co., Ltd.
	Country	China	China	China	China	China	China	China
	Main product	Automobile parts	Automobile parts	Automobiles	Motorcycles	Motorcycles	Power products	Motorcycles
Energy	Electricity (kWh)	32,770,681	16,300,172	77,480,872	17,011,691	7,615,918	11,454,545	29,928,890
	Crude oil (ℓ) ¹	42,134	182,000	1,374,879	3,566,326	577,874	288,747	2,345,636
	LPG (kg) ²	154,800	532,750	2,417,150	212,721	297,641	7,263	3,293,261
CO ₂ (ton)	3,762,682	2,355,470	11,457,030	4,641,035	1,418,657	1,463,799	7,102,655	
Water	Reused/recycled (ton)	1,990	1,509	19,109	3,175	668	85	7,082
	Disposed on-site (ton)	0	0	0	0	0	4	49
	External disposal (ton)	3,776	553	2,483	1,281	641	18	1,660
	Total waste (ton)	5,776	2,062	21,592	4,456	1,308	107	8,791
ISO 14001 acquired		In progress	In progress	Nov. 2001	Jan. 2002	In progress	In progress	Jan. 2000 (Hainan) In progress at other sites

1. Oils converted as crude oil 2. Gases converted as LPG

The Americas

Honda FCX Demonstrates Excellent Environmental Performance in Michelin Bibendum Rally (United States)

At the Michelin Bibendum Rally, a festival of eco cars held in the suburb of San Francisco for four days (September 22–25, 2003), seven of Honda’s models, including the FCX, were entered in the race. Using a circuit course and public roads, commercial and experimental cars were judged in terms of environmental friendliness, safety, and driving enjoyment. Fuel economy, exhaust gas, acceleration, braking, and slalom driving were also areas that were examined. A 100-mile rally was conducted on public roads from Sonoma to San Francisco. The Honda FCX was the sole fuel cell vehicle qualified in the commercial car category and entered every competition. The Honda FCX outperformed all other cars in terms of fuel economy and obtained the highest mark among all entry cars, including gasoline and hybrid cars. Honda’s ACCORD EX, Civic GX, Civic Hybrid, Element, Insight, and MDX all obtained high marks as well. Honda acquired 12 gold medals and 19 silver medals and won first place in total marks.



The Honda FCX at the rally

Award ceremony

Center with Environmentally Friendly Servicing Training and Parts Delivery Wins Gold Certification (United States)

In September 2002, American Honda’s North-Western Regional Center, located in Gresham, Oregon, was awarded the gold certification for “Gold Leadership in Energy and Environmental Design (LEED)” from the U.S. Green Building Council. The center, which is comprised of an auto service shop, warehouse, and office, was the first of its kind to be awarded the gold certification in the United States. The center takes an environmentally friendly approach in its facility system, interior finish work, gardening, illumination, and furnishings. Examples of the center’s environmental considerations are as follows: rainwater collected from the roof of the warehouse is used to water the center’s garden and flush its toilets, 120 skylights installed in the warehouse utilizes sunlight, and floor heating system provides much more efficient heating method. As a result, energy consumption at the center is down 40% or more compared with that of



A full view of the North-Western Regional Center



The Gold Certification Shield

conventional buildings. Interior decoration and furniture are made of biodegradable or recycled materials. Honda’s unbending spirit of environmental conservation helps visitors of the center improve their awareness of environmental conservation.

Home Energy Station Experiments Begin (United States)

In 2003, Honda R&D Co., Ltd., and Honda R&D Americas, Inc., (HRA) began experiments at the Home Energy Station, which has hydrogen fuel generation and cogeneration functions. The station can generate hydrogen from natural gas, supply hydrogen to fuel cell vehicles, and supply both heat and electricity. The station, established at HRA Los Angeles Center in California, conducts experiments on the supply of electricity to the facility and the supply of hydrogen to the FCX, Honda’s fuel cell vehicle. At the same time, the solar battery-powered water electrolysis hydrogen station, which has been conducting experiments since 2001, was improved by the recent technological advancements. The world’s most efficient water electrolysis module, manufactured by Honda, and next-generation thin-film solar cells that require very little energy to manufacture (and, hence, less CO₂ emissions), manufactured by Honda Engineering, were mounted on the hydrogen station. As a result, the efficiency of generating hydrogen was significantly improved, and CO₂ emissions generated in the manufacturing of the cells were greatly reduced. By simultaneously conducting experiments in two types of hydrogen generation and refueling systems at the same facility and by identifying the characteristics of each system, we will seek a desirable system for a future hydrogen fuel society.



Home Energy Station and a Honda FCX

Europe

Environmental Communication Activities Conducted by Factories (United Kingdom)

In fiscal 2003, a total of 750 students visited the factory of Honda of the UK Manufacturing (HUM). Honda wants to demonstrate its environmental improvement activities through these efforts. Honda believes that these environmental communication activities will improve its reputation in the area of environmental conservation and deepen mutual trust between itself and local residents.



Students visiting the HUM factory

Effective Utilization of the Company's Food Waste (Belgium, France, and Turkey)

In Europe, reducing food waste from the company's cafeteria is an important goal. In the past, Honda Europe N.V. (HE), Honda Europe Power Equipment S.A. (HEPE), and Honda Turkiye A.S. (HTR) would dispose of their food waste in landfills. Today, however, they separate food waste from plastic items or tin cans, and any discarded fruit or vegetables are turned into compost. HTR supplies surplus food to a dog pound.

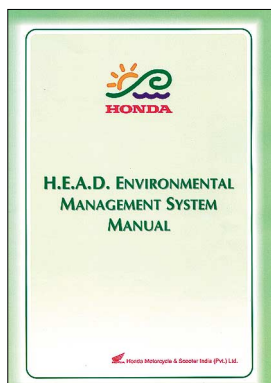


Separating food waste

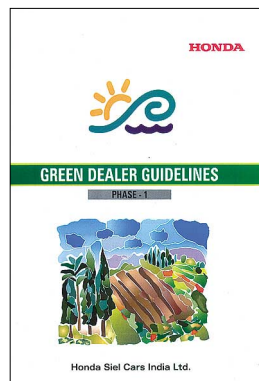
Asia & Oceania

Establishing a Green Dealer Network (India)

In India, the market for motorcycles, automobiles, and power products is expanding rapidly. In addition to the environmental improvement activities conducted by Green Factories in the production domain, we promote various measures to encourage suppliers and dealers to participate in environmental conservation activities. With the main purpose of strengthening activities in the marketing domain, we promote activities to establish a green dealer network before our competitors do. In fiscal 2003, Honda Motorcycle & Scooter India Pvt. Ltd. (HMSI), a motorcycle distributor; and Honda Siel Cars India Ltd. (HSCI), an automobile distributor; issued green dealer guides. Based on these green dealer guides, the creation of model dealers is being promoted.



Guidelines issued by HMSI



Guidelines issued by HSCI

Persons Responsible for Commitments

Sales and Services	Automobile sales:	Toshiaki Kamikoshiba Masao Koike
	Motorcycle sales:	Ko Yamaguchi
	Power product sales:	Hiromichi Noji
	Parts sales:	Toshio Sugiyama
Purchasing	Automobile purchasing:	Tomonao Osaka
	Factory and Office Operations	Environmental Administrator
Logistics	Saitama Factory:	Koichi Odaka
	Tochigi Factory:	Hiroshi Yanaka
	Hamamatsu Factory:	Tadashi Takeda
	Suzuka Factory:	Kosaku Arakawa
	Kumamoto Factory:	Yuji Tanno
	Head Office:	Nobutaka Okabe
Administration	Products and KD parts:	Mitsuhiro Chiba
	Administration:	Nobutaka Okabe
Secretariat	Personnel:	Noboru Kamimura
	Public Relations:	Hiroshi Oshima
	Environment and Safety	
	Planning Office:	Keiichi Mitobe

As of May 2004

External Verification

For the reasons given below, we have not obtained any external verification.

1. No guidelines have been established for external verification.
2. The qualifications required of the verification organizations are not clear.

We will continue to examine the details and timing of external verification, paying attention to the progress made in relation to the items described above.

The results presented in this report have been collected by each of the active departments concerned and endorsed within the Japan Environmental Committee's system. Data relating to the factories has been checked by environmental audits and surveillance inspections under ISO 14001.

For all inquiries concerning the contents of this report, please contact us at the following numbers:
Environment and Safety Planning Office
Tel.: 81-3-5412-1155 Fax: 81-3-5412-1154



HONDA



This report is printed on nonwood paper made from 100% bagasse (sugar cane residue) using waterless soy-based inks.

Honda Motor Co., Ltd.

1-1, 2-chome Minami-Aoyama, Minato-ku, Tokyo
Published: September 2004

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Results of the Questionnaire and Interviews regarding the *Honda Environmental Annual Report 2003*

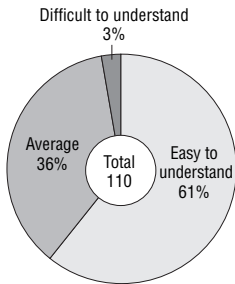
Questionnaire:
Conducted from June 2003 to April 2004 (110 respondents in total)

Interviews:
Conducted from November to December 2003 (five interviewees*)

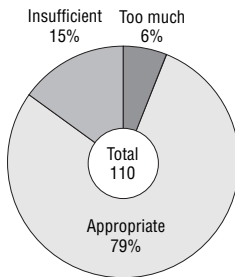
* Among those who responded to the questionnaire in the *Honda Environmental Annual Report 2003*, five were chosen and interviewed so that their opinions on the Company's environmental conservation activities and annual report could be heard directly.

Major Findings

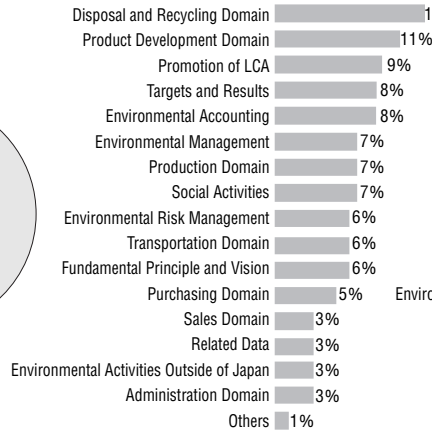
Intelligibility



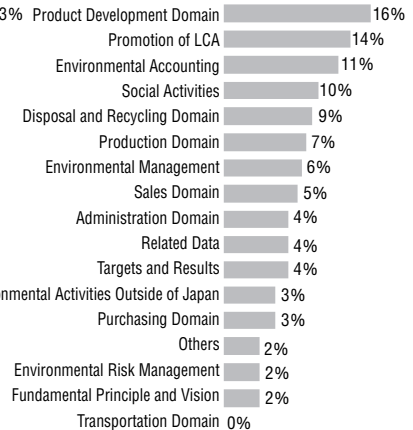
Amount of information



Parts found most interesting



Part that needs to be improved



Main Opinions and Requests from Our Readers and Honda's Responses

Opinions and Requests regarding *Honda Environmental Annual Report 2003*

"Some parts of the graphs and pictures were not clear because of the color tone."

Traditional two-color printing was replaced with color printing to make it easier to see the graphics, including graphs and pictures.

"Some sentences were difficult to understand."

Technical jargon was avoided as much as possible, and explanations and comments were added for easier understanding.

Requests regarding Honda's Environmental Conservation Activities

Aggressive promotion of LCA

Various innovative efforts in the product development domain
Further improvement in energy-saving efficiency in the production domain

Proper management of chemical substances and reduction in the amount of materials that adversely affect the environment

Better communication with stakeholders on environmental activities

Making Honda's unique environmental efforts more public

The opinions you have kindly presented to us are of immense value to use in our future environmental conservation activities and the disclosure of Environmental Information, including the *Honda Environmental Annual Report*.

We sincerely thank you for your cooperation.

We hereby request all our readers to let us have the benefit of their opinions and ideas.

Our "*Honda Annual Environmental Report 2004*" presents a summary of the results of our environmental commitments in fiscal 2003 from the viewpoint of the life cycle of our products. Our goal is to give details of our commitments and activities in the most concise manner in concrete figures and data that measure up to objective evaluation.

We will strive to enrich the content of our Report by giving full consideration to your opinions, ideas and advice.

To help us achieve this goal, we would be most grateful for your cooperation in completing the questionnaire on the back of this leaf and sending it back to us.

FAX: 81-3-5412-1154

You can answer the questionnaire also on our Web site.

world.honda.com/environment/2004report/report_enq.html