HITACHI
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ENVIRONMENTAL
SUSTAINABILITY REPORT 2003

Hitachi Group

Environmental Sustainability Report 2003

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■Editorial Policy of This Report

The Environmental Sustainability Report centers on the results and environmental activities of the Hitachi Group, and informs our readers of plans we intend to carry out in the future.

This report contains the following:

- The title of this report was changed from the“ Environmental Sustainability Report ”to the “ Environmental Management Sustainability Report ”in Japanese which better indicates the content of this report - environmental activities from a managerial perspective. The Hitachi Group practices environmental management with emphasis first and foremost on its social responsibilities, secondly on consideration for the environmental in business activities, and thirdly on risk management for the future.
- Information on environmental loads has been collected and presented in such a way that the overall picture is easy to interpret at a single glance.
- We give a description of GREEN 21 Version 2, Hitachi's new evaluation tool for realizing the Group's Environmental Vision.
- We added descriptions of compliance with environmental regulations and customer relations as part of our social report on sustainability.
- We published the results for our principal targets and activity plans in a compact version of this report on our homepage.

Further, we provided a page that allows you to search through a list for the page numbers of each indicator, and data published on our homepage.

For further details, refer to the hitachi green web homepage at: http://greenweb.hitachi.co.jp/en/
(See page 40 of this report for a copy of the data list published on the hitachi green web homepage.)

Report period

Centered on fiscal 2002 (1 April 2002 to 31 March 2003)

Scope of report

298 firms of the Hitachi Group (Hitachi, Ltd. and its 297 related companies, subsidiaries and affiliates)
We conducted a survey on the environmental impacts of consolidated group firms and reported on those firms that account for 85% of the Hitachi Group's overall environmental impact. (→See P.42)

Reference indicators

“ Environmental Performance Indicator Guidelines for Business, Fiscal Year 2002 Version ”
(Ministry for the Environment)

“ 2001 Environmental Reporting Guidelines with an Emphasis on Stakeholders ”
(Ministry of Economy, Trade and Industry)

“ Sustainability Reporting Guidelines 2002 ”
(Global Reporting Initiative)

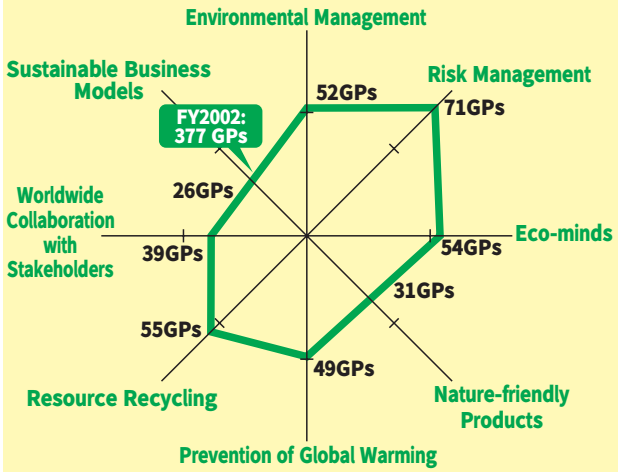
Highlights 2002

Introducing the main topics for environmental activities in FY2002:

Introducing GREEN 21 Version 2

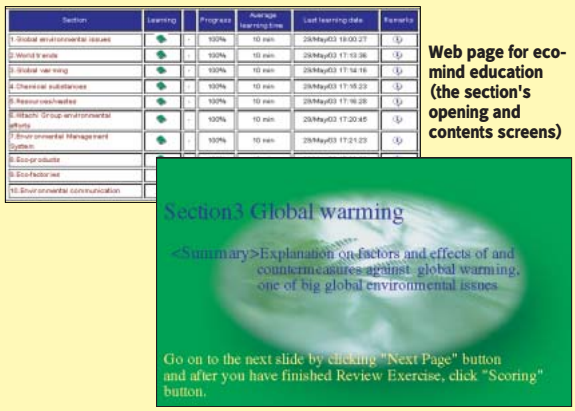
We have introduced a new environmental evaluation indicator called GREEN 21 Version 2 to aid in achieving our targets established in the Hitachi Group's Environmental Vision (Sustainability Compass) for fiscal 2005. We added GREEN 21 Version 2 to our Group performance evaluation standards in October 2002. (→P.9-10)

● The Green Point Average (domestic and overseas)



Commencement of Internet Education

To foster eco-minds among our employees, we commenced education through the use of the Internet in December 2002. (→P.12)



Web page for eco-mind education (the section's opening and contents screens)

Application of the " Environmental Efficiency "and " Factors "Indicators

We have developed and commenced the application of the environmental indicators" Environmental Efficiency "and" Factors. "Environmental Efficiency indicates the degree by which restricting a company's impact on the environment with regards to products and transportation has improved its value, while Factors indicates the degree a company has improved when comparing products or fiscal performance results that act as a base for environmental efficiency. (→P.16)

●Calculation Example for the " Factors " Indicator

Factor / Product	Calculation Figure (based on the reference year)	
	Prevention of Global Warming	Resources
Washing machine	5.0	2.3

Washing machine (1990)
Model number: KW-B483

Washing machine with built-in drier (2002)
Model number: NW-8BX

Hitachi's Homepage Receives Auditors Special Award

The Hitachi Group's environmental activities homepage received the Auditor's Special Award in the corporate category, Environmental goo Grand Prize 2002. In the future, we will endeavor to update and improve the contents of our homepage to introduce the Hitachi Group's environmental activities in an even easier to understand format. (→P.26)

Becoming a Sustainable Corporation

For the past two years Hitachi has been rated as part of the top 10% of sustainability by the Dow Jones Sustainability Indexes (DJSI). In the future, we will pursue sustainability aiming to become a top corporation. (→P.27)

Message from the President

In Japan, my hometown city of Joetsu in Niigata Prefecture is renowned for its heavy snowfall. When I was young, so much snow would settle that we had to enter and leave the house through a window on the second floor. These days however, instances of snow settling to those levels are few and far between. Global warming is no longer just a theory, but has now reached the stage where we can actually feel its effects.

Presently, we are seeing the seriousness of the effects mankind's industrial activities have had on the global environment, and it may even be said that there is no future for corporations whose management practices do not take the environment into consideration. For example, one possible model for corporations to follow is that of a“ triple bottom line, ”which places equal emphasis on the three areas of finance, the environment, and society. Upon closer examination of this model, you find that it is based on common principles.

To begin with, a corporation's social value is determined by its contribution to society through products and services, and the continued provision of customer satisfaction and peace of mind achieved through trust. This means business practices that do not yield any profit and which do nothing more than waste precious resources are perceived as having little or no value, and as a result, their existence is of no significance to society.

Hitachi's strong point is its ability to create social infrastructure that acts as a foundation for people with an understanding of information (i) and electronics (e) technologies. Hitachi has utilized this strength to develop its new mid-term management plan, “ i.e. HITACHI Plan II, ”as its target for fiscal 2005. Through this, Hitachi is promoting radical reforms to its operating structure, and endeavoring to make the giant leap from“ quantity ”to“ quality. ”To advance yet further still, we must develop business activities after first analyzing and evaluating the future risks involved with these activities. It is essential to take into consideration the situation our grandchildren and their grandchildren will face fifty or even one hundred years from now.

I once had the chance to visit Egypt, and was rendered speechless by the sheer scale of the great pyramids that towered before my eyes. They were quite overwhelming. It must have taken great technical ability to stack the 2.3 million megaliths up to 15 tons each on top of one another. When I saw the pyramids, I forgot all about the scorching heat surrounding me as my mind drifted back an eternity to the time of the Pharaos 4,500 years earlier. At that point, I was reminded of the intellectual potential possessed by mankind.

Yet at the same time, humans have but a tiny and powerless existence in a vast and severe natural environment, and we should never forget this. However much we pride our own intelligence, we should always remember with humility that we are only one part of the larger environment. I believe it is because we are all in the same position that we are able to work together in creating technologies that minimize our impact on the Earth's ecosystem, and corporations that take the initiative in researching and developing these technologies will be greeted with open arms by society.

Let Hitachi take the lead! I promise here and now that Hitachi will become a corporation that creates environmental value.

At the Eco-Products exhibition

May 2003

President and Director

Etsuhiko Shoyama

Etsuhiko Shoyama

Environmental Impact Data for Corporate Activities (Fiscal 2002)

The following data is for domestic and overseas companies listed on P.42.

Domestic

INPUT

Total energy consumption (crude oil conversion) 1,837,000 kl

Electricity	5.49 billion kWh	Petroleum (crude oil conversion)	438,000 kl

New energy types

Electricity	50 million kWh	Heat	12,000 kl

Total input of materials

Materials

Metals			1151 kt
Iron (including steel sheeting)	690 kt	Stainless steel	33kt
Aluminum	74kt	Copper	216kt
Other nonferrous metals	138kt		
Plastics			136kt
Thermoplastics	100kt	Thermohardened plastics	36kt
Rubber	14kt	Other materials	334kt

Chemical substances

Handling volume for chemical substances covered under the PRTR law*1	235kt
Handling volume for ozone depleting substances	424t
Handling volume for greenhouse effect gases	763t

Water consumption 79.99 million m³

Surface water	9.56 million m³	Industrial water	26.65 million m³
Underground water	43.78million m³		

Corporate activities

Volume of water reused

102.06 million m³

OUTPUT

CO_2 emissions 2914 kt (2914 GWPt*2)

Total volume of products manufactured and sold 1733kt (13 kt used for packaging inclusive)

Volume of chemical substances discharged or transferred

Discharge or transfer volume for chemical substances covered under the PRTR law*1			10.2kt
Volume of discharge for ozone depleting substances			50t (3.0ODPt*3)
Greenhouse gas emissions			50t (707kGWPt)
SF_6	21t (504kGWPt)	PFC	24t (172kGWPt)
HFC	5t (31kGWPt)		

Substances subject to emissions regulations

SOx	408t	NOx	1188t

Total volume of waste generated 642kt

Waste generated	642kt	Waste reduction	114kt
Recycling (rate)			484kt (92%)
Volume re-used	92kt (19%)	Volume of material recycling	334kt (69%)
Volume of thermal recycling	58kt (12%)		
Final disposal (rate)			44kt (8%)

Total volume of wastewater 75.51 million m³

Breakdown of wastewater by destination

Public waterways	65.17 million m³	Sewerage system	10.34 million m³

Water quality

BOD	480t	COD	247t

Overseas

INPUT

Total energy consumption (crude oil conversion) 398,000 kl

Electricity	1.11 million kWh	Petroleum (crude oil conversion)	104,000 kl

New energy types

Electricity	10 million kWh

Total input of chemical substances

Chemical substances

Handling volume for chemical substances covered under the PRTR law	14.0kt

Water consumption 8.62 million m³

Surface water	5.88 million m³	Industrial water	1.97 million m³
Underground water	770,000million m³		

Corporate activities

Volume of water reused

3.28 million m³

OUTPUT

CO_2 emissions 599kt (599kGWPt)

Volume of chemical substances released or transferred

Discharge or transfer volume for chemical substances covered under the PRTR law	0.7kt

Total volume of waste generated 130kt

Waste generated	130kt	Waste reduction	6kt
Recycling (rate)	65kt (52%)	Final disposal (rate)	59kt (48%)

Total volume of wastewater 7.86 million m³

Breakdown of wastewater by destination

Public waterways	2.54 million m³	Sewerage system	5.32million m³

*1 Chemical substances covered under the PRTR (Pollutant Release and Transfer Register) law: a list of 354 substances covered by" The Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management "(Chemical Substance Management Law) enacted in 1999 in Japan *2 GWP: Global Warming Potential. A coefficient for measuring global warming (CO2 conversion unit = t) *3 ODP: Ozone Depletion Potential. A coefficient for measuring the depletion of the ozone layer (CFC conversion unit = t)

Basic Environmental Philosophy

Hitachi's Environmental Vision (Sustainability Compass) expresses the direction of the Hitachi Group's environmental activities until the year 2010, and is based on Hitachi's Basic Philosophy for Corporate Activities and Environmental Protection Action Guidelines.

Standards for Corporate Activities (A Basic Philosophy)

The basic philosophy of Hitachi, Ltd. is to further promote the principles upon which the Company was founded - harmony, sincerity, and a pioneering spirit - to take pride in Hitachi and to contribute to the society of which Hitachi is a part through superior technologies and products.
In accord with this, the Company is fully aware that enterprises are also members of society, and, in addition to a deep devotion to just and transparent corporate activities, the Company strives as a responsible corporate citizen to bring about a society of real wealth through harmony with the environment and the aggressive pursuit of activities that contribute to society.

Enacted June 1983 (revised September 1996)

Environmental Protection Action Guidelines

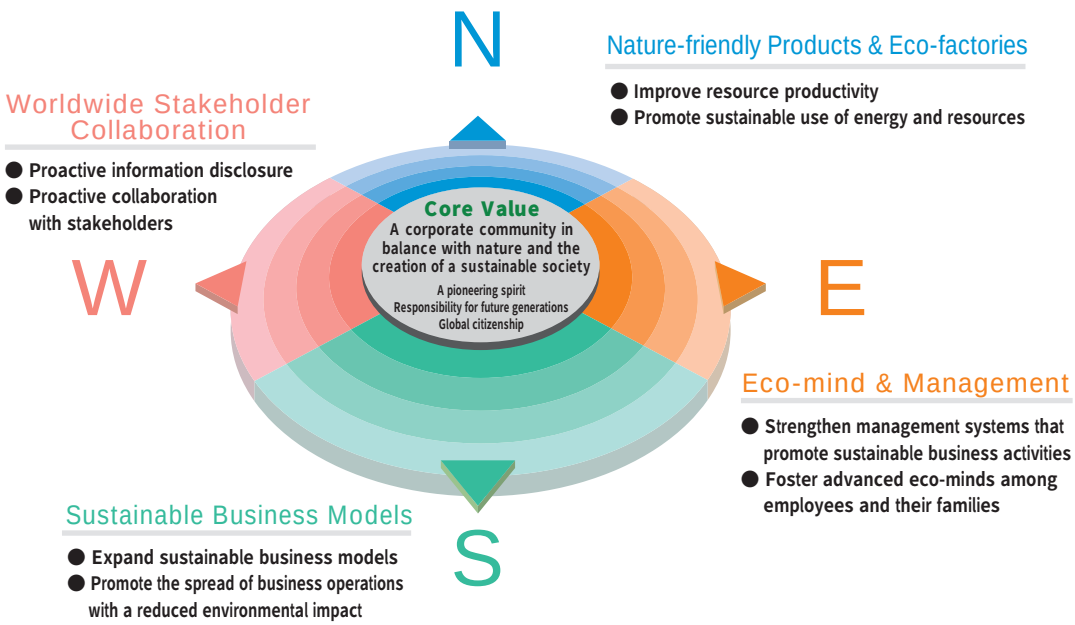
As part of Hitachi's Standards for Corporate Activities (A Basic Philosophy), these guidelines express standards in response to environmental issues concerning the Company's business activities.

1. In recognition that problems affecting the global environment are serious matters for all humankind, harmony with the environment will be a top management priority throughout the Company.
2. By establishing a structure for the promotion of environmental preservation, enacting regulations relating to the environment, setting environmental impact reduction targets, and similar measures, officers and site directors in charge of environmental promotion will promote environmental preservation activities.Moreover, environmental audits will be used to confirm the efficacy of activities and our efforts towards continued improvement.
3. Through a concise understanding of how best to resolve environmental problems facing the world, the Company will work to make contributions to society through the development of highly reliable technologies and products that meet those needs.
4. The Company gives due consideration to reducing the environmental effects a product will have throughout its entire life cycle, from the R&D and design stages, through to production, logistics, use, and disposal.
5. The Company will investigate and examine the effect of its business operations on the environment and seek to introduce new technologies and materials with superior functionality regarding environmental safety, energy conservation and resource conservation.
6. In addition to observing international, national and local regulations with regard to the environment, the Company will develop its own standards where necessary to maintain environmental conservation.
7. With regard to overseas activities and the export of products, the Company will give due consideration to the effects of products on the local environment, and implement measures in response to the wishes expressed by local societies.
8. In addition to working towards enhancing the environmental awareness of its employees, the Company will focus its activities on society at large, contributing to that society, of which Hitachi is a part, through environmental preservation activities carried out from a broad perspective.
9. Should an environmental problem arise as a result of the Company's business activities, the Company will take appropriate steps to minimize the impact on the environment.

Enacted March 1993

Hitachi's Environmental Vision (Sustainability Compass)

Hitachi Group Companies worldwide will work to help create a corporate community in balance with nature and to open up the way to a sustainable society. For the sake of future generations, we will act as a good corporate citizen and use our products, services, and technologies to propose innovative new business models to society while taking progressive action in four major areas:



Executive Commitment

May 2003

Senior Vice President and Director

Masaharu Sumikawa

One of my passions is walking through the mountains, a trend more recently known as "hiking." Regardless of the name, I enjoy walking through the natural environment, and in my student days I used to go off into the mountains with a tent slung over my shoulder. When I am walking through the tranquility of nature, I feel as if my soul is being cleansed.

I would like to tell you about the time my wife and I went walking on Mt. Oyama, near Atsugi City in Japan. Although it was the off season, it was terribly crowded, and to avoid the swarms of people we had lunch in a secluded spot. After lunch, we decided to walk down the mountain, and I remember the descent was steep as we progressed along the uneven stepping stones. I was conscious of the burden on my knees, but in the stillness of the almost deserted forest, I could feel the richness of nature throughout my entire body. Along the way, we met up with some children who were out with their young parents, and the image of them happily making their way up the steep slope bathed in sweat made a lasting impression in my mind.

Corporate people like myself tend to easily forget the blessing of nature as we go about our work. However, corporations continue to carry out their activities as they enjoy nature's bounty just as you or I would, and now the depletion of "natural capital" is a critical situation. To counter this, we need to think of ways to conduct business so that resources are used more effectively.

At Mt. Oyama

In fiscal 2002, the Hitachi Group implemented GREEN 21 Version 2, an evaluation standard for environmental activities, in order to make steady progress towards the goals and targets set out in our Environmental Vision (Sustainability Compass) implemented in fiscal 2001. GREEN 21 Version 2 is an indicator designed to complement Hitachi's Sustainability Compass and systematically measure the degree of progress achieved in the following areas: ①Eco-mind & Management, ②Nature-friendly Products & Eco-factories, ③Worldwide Stakeholder Collaboration, and ④Sustainable Business Models. In addition, to encourage all of our executive level staff to conduct business with a heightened awareness of environmental issues, we have added countable indicators such as "profit" and "capital" to Hitachi's performance evaluation standards. These indicators form the basis for evaluations that measure a corporation's social and environmental value, which are carried out by each business group.

In a recent lecture conducted by Dr. Norman Myers, an environment and development consultant who contributed comments to Hitachi's Environmental Sustainability Report 2002, he outlined ways in which corporations can guide the development of new social reforms and customer bases. He explained that this can be achieved through business activities that take a fresh look at the value of natural capital by shifting a corporation's focus away from merely selling products to providing functions and services for products. I agree with his philosophy, and think we need to be aware that we are "borrowing materials from the earth" as we carry out business and environmental management activities in the 21st century.

I believe it is part of our larger responsibility as Corporations to ensure that future generations, such as the children I met on the mountain, inherit an abundant natural environment where they can enjoy activities like mountain climbing.

EcoValue Plan 2010

EcoValue Plan 2010 is a roadmap indicating the future direction the Hitachi Group intends to take in order to realize the Company's Environmental Vision.

Category			FY2005	FY2010
Environmental Management Strategy			Development and advancement of environmental management	Becoming a corporation that creates environmental value
Eco-mind & Management		Assessment system	GREEN 21 Version 2 640 GP (FY2005)	Development of GREEN 21 Version 3
		Environmental education	Development of educational and regional activities for employees and their families	Establishment of ecological lifestyles
Nature-friendly Products & Eco-factories	Nature-friendly products	Eco-products	Draw up and adopt the Eco-products Value Plan*1	Development of advanced (top-runner) environmental products in accordance with the Eco-products Value Plan
		Effective use of resources and energy		
		Chemical substances used in products	Abolish the use of six chemical substances: hexavalent chromium,lead, cadmium, mercury, PBB, and PBDE*2 (electrical and electronic devices covered by RoHS*3)	Abolish products that use HCFCs*4 (overseas: by the end of 2006)
			Correct management of chemical substances used in products	
		Increased efficiency of transportation	Promote the reduction of environmental loads during product transportation (developments such as promoting a modal shift and introducing low-emission vehicles)	
	Eco-factories	Prevention of global warming	Draw up and adopt the Eco-factories Value Plan*5	Improve the Eco-factories Value Plan
			Reduce CO_2 emissions by 3% (based on FY1990 levels) (domestic target) Reduce unit requirements for production-related CO_2 emissions by 20% (based on FY1990 levels)	Reduce CO_2 emissions by 7% (based on FY1990 levels) (domestic target) Reduce unit requirements for production-related CO_2 emissions by 25% (based on FY1990 levels)
			Reduce SF_6*6 emissions to 3% or less of the purchased quantity	Reduce PFC*7 emissions to 10% or less (based on FY1995 levels)
		Waste reduction	Reduce the amount of waste for final disposal to 80% or less (based on FY1998 levels)	Reduce the amount of waste for final disposal to 70% or less (based on FY1998 levels)
			Promote zero-emission facilities (29 facilities)	
			Control the amount of waste and reusable waste generated (planned reductions based on the target values for each site)	
		Chemical substance reduction	Abolish emissions of prohibited substances Reduce emissions of substances specified for reduction*8 by 30% (based on FY2000 levels)	Promote a reduction in chemical substance emissions
Worldwide Stakeholder Collaboration		Disclosure of information	Extensive information disclosure for operation sites	
		Communication	Develop environmental town meetings*9 at regional and international levels	Promote cooperation with communities
		Community activities	Promote volunteer activities, such as programs that foster talent	
Sustainable Business Models		Construction of business models	Expand product recycling systems, leases, and rental businesses	
		Environmental solution businesses	Expand the spread of environmental solution models for business	

■ Environmental Management - Our History

Compliance with environmental regulations

1971 Established the Environmental Management Promotion Center
1972 Established the Environmental Research Center
1973 Initiated environmental audits

Environmental operations

1991 Established Corporate Environmental Policy Division
1992 Established the Environmental Committee: Formulated the Environmental Action Plan
1994 Established the ISO Certification Committee

Environmental management

1998 Released the first Environmental Report
1999 Established the Senior Executive Committee for Environmental Policy
Established GREEN 21 activities and the environmental logo mark
2000 Established Hitachi's Environmental Vision

Promotion of environmental management

2001 Established Hitachi's Environmental Vision
2002 2002 Established GREEN 21 Version 2 activities
Commenced the environmental education program via the internet
Application of the " Environmental Efficiency " and " Factors " Indicators

*1 Eco-products Value Plan: An eco-products indicator that combines the existing eco-products indicator with an environmental efficiency indicator. *2 PBB: Polybrominated biphenyl, PBDE: Polybrominated diphenyl ethers *3 RoHS: Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (EU proposed) *4 HCFC: Hydrochlorofluorocarbon *5 Eco-factories Value Plan: An eco-factories indicator that combines the volumes for CO_2 emissions, waste, and emissions of chemical substances. *6 SF_6: Sulfur hexafluoride *7 PFC: Perfluorocarbons *8 Substances specified for reduction: Substances that are prohibited or specified for reduction. *9 Environmental town meetings: Meetings held between the Hitachi Group and its stakeholders in order to exchange opinions about environmental activities.

Environmental Action Plan and Evaluation

The following is our Environmental Action Plan for fiscal 2002, and an evaluation of our performance.
For a description and current evaluation of each activity see the page indicated below.

2002 Performance Evaluation Key :Accomplished activity :Needs improvement ☆:New target added in FY2003

Category/activity	FY2002 activity targets	FY2002 performance results	Performance evaluation for FY2002	Reference page
Promotion of Environmental Management	In addition to aiming towards consolidated management and standardized management practices throughout our affiliated companies and their operation sites, each business partner and affiliated company within the Hitachi Group is endeavoring to strengthen their environmental management systems so that they are in accordance with stricter environmental controls. Further, the Hitachi Group will proactively promote environmental management as one of its business strategies, and strive to become a corporation that creates environmental value.	Number of companies covered by environmental impact reports: Domestic: 244 Overseas: 54 Total: 298		P.1, 2
GREEN21	Commence GREEN 21 Version 2 activities (GP (green point) level for FY2005: 640 points, FY2002: 320 points) Reflect activities in performance evaluations	GP level: 377 points Introduction of performance evaluation system		P.9, 10
Environmental Education	Foster advanced eco-minds amongst employees and their families Increase the level of employee education and number of licensed and certified personnel	Content development and introduction of the environmental education program via the internet program for general employees		P.12
Environmental Management System	Implementation of an environmental management system ☆ Extensive internal environmental auditing at each operation	Acquired certification at 18 sites (Total number of sites acquired certification: 234)		P.13
	Establish environmental accounting practices throughout the Hitachi Group and its affiliate companies, and proactively promote environmental management practices ☆Promote internal application through environmental impact reduction efficiency indicators, etc.	Environmental Accounting Totals for FY2002 Planning and development of environmental reduction efficiency indicators		P.14
Eco-products	Expand range of eco-products by 30% (60% by FY2003)	Expanded to 46%		P.16
	☆Draw up and adopt an environmental efficiency indicator	Developed an environmental indicator for application with washing machines		P.16
	Abolish the use of lead solders in printed circuit board connections (FY2003)	Amount of lead solder used: 17.7% (based on FY1997 levels)		P.18
	Abolish products that use HCFCs (Domestic target: end of 2003)	Abolished from use in cooling devices and ice-makers		P.18
	Correct management of chemical substances used in products	Completed for 14,000 electronic components		P.18
Increased Transportation Efficiency	Promote the reduction of environmental impact (such as CO_2 ,NOx, and PM {particulate matter} emissions) during transportation	Environmental load of CO_2 during transportation: 346.3 kt-CO_2/year (a domestic increase of 4.2%)		P.19
	☆Promote internal application through transport efficiency indicators, etc.	Enactment of a transport efficiency indicator		P.19
Prevention of Global Warming	☆Reduction of CO_2 emissions (3% reduction by FY2005 (based on FY1990 levels))	Reduced CO_2 emissions by 9% (based on domestic FY1990 levels)		P.21
	Reduction of the basic unit of production-related CO_2 emissions (20% reduction by FY2005 (based on 1990 levels))	Reduced the basic unit of production-related CO_2 emissions by 16% (based on FY1990 levels)		P.21
	Reduction of the emission of greenhouse effect gases other than CO_2	Controlled SF6 emissions to 6% or less of the purchased quantity Reduced PFC emissions by 2% (based on FY1995 levels)		P.22
Waste Reduction	20% reduction for the amount of waste for final disposal (by FY2005)	Reduced by 41% (based on FY1998 levels)		P.20
	Control of the amount of waste and reusable waste generated	Plan enacted for each site		P.20
	Promote zero-emission factories (29 operation sites by FY2005)	Achieved at 17 sites		P.20
Chemical Substance Management	Promote the abolishment of prohibited substance emissions (towards FY2005) Emissions reduction for substances specified for reduction (15% reduction by FY2003 (based on FY2000 levels))	Reduced substances specified for reduction by 29% (based on FY2000 levels)		P.23
PCB Management	Strict storage management (quantity, leakage etc.) of electrical devices that use PCBs, such as transformers and capacitors	Proper storage management implemented		P.24
Environmental Communication	Hitachi is committed to strengthening communication with its stakeholders (customers,shareholders, business partners, and general citizens). • Information disclosure through PR and advertising activities • Periodic release of information about production sites through the publication of environmental reports and our Web site • Active participation in a variety of environmental activities outside the Company, from presentations and lectures, to regional activities • Conduct meetings with stakeholders and regional town meetings • Opinion exchanges through questionnaires, surveys, and study tours	Published Hitachi Group Environmental Report (May 2002) Published site-specific environmental reports for 25 individual sites Information on 45 site specific home pages. Participated in the Eco-Products 2002 exhibition (December 2002) Conducted an environmental town meeting (March 2003) Received 112 responses to questionnaire in environmental report		P.26-29
Global Citizen Activities	Become involved in activities that contribute to society through the planning of volunteer activities and by encouraging employees to actively participate in local volunteer activities • Conduct environmental awareness education activities with local communities through the introduction of environmental activities, and by opening Hitachi facilities to the public • Conducting activities in cooperation with local NGOs • Implementation of local afforestation and cleanup activities	The Hitachi Environment Foundation commenced its "Environmental NPO Assistance Project," which made contributions totaling 4.5 million yen Conducted the "Hitachi Volunteer Seminar "for company employees Presented the Green Award for Social Contribution		P.33-34
Sustainable Business Models	• Strive to increase sustainable business models through the collection and recycle of used products •Maximize the use of the Hitachi Group's environmental preservation technologies, and strive to develop total solutions, including low environmental impact businesses and environmental information solutions • Actively promote R&D that contributes to environmental preservation activities ☆Design a system for inspecting sustainable business models, and deliberately promote its introduction and use ☆Plan and implement environmental restoration activities (restoration of ecosystems, independent power generation, investment in recyclable energies, support, etc.)	Commenced collecting and recycling PCs no longer needed for business operations based on designated approval over a wide area (November 2002) Conducted lectures (October 2002) Hosted the "A Perspective on Environmental Management and Sustainable Business Models" lecture (October 2002)		P.36-38

GREEN 21 Version 2 Evaluation Standards

With the establishment of our new Environmental Vision (Sustainability Compass), GREEN 21 Version 2 (Sustainability Progress Indicator (SPI)) has replaced GREEN 21, which was implemented from fiscal 1999 to fiscal 2001 in order to measure our continual improvements and activity progress levels based on specific environmental activity evaluation standards.

The distinguishing features of GREEN 21 Version 2 are its indicators based on our Sustainability Compass: Eco-mind & Management, Nature-friendly Products & Eco-factories, Worldwide Stakeholder Collaboration, and Sustainable Business Models. These indicators were designed to realize the implementation of our EcoValue Plan 2010 and Environmental Action Plan for fiscal 2005, and the activity period specified for GREEN 21 Version 2 is fiscal 2002 to 2005. We have replaced the conventional evaluation method that used progress rate indicators to one that uses absolute points so that all of the operation sites within the Hitachi Group can achieve our targets by fiscal 2005. In addition, we have standardized the items for evaluation and activity period for both our domestic and overseas companies so they are in accordance with the newly revised evaluation standards.

The evaluation standards for GREEN 21 Version 2 are divided into 53 performance indicators spread over 8 different categories, with each performance indicator graded on a scale from 0 to 5 (minus evaluations are also possible). Level 2 is awarded for achieving the current activities level, Level 4 for achieving the targets set out in our Environmental Action Plan (FY2005), and Level 5 for implementing activities that exceed these targets. Finally, a coefficient is applied to the evaluation level awarded for each indicator. The full points for each category is 100 GPs (hereafter,“ GPs ”), with a possible total score of 800 GPs. In addition, we have devised a correction method to be applied in cases where certain performance indicators are inapplicable due to operation conditions.

The result for the initial year evaluated using this system (FY2002) was 377 GPs. Compared with GREEN 21 Version 1, we have established stricter evaluation standards for GREEN 21 Version 2, and also added several new indicators. Based on our new system, our activities level for fiscal 2002 has been raised as compared to fiscal 2001.

With regards to eco-products and sustainable business models, while further improving our present activities base, in the future we will promote a variety of activities, such as improving product transportation efficiency based on newly-established targets and the development of business models that contribute to the creation of a recycle-oriented society.

■Developing GREEN 21 Version 2 based on Hitachi's Environmental Vision

GREEN 21 Version 1

●Activity period: FY1998 to FY2001

●Evaluation method: rate of improvement

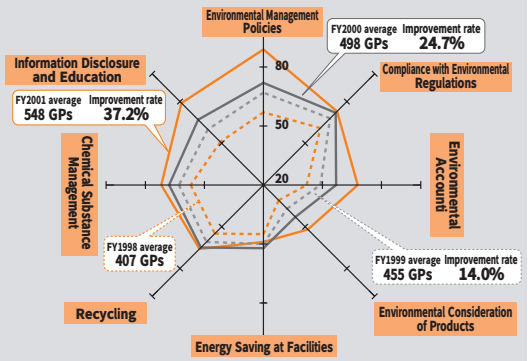
●Target:

To improve our green point (GP) rating 21% by FY2001 (based on FY1998 levels)

●Evaluation Criteria
(8 categories/
43 performance indicators)

No	Category
1	Environmental Management Policies
2	Compliance with Environmental Regulations
3	Environmental Accounting
4	Environmental Consideration of Products
5	Energy Saving at Facilities
6	Recycling
7	Chemical Substance Management
8	Information Disclosure and Education

●Trend in Green Point Average and Improvement Rates



GREEN 21 Version 2

●Activity period: FY2002 to FY2005

●Evaluation method: absolute points

●Target:

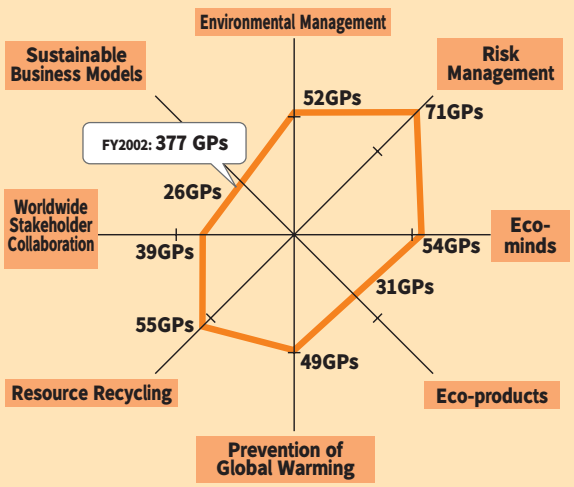
Year	FY2002	FY2003	FY2004	FY2005
GPs (Green Points)	377*1	426	533	640

*1 Performance results for FY2002.

●Evaluation Criteria (8 categories/53 performance indicators)

No	Category	Principal performance indicators
1	Eco-management	Environmental management, action plan, environmental accounting
2	Eco-management—Risk Management	Compliance with laws and regulations, setting of independent standards
3	Eco-minds	Employee training and education
4	Eco-products	Implementation of product and service assessment, green procurement, distribution
5	Eco-factories—Prevention of Global Warming	Energy saving at operation sites
6	Eco-factories—Resource Recycling	Waste reduction, chemical substance management
7	Worldwide Stakeholder Collaboration	Information disclosure, communication and community activities
8	Sustainable Business Models	Management systems, planning, product recycling, environmental restoration activities

●Trend in Green Point Average (domestic and overseas)



Adding GREEN 21 Version 2 Indicators to Performance Evaluation Standards

In October 2002, we added environmental activity indicators to our performance evaluation standards, enabling GREEN 21 Version 2 to be used in performance evaluations.
Hitachi's performance evaluation standards provide an impartial evaluation of management results, and were established to measure the improvement of managerial rules and regulations and the degree to which organizational revitalization has been achieved. Performance evaluation indicators are a combination of both countable and non-countable items, including profitability, growth, and capital. We added " environmental activities " to the non-countable indicators to better assess social value. Based on this system, we conduct fair performance evaluations for each of our business groups, and use the results as an incentive to improve profitability and social value.

About Category Indicators

This section introduces evaluation standard examples for our two principal categories. Category 4—Eco-products (Manufactured)— evaluates the following: implementation ratio of product assessment, achievement rate of eco-products, achievement rate for the non-lead solder implementation plan, achievement status for the RoHS proposal (see P.7), planning and achievement status for green procurement and purchasing, green supplier rate, and the reduction of environmental impact during transportation. Meanwhile, Category 6" Eco-factories (Resource Recycling) " evaluates waste disposal and chemical substance management at operation sites. The indicator" waste disposal " includes: the volume of waste generated, plan for reduction and implementation status for the volume of waste for final disposal, promotion of zero emissions, recycling status for waste discharged from independent sites, and extensive implementation of correct disposal methods. The indicator" chemical substance management "includes: a structure for investigating new chemical substances before they are used, an achievement rate for target values related to the reduction of substances, and a structure for managing stock and its application.

■Example of GREEN 21 Version 2 Evaluation Standards

The following are Categories 4 and 6 out of the total 8 categories.

Category ①: Eco-management

Category ②: Eco-management (Risk Management)

Category ③: Eco-mind

Category ④: Eco-products (Manufactured)

Area	No.	Indicator / Activity	Level of	0	1	2	3	4	5	Weight factor	Level	GPs
Product assessment	1	Implementation status	Implementation ratio in relation to business volume(*1)	Not implemented	Less than 50%	50% or more	70% or more	80% or more	90% or more	4	0	0
Environmental Action Plan achievement status	2	Eco-products achievement status	Achievement rate	Exponentional value when the Hitachi Group's standard target of 60% for business dealings equals 100						4	0	0
				Less than 25%	25% or more	50% or more	75% or more	100% or more	125% or more			
	3	Lead-free solder application plan and achievement status(*2)	Achievement rate	Total abolition from internal processes					Internal processes + part or total abolition from purchased	2	0	0
				Less than 20%	Less than 50%	50% or more	80% or more	100%	Exceeds 100%			
	4	Total abolition of six chemical substances (hexavalent chromium, cadmium, lead, mercury, PBB(*3), and PBDE(*4))	Achievement status	Products classified under RoHS(*5)					Products classified under RoHS + some or all products not classified under RoHS	2	0	0
Green procurement and achievement	5											

Category ⑤: Eco-factories (Prevention of Global Warming)

Category ⑦: Co-creation with Stakeholders

Category ⑧: Sustainable Business Models

Category ⑥: Eco-factories (Resource Recycling)

Area	No.	Indicator / Activity	Level of		0	1	2	3	4	5	Weight factor	Level	GPs
Management of industrial waste from business and production facilities	1	Emissions volume(*1) control	Control planning and implementation status	Planning	None	Yes					2	0	0
				Achievement rate	–	Less than 50%	50% or more	75% or more	100% or more	125% or more			
	2	Reduction of final disposal volume	Environmental Action Plan implementation status	Achievement rate	Less than 25%	25% or more	50% or more	75% or more	100% or more	125% or more	2	0	0
	3	Promotion of zero emissions	Final disposal rate(*4)		5%<X	2%<X≦5%	1%<X≦2%	0.5%<X≦1%	X≦0.5%	X≦0.1%, or final disposal volume of less than 5t	2	0	0
	4	Utilization status for materials, components, and products created using recycled industrial waste generated at Hitachi Group companies and sites	Planning		None	Investigation in progress	Yes	–	Yes		1	0	0
			Implementation status		–	–	Implementation for a single type of industrial waste	–	Implementation for 2 types of industrial waste	Implementation for 3 or more types of industrial waste			
	5	Promotion of appropriate management methods	Inspection of contracted distributors, intermediate waste processors, and final disposal companies	Site confirmation	Site confirmation not implemented	Implementation of site confirmation					3	0	0
				Contract check	No	Yes							
				Check sheet	–	–	No	Yes					
				Communication	–	–	–	Check only	Implementation of reciprocal communication	Disclosure of check results to relevant party			
Preliminary investigation of newly-introduced chemical substances	6	Preliminary investigation system			No system in place	System in place					2	0	0
		Scope of target area				Regularly used products			Test purchases and samples				
		Checking method				Checking method not stipulated	Special check(*6) unsatisfactory	Implementation of special checks	Special check unsatisfactory	Implementation of special checks			
Reduction and control of substances	7	Total abolition of prohibited substance emissions(*7) (FY2005) (based on FY2000 levels)			Reduction volume of less than 25%	Reduction volume of 25% or more, but less than 50%	Reduction volume of 50% or more, but less than 75%	Reduction volume of 75% or more, but less than 100%	Total abolition (FY2005)	Achievement of total abolition ahead of schedule	2	0	0
	8	Reduction of reduceable substance(*8) emissions(*7) (based on FY2000 levels)			Increase on base year levels	Reduction volume of 0% or more, but less than 10%	Reduction volume of 10% or more, but less than 20%	Reduction volume of 20% or more, but less than 30%	Reduction volume of 30% or more, but less than 40%	Reduction volume of 40% or more	2	0	0
	9	Reduction of voluntarily controlled substance(*9) emissions(*7) (based on FY2000 levels)			Failure to implement PRTR within the scope of laws and regulations(*10)	Failure to implement PRTR within the scope of Company standards(*11) (implemented within the scope of laws and regulations)	Implementation of PRTR				2	0	0
							No voluntary reduction plan		Voluntary reduction plan				
							Increase compared with levels for previous year	Decrease compared with levels for previous year level	Target not achieved	Target achieved			
	10	Status of inventory control (PRTR managed substances)	Inventory control register		No inventory control register	Inventory control register					2	0	0
			Management of daily inventory flow			Unsatisfactory management of daily inventory flow	Management of daily inventory flow						
			Implementation of regular stocktaking			Regular stocktaking not implemented	Implementation of regular stocktaking						
			Implementation of appropriate inventory control(*12)			Appropriate inventory control not implemented		–		Implementation of appropriate inventory control			

Eco-mind & Management

Bountiful crops are the result of good quality soil. For instance, if we were to compare our environmental activities to a small bud, the soil which nurtures that bud is eco-management, and it is the awareness, the“ eco-mind ”, of our employees which helps this bud grow strong. This small bud is growing rapidly, and until it finally bears fruit as a sustainable recycle-oriented society, we will perform each of our environmental activities to the best of our ability.

Eco-mind & Management

In order to realize eco-management, Hitachi promotes organizational and educational structures as well as management systems that support the awareness and actions of each company employee.

Eco-management Structure

We are developing an eco-management structure on a consolidated corporate base from which to promote activities related to environmental issues. We established the Senior Executive Committee for Environmental Policy, an executive management level body led by Hitachi's president, which assesses and sets the direction for our environmental policies and activities. Information regarding policies and activities set by the Committee is released by the Environmental Management Operational Committee. Further, the Environmental Committee and its various sub-committees develop surveys, shared technologies, and evaluation methods designed to resolve the topics and issues that are central to drawing up policies and achieving targets.

As a body specifically designed to promote fundamental environmental activities in accordance with business operations, the Committee has appointed environmental promotion officers to manage the environmental departments for each of our business groups and affiliated companies. In fiscal 2001, we initiated environmental conferences in the three major regions of Europe, Asia, and America. At these conferences, in addition to making our environmental policies more comprehensive and sharing information about the laws and regulations of various countries and their market trends, participants are asked to think of new ways in which we can strengthen environmental activities in various countries.

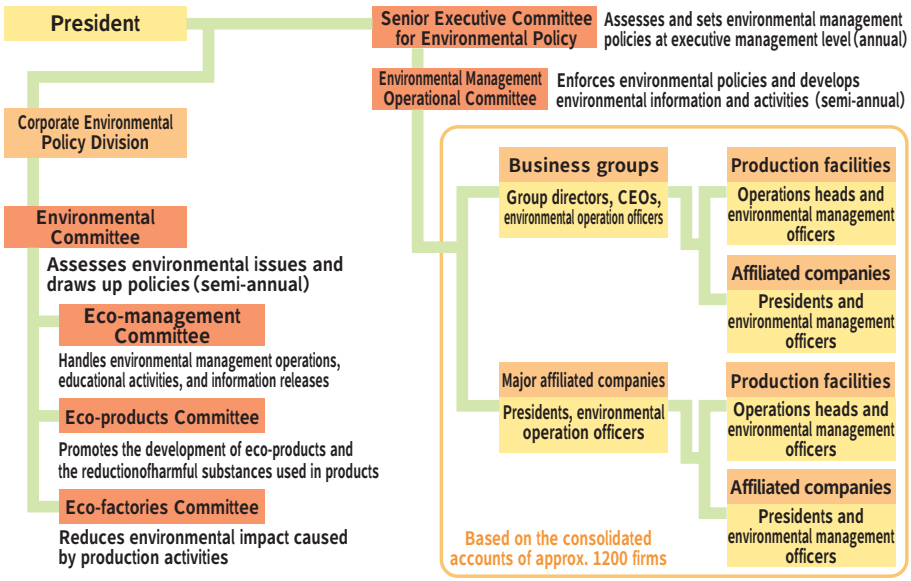
Environmental Education - Nurturing Eco-minds

The Hitachi Group has an environmental education system aiming to nurture eco-minds, in other words, making employees think more about environmental issues, and encouraging specialists to study and implement new environmental technologies. This education system can be divided into two basic categories: group training and onsite training.

As part of our special employee education system, group training focuses on educating internal auditors for environmental management systems, as well as educating planners and manufacturing departments about eco-product development. In terms of general education, in fiscal 2002 we improved environmental awareness amongst executive-level management staff. Further, as of March 2003, approximately 5,000 employees have participated in environmental education activities via the Internet, with the aim of nurturing eco-minds amongst our general employees.

Onsite education activities also target eco-mind creation by strictly enforcing environmental activities as well as resource and energy conservation activities based on ISO14001 standards at each site. In addition, we teach employees with certain job classifications the correct operation procedures and emergency drills with regard to operations that have a notable impact on the environment.

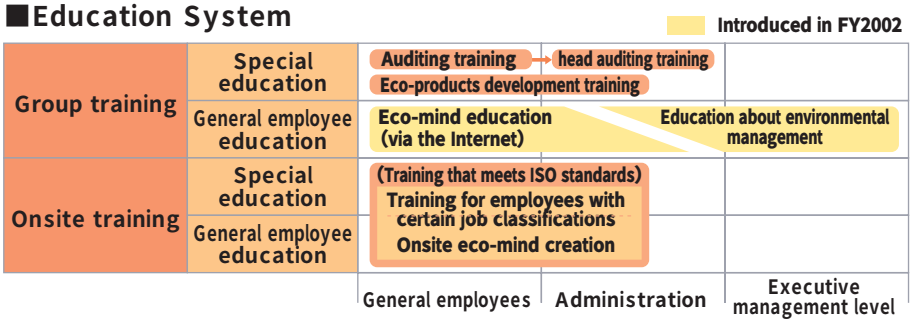
■Eco-management Structure




Environmental Management Operational Committee meeting


Environmental Conference (China: Shanghai)

■Education System



Homepage for nurturing eco-minds
(the section's top page and contents screens)

Environmental Management System

Seeking continued improvements in environmental management and the reduction of environmental risk, we have established an environmental management system based on the international standard ISO14001. In accordance with this, we promote continued participation in all of our environmental activities. In fiscal 1999, our entire manufacturing base had received ISO14001 accreditation, and we acquired accreditation at the operation bases of all our non-manufacturing sites, such as software and services companies, during fiscal 2002.

Until now, the 6 research facilities affiliated with Hitachi's Research & Development Headquarters have been acquiring ISO14001 accreditation on an individual basis, but in April 2003, all 6 sites had achieved accreditation. By selecting 23 different overriding environmental research topics, and evaluating multilateral environmental impact from the initial stages of the research and development process, we are promoting research and development conducted with consideration for the environment.

Our business sites seek to make continual improvements not just based on the results of their own internal audits, carried out to assess the effectiveness of environmental activities, but also based on the periodic audit results of accredited auditors outside the Company. We host seminars for environmental auditors to improve the quality of internal audits, and approximately 2,200 members of our staff have been registered as auditors at these seminars.

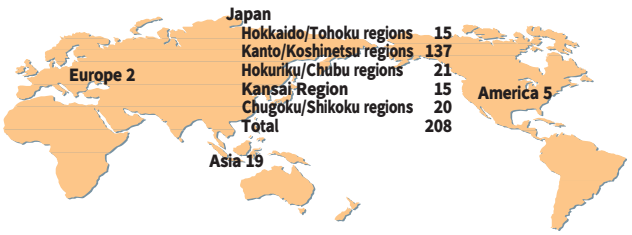
Furthermore, we have been carrying out environmental and performance audits from a managerial standpoint as part of our internal audit system since 1973.

Integrated System for Environmental Management

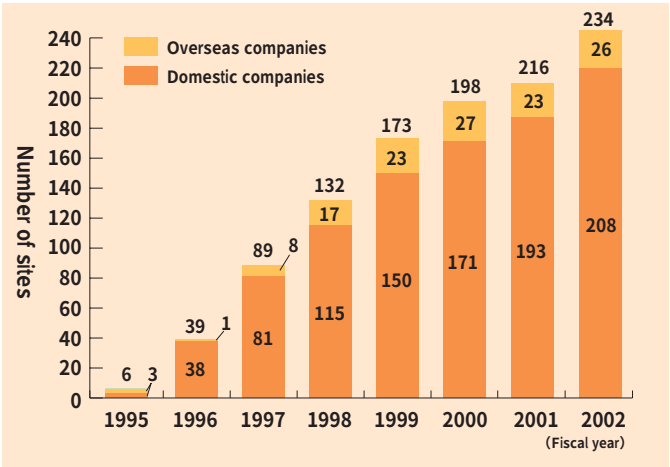
In 1999, we introduced our integrated system for environmental management, which utilizes Hitachi IT to expand the scope of our environmental management (consolidated system) and increase the range and quality of our environmental activities. This system allows us to not only conduct highly up-to-date, efficient and reliable environmental management and share information with other Hitachi Group companies, but to also disseminate accurate information about our environmental activities. Further, our integrated environmental management system is highly praised in industrial circles, and we now sell it to other companies, giving it value as a leading product in the environmental solution business.

■ISO14001 Certification Status

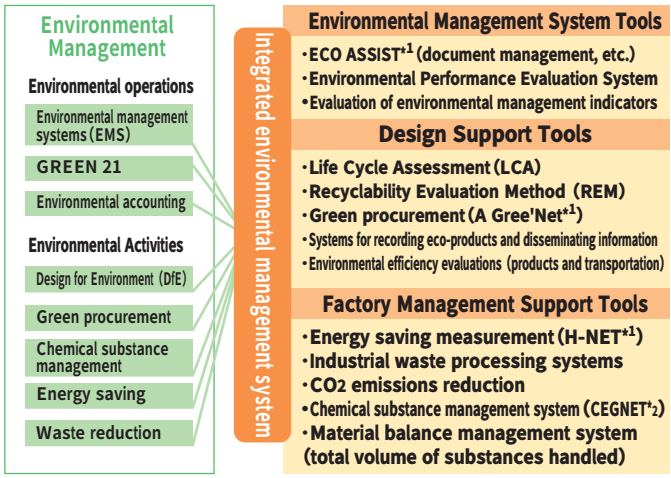
	Domestic Companies		Overseas Companies	Total
	Production Sites	Non-production Sites	Production Sites	
No. of Certified Sites	168	40	26	234



■Trends in Acquiring ISO14001 Certification



■Integrated System for Environmental Management



■Environmental Audit System

Types of Environmental Audit		Frequency	Auditors	Content
Environmental Policy Office audits (performance audits)		Once every 3 years	Auditors from Corporate Environmental Policy Division	Prevention of environmental problems
				Environmental management from a managerial standpoint
ISO14001 environmental audits	Internal environmental audits	At least once a year	Auditors from the facility to be audited	Efficacy of environmental management systems at the departmental level
				Compliance with laws and regulations
				Establishment of independent environmental objectives and targets
	Audits that meet ISO14001 standards	Once a year	Auditors from an accredited facility other than the one to be audited	Suitability as well as appropriate implementation and maintenance of environmental management systems

*1 ECO ASSIST, A Gree'Net and H-NET (Hitachi's power utility monitoring system) are trademarks of Hitachi, Ltd.
*2 For information on CEGNET, see P.23.

Environmental Accounting

Hitachi is striving to help the public better understand the Company's stance on environmental activities through information releases on the distribution of managed resources, as well as releases concerning environmental technology and eco-products. In fiscal 1999, we introduced our first environmental accounting system in order to promote efficiency and continual improvements in the areas of environmental investment and environmental activities.

In addition to environmental activity-related plant and equipment investment figures, which we have been announcing since fiscal 1997, costs include ordinary expenditure items, such as R&D costs and the cost of operating and managing environmental conservation facilities. The effectiveness of environmental activities is assessed both in terms of economic results (monetary values) and quantitative results (based on the degree of environmental impact reduction). Economic results are calculated on the results obtained from available valid data. Quantitative results are based on our fundamental principal of contribution to society through the development of superior technology and products, meaning that these results are calculated according to the degree of environmental impact reduction achieved not only during product manufacturing, but also during product usage. Furthermore, environmental impact reduction efficiency is assessed according to the amount of cost reduction achieved for each environmental impact item.

In fiscal 2002, our figures for both cost and economic effectiveness showed a slight decrease. Breaking this down, we can see that our R&D costs increased 11% compared with the previous year, and as a result, the environmental impact item" reduction in energy consumption during product usage, "a quantitative results indicator, improved by 34%. In the future, we will continue to promote social contribution activities not just by reducing the direct environmental impact from our operation sites, but also through improved products.

Cost (domestic and overseas)

(Unit: billion yen)

	Item	Costs			Overview
		FY2000	FY2001	FY2002	
Expenses	1.Business area costs	35.96	38.21	35.00	Maintenance of equipment with low environmental impact, depreciation, etc.
	2.Upstream/downstream costs	3.58	3.27	2.400	Green procurement expenses, recovery and recycling of products and packaging, recycling expenses
	3.Management activity costs	8.35	11.09	10.41	Labor costs of environmental management, implementation and maintenance of an environmental managementsystem
	4.Research & development costs	30.03	34.36	38.21	R&D for the reduction of environmental loads caused by products and production processes, product design expenses
	5.Social activity costs	3.23	0.53	0.52	Environmental improvements such as afforestation and beautification, PR and publicity expenses
	6.Environmental damage costs	0.93	0.82	0.86	Environment-related measures, contributions and levies
	Total expenditure	82.08	88.28	87.40	
Total investment		21.25	18.01	14.97	Investment in energy-saving equipment and equipment that directly reduces environmental loads

Effect (domestic and overseas)

(Unit: billion yen)

	Item	Expenses			Overview
		FY2000	FY2001	FY2002	
Economic Effect	Net income effect	5.58	5.09	6.08	Profit on sales of recycled waste
	Reduced expenses effect	12.03	13.56	12.11	Reduction in material costs due to resource saving, reduction in waste treatment costs due to reduced waste, reduction in power expenses due to energy savings
	Total	17.61	18.65	18.19	

	Item	Expenses			Overview
		FY2000	FY2001	FY2002	
Physical Effect	1. Reduction in the amount of energy used during production	169 million kWh 49,000 households	331 million kWh 95,000 households	189 million kWh 55,000 households	Decrease in amount of energy used due to installation of energy-saving equipment
	2. Reduction in the final amount of waste disposal	6,051 t 20,000 households	7,369 t 25,000 households	5,210 t 18,000 households	Decrease in final waste output volumes due to separation and recycling activities
	3. Reduction in the amount of energy consumed during product usage	844 million kWh 243,000 households	552 million kWh 159,000 households	742 million kWh 214,000 households	Decrease in energy requirements of Hitachi products

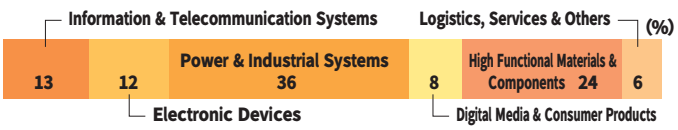
Efficiency of Environmental Impact Reduction (domestic and overseas)

	FY2000	FY2001	FY2002
Reduction in energy used during production	41 million kWh/billions of yen	66 million kWh/billions of yen	53 million kWh/billions of yen
Reduction in amount of waste for final disposal	1170 t/billions of yen	1750 t/billions of yen	1200 t/billions of yen

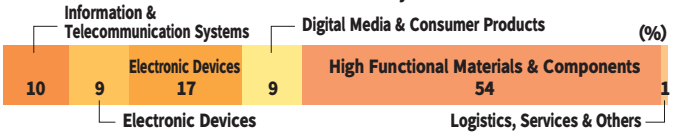
Note1: Depreciation on capital investment and the resulting effect are calculated using a five-year flat rate formula.
Note2: Regarding the classification of items and economic effect
- Net income effect: Effects for which there is real income, including the sale of valuables and environmental technology patent income.
- Expense reduction effect: Reduction in electricity fees and waste treatment expenses related to environmental impact reduction activities.

Note3: Efficiency of environmental load reduction is the amount of reduction in expenses per environmental load item.

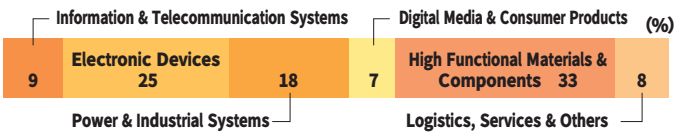
Cost Breakdown Ratio by Sector (domestic and overseas)



Economic Effect Breakdown Ratio by Sector (domestic and overseas)



Investment Breakdown Ratio by Sector (domestic and overseas)



Investment Breakdown Ratio by Countermeasure (domestic and overseas)

Nature-Friendly Products & Eco-factories

Objects created by Nature are returned to the ecosystem once they have served their purpose. In contrast, the majority of conventional man-made objects place a large burden on the environment. Therefore, in the future, we intend to follow Nature's example and develop products that tread lightly on the ecosystem not only during the manufacturing process, but also during usage. We have established strict independent standards, and our eco-factories are manufacturing eco-products while controlling environmental impact.

Nature-friendly Products

During product design, it is essential to assess the potential environmental impact of a product. Hitachi is endeavoring to develop environmentally friendly products through the implementation of a product assessment system, green procurement, and similar activities.

Design for Environment Assessment and Eco-products

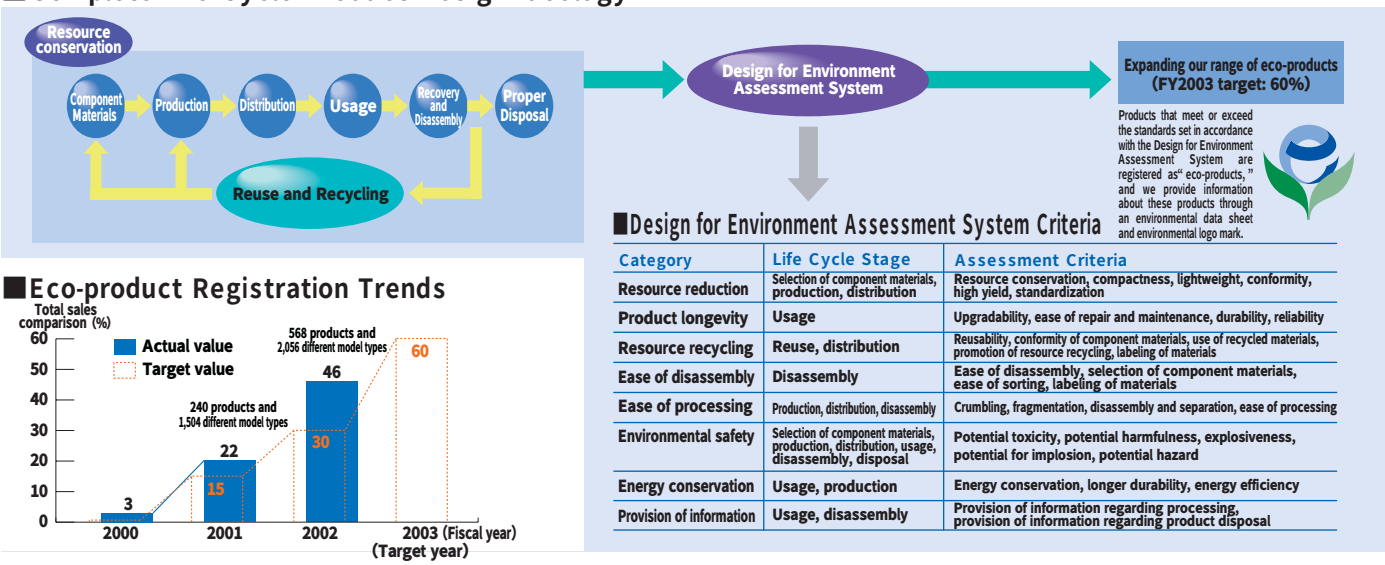
Design for Environment (DfE) is an ideology based on the principle of minimizing the environmental impact of a product over the course of its life cycle, from the selection of a product's component materials, to its manufacture, distribution, use, recovery and disassembly, and proper disposal. With this in mind, we have introduced the Design for Environment Assessment System, an assessment method applied to each product during the development stage. Before a product can be labeled as an " eco-product, " a product with a superior environmental rating, it must receive a minimum rating of 2 points (out of a total 5 points) for each assessment item, or a total average of 3 points or more. A rating of 2 points indicates that the product has an environmental rating equal with conventional products, while a rating of 3 points or more indicates that the product features an improved environmental rating. Based on this points system, we rate each product according to our assessment standards.

We provide environmental information about our eco-products published in catalogs and on our Web site in the form of an environmental data sheet and environmental logo mark. As of March 2003, we have developed 568 products, including a total of 2,056 different model types, classified as" eco-products. "In terms of sales, these products account for 46% of our overall sales volume, and we are making efforts to further increase this figure.

Application of the " Environmental Efficiency " and" Factors "Indicators

We introduced the" Environmental Efficiency "and " Factors " indicators to increase the efficiency of energy and resources used in the functions of our products." Environmental Efficiency "indicates the value of a product achieved through reductions in environmental impact and resource usage, and is evaluated by testing the function and life span of a product. To help in evaluating the value of our products, we have developed two efficiency indicator items: the" Prevention of Global Warming Efficiency "indicator item, which measures the volume of greenhouse gas emissions throughout the lifecycle of a product and the resulting environmental impact, and the" Resource Efficiency " indicator item, which measures the volume of resources discarded as waste as a percentage of the new resources used to manufacture a product. " Factors "measures the degree of improvement in the environmental efficiency of a product based on a set of bases established using our leading product for 1990, and provides an assessment of a product's prevention of global warming and resource factors.

■Complete Life Cycle Product Design Ideology



■Eco-product Registration Trends

■Design for Environment Assessment System Criteria

Category	Life Cycle Stage	Assessment Criteria
Resource reduction	Selection of component materials, production, distribution	Resource conservation, compactness, lightweight, conformity, high yield, standardization
Product longevity	Usage	Upgradability, ease of repair and maintenance, durability, reliability
Resource recycling	Reuse, distribution	Reusability, conformity of component materials, use of recycled materials, promotion of resource recycling, labeling of materials
Ease of disassembly	Disassembly	Ease of disassembly, selection of component materials, ease of sorting, labeling of materials
Ease of processing	Production, distribution, disassembly	Crumbling, fragmentation, disassembly and separation, ease of processing
Environmental safety	Selection of component materials, production, distribution, usage, disassembly, disposal	Potential toxicity, potential harmfulness, explosiveness, potential for implosion, potential hazard
Energy conservation	Usage, production	Energy conservation, longer durability, energy efficiency
Provision of information	Usage, disassembly	Provision of information regarding processing, provision of information regarding product disposal

■Definition of Environmental Efficiency

$$\text{Prevention of global warming efficiency} = \frac{\text{Product life span*1 x Product function}}{\text{Volume of greenhouse gas emissions throughout the lifecycle of a product}}$$

$$\text{Resource efficiency} = \frac{\text{Product life span x Product function}}{\Sigma \text{ Each resource value coefficient x (Volume of new resources used in a product's lifecycle*2 + Volume of resources discarded as waste*3)}}$$

■Definition of Factors

$$\text{Prevention of global warming factor} = \frac{\text{Prevention of global warming efficiency for the product being evaluated}}{\text{Prevention of global warming efficiency for reference product}}$$

$$\text{Resource factor} = \frac{\text{Resource efficiency of the product being evaluated}}{\text{Resource efficiency of reference product}}$$

*1 Product life span: The specified usage period for a product.
*2 Volume of new resources used in a product's lifecycle: The volume of resources used to manufacture a product − the volume of resources reused or recycled.
*3 Volume of resources discarded as waste: The volume of resources used to manufacture a product − the volume of resources with the potential for reuse or recycling.

■Calculation Examples for" Environmental Efficiency "and" Factors "Indicators

●Washing machine

Factor / Product	Calculation Figure (based on the standard year)	
	Prevention of Global Warming	Resources
Washing machine	5.0	2.3

Washing machine (1990)
Model number: KW-B483

Washing machine with built-in drier (2002)
Model number: NW-8BX

Item/Product		Base	Evaluation
Year of manufacture		1990	2002
Model number		KW-B483	NW-8BX
Product life span (specified usage period (years))		6	6
Product function	Washing capacity (kg)	4.5	8.0
	Washing power	0.83	0.90
Volume of greenhouse effect gases discharged (kg/unit)		246	169
Prevention of Global Warming Efficiency		0.41	2.05
Resource value coefficient		1	1
Volume of new resources used (kg)		102.7	152.3
Volume of resources discarded as waste (kg)		88.6	128.0
Resource Efficiency		0.53	1.23

Examples of Eco-products

Information & Telecommunication Systems

Large Disk Array Sub System
Model number: SANRISE9900V

- 54% reduction in the amount of electricity consumed by memory capacity (0.88 W/GB →0.39 W/GB)
- Adoption of a steel plate that does not use hexavalent chromium.
- Adoption of an electrodeposition coating that does not use lead.

Platform software for electronic applications and inquiries
Product name: Appliporter

- Resource savings results (paper reduction): 800 kg/year (200,000 sheets of A4 paper/year) (Tree conversion results: Equivalent to approx. 17 trees/year)
- Energy savings results: 507 t/year (CO_2 conversion)
- Transfer volume reduction for service beneficiary: 2 million people km/year

Note: Calculations are based on the assumption that Appliporter is introduced as an electronic application system including main functions at an independent organization with a workforce of 400,000 employees.

Plasma television
Model number: W37-PDH3000

- Uses a non-halogen compound resin in the casing.
- Adoption of lead-free solder in print circuit board (in part of the AVC station and monitor).
- 17% reduction in electricity consumption (based on conventional Hitachi models)
- Long life panel achieved through use of the ALIS method, which places less impact on fluorescent substances than ordinary panels.

Electronic Devices

Scanning electron microscope
Model number: S-4800

- 32% reduction in power consumption achieved by comprising of a turbo-molecular pump instead of an oil diffusion pump and by removing one rotary pump.
- 23% reduction in space achieved by small footprint design.

TFT Module for a 21.3 inch monitor
Model number: TX54D1*VC Series

- 20% reduction in power consumption achieved by adopting AS-IPS technology and optimizing the unit's drive capability
- Non-lead solder used in print circuit board construction.

High Functional Materials & Components

Eco-green electrical cables
Model number: EM, NH Series

- Totally abolished the use of chemical substances such as halogen and lead (RoHS-compliant specifications).
- Improved recyclability due to the standardization of polyethylene materials.

Power & Industrial Systems

Energy back system
Integrated generator and hydraulic turbine

- Achieves electricity generation by utilizing the unused hydraulic energy*1 of office buildings, factories, etc.
- Realizes efficiency of 60% or more for the generation of electricity across wide operating areas through an optimal operating system that adapts to variable discharge and variable head.

Shop and office use air-conditioning unit
Model name: Hitachi package air-conditioner (HI Inverter IVX)

- 55% reduction in power consumption (compared with other fixed speed current units)
- 32% reduction in product weight
- Non-lead solder used in print circuit board construction.

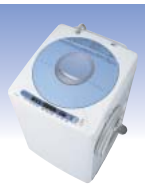
Eco-rectifier for electric railroad substation
Model name: ECH Series

- No use of global warming substances (coolant changed from PFCs to pure water).
- 30% decrease in electrical energy loss, and 50% reduction in the installation area required
- Not use a heater (may be used in cold climates).

Digital Media & Consumer Products

Refrigerator
Model number: R-KF40RPAM

- Natural fluid (HC) refrigerator. (Adopts R600a refrigerant and cyclopentane as the insulation foaming agent.)
- An achievement rate of 160% for the 2004 energy-saving standard through utilization of the PAM*2 system.
- Lead-free solders adopted for both print circuit boards and the brazing joints on refrigerant pipes.
- Recycled plastic used for drain pan, print circuit board case, etc.



PAM washing machine with built-in drier
Model number: NW-D8BX

- Steel plating used in construction of body cabinet includes no chromium compounds.
- Lead-free solder used in print circuit board.
- Recycled plastic used for base frame and external tub.
- Non-PVC materials used for bath water supply hose.

(Received JSME (the Japan Society of Mechanical Engineers) Medal for New Technology in 2002.)

Instantaneous hot water heat pump system
Model number: RHK-23RBAV

- Adopts the PAM system.
  Coefficient of performance (COP) during rating: 4.6
- Annual power consumption reduced to 1,302 kWh (annual CO_2 emissions conversion value: 450 kg).
- Lead-free solder used in print circuit board construction.
- Adopts the new HFC (R410A) refrigerant that does not have any harmful effects on the ozone layer.

*1 Unused hydraulic energy: Energy from hot and cold water used in office building air-conditioning equipment and from cooling water used in factory equipment.
*2 Pulse Amplitude Modulation (PAM): A high-powered, energy-saving system that alters motor revolution by controlling the voltage, making it more efficient than conventional inverter systems.

For more information about eco-products, visit the following Web site: http://greenweb.hitachi.co.jp/data/ecoproducts.html (only in Japanese)

Green Procurement

To create products that have a low environmental impact it is essential to be able to procure materials and components with reduced environmental impact. Hitachi distributes copies of its Green Procurement Guidelines to suppliers, and requests that they provide the Company with certain information about themselves and their products via the Internet using Hitachi's green procurement system "A Gree'Net." This includes information regarding the environmental preservation activities of the supplier, environmental impact reduction details for the products being procured (such as resource and energy conservation, as well as recycling details), together with information on chemical substances used in products that are subject to our independent management standards.

We share the information collected, and are developing eco-products by effectively utilizing this information in our design support and materials procurement systems. By March 2003, we had collected information regarding the environmental preservation activities of our suppliers for approximately 3,800 sites, and information regarding chemical substances used in products for approximately 14,000 cases.

During the past fiscal year, we hosted the GreenProcurement Components Exhibition in the Kansai, Ibaraki, Yokohama, and Tokyo areas. Through the cooperation of our suppliers, the exhibition displayed components that reduce environmental impact, as well as providing visitors with information about trends in environment-related technologies. In addition, we are proactive in the development of products that comply with the procurement items specified in the Green Procurement Law, and as of March 2003, we have registered the items procured for 561 products throughout 11 different product areas.

Chemical Substances Used in Products

During product manufacturing, we aim to use only those chemical substances that are non-harmful to the environment. Therefore, we promote the abolishment of lead solders used in the printed circuit board connections of conventional electrical and electronic devices. With the goal of abolishing lead solders in fiscal 2003, we are using our accumulated know-how to develop and increase solder technology. With regards to the heat-resistance and connection reliability of components, we promote optimization of solder compositions (selection of the compounds Sn-Ag-Cu*1 or Sn-Cu*2), as well as providing the most suitable specifications and operating conditions for equipment that has been soldered, and developing inspection standards for external appearance.

With regards to products that use HCFCs (hydrochlorofluorocarbons), we completed the switchover for products such as water coolers and ice machines before 1998, abolishing the use of HCFCs in these products ahead of schedule. By the end of 2003, we plan to abolish the use of HCFCs in all domestically manufactured products.

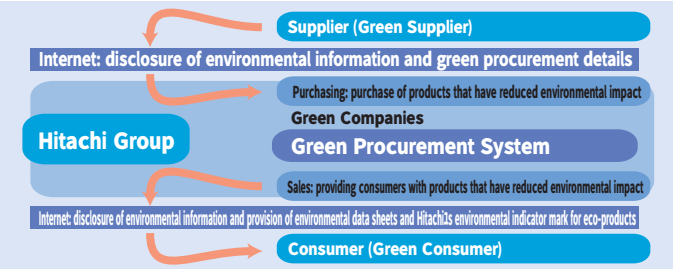
Green Purchasing

To promote green purchasing, we have developed Hitachi's Office Goods Catalog to promote the purchase of stationary and office supplies with reduced environmental loads, and an electronic ordering system that reflects the contents of our catalog. Our catalog and electronic ordering system clearly display product information, such as Hitachi's environmental indicator mark for eco-products or Green Purchasing Law compliance status.

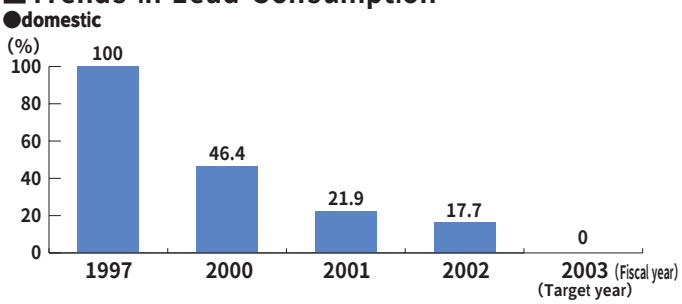
Further, we practice closed-loop green purchasing by purchasing recycled paper made from confidential documents collected from offices throughout the Hitachi Group. The paper is made using a high security closed-loop system (developed by Hitachi Information Systems, Ltd.), in which confidential documents are turned into pulp. Once the original form of the paper is no longer recognizable, the pulp is sent to an external processor where it is reused in its entirety. Presently, we have introduced this system at 11 Hitachi Group sites, and every month we reuse a variety of information sheets and printouts to produce 100 tons (approximately 25 million sheets of A4 copy paper) of Hitachi recycled paper. This report is one way in which we utilize Hitachi recycled paper.

In support of closed-loop green purchasing, Hitachi recycled paper has been added to our net-based purchasing system as a common material and also as an indirect material that can be purchased by other participating companies.

■Green Procurement Activities



■Trends in Lead Consumption



■Green Procurement System Homepage

■Office Goods Catalog and Electronic Ordering System for Green Purchasing

*1 Sn-Ag-Cu compound: Alloy compound made from tin, silver, and copper. *2 Sn-Cu compound: Alloy compound made from tin and copper.

For further information about products that must be registered under the Green Procurement Law, visit the following Web site: http://greenweb.hitachi.co.jp/khoukoku/green.htm (only in Japanese)
For further information about the Green Procurement Guidelines, visit the following Web site: http://greenweb.hitachi.co.jp/en/pdf/pdf.html

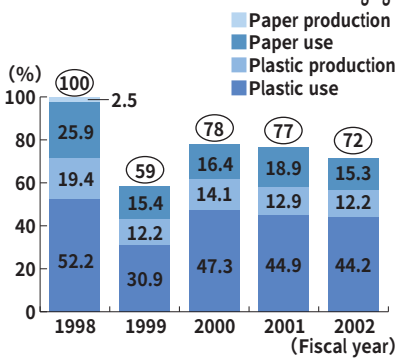
Effective Utilization of Resources - Environmental Consideration Through Recycling -

Recycling Rechargeable Batteries:
Small-sized rechargeable batteries, commonly used in a variety of Hitachi Group products, are made from scarce resources such as nickel and cadmium, cobalt, and lead. Hitachi is a member of the JBRC (Japan rechargeable Battery Recycling Center) established by the Battery Association of Japan, and through its registered recovery sites (50 sites), is taking positive steps in the recovery and re-use of rechargeable batteries.
Recycling Packaging:
As part of our packaging recycling activities, we promote the use of packaging that can be repeatedly reused, as well as the reduction of packaging waste and re-use in new products through a system of rationalization, including the regulation of excessive use.
In fiscal 2002, we achieved a 28% reduction in the estimated volume of packaging for consignment (based on FY1998 levels).

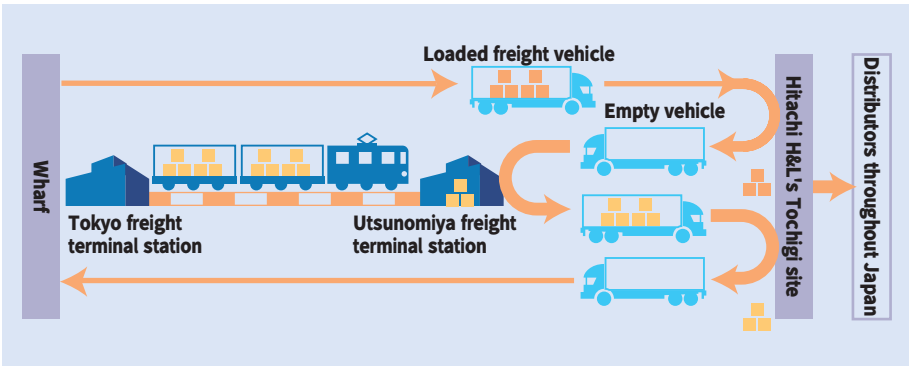
Increasing Product Transportation Efficiency

In order to regulate carbon dioxide (CO_2), nitrogen oxide (NOx), and particulate matter (PM) emissions from vehicles during product transportation, we have created an efficient distribution system. We are working to further increase efficiency through the promotion of modal shifts and collective distribution with other companies, and building a cooperative transportation system. For example, Hitachi Home & Life Solutions, Inc. (also known as Hitachi H&L) and Hitachi Transport System, Ltd. conventionally transported their products by truck between Tokyo wharf and their respective operation sites in Tochigi Prefecture. However, these two companies have joined forces to switch the mode of transport for half of these products to rail, resulting in a monthly CO_2 emissions reduction of 30 tons. Although the mode of transportation was shifted, transportation by truck is still necessary between distribution sites (Tokyo wharf and operation sites in Tochigi Prefecture) and train stations. Without dispatching special trucks, Hitachi H&L and Hitachi Transport System, Ltd. have achieved a modal shift for medium-distance transportation of around 100 km, a previously difficult uneconomical distance, by utilizing empty vehicles after delivery as a kind of shuttle service between distribution sites.
Further, we have developed the Transportation Efficiency*1 and Transportation Factors*2 indicators, and are investigating their application with regards to transportation activities.

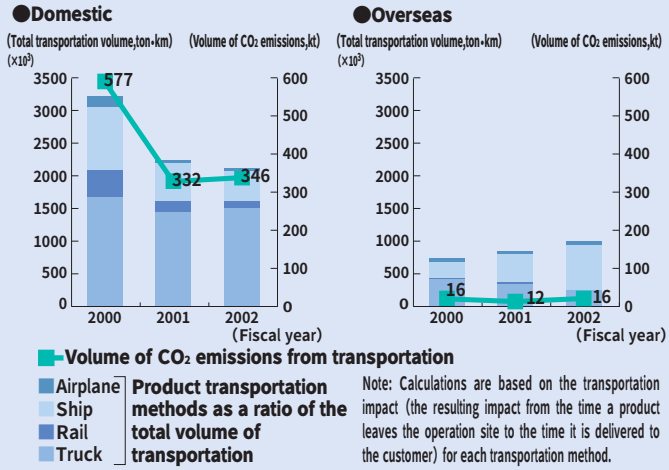
Commission Volumes for Containers and Packaging*3



Example of Transportation System Improvements (modal shift for medium-distance transportation)



Transportation Impact Status



Ratio of Low-emission Vehicles for the Total Number of Company-owned Vehicles

●Japan
Total number of vehicles: 12,299

Gasoline vehicles	Diesel vehicles	Low-emission vehicles
53%	27%	20%

●Overseas
Total number of vehicles: 614

Gasoline vehicles	Diesel vehicles	Low-emission vehicles
37%	25%	38%

Notes
- Low-emission vehicles include electric, methanol, hybrid, CNG, LPG, fuel cell, and fuel-efficient vehicles (not applicable to overseas data).
- Data is for company-owned vehicles, including forklifts used for loading goods (Japan: 4,758 vehicles, Overseas: 341 vehicles).

*1 Transportation Efficiency: Transportation Efficiency = Transportation volume÷the volume of CO_2 emissions resulting from transportation*3
*2 Transportation Factors: Transportation Factors = Transportation efficiency for the evaluation year÷Transportation efficiency for the base year
*3 Commission Volumes for Containers and Packaging: The volume commissioned by Hitachi, Ltd. based on the Containers and Packaging Recycling Law.

Eco-factories

In order to reduce the environmental impact at each of its production sites, Hitachi is creating eco-factories by working to prevent global warming through energy conservation measures, reducing waste and managing chemical substances.

Waste Reduction

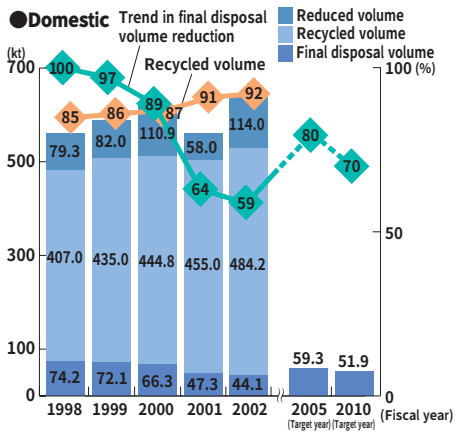
Hitachi's numerous production activities produce a variety of waste and reusable waste products. However, the operational years of final disposal sites that treat industrial waste are limited. With this in mind, and in accordance with our policy of using valuable resources in the most efficient manner possible, we have established independent targets for reducing our final disposal volumes to 80% or less by fiscal 2005 and 70% or less by fiscal 2010 (based on 1998 levels). We also promote resource-recycling activities based on these targets.

In fiscal 2002, we reduced our final disposal volumes by 59%, but this was due to the promotion of activities, such as using sludge as the base material for cement and plastic building materials, resource-recycling using intermediate processing remnants as anything from landfill to materials for building roads via a process known as vitrification, and using waste paper as the base material in insulation separation sheets that have been coated with a veneer.

We not only aim to reduce our final disposal volumes, but hope to ultimately achieve zero emissions. At Hitachi, zero emissions is defined as an emissions volume of less than 1% of the final disposal rate of the current fiscal year, or less than 5 tons/year, and we are participating in activities that will bring us closer to this target. In fiscal 2002, 17 Hitachi Group sites achieved zero emissions. Sites achieving zero emissions for the first time implemented an extensive range of activities, including the effective use of waste soil intermediate processing remnants as building material for roads, and improving their crude waste resource-recycling rate by reinforcing waste storage facility inspections and strengthening the supervision for thorough waste segregation.

We not only recycle the waste we generate during production, but are working to control the very generation of waste itself by increasing production line yields (efficiency) and reducing packaging waste.

■Trends in Final Disposal Volume Reduction



■Zero Emissions Sites

●Research Institutes
Mechanical Engineering Research Center*

●Electronic Devices
Hitachi Tohbu Semiconductor,Ltd. Tokyo Device Division
Hitachi Electronic Devices Sales Co., Ltd
Hitachi Hokkai Semiconductor, Ltd. Hakodate Works, Tsugaru Works
Hitachi Yanai Semicon Co., Ltd
Hitachi High-Technologies Corporation Kasado Administrative Division

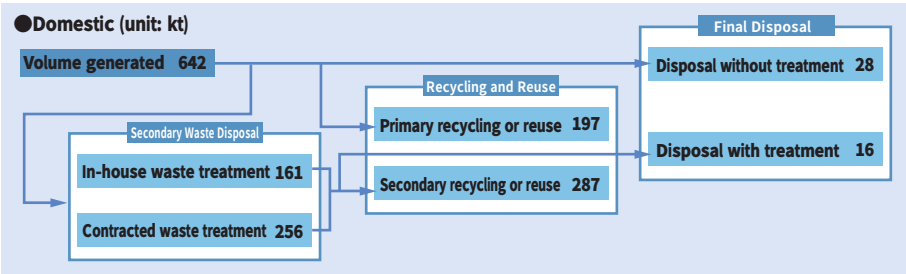
●Power & Industrial Systems
Kasado Administrative Division*
Hitachi Air Conditioning Systems Co., Ltd. Shimizu Works
Hitachi Via Mechanics, Ltd.

●Digital Media & Consumer Products
Digital Media Division/Tokai region* Mechatoronics Systems Division
Hitachi Maxell,Ltd. Kyoto Works,Osaka Works, Tsukuba Works, Ono Works

●High Functional Materials & Components
Hitachi Chemical Filtec Inc.

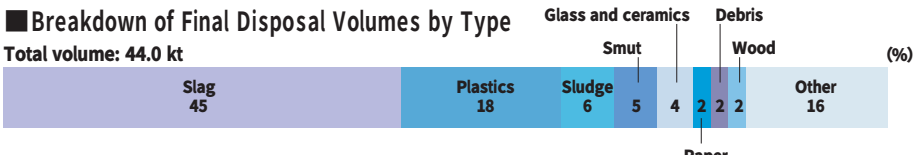
- Sites indicated with an asterisk (*) are Hitachi, Ltd. sites.
- Zero emissions is defined as an emissions volume of less than 1% of the final disposal rate of the current fiscal year, or less than 5 tons/year.

■Flowchart for the Treatment of Waste and Reusable Waste Products

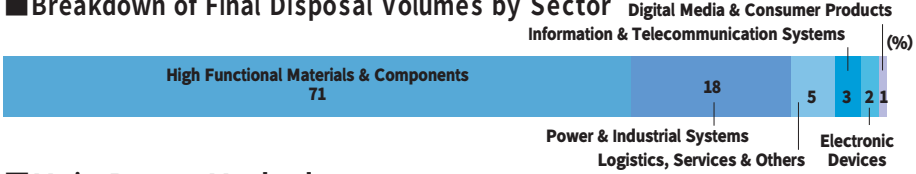


■Breakdown of Recycling Methods

■Breakdown of Final Disposal Volumes by Type



■Breakdown of Final Disposal Volumes by Sector



■Main Reuse Methods

Material	Reuse method
Paper	Material for recycled paper, RDFs
Wood	Charcoal, RDFs
Plastics	Recycled for internal processing, RDFs, material for blast furnaces
Sludge	Base material for cement
Oil	Distilled and reused, used as fuel additives
Acid, alkali	Distilled and reused, used as neutralizing agents
Slag	Base material for iron, steel, and cement
Raw	garbage Compost

Strengthened supervision for thorough waste segregation at Hitachi, Ltd.'s

Prevention of Global Warming - Energy Conservation

Until now, we have promoted the introduction of highly efficient air-conditioning systems, motors, and energy-saving equipment in accordance with our Environmental Action Plan, which aims to reduce production-related CO_2 emission unit requirements by 25%. Energy conservation activities must be carried out in order to realize the 6% greenhouse effect gases reduction target set for Japan in the Kyoto Protocol. We added new CO_2 emissions reduction targets to our Environmental Action Plan. It is based on the outline for the promotion of countermeasures against global warming announced by the government in March 2002. In accordance with these new targets, we will strive to reduce CO_2 emissions by 3% in fiscal 2005 and 7% in fiscal 2010 (based on 1990 levels).

Energy Conservation Performance Results

Compared with 1990 levels, we had reduced our CO_2 emission per unit of production by 16% and our overall CO_2 emissions volume by 9% by fiscal 2002. These results were achieved from a reduction in the amount of energy consumed, and we achieved this through the introduction of energy conservation equipment previously implemented at our sites in addition to comprehensive energy management.

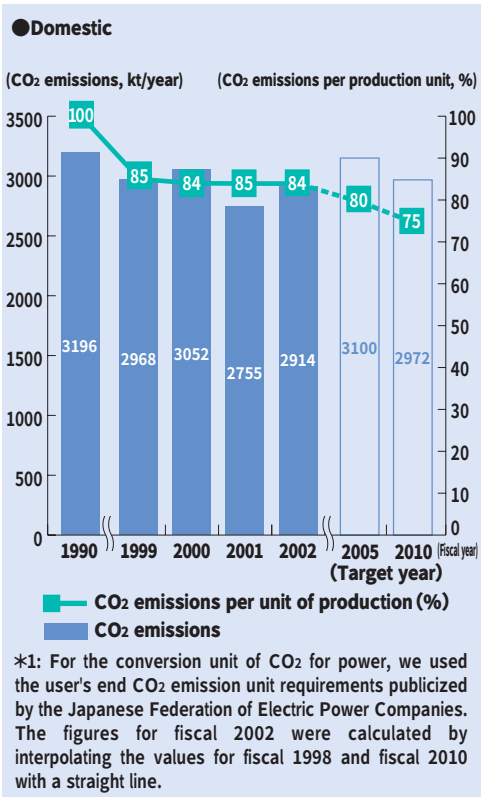
Examples of Energy Conservation Measures

①Introduction of a Group Management System
The energy conservation activities at Hitachi Industrial Equipment Systems Co., Ltd.'s Narashino operation site have always been highly praised in the past, and in fiscal 2002, the site received the Minister of Economy, Trade and Industry's award for factories making an outstanding contribution to energy management (Electricity Division). More specifically, the prize was awarded for the site's introduction of an air compressor group management system. This has enabled the site to realize a highly energy-efficient method of supplying air by combining its management systems for each group of air compressors within the site and inverters. By introducing this system as well as pump fan inverter management and power monitoring systems, Hitachi Industrial Equipment Systems has reduced its annual CO_2 emissions volume by approximately 900 tons.

②Introduction of a High-frequency Heating Method and High-speed Processing Technology
Hitachi's Systems for Town Development Group realized energy conservation for elevator guide rail processing at its Mito plant using financial assistance from NEDO*1 and internal activities for energy conservation solutions. The plant adopted a method of surface heating using high-frequency heating to replace its conventional method of heating entire components using an electric furnace, and surface planing using a milling cutter to replace line planing using a planer. Through the actualization of high-speed processing, the plant is able to minimize the amount of power needed to operate equipment, resulting in an annual CO_2 emissions volume reduction of approximately 340 tons.

③Introduction of Optimal Conrol System for Energy Saving
The Hitachi Research Laboratory achieved energy conservation for its clean room in a joint research project with NEDO and the Energy Conservation Center, Japan. They developed a system that realizes comprehensive energy conservation for entire factories through network monitoring of a factory's numerous devices, and implemented this system at the

■Trends in Production-related CO_2 Emissions

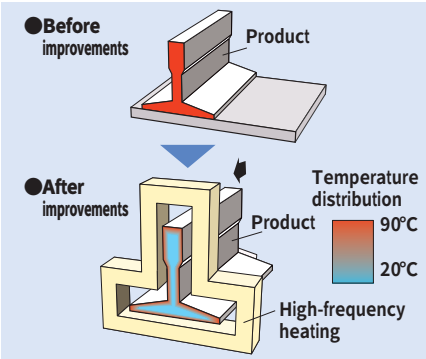


*1: For the conversion unit of CO_2 for power, we used the user's end CO_2 emission unit requirements publicized by the Japanese Federation of Electric Power Companies. The figures for fiscal 2002 were calculated by interpolating the values for fiscal 1998 and fiscal 2010 with a straight line.

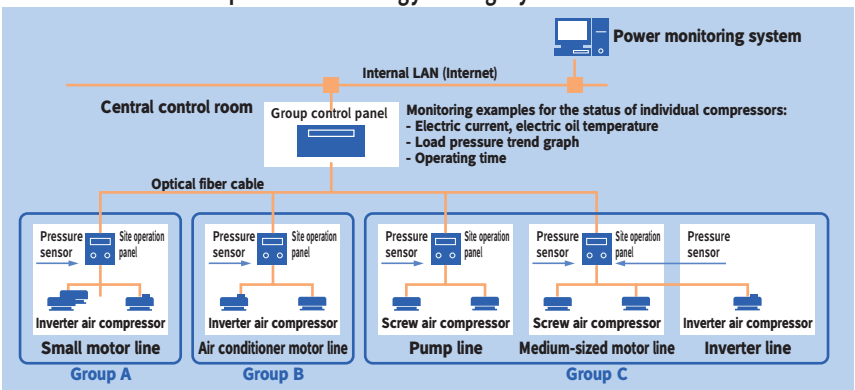
■Main Energy Conservation Activities

Category	Activity policy
Air-conditioning system	Install energy-efficient equipment, reduce airflow of air-conditioning, increase efficiency by regulating unit numbers
Heat-treatment furnace	Reduce heat loss through improved insulation, reduce operation loads by regulating the rotational frequency of blowers
Co-generation system	Increase overall efficiency by using a gas turbine co-generation system
Boiler	Switch to smaller boilers, increase efficiency by regulating unit numbers, recover exhaust heat
Compressor	Increase efficiency by regulating unit numbers, correct exerted pressure
Motor	Switch to high-efficiency motors
Other	Switch to smaller vacuum pumps, install energy-efficient lighting, install thermal ice storage systems, etc.

■Product Temperature Distribution Using High-frequency Heating



■Introduction of an Optimal Total-energy Saving System



*1 NEDO: New Energy and Industrial Technology Development Organization

Hitachi Research Laboratory clean room. As a result, the amount of power consumed by air conditioning equipment was reduced by 35% in December 2002, and it is expected that the system will reduce the annual CO_2 emissions volume by approximately 440 tons.

④Provision of Centralized Monitoring and Security Systems

Hitachi Maxell Ltd's Maxell Tokyo Building was designed with the principal concept of energy savings and integrated security system. The system is featured by the presence detector which switches off the room lights automatically to prevent the wastage of electricity when the room lights are left on despite nobody stays in the room. The building is also installed with an energy management system controlled from a central monitoring room and applied effective use of natural lighting to this building contributing to the reduction of electricity consumption by 30 to 40% for lighting compared with the conventional building.

Hitachi Group System for Reducing CO_2 Emissions

With the aim of accelerating CO_2 emissions reduction activities, the Hitachi Group is internally trialing a new system for reducing CO_2 emissions. This system provides a comparison between the annual target figures and actual results for the volume of consumed energy at each site (electricity and fuel) converted into CO_2 to help evaluate whether sites have achieved their target emissions volumes. Based on the performance data for fiscal 2001 CO_2 emissions volumes, we conducted a variety of simulations, including the establishment of a base year. In the future, we will continue these simulations based on our performance results for fiscal 2002 in order to promote the establishment of fair targets.

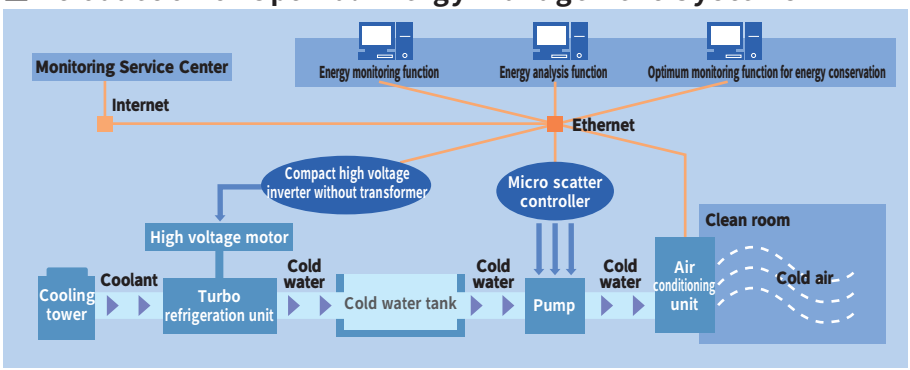
Reducing Greenhouse gases

In fiscal 2002, our greenhouse effect gases emissions volume was 3.62 million GWPt[*1], a level equivalent with that for the previous year. This was due to the fact that although our CO_2 emissions volume increased, we achieved reductions using measures that include the recovery of the greenhouse effect gases HFCs, PFCs, and SF6[*2], the introduction of pollution prevention devices, and the use of alternative gases with lower global warming coefficients[*3].

Imported Volume of New Energies

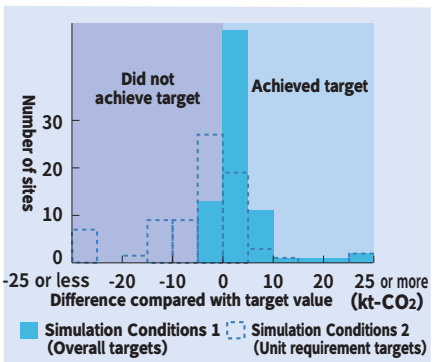
Our imported volume of renewable energies for fiscal 2002 was 11,737 kL (crude oil conversion) for heat and 46,067 MWh for electricity, levels equivalent with those for the previous year. The volume of new energy consumption as an expression of our total energy consumption volume was 3% for heat and 1% for electricity. Further, in support of our new energy creation objectives, we commissioned the Japan Natural Energy Company Ltd. to provide us with wind power, and in fiscal 2002 received Green Power Certification for 1 million kW of annual wind power.

■Introduction of Optimal Energy Management Systems

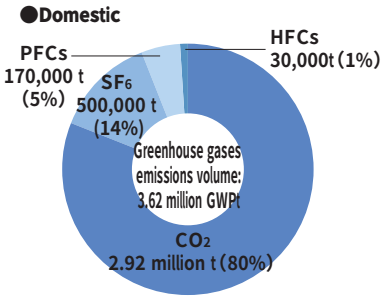


■Implementation of Central Monitoring and Security Systems

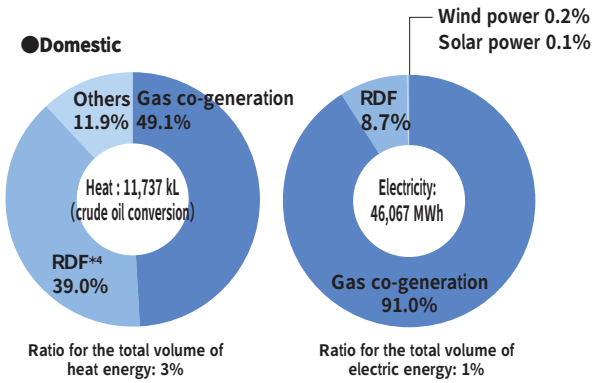
■System for Reducing CO_2 Emissions Trial Implementation Example



■Emissions and Composition of Greenhouse effect gases



■Volume of Renewable Energies



*1GWPt: Global Warming Potential (CO_2 conversion, t)
*2 3 greenhouse effect gases: HFCs (Hydrofluorocarbons), PFCs (Perfluorocarbons), SF6 (Sulfur hexafluoride)
*3 Global warming potential: A coefficient for measuring the effect of global warming caused by greenhouse effect gases and presented as a figure relative to the applicable results for CO_2 emissions.
*4 RDFs: Refuse-Derived Fuels

Chemical Substance Risk Management

To ensure the safe handling of chemical substances and their reduced impact on the environment, chemical substances must be managed comprehensively and efficiently. The Hitachi Group is striving to implement organizational structures and a variety of systems for facilitating the Group's independent activities in accordance with the laws and regulations concerning chemical substance management. In 1998, we adopted CEGNET (Chemical Environmental Global Network), a comprehensive management system for chemical substances that allows us to keep track of them using a computer-based chemical substance database, which can be accessed by all Hitachi Group companies. We are continually working to improve our chemical substance risk management by promptly conducting surveys on the trends in laws and regulations concerning chemical substances and chemical substance toxicity levels.

Reducing the Environmental Impact of Chemical Substances

As part of the activities we conduct to lessen our impact on the environment by reducing emissions of chemical substances into the atmosphere, waterways, and soil, we independently manage the emission and transfer volumes for 1,400 chemical substances according to their classifications of "abolish," "reduce," and "manage." We have established our own independent targets, including a target value of "0" for emissions of prohibited substances to be achieved by fiscal 2005, and a 30% emissions reduction target for substances specified for reduction (based on FY2000 levels), also to be achieved by fiscal 2005. In fiscal 2002, we achieved a 29% reduction (based on FY2000 levels) in the total emissions volume for substances specified for reduction by introducing devices that reduce the atmospheric emissions volumes for organic solvents, such as toluene. In the future, we will continue to promote emissions reductions through a variety of measures, including reducing our consumption amounts for chemical substances, shifting to alternative substances, and recovering substances that require management.
With regard to the water quality of rivers, we have established our own independent standards that are far stricter than the values set by laws and regulations, and are carrying out operations with the aim of preserving water quality and achieving "chemical-free" wastewater discharge.

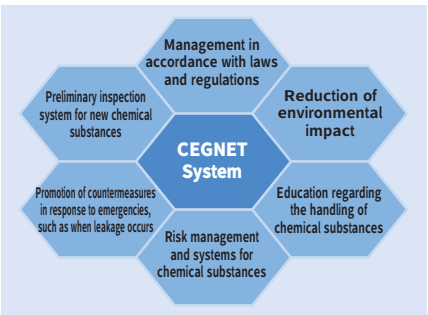
Preliminary Inspection System for New Chemical Substances

When introducing a chemical substance for the first time, we firstly obtain information about the laws and regulations regarding the substance and its toxicity levels, and then pass this information onto our Special Committee for Chemical Substances, who evaluates the pros and cons involved with the introduction of the substance. In addition, we have developed a system for managing chemical substances so that we do not carelessly introduce or use harmful chemical substances whose usage is restricted by laws and regulations. This system begins with our departments involved with designing, manufacturing, and purchasing at each site, and extends to include our external clients.

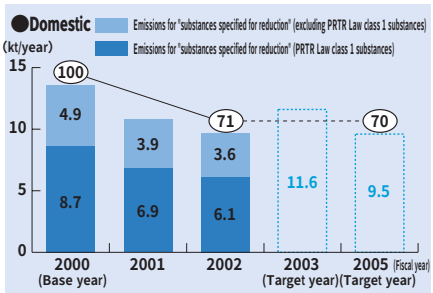
Preventing Contamination of Soil and Underground Waterways

Our lifestyles are closely linked to the natural environment through its soil and underground waterways. The Hitachi Group has implemented a management system that prevents the leakage of chemical substances in order to protect soil and underground waterways from the pollution of harmful substances. In particular, this includes replacing underground plumbing, pits, and tanks with facilities above ground level, and conducting thorough checks of these facilities. For underground tanks that are yet to be replaced with above-ground facilities, we implement leakage prevention measures and perform detailed testing on the inside of tanks for items other than those specified by law, such as ultrasonic wave tests and corrosion countermeasures.
In February 2003, the Soil Contamination Countermeasure Law was enacted. As it has done up until now, the Hitachi Group will continue to implement prompt countermeasures at sites where contamination has been detected by conducting surveys of soil and underground waterways in accordance with the law.

■Outline of Hitachi's Chemical Substance Risk Management



■Trends in Emissions for "Substances Specified for Reduction"

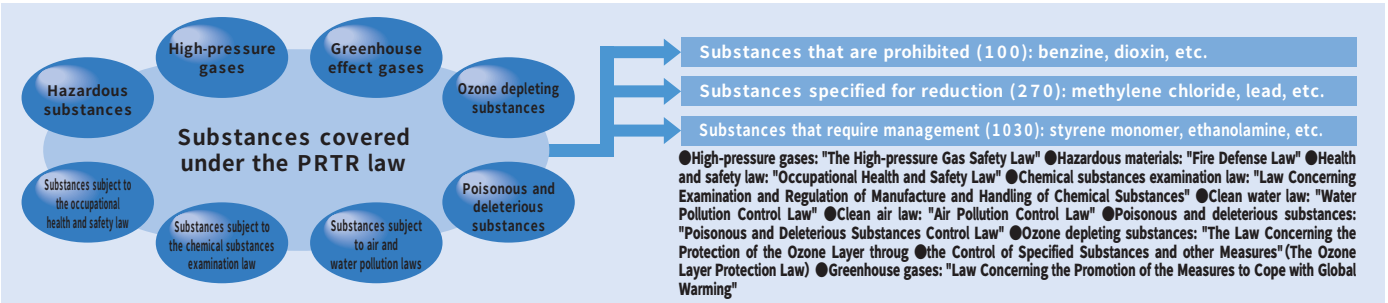


Note 1: Total emissions volumes include emissions that are directly discharged into the atmosphere and public waterways as well as emissions eventually discharged into the environment through waste, etc.

■Management of Underground Plumbing, Pits, & Tanks

Inspecting for corrosion in an underground water tank

■Hitachi's Voluntary Substance Management System (1,400 substances)



●High-pressure gases: "The High-pressure Gas Safety Law" ●Hazardous materials: "Fire Defense Law" ●Health and safety law: "Occupational Health and Safety Law" ●Chemical substances examination law: "Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances" ●Clean water law: "Water Pollution Control Law" ●Clean air law: "Air Pollution Control Law" ●Poisonous and deleterious substances: "Poisonous and Deleterious Substances Control Law" ●Ozone depleting substances: "The Law Concerning the Protection of the Ozone Layer throug ●the Control of Specified Substances and other Measures" (The Ozone Layer Protection Law) ●Greenhouse gases: "Law Concerning the Promotion of the Measures to Cope with Global Warming"

substance. In addition, we have developed a system for managing chemical substances so that we do not carelessly introduce or use harmful chemical substances whose usage is restricted by laws and regulations. This system begins with our departments involved with designing, manufacturing, and purchasing at each site, and extends to include our external clients.

Survey Results for Substances Covered Under the PRTR Law

We declared all substances with an annual handling volume of 10 kg or more, regardless of the minimum handling volumes specified for compulsory reporting in the PRTR Law (The Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management), enacted in April 2001. In fiscal 2002, out of a total of 354 target substance groups, we used substances from 126 of these, and from this we reported our usage for 25 substance groups in the category of "Volume Discharged + Volume Transferred" (a coverage rate of approximately 97% for the overall volume).

Compared with the previous year, our handling volumes increased due to an increase in production volume. However, our volumes for substances discharged and transferred decreased slightly due to the implementation of reduction measures. Further, in accordance with the PRTR Law, we notified the designated independent organizations of Hitachi Group sites where substances were removed through emissions into the atmosphere and public waterways, or as waste, as well as being transferred through sewerage systems.

In the initial year of implementation (FY2001), we notified the designated organizations about chemical substances used at 127 of our sites, accounting for an emissions volume of approximately 6,900 tons and a transfer volume of approximately 3,400 tons. In the future, we will strive to reduce our environmental impact, while conducting fair management practices and reporting to the correct authorities.

Storage of Devices That Use PCBs

In accordance with a special domestic law that promotes the correct processing of polychlorinated biphenyl waste, which came into effect in July 2001, it became mandatory for corporations to strengthen their storage management practices and dispose of all PCBs over the next 15 years.

At Hitachi, we use the correct storage management practices for PCBs, including special locking devices and identification plates to guard against mishandling, as well as bulwarks and storage boxes to prevent leakage in the unlikely event that these devices become damaged or corrode. We are also continuing our investigations into correct disposal procedures.

In the past, some of the transformers and condensers we manufactured contained PCB insulating oils. In response to this, we have posted alternative storage methods specific to each affected device on our Internet Web site.

■Survey Results for Substances Covered Under the PRTR Law for Japan

(Unit: tons/year)

Chemical Substance	Substance No.*1	Volume Handled		Volume Discharged (Atmosphere, Waterways)		Volume Transferred (Waste, Sewerage System)		Volume Discharged + Volume Transferred		Volume Consumed (Including Volume Treated and Recycled)	
		FY2001	FY2002	FY2001	FY2002	FY2001	FY2002	FY2001	FY2002	FY2001	FY2002
Toluene	227	30,588	30,970	4,584	4,425	1,689	1,789	6,273	6,214	24,315	24,756
Xylene	63	4,951	4,784	800	841	199	221	1,000	1,062	3,952	3,722
Ethylene glycol monoethyl ether	45	1,424	1,348	552	638	29	29	581	667	843	681
Styrene	177	48,643	46,914	156	118	228	156	384	274	48,259	46,640
Ethyl Benzene	40	1,693	1,707	110	138	60	80	170	218	1,523	1,489
N,N-dimethylformamide	172	708	1,116	126	119	7	16	133	135	575	980
Phenol	266	4,971	5,749	17	13	103	119	120	133	4,851	5,617
Ethylenediaminetetraacetic acid	47	227	212	8	10	120	121	128	131	99	81
Chrome and trivalent chrome compounds	68	14,309	17,607	26	38	190	78	216	115	14,093	17,491
Manganese and its compounds	311	3,299	2,615	16	39	128	75	144	113	3,155	2,501
Dichloromethane	145	268	325	97	93	17	18	113	111	155	213
Lead and its compounds	230	51,183	51,064	5	0	160	99	165	100	51,018	50,964
2-ethoxyethyl acetate	101	125	160	38	74	2	19	40	94	85	66
Copper water-soluble salts (excluding complex salt)	207	10,755	9,683	2	2	94	90	96	92	578	9,591
Boron and its compounds	304	290	210	2	44	40	14	42	58	248	152
Hydrogen fluoride and its water-soluble salts	283	1,027	456	192	26	76	30	268	56	759	400
Linear alkylbenzene sulphonate (LAS) and its salts*2	24	49	51	5	4	33	39	38	43	11	8
Formaldehyde	310	3,446	4,654	26	17	24	25	49	42	3,397	4,612
Bisphenol-A epoxy resin (liquid) *3	30	1,602	1,730	15	6	55	35	70	41	1,532	1,689
Antimony and its compounds	25	611	804	0	0	42	39	43	39	569	765
Tetrahydromethylphthalic anhydride	202	3,928	4,868	3	1	36	38	40	39	3,888	4,829
Ethylene glycol	43	1,320	1,558	16	1	89	38	105	39	1,215	1,519
Di(2-ethylhexyl) phthalate	272	3,006	3,261	12	5	40	33	52	38	2,954	3,223
Soluble zinc compounds	1	202	138	0	0	46	31	46	32	155	106
Methyl methacrylate	320	1,291	3,633	12	15	11	17	23	31	1,268	3,602
Others (101 substances)		43,178	38,988	182	130	185	155	368	284	42,810	38,703
Total (126 substances)		233,093	234,604	7,003	6,796	3,702	3,405	10,705	10,201	212,308	224,403

*1: The first number in the PRTR Law list of substances.
*2: Limited to alkyl-based substances with carbon numbers from 10 to 14, or mixtures thereof.
*3: Formal nomenclature: 4,4 —isopropylidenediphenol and 1-chloro-2,3-epoxypropane polycondensation (limited to liquids)

Worldwide Stakeholder Collaboration

As one company, it is limited how much we can do to create a recycle-oriented sustainable society. However, we can increase our power to make a difference by networking with our customers, suppliers, local citizens, and other stakeholders. We provide information about our environmental activities and listen to the opinions of our stakeholders. Through this system of mutual communication, we are joining forces to increase the scale of our activities, from the individual to the regional and on to the global level

Environmental Communication

We will continue to increase communication with stakeholders by disseminating information through our Environmental Sustainability Report and Web site and conducting environmental town meetings.

Information Disclosure

We have been publishing our Environmental Sustainability Report since 1998. In 2002, we distributed 23,000 copies of the Japanese version of our report, and 3,000 copies of the English version. In addition, we constantly update the information provided on our Web site to reflect the most recent information available on eco-products, and over 3 million people access the site annually. Further, we promote information disclosure by all Hitachi Group companies and sites through the publication of reports concerning their own individual environmental activities, and displaying this information on our Web site.

In 2002, the Hitachi Group's environmental activities homepage received the Auditor's Special Award in the corporate category, Environmental goo Grand Prize which is Commendation System for Environmental Information Released on Hitachi's Homepage

Eco-Products 2002

At the Eco-Products 2002*1 exhibition, based on the theme“ Eco-movements - Creating a Partnership Between Hitachi and the Environment, ” our display allowed visitors to discuss with our staff and experience Hitachi's devices, services, and latest environmental technology for realizing eco-lifestyles.

Poster Contest

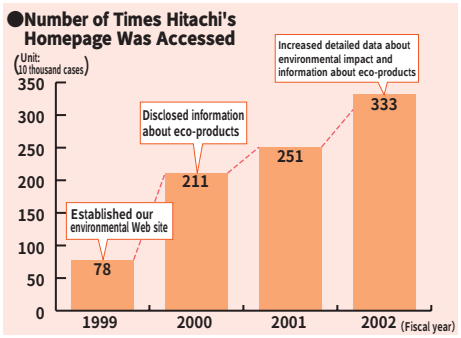
Hitachi invited applications for a poster that conveys the message,“ consideration for our precious earth, ”in an appeal to raise public awareness about ways in which we can benefit the environment. The number of entries exceeded last year's figure to reach a total of 156 entries from all across Japan. The final round of judging was conducted by a variety of important figures, including external intellectuals and the head of Hitachi's Corporate Environmental Policy Division, and they declared one winning entry for the Award for Excellence, two winning entries for the Honorary Award, and five for the Original Idea Award. The cover of our Environmental Management Sustainability Report was created from the winning entries in our poster contest.

Dispatching Lecturers to Schools

Students learn about environmental education activities at schools in Japan, and we often receive requests to help out with school excursions, university lectures, and in the classrooms of local elementary schools. By conducting these activities, we are broadening our area of communication with the public by interacting with students as we introduce environmental issues and how we tackle these through our corporate activities. Further, every summer holidays we conduct a science seminar at our research facility. The seminar lasts the whole day, and stimulates participants to think more about science through a tour of the research facility and hands-on sessions.

■Information Disclosure

The hitachi green web homepage



●Environmental Reports Published by Site

	FY2001	FY2002
Published on behalf of individual companies and company groups	12	19
Published by designated sites	4	6

●Information Disclosure Via the Internet by Site

	FY2001	FY2002
Published on behalf of individual companies and company groups	27	41
Published by designated sites	5	4

■Eco-Products 2002

The Hitachi Group booth

Ballot corner for environmentally efficient products

■Principal Schools Whose Students We Interacted With

Date	School & Interaction Activity
Jun. 29.2002	Third-year students from Tsunuga Junior High School, Tsuruga City, Fukui Prefecture Introduced our corporate environmental activities to students while on a school excursion to Hitachi
Nov. 14.2002	Environmental management debate with students from Sophia University Topic introduced through research on our Environmental Sustainability Report
Dec. 19.2002	Hosei University 1st Senior High School Sent a lecturer from the Japan Atomic Energy Relations Organization
Jan. 14.2003	Department of Commercial Science, Keio Gijuku University Contribution lecture from the Economic PR Centre Sent a lecturer to talk about the social value of corporations
Mar. 4.2003	Nishi Junior High School, Mino Kamo City, Gifu Prefecture Sent a lecturer from the Japan Atomic Energy Relations Organization

Nishi Junior High School, Mino Kamo City, Gifu Prefecture
Sent a lecturer from the Japan Atomic Energy Relations Organization

Interacting with Nishi Junior High School students from Mino Kamo City in Gifu Prefecture

Scene from a science seminar conducted at the Hitachi Research Laboratory

*1 Eco-Products 2002 was sponsored by the Japan Environmental Management Association for Industry and Nihon Keizai Shimbun, Inc., and held at Tokyo Big Site over a three-day period from December 5 to 7. The aim of the exhibition is to introduce the public to all kinds of eco-products (products and services that have a lessened impact on the natural environment) , from regular consumer products to industrial materials.

For details on information disclosure by site, visit the following Web site:
http://greenweb.hitachi.co.jp/data/w_communication.html

For details on Eco-Products 2002, visit the following Web site:
http://greenweb.hitachi.co.jp/ecoproducts/eco-pro2002/index.htm

Environmental Town Meetings

We have been conducting environmental town meetings together with our stakeholders since fiscal 2001. These meetings not only provide stakeholders with a full understanding of our environmental activities, but also provide us with feedback regarding the public's perception of Hitachi Group business activities from an environmental perspective. Environmental town meetings are part of our efforts at establishing a fundamental bilateral communication system with our stakeholders.

Out of the 112 people who kindly submitted answers to the questionnaire provided with our Environmental Sustainability Report in fiscal 2002, 12 people out of those who indicated that they would like the chance to attend a future environmental town meeting participated in the fiscal 2002 meeting conducted in March. With participants ranging from specialists, such as environmental consultants and members from environmental NPOs, to university students who read their first environmental report in class, we were able to hear opinions on Hitachi's activities from a diverse range of perspectives. The proposals put forward at the meeting, including those of participants, were debated upon, and we intend to investigate the ideas raised for implementation in future activities.

Communication with Investors

Recently, there is a lot of activity in the area of SRI (Socially Responsible Investment), or investment based on an evaluation of a corporation's environmental and social value.

In fiscal 2002, the Hitachi Group was subject to nine audits by investment auditors. Currently, the Dow Jones Sustainability Indexes (DJSI), used by financial institutions in a variety of countries to establish investment trust products, are attracting a considerable amount of attention. Dow Jones in America and the Swiss SAM Sustainability Group have been announcing these indexes annually since 1999, in which enterprises expected to realize sustainable growth in their economic, environmental, and social activities are selected and publicized.

In fiscal 2002, approximately 2,500 businesses all over the world were audited, and from these, 310 businesses that received an evaluation in the top 10% of their division were announced as the structural businesses that form the index. The Hitachi Group was selected for the second consecutive year in the High Technology Industries division. In the future, we will work towards improving our market value by pursuing sustainability, improving our environmental and social value, and avoiding activities that involve risk.

●Comments on Hitachi's Environmental Sustainability Report (with opinions at the top and responses on the bottom)

If your report is aimed at students and the general public, you need to create a document that is easier to understand. Hitachi's report uses too many non-Japanese words. How about developing a report more along the lines of NHK's news program for children.

Thank you for your insightful idea. Environmental reports that are easy to understand certainly arouse more interest in those who read them, and we will try to create a report like this in the future. In addition, we will examine the distribution routes for our completed reports.

Hitachi could further increase its sense of reliability by writing about activities that have a negative impact on the environment and outlining possible countermeasures. I think that providing more detailed explanations in your report, including these countermeasures, will increase the public's trust in Hitachi.

We already disclose the results for items such as administrative guidance, and external complaints. However, we will consider creating a report that further increases our trustworthiness.

●Comments on Nature-friendly Products

Why not widen the distribution area for your report so that more members of the general public have the opportunity to read it? You could utilize any number of methods, such as giving reports to the children of employees, setting up a location for guided tours and handing out reports then, distributing reports to citizens who gather at Hitachi's environmental facilities or forests, or having them distributed to customers who purchase Hitachi products from retail outlets. However, as not everyone will want to read the report, forcing it onto everyone would have the effect of wasting resources.

We will give your idea careful consideration.

To show that Hitachi is actually conducting LCA for products, you should provide information, such as what 3 points stands for in the 5-point rating system and concrete product examples, and make this information more obvious.

Because business conditions vary considerably, we implement Design for Environment assessments based on LCA for each Hitachi product. As we are constantly selling new products, we provide some concrete examples of products on our Internet homepage, but we will include more examples of products in our next environmental report from the perspective of environmental consideration.

●About Administration Methods for Future Environmental Town Meetings

How about dividing the meeting time in half and asking for the good and bad points for both Hitachi's Environmental Sustainability Report and environmental activities separately? You could even ask meeting participants to assign points for various items with 100 points being the top score, and then ask them to give their reasons for each score.

We will concentrate on making improvements along the lines of your idea to create a more efficient method for exchanging opinions.

Besides conducting these meetings at Hitachi's head office, I think it would also be effective to combine these meetings with tours of your recycling centers and factories.

In the future, we plan to expand communication activities for each of our regions and sites.

Opinions on Hitachi's Environmental Sustainability Report

We received 112 responses to the questionnaire we included in the 2002 Environmental Sustainability Report.The results are as follows:

Appraisal Points

- Because the report included Hitachi's visions for the future, it is easy to envisage where the Company is headed.
- The layout was easy to understand, and the concise text easy to read.
- It is good to see that Hitachi is improving communication with its stakeholders by hosting environmental town meetings, etc.
- The report was concise and easy to understand.

Main Requests

- The report should include more information about Hitachi's products.
- I would like Hitachi to include information on how it was able to achieve environmental improvements and cost reductions, and provide explanations regarding the basis for its performance data definitions.
- Hitachi needs to explain its standards for product assessments and GREEN 21.
- The report could be improved by including the data for each of the Company's sites.

Points Reflected in This Report

- Introduction of environmental information contained in our products catalog and examples of our environmentally friendly products in this report, as well as on our Web site.
- Inclusion of actual improvement examples, discussions about troublesome areas, results evaluations for performance data, and explanations of definitions.
- Publication of evaluation standards for GREEN 21 Version 2.
- Provision of information about the environmental reports published by individual sites and our homepage.

Ms. Kimie Tsunoda works in the field of corporate environmental information disclosure, and she has evaluated our environmental report yet again this year, kindly noting her opinions along the way. Based on Ms. Tsunoda's valuable comments, we will work towards improving our environmental preservation activities and information disclosure through media such as future environmental reports.

Third Party Opinion on Hitachi's Environmental Sustainability Report 2003

After viewing our environmental sustainability report in its final stage before printing:

Ms. Kimie Tsunoda

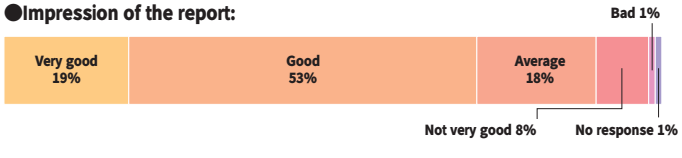
Member Organizing Committee
Valdez Society

Firstly, some words of praise. I felt that by changing the name in Japanese to the Environmental Management Sustainability Report, Hitachi is expressing its desire to use environmental reports as a tool for managing environmental activities throughout the entire Hitachi Group. Upgrading GREEN 21 to a new version is evidence of the steady progress Hitachi is making in environmental management. Further, it is rare for companies in the electrical manufacturing industry to account for the substances they handle and consume at overseas sites. In addition, the disclosure of improvements based on readers' opinions and especially performance results and targets for environmentally friendly products sales ratios is an important indicator for measuring a company's success with regards to disclosure in this area of business, and one that Hitachi can be proud of.
On the other hand, Hitachi needs to make improvements in a few areas. For instance, most of the performance results contained in the report are for domestic results only, preventing the report from having a strong global standing. Hitachi needs to include items, such as the performance results evaluations and visions for management level staff that include environmental accounting as well as the progress status and evaluations for management performance. Further, sustainable business models fall under the heading of Hitachi's Environmental Vision, but there seems to be a gap between Hitachi's goals and the social expectations aroused by the word“ sustainable. ”I would like to see Hitachi create a report that outlines not just the Company's environmental business activities, but also the Company's shift to the provision of services and its awareness that social responsibilities extend beyond mere compliance. Lastly, I felt Hitachi should touch upon the fact that it is a corporation with a structure that guarantees reliable accounts of its figures and results.

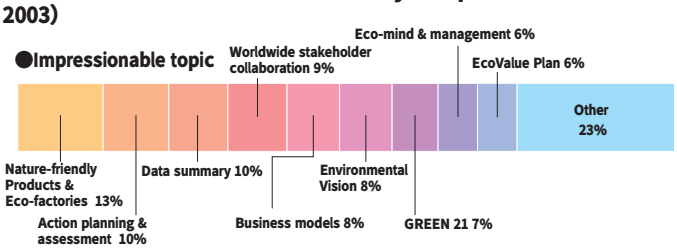
■Survey Results for Opinions on Hitachi's 2002 Environmental Sustainability Report

(Total responses: 112, Period of response: 1 June 2002 to 31 March 2003)

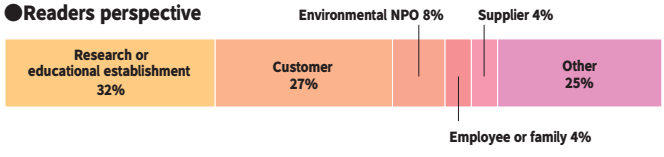
●Impression of the report:



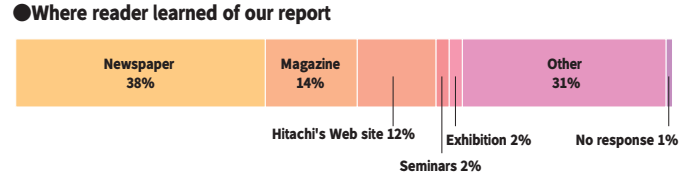
●Impressionable topic



●Readers perspective



●Where reader learned of our report



Comments on Sustainable Business Models for the Future

Dr. Norman Myers made third party comments regarding the Hitachi Group's Environmental Vision in the Environmental Sustainability Report 2002, and this year Hitachi requested his opinions and advise regarding environmental management and sustainable business models.

Views on Environmental Management and Sustainable Business Models by Dr. Norman Myers

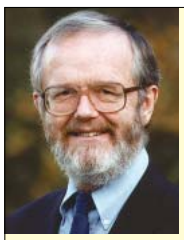
Now is the time when Hitachi should be revising its opinion on the value of natural capital and promoting sustainable business models.

Capital includes items such as financial affairs, social infrastructure, human resources, and natural resources. With regards to financial affairs, business has always been conducted using accrued interest, but at the same time, because no value has been placed on nature resources up until now, companies have been living off natural capital. In reality, natural resources have an actual value of 36 trillion dollars according to the estimates of some experts; larger even than the global economy. In fact, water shortages are being experienced in countries such as China, India and Brazil, resulting in disputes. This problem can be solved through more efficient usage of irrigation technology in agriculture, and is a potential business chance for Hitachi.

The introduction of sustainable business models is already occurring at a number of advanced corporations. Shifting corporate activities away from the provision of products towards selling functions and services for products has the ability to reform social structures that have a large impact on the environment, while cultivating new customer bases that crave stylish lifestyles. In China and India, where consumption occurs on a large scale, the impact on the environment is steadily increasing. For this reason, it is essential that corporations move towards the provision of environmentally-friendly products and sustainable business models.

●Comments on the Hitachi Group's Environmental Activities

- It is important for a corporation to have a long-term creative vision or dream for the future. In this respect, Hitachi's Environmental Vision deserves praise.
- I commend Hitachi's way of dealing with environmental and economic activities in collaboration with each other rather than treating them as rival areas, a move not often seen in corporate activities. Until now, the eras of the former Bush administration in America and the Thatcher administration in Britain have dealt with environmental and economic activities from an unstable perspective. Nevertheless, as environmental pollution increases, we experience outbreaks of new diseases, and people are beginning to see that what is detrimental to the environment is also detrimental to economies, as it places pressure on economic funds through the provision of medical expenses. Accordingly, in order to achieve better managerial efficiency, the Hitachi Group needs to continue its collaborative approach to environmental and economic activities.
- Hitachi needs to move away from its conventional approach of environmental preservation and protection to an approach of environmental improvement and restoration.
- The Hitachi Group is going to great lengths to ensure that all 340,000 of its employees adopt its Environmental Vision, but I think all the Group can really do is display its enthusiasm as it continues explanations on how its vision can be achieved.
- I commend the Company's adoption of scenario planning. However, things that could not have been predicted before are occurring now. Hitachi needs to cultivate its skills of prediction while taking into account the element of surprise, and review its activities as necessary.
- Corporations are actually communication giants that, for example, create the people's need to watch television by selling television sets. I hope Hitachi can realize its idealistic shift from the sale of products to the provision of services.



Dr. Norman Myers

Consultant in Environment and Development
Professor of ecological systems and resource economics at the University of California

Providing consultancy services to a variety of research organizations and development agencies such as the U.S. National Academy of Sciences, Soviet Academy of Sciences, World Resources Institute, the White House, U.S. Departments of State, Defence and Energy, World Bank, United Nations agencies, OECD, NASA, European Commission, Shell and McKinsey, and the Rockefeller and Ford Foundations.

Dr. N. Myers is the recipient of many prizes, including the UNEP Environment Prize and the 2001 Blue Planet Prize.

A lecture given by Dr. Myers at Hitachi in October 2002.

Hitachi's Response to These Comments and Future Approach

- While steadily implementing activities in accordance with our Environmental Vision, we will make every effort possible to utilize natural capital the“ interest ”gained from.
- In April 2003, we introduced the Environmental Efficiency and Factors indicators to improve the efficient use of energy and resources, including product functions, and are currently trialing their application. In the future, we plan to further expand the application of these indicators to a wider range of products.
- We are developing business activities based on a sustainable business model that depart from the conventional notion of corporations as creators of products to one of corporations that minimize their impact on the environment.
- We are further strengthening employee education by introducing measures such as fostering eco-minds via the Internet.
- We intend to review our scenario planning so that it complements our Environmental Vision.
- As promised in our new mid-term management plan, "i.e. HITACHI PlanⅡ," we are shifting our business activities away from the sale of products to the provision of services, with an emphasis on solution businesses for supporting business activities in a new era, and global products that utilize advanced technology.

Employee Relations (Personnel Affairs)

We have implemented Hitachi Value; a set of standards outlining a code of behavior and list of shared values for all of our employees. While endeavoring to improve the environmental awareness of our employees, we have introduced a variety of personnel systems in the hope of creating a vibrant workplace that will inspire our diversely talented employees to continually set themselves challenges.

Developing a Shared Sense of Values Through Hitachi Value

In November 1999, we introduced Hitachi Value - a set of standards detailing the values and behavioral conduct we would like our employees for share - as part of a move to help us realize our basic stance on management as stated in the Hitachi Management Vision. By releasing these standards groupwide, we are endeavoring to improve the environmental awareness of employees throughout the Hitachi Group.

Hitachi Value documents the conduct we expect from our employees, in particular, the type of behavior and attitudes we expect from our leaders. The standard outlines ten separate items specifically related to employees, including "customer satisfaction," "reliability," "speed," and "challenges and reforms," and details the conduct required to achieve positive results in each of these areas.

Since fiscal 2000, we have been utilizing a personnel rating system to evaluate whether the code of conduct in Hitachi Value is being carried out in the workplace, an activity initially directed at managerial staff. By doing this, we are measuring the degree of improvement in environmental awareness. Ultimately, we aim to establish a system where the concepts of merit and performance form the basis of our employee management practices.

Nurturing Self-assertive Talent

We believe it is important to nurture talented employees to be self-assertive, or behave in such a way that their individual strengths and values are enhanced through individual responsibility. Hitachi implements a variety of personnel and education measures to help foster greatly talented employees.

●Career Development Training

Hitachi's Career Development Training targets young employees, and was introduced in 2002 aiming for 1,000 employees to attend the program on an annual basis.

Training is conducted over a two-day workshop, where employees are advised on career planning to help them discover their strengths and values so that they can achieve the future image they envisage for themselves based on a deeper understanding of the career they want. Through this type of training, our employees can decide what challenges they want to pursue, their work goals, and the type of life they want to live. In this way, Hitachi is striving to nurture talented employees that can measure personal achievements and growth through their work.

●360° Comprehensive Feedback Program

Aimed at managerial staff in positions equivalent to or above section managers (approx. 10,000 staff), Hitachi implemented its 360° Comprehensive Feedback Program from fiscal 2003 to develop the abilities of staff with the aim of improving their leadership and management capabilities. The program involves collecting responses to a variety of questions concerning the characteristics of 80 specific behavioral conducts from the staff member concerned, their superiors, colleagues and subordinates.

The anonymity of respondents is maintained throughout the process, and the staff member is directly informed of the response results by an internal supervisor at an appointed training session. These training sessions give our staff the chance to examine their own strengths and weaknesses as well as brush up their leadership and management skills by implementing their own personally-designed ability development plan.

●Internal Subscription and FA Systems

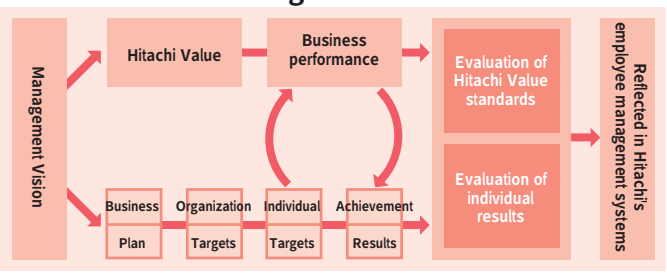
In addition to the internal subscription system Hitachi has offered up until now, we introduced an internal FA system from fiscal 2003 that allows employees to make direct requests for personnel reshuffling at desired operation sites. Through the implementation of this system, Hitachi is further increasing the freedom of its staff to choose the area in which they want to work. As a result, not only is Hitachi able to relocate employees in a position of their choice to support a steady stream of autonomous talent, but is also able to work towards improving employee morale and nurturing the spirit of challenge while revitalizing personnel.

Utilizing Diversified Talent

We value the different abilities and ideas of our workers, and in support of this announced our Gender Free & Family Friendly Plan (F. F. Plan) both internally and outside the company in March 2000. We respect people as individuals and are endeavoring to employ talented staff without gender discrimination, while providing a flexible (family friendly) working environment where employees are able to work as professionals and still spend time with their families. In the past, we have introduced a variety of systems related to child-rearing and home care, including our leave of absence, shorter office hours, and work from home systems.

In addition to this, we have developed a normalization policy under which we are actively increasing the number of positions available to handicapped persons as part of our employment promotion activities. The establishment in October 1999 of Hitachi You and I, a special subsidiary that only employs mentally disabled persons, is part of our plan for promoting further employment of handicapped persons.

■A New Evaluation System and Business Plan for Hitachi's Management Vision



Company Profile for Hitachi You and I

The principal business activities of Hitachi You and I are cleaning Hitachi's Yokohama and Kawasaki offices and delivering documents. The Company employs 43 people, of which 29 are mentally disabled persons. The name "You and I" was founded with the cooperation of Hitachi, Ltd. employees and the Company's mentally disabled workers, and originated from a wish to support each other and strive together. In terms of actual business operations, while experienced full-time workers are employed as advisors, the Company's mentally disabled employees are given tasks compatible with their individual capabilities and offered full support with regard to both work and company matters under a special system devised by Hitachi.

Employee Relations (Health and Safety)

Hitachi's health and safety activities place the highest priority on maintaining the health and safety of our employees, and we are making efforts not just to maintain, but also to further improve our high safety and sanitation levels.

Applying Our Knowledge About Health and Safety to Managerial Activities

Hitachi, Ltd. makes good use of its knowledge regarding health and safety issues acquired over many years of promoting accident-prevention activities, including the areas of health and safety management, education, equipment, and the creation of safe work environments. In addition to passing this knowledge on so that it may benefit others, we have introduced our Occupational Health and Safety Management System as support for our systematic health and safety activities in a desire to not just maintain, but further improve our already high safety and sanitation levels.

Supporting Improved Employee Health

As a fundamental rule in health management activities for individuals, Hitachi promotes the concept that "you are responsible for your own health," and provides guidance and support for the creation of independent health programs for all employees. More specifically, Hitachi is taking positive steps to improve the health of employees by working in conjunction with staff trained in industrial health issues, providing employees with access to health counseling, specialist support, educational activities, and a support page on the Internet.

Employee Assistance Program (EAP)

In addition to strengthening mental health care, EAP was implemented in March 2003 as a means of revitalizing employees exposed to an extensive range of challenging environments, and realizing good communication in the workplace. EAP assists employees in solving their various worries and concerns about the workplace, their careers, and life in general.

In addition to the positive establishment of a system that enables employees to meet and talk with an internal EAP expert at their respective site, Hitachi is striving to revitalize employees and improve their organizational capacity through round the clock consultation (over the telephone or Internet).

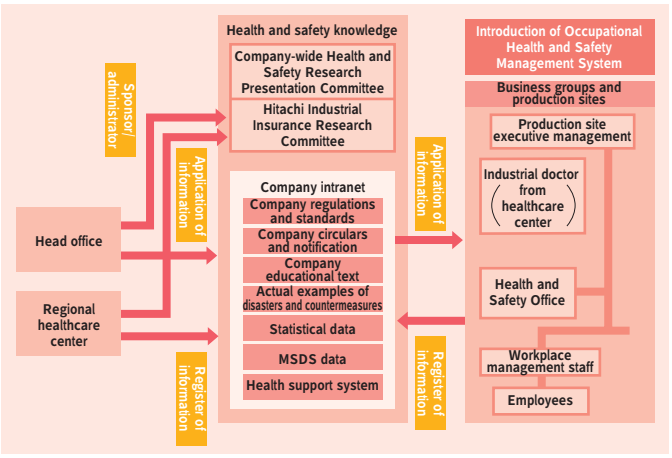
■Basic Policy for Occupational Health and Safety

Basic Policy

While respecting human life and acting in accordance with the law, we are strengthening our platform of" continued growth into the 21st Century as a corporation overflowing with vitality "through health and safety activities based on the following universal standard evaluations.

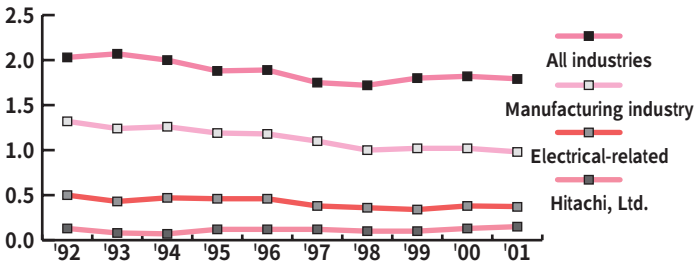
1. **Construct a systematic safety management system, and urge managers to set examples for others.**
2. **Make genuine safety improvements to equipment and production processes.**
3. **Enhance safety awareness, and establish a workplace with good communication by improving safety education levels.**
4. **Ensure the physical and mental health of our employees and create a comfortable workplace.**
5. **Reinforce health and safety management at branch offices and production sites.**
6. **Strictly enforce countermeasures for dangerous management practices (promote disaster prevention activities against earthquakes, fire, and explosions).**

■Occupational Health and Safety Action System



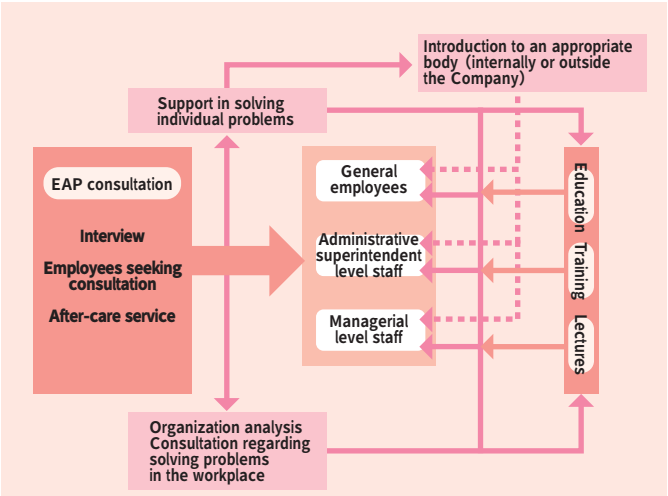
※1 EAP:Employee Assistance Program

■Occupational Accident Rate (per 1 million hours)



Note: The above rates for the categories All industries, Manufacturing industry, and Electrical-related are applicable for cases where operations were forced to shut down for 4 days or more. The above rate given for Hitachi, Ltd. is applicable for cases where operations were forced to shut down for 1 day or more.

■Outline of EAP



Compliance with Laws & Regulations

In addition to the continued promotion of fundamentals and virtues throughout the Hitachi Group, we are striving to improve our business processes and undertake reforms to eradicate actions that are unjust.

Establishment of a Special Department

In February 2002, we established Compliance Headquarters, an organization under the direct control of Hitachi's president. The headquarters monitors conformance with the Hitachi Standards for Corporate Activities and improvements in education, audit, and business processes to ensure that all Hitachi Group companies operate in compliance with the laws regarding tenders for public business (criminal laws that forbid the obstruction of public tenders, bribery, and monopolization).

In September 2002, a government office inspection of tests carried out by Tokyo Electric Power Company (TEPCO) revealed that a member of the Hitachi Group acted inappropriately when testing the overall rate of leakage for the reactor's core shrouds at No. 1 Fukushima Plant, formerly commissioned to Hitachi, Ltd. for management by TEPCO. This act dealt a heavy blow to public trust in nuclear energy, which should place the highest possible priority on trust and safty, and caused a considerable deal of anxiety among the public starting with the residents living in the area. This type of incident is unacceptable from manufacturers involved in operations that have a large social impact like nuclear energy. We are deeply sorry and offer our sincere apology.

To involve all of the companies in the Hitachi Group and ensure that this kind of incident does not recur, we reshuffled our organization so that responsibilities can be clearly identified, and introduced the Compliance with Rules and Regulations Report System in October 2002. We implemented the system to seek out inappropriate handling methods and acts that run contrary to social justice in business operations by guaranteeing lawful practices through the provision of information from reporters and informants. In this way, Hitachi is acting to correct deeds of wrongdoing that occur within its organization.

Administrative Guidance in Environmental Matters & Responses to External Complaints

In fiscal 2002, the Hitachi Group was not recorded as paying any fines, but did receive administrative guidance in 8 separate instances. These included an excessive amount of nitrogen and phosphorus found in wastewater draining into public waterways, and an excessive odor concentration discovered along a site boundary. We have implemented measures to ensure that these incidents do not recur, such as countermeasures at the source of occurrence. In the former case, this involves conducting proper maintenance checks on the decontamination device that was the cause of the initial problem, and in the latter case, involved altering the damper on the exhaust gas treatment device and reinforcement of periodic checks.

In November 2002, Hitachi received an administrative report stating that the industrial waste we had entrusted to a treatment plant in Fukushima Prefecture about 10 years earlier had not been treated, despite having received a written manifesto stating the opposite. At the request of the administrative body, Hitachi contributed a monetary donation to help rectify the problem.

In addition to the above cases, we received 13 external complaints in on issues where our levels were not found to exceed those set by rules and regulations. 5 complaints were made in relation to offensive odors, 6 in relation to noise, and 2 in relation to waste. With regard to the complaints about offensive odors, we explained that we would reinforce our checks on deodorization devices that spray an odor removal agent when an odor is released during working hours, as well as implement additional equipment. In response to the complaints about industrial noise, we explained that we would implement countermeasures such as suspending the use of the sirens and other devices that had received complaints, silence usage during certain hours, or implement soundproof walls at the source. Finally, we received word from local residents that waste from Hitachi had been disposed of inappropriately, but upon inspection it became clear that the waste did not originate from Hitachi. However, as a precautionary measure, we tried to impress upon our employees the importance of moral values and provided feedback about this to our customers, who were in agreement with our countermeasures.

Customer Relations

We are working to realize management practices that focus from the view point of its customers to become a best solution partner they can trust.

Improving Customer Satisfaction

The factors (concerns) influencing customer satisfaction do not stop with the performance and cost of a product, but go on to include the entire management process of corporations - the advantages and disadvantages of a corporation's services (such as consulting and maintenance services) and its corporate image shaped through the handling of social contribution and environmental preservation activities. In response to this, the Hitachi Group is working to realize management practices from the viewpoint of its customers.The Hitachi Customer Satisfaction Improvement Committee, composed of managerial level staff from the president down, holds periodic meetings to devise ways of working in conjunction with the Hitachi Group's various business areas while simultaneously supporting activities in each of these areas. The Committee has adopted the approach outlined by the Japan Quality Award (JQA) *1 as a concrete measure for promoting innovation in business operations.

Products and Services & Customer Safety

We have devised and enacted our Safety Indicators and Guidelines in Correspondence With the PL Law (a law outlining a corporation's accountability for manufactured goods) in order to protect the health and safety of the customers who use our products and services. Further, we have established a customer support service and conduct activities under the motto,“ the customer comes first. ”

*1 The Japan Quality Award (JQA) promotes total management from the perspective of the customer as a means of measuring the qualitative shift in internationally competitive management structures. It is also an important part of the management quality improvement program that supports the actualization of successfull organization innovation for performance excellence in order to continue creating new value through improvement of overall organizational effectiveness and capabilities.

Social Contribution Activities

In order to become an energetic corporation that can continue to grow into the 21st Century, it is essential that Hitachi share its values with people throughout the regions of the world, and build strong ties of trust through continued social contribution activities.

A Group-Wide Common Philosophy & Policy of Social Contribution Activities

Philosophy

The Hitachi Group strives to demonstrate its corporate citizenship in response to social needs and expectations,while endeavoring to enrich the quality of life and realize a better society.

Policy

The Hitachi Group promotes various social contribution activities to build a vibrant society based on fostering leadership to implement reformation for the next era. This is achieved by making optimal use of our knowledge and information technology in three specific areas, namely, education, the environment, and social welfare.

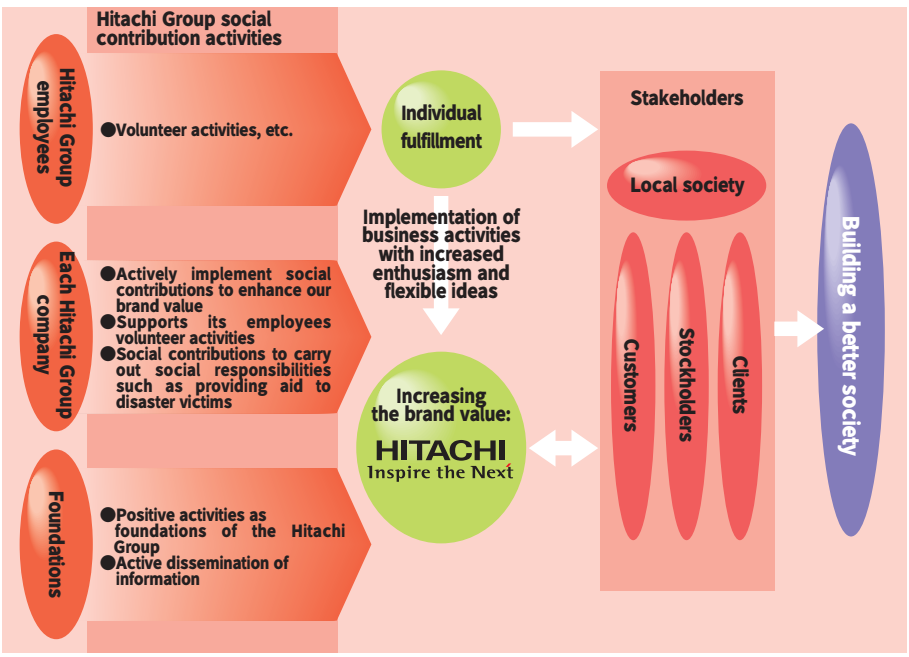
Basic Philosophy of Hitachi's Social Contribution Activities

All of the companies belonging to the Hitachi Group and six of its foundations have come together working to fulfill our social responsibilities, and in adopting the social contribution activities each of the individual organizations participates in. However, these are not viewed as mere charity activities, but as corporate activities that are important in helping to make Hitachi into an brand value. Together, all of the members of the Hitachi Group are carrying out social contribution activities towards the building of a better society.
Hitachi employees are striving for "individual fulfillment" by taking part in social contribution activities, such as volunteer activities. These types of activities not only help to build a better society, but produce corporate vitality on a large scale.

Volunteer Activity Support

Hitachi supports creation of a workplace environment where employees are free to participate in volunteer activities as often or as little as they like. In addition, we support the volunteer activities carried out by each of our employees in the form of information, time, and capital.

■Basic Philosophy of Hitachi's Social Contribution Activities



Working on translated picture books that are to be sent to children in Asia at a Hitachi Volunteer Seminar where "education" was the theme

Cleaning the beach at a Hitachi Volunteer Seminar where "the environment" was the theme

In terms of information, we manage a bulletin board on our intranet and homepage that provides information about volunteer activities and allows employees to exchange opinions about volunteer work. We also conduct Hitachi Volunteer Seminars to give employees the chance to experience volunteer work first hand. In terms of time, we have developed a special annual paid leave system so our employees can participate in volunteer activities. And, under the management of Hitachi's volunteer support program, we provide financial support to non-profit-making organizations for projects in which our employees are carrying out volunteer activities.

Activity Examples

●Green Award for Social Contribution
We established the Green Award for Social Contribution to support and promote activities that contribute to society and the global environment, and recognize worthy contributions in these areas.
Grand Prize 2001: Hitachi Instruments Service Co., Ltd.
- Support for environmental education in elementary and junior high schools -
Based on a desire to offer the next generation's young people the chance to become interested in the mysteries of nature and marvels of science and technology, Hitachi Instruments Service Co., Ltd. utilized their own technology, know-how, and equipment to conduct a hands-on learning program for the fourth-year students at Hanazono Elementary School in Shinjuku ward. The one-year program was carried out over seven sessions, and even now, Hitachi Instruments Service Co., Ltd. continues to support a variety of education programs.
Award for Excellence 2001: Hitachi Cable Ltd.'s Tsuchiura Plant
- Asaza planting campaign -
All employees at the plant were involved in nurturing asaza plants (nymphoides peltata, known as "floating hearts") from seed, which were then planted at Kasumigaura to support the restoration of the ecosystem. This activity was part of the Asaza Project conducted by the NPO, The Asaza Fund.
Hitachi Computer Products (Asia) Corp. in the Philippines implemented the Hitachi Outreach Program in cooperation of BISIG-CATA, a River Rehabilitation and Protection Foundation, to plant a total of 90 seedlings along Barangay main road.

●Social Welfare Equipment Support Program
The Hitachi Group manufactures and sells a variety of equipment used in social welfare activities, and implemented the Social Welfare Equipment Support Program with the aim of contributing to society by supporting user needs in a way that is not possible from a purely business perspective.
In fiscal 2002, Hitachi developed the "Heart Communicator," a device that allows sufferers of ALS (amyotrophic lateral sclerosis) to communicate their feelings. Further, in addition to donating 10 Heart Communicators (complete with support software installed on Hitachi computers) to the Japan ALS Society, a private organization that uses these devices for positive results, Hitachi sent financial assistance and volunteers to help with the (Heart Communicator) operation short course designed by the Society.

●Foundation Activities
We have established a total of six domestic and international foundations, which conduct social contribution activities. The Hitachi Environment Foundation's Environment Award recognizes the extraordinary results of individuals, corporations, and organizations in the areas of research, development, and investigation into possible sustainable systems with reduced environmental loads. The Foundation also provides grants to environment NPOs to study how to creat harmonization between environment and economy, and between environment and science ／ technology related activities, and publishes its own journal, "Environmental Research."

Hitachi Instruments Service Co., Ltd.: supporting environmental education in elementary and junior high schools

Hitachi Computer Products (Asia) Corp.: tree-planting activities

○The Hitachi Group's Six Foundations

- The Odaira Memorial Hitachi Education Foundation
- The Kurata Memorial Hitachi Science and Technology Foundation
- The Hitachi Scholarship Foundation
- The Hitachi Environment Foundation
- The Hitachi Mirai Foundation
- The Hitachi Foundation (America)

Hitachi Cable Ltd.'s Tsuchiura Plant: Asaza planting campaign

Supporting the Japan ALS Society's operation short course for Hitachi Heart Communicators

Presentation ceremony for the Hitachi Environment Foundation's Environment Award

For further information about our social contribution activities, visit the following Web site: http://global hitachi.com/Int-e/skk/

Sustainable Business Models

In the future, we intend not only to create new products and services for people, but also to create new businesses that will benefit the environment. We are currently focusing our efforts on creating "sustainable business models" that will serve as the basis for creating a recycle-oriented society. While looking to the future, we are developing business practices that help preserve the environment, including environmental research and environmental support services for customers based on this research.

Constructing Business Models —Product Take-back and Recycling

Based on the principle of "Extended Producer Responsibility," Hitachi is constructing a recycling system that effectively utilizes the resources recovered from used products.

Household Recycling

In response to the electric Home Appliance Recycling Law, Hitachi Home & Life Solutions, Inc. (established in April 2002, after a split and merger within the Company's Home Appliance Group) established a new subsidiary, Kanto Eco Recycle Co., Ltd. in May 1999, to handle recycling operations for four main categories of used household electrical appliances.

The new plant is located at Hitachi Home & Life Solution's Tochigi site, a base for developing, designing, and manufacturing household appliances such as refrigerators and air conditioners. By feeding back information on recycling processing obtained from the production facility to product designers, this new company is helping to design products that are easier to recycle, reduce the environmental impact of products throughout their life cycle, and increase the amount of reusable materials used to manufacture future products.

A portion of the plastic recovered by the plant is reprocessed by crushing, washing, and wringing it, and then applying a homogenization process at the Neo Material Center (established in February 2001 to handle waste plastic material recycling). After all this, the plastic is reused in the framework of household appliances such as washer-dryers.

PC Recycling

Under revisions made to the Effective Use of Resources Promotion Law in April 2001, computers were classified as "products for recycling." This made it mandatory for manufacturers and importers to recover and recycle all computers employed throughout their business operations once they are no longer needed. Until this time, our manufacturers and importers had been referring customers to industrial waste treatment services in response to their requests for disposal. However, in accordance with this new law, and in order to promote the smoother recovery of resources, we have joined hands with IBM Japan, Ltd. to build a new national recovery system. We have also been approved as a designated waste processor for a wide range of industrial waste materials. This has enabled us to improve our services, in particular the publication and management of manifests (industrial waste management forms) on behalf of our customers. Furthermore, we have established an Internet service for handling everything from waste management price inquiries and applications, to the confirmation of recycling processes.

With regard to household PCs that are no longer needed, the recovery of these appliances is expected to become mandatory in the latter part of this year, and we are developing a recovery and recycling system that will support this.

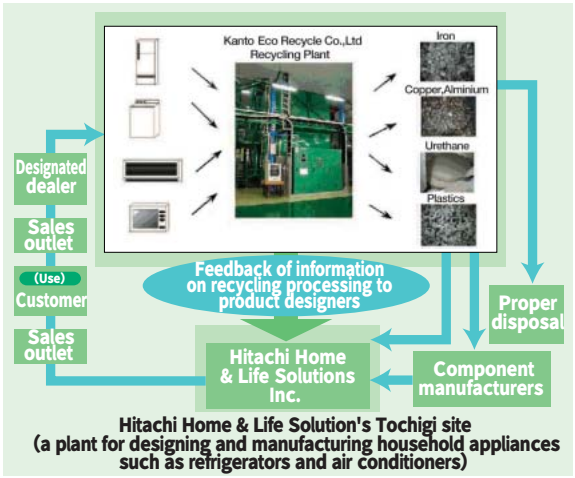
■Number of Household Electrical Appliances Recycled and Product Recycling Ratio

Category	Fiscal year	Air conditioners	Televisions	Refrigerators	Washing machines
Number of appliances recycled (units)	2001	172,564	330,298	360,827	376,852
	2002	207,447	375,906	412,864	484,549
Recycling rate(%)	2001	79	78	61	57
	2002	80	81	62	61

■PC Take-back Results (FY2002)

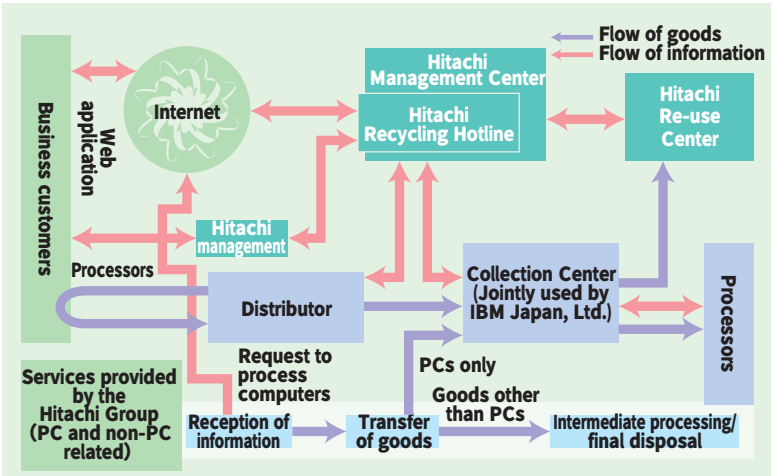
Category	Desktop computers	CRT displays	Notebook computers	Liquid crystal monitors
Number of computers take-back (units)	10,115	8,288	2,577	93

■Household Electrical Appliance Recycling (at a recycle-oriented plant built within a production site)



Hitachi Home & Life Solution's Tochigi site
(a plant for designing and manufacturing household appliances such as refrigerators and air conditioners)

■PC Recycling System



For more information about household electrical appliance recycling, visit the following Web site:
http://kadenfan.hitachi.co.jp/kankyo/recycle/index.html (only in Japanese)
For more information about PC recycling, visit the following Web site:
http://www.hitachi.co.jp/Prod/comp/OSD/pc/flora/environment/recycle.htm (only in Japanese)

Offering Total Environmental Solutions

Hitachi utilizes a wide range of tools, such as results and technologies accumulated through activities in a variety of environment-related areas, to provide customer support for environmental management, especially in regard to waste, energy, air, and water solutions and services.

Bifacial Solar Cell and Module

As a countermeasure to global warming and resource depletion, it is prospected that the amount of solar power will increase. Hitachi has developed new concept of solar power generation with bifacial solar cell vertically installed to the ground. The bifacial cell produces energy on both sides. The semiconductor manufacturing process is applied to that of the solar cell. The base material of the bifacial cell is single crystalline P-type silicon substrate of which back surface boron is diffused. Hitachi pioneers mass production of bifacial solar cell in the world. Regardless of the direction in which these cells are installed, the annual amount of power generated is roughly the same, and the yearly generation energy is as much as 1.3 to 1.5 times larger than that of mono-facial cell. Further, both sides feature a protective glass covering, and as a result of this double-glass structure, the module has longer life than any other module with mono-facials. The bifacial module having previllage of direction free installation, it is expected that the bifacial module is widely applied to roof top, fence and noise barrier along with the highway or the railway. The bifacial module is expected to realize large-scale power generation especially in the country with small land to use as Japan, it is welcomed to applied to farm and agricultural as well as in airport and seaport.

Direct Methanol Fuel Cells

Hitachi promotes the development of fuel cells that are capable of producing a more efficient energy source than that generated by conventional fossil fuels. Because direct methanol fuel cells (DMFCs) use methanol and water as fuel to provide a direct source of power, they are a highly effective power source. We support the development of DMFCs as a power source for mobile devices, such as notebook computers and portable information terminals that demand a compact and lightweight design, and using catalysts and electrolyte membranes as the materials for the main structure, have manufactured a cell with increased output and better efficiency. Through the application of fuel cells, not only is it possible to achieve energy savings and control CO_2 emissions, but it is also possible to eliminate the need for recharging required by conventional rechargeable batteries, enabling extended use through fuel replenishment.

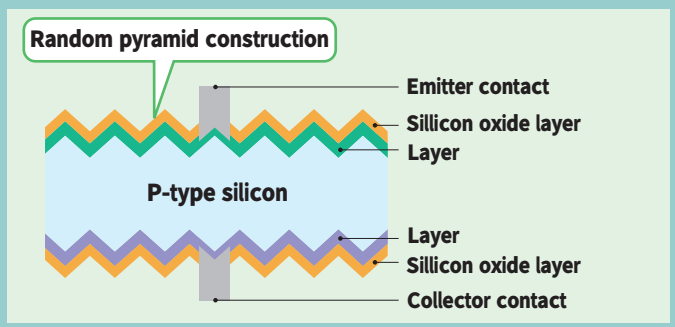
Wind Power Project

We are promoting the introduction of wind power as one of the renewable energies covered under the Law Concerning Special Measures for Promotion of the Use of New Energy, enacted in April 2003.
Hitachi Engineering & Services Co., Ltd. offers a total solution for wind power generation, from introduction planning for wind power generators to construction and maintenance services. They are also developing a hybrid power generation system that combines a variety of power sources to achieve optimum results, such as combinations of wind, solar and water power. In addition, Hitachi Engineering & Services has erected two 600 kW wind power generators in Noshiro City, Akita Prefecture, and has begun wind power generation. With the aim of supplying 3.2 million kWh of wind power annually, they began selling power to a power company in December 2002.

■Bifacial solar modules

Testing out solar power generation in the form of a rooftop fence on a building located in Hitachi works

■Structure of Bifacial solar cell



■Trial Device for Portable Direct Methanol Fuel Cells

■Wind Power Generation

Two 600 kW wind power generators erected at the Noshiro Ochiai Wind Power Plant.

ESCO

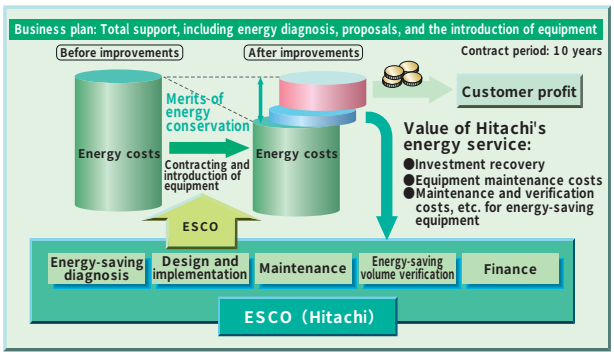
To provide our customers with a comprehensive service for energy savings, we are developing ESCO (Energy Service Companies), an initiative that is attracting attention as an effective means of preventing global warming.
In October 2002, Komatsu Ltd. Oyama plant adopted an ESCO service developed by Hitachi to enable energy savings through displacement air conditioning and utilization system of exhaust gas from gas turbines gene set. The ESCO introduced energy-saving equipment at no cost to the customer, applying a shared savings contract according to which the energy saving effects obtained by the new equipment are shared between the ESCO and cooperating company. At Hitachi, in addition to installing energy-saving equipments at the production sites of our business partners, we provide a complete range of services, such as guarantee of energy saving values and post-installation maintenance, services.
At Komatsu Ltd. Oyama plant, introduction of a displacement air conditioning system has resulted in a comfortable operating space and an estimated 90% reduction in the amount of power required for existing air conditioning System. By further, to install the steam turbines a flexible Heat and Power supply system is established to suit the requirements from the plant's utilities (electricity and steam) to match the climate and production planning, resulting in more efficient production.
Through the introduction of energy-conservation measures such as these, it is expected that the Oyama plant's total volume of energy consumption is expected to decrease approximately 9.3%.

Technological Support for Using of Lead Free Solders

The response to environmental issues cannot be carried out by one corporation alone, but must be carried out on a global scale. At Hitachi, Ltd., we are taking the lead in an international project that not only promotes the lead free solders used in the connections of conventional electrical and electronic devices, but which also supports the development of internal and external technologies, especially processing technology utilized for a variety of Hitachi Group products.

Actual examples of our activities include: ① Technology seminars aimed at increasing the awareness of using free solders and how this can be achieved among management level staff at corporations where they have expressed an interest in using free solders, ② Technological diagnosis and total problem-solving support services for corporations planning to use free solders, from the promotion of new systems to the establishment of new technologies ③Support for the introduction of new processing technologies used in production lines, ④ Implementation of connection reliability simulations and reliability evaluations at dozens of companies, both internally and externally. Recently, we were approached for consultation regarding technological support for production at an overseas site where lead free solder is not used, evidence of our continued implementation of support activities on a global scale.

■ESCO (Energy Service Companies)

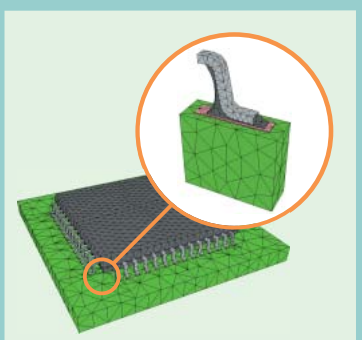


Displacement air conditioning equipment at Komatsu Ltd. Oyama plant

■Main Technological Support Items for the Abolishment of Lead Solders

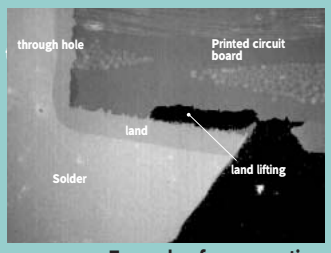
—Technological Support Items —
- On-site seminars
- Technological diagnosis
- Materials selection and processing improvements
- Extended life period estimate
- Start of production line
- Consigned production
- Additional technological guidance

—Comments —
- Capable of providing technological support for each individual item and every possible combination
- Capable of adjusting our type of support and schedule to match the technological level of the customer and their desires



Example of an analytical model for connection reliability simulation

Processing technology support



Example of a connection reliability evaluation

For more information about ESCO, visit the following Web site: http://www.hitachi.co.jp/ESCO/index.html (only in Japanese)

In Correspondence with Guidelines

The following is the publication status for environmental performance indicators found in the guidelines used as reference in the creation of this report. References include: the Ministry for the Environment's Environmental Performance Indicator Guidelines for Business, Fiscal Year 2002 Version, the Ministry of Economy, Trade and Industry's 2001 Environmental Reporting Guidelines with an Emphasis on Stakeholders, and the Global Reporting Initiative's Sustainability Reporting Guidelines 2002.

In correspondence with the Ministry for the Environment's Environmental Performance Indicator Guidelines for Business, Fiscal Year 2002 Version

Indicators related to environmental burdens

Indicator Category	Indicator Item		Reference Page
Core Indicators	Input	①Total energy consumption	P.4
		②Total input of materials	P.4
		③Amount of water used	P.4
	Output	④Greenhouse gas emissions	P.4、21
		⑤Chemical substance release and transfer volumes	P.4、23、24
		⑥Total product manufacturing volume or total product sales volume	P.4
		⑦Total amount of waste generated	P.4、20
		⑧Amount of final disposal of waste	P.4、20
		⑨Total amount of drainage	P.4
Sub-indicators	Indicators that qualitatively complement core indicators	・Breakdown of invested energy	P.4
		・Types of resources and status at time of investment	P.4
		・Breakdown of water sources	P.4
		・Breakdown of 6 substances covered under the Kyoto Protocol	P.4、22
		・Breakdown of emissions activities	P.4、19
		・Substances Subject to the PRTR Law	P.4、23、24
		・Emissions volume for other managed substances	P.4、23
		・Production or sales volumes based on units other than weight	—(＊1)
		・Production or sales volume for product services that contribute to environmental impact reduction	P.16
		・Quantity or proportion of production of products certyfied by eco-labels	P.18
		・Amount of containers and packaging used	P.4、19
		・Breakdown of treatment methods for waste, etc.	P.4、20
		・Breakdown for types of waste, etc.	P.20
		・Breakdown for points of discharge	P.4
		・Water quality	P.4
	Not applicable to all businesses, but important environmental indicators	・Circulated water consumption volume for internal sites	P.4
		・Items under emission control(SO_x、NOx)	P.4
		・Items under emission control(SO_x、NOx)	—(＊1)
		・Substances under emission restraint	—(＊1)
		・Noise,vibrations and odor	—(＊1)
		・Nitroge and phosporus	—(＊1)
		・Items under drainage control	—(＊1)
		・Amount of recyclable resources reused within the business	—(＊2)
		・Amount of recyclable resources that are thermally recycled within the business	—(＊2)
		・Energy efficieny of each product group	P.17
		・CO_2 emission efficiency of each product group	P.17
		・Percentage of reusable/recyclable portions of each product group	P.17、36
		・Amount of uese products, containers and packaging collected	P.36
		・Percentage of reusable/recyclable portions of each product group	P.36
		・State of soil contamination and groundwater pollution	P.24
		・Area of afforestation and nature restration	—(＊1)
		・Amount of chemical substances held in stock	P.4、24

＊1: Data is available for a variety of sites, but is not included in the Group's report. The names of reports and the homepage addresses are published for some sites.
＊2: The internal volumes for resource reuse and heat recovery are not currently included in calculations. This is under investigation.

Indicators related to environmental management

Indicator Category	Indicator Item	Reference Page
Sub-indicators	Environmental Management System	P.13
	Environmental conservation technologies, design for the environment (DfE)	P.16、17
	Environmental accounting	P.14
	Green purchasing	P.18、19
	Environmental communication and partnership	P.26、27、28、29
	Compliance with regulations regarding environmental matters	P.32
	Health and safety	P.31
	Social contributions related to the environment	P.33、34

Indicators related to management

Indicator Category	Indicator Item		Reference Page
Sub-indicators	Management indicators	Sales volume, production volume, number of employees, etc.	P.41
	Management and related indicators	Environmental efficiency indicators	P.16
		Standardization of a variety of environmental impact indicators	—

In Correspondence with GRI's Sustainability Reporting Guidelines 2002

Environmental Performance Indicators
Compulsory Indicators

Indicator No.	Indicator Item	Reference Page
Materials		
EN1	Total materials use other than water, by type.	P.4
EN2	Percentage of materials used that are wastes (processed or unprocessed) from sources external to the reporting organisation.	—(＊1)
Energy		
EN3	Direct energy use segmented by primary source.	
EN4	Indirect energy use.	P.4、21、22
Water		—(＊1)
EN5	Total water use.	P.4
Emissions, Effluents, and Waste		
EN8	Greenhouse gas emissions.	P.4、21、22
EN9	Use and emissions of ozone-depleting substances.	P.4、20
EN10	NOx, SOx, and other significant air emissions by type.	P.4
EN11	Total amount of waste by type and destination.	P.4
EN12	Significant discharges to water by type.	P.4
EN13	Significant spills of chemicals, oils and fuels in terms of total number and total volume.	P.23、24、32
Products & Services		
EN14	Significant environmental impacts of principal products and services.	P.17
EN15	Percentage of the weight of products sold that is reclaimable at the end of the products' useful life and percentage that is actually reclaimed.	P.36
Compliance		
EN16	Incidents of and fines for non-compliance with all applicable international declarations/conventions/treaties, and national, sub-national, regional, and local regulations associated with environmental issues.	P.32

Voluntary Indicators

Indicator No.	Indicator Item	Reference Page
Energy		
EN17	Initiatives to use renewable energy sources and to increase energy efficiency.	P.4、21、22
EN18	Energy consumption footprint (i.e., annualised lifetime energy requirements) of major products.	P.17
EN19	Other indirect (upstream/downstream) energy use and implications, such as organisational travel, product lifecycle management, and use of energy-intensive materials.	P.16、17
Water		
EN21	Annual withdrawals of ground and surface water as a percent of annual renewable quantity of water available from the sources.	P.4
EN22	Total recycling and reuse of water.	P.4
Emissions, Effluents, and Waste		
EN30	Other relevant indirect greenhouse gas emissions.	—(＊1)
EN31	All production, transport, import, or export of any waste deemed "hazardous" under the terms of the Basel Convention Annex Ⅰ, Ⅱ, Ⅲ, and Ⅷ.	—(＊2)
Suppliers		
EN33	Performance of suppliers relative to environmental components of programmers and procedures described in response to Governance Structure and Management Systems section.	P.18
Transport		
EN34	Significant environmental impacts of transportation used for logistical purposes.	P.19
Overall		
EN35	Total environmental expenditures by type.	P.14

＊1: Environmental impact caused through activities other than those for the Company itself is not published.
＊2: Data management is carried out at each site, but not published.
＊3: Because a variety of information is required for specification, such as the type of management practices conducted at a variety of sites, corresponding items, definitions, and the range of activities, items pertaining to a variety of organisms "Biodiversity" (EN6, 7, 23, 24, 25, 26, 27, 28, 29) and related items EN20 "Water sources and related ecosystems and habitats that have suffered a notable impact through the Company's use of water" and 32 "Water sources and related ecosystems and habitats that have suffered serious impact through drainage and spillage from the Company," are not currently included in calculations.

List of Data Published on the hitachi green web

You can view details for the following data on the hitachi green web. For details, visit the following Web site:
http://greenweb.hitachi.co.jp/en/data

Category/Activity		Reference Page	Contents
Introduction	Corporate Summary	P.41	Company profile
			Summary of accounts for FY2002
	Scope of Environmental Report	P.42	List of companies covered by reports
	Environmental Impact Data	P.4	Environmental impact data for corporate activities
	EcoValue Plan 2010	P.7	EcoValue Plan 2010
		P.7	History of environmental management activities
	Environmental Action Plan and Evaluation	P.8	Environmental Action Plan and evaluation
	GREEN 21 Version 2	P.9–10	Green point average
Eco-mind & Management	Environmental Education	P.12	Number of qualified personnel required and number employed
	Environmental Management System	P.13	ISO14001 certification status
			Trends in acquiring ISO14001 certification
			List of ISO14001 certified sites by region
	Environmental Accounting	P.14	Cost and investment
			Effect
			Efficiency of environmental impact reduction
			Cost breakdown ratio by sector
			Investment breakdown ratio by sector
			Investment breakdown ratio by countermeasure
			Economic effect breakdown ratio by sector
			Environmental impact reduction efficiency
Nature-friendly Products & Eco-factories	Eco-products	P.16–17	Eco-product registration trends
			Eco-products list and data sheet
			Examples of eco-products
	Chemical Substances Used in Products	P.18	Trends in lead consumption
	Green Procurement/Green Purchasing	P.18	List of products covered under the Green Purchasing Law
			Green procurement guidelines
	Green Procurement/Green Purchasing	P.19	Commission volumes for containers and packaging
	Effective Use of Resources	P.19	Transportation impact status
			Ratio of low-emission vehicles for the total number of company-owned vehicles
	Increasing Product Transportation Efficiency	P.4,20	Trends in final disposal volume reduction
			Flowchart for the treatment of waste and reusable waste products
			Zero emissions production sites
			Breakdown of recycling methods
			Breakdown of final disposal volumes by type
			Breakdown of final disposal volumes by sector
	Prevention of Global Warming —Energy Conservation	P.4,21–22	Trends in production-related CO_2 emissions
			Breakdown ratio for CO_2 emissions volumes by sector
			Trends in the composition of energy consumption
			Emissions and composition of greenhouse gas
			Volume of new energy
	Chemical Substance Management	P.23–24	Trends in emissions for "substances specified for reduction"
			Ratio of handling volume by sector
			Breakdown of release and transfer volumes by sector
			Survey results for substances covered under the PRTR law for Japan
Worldwide Stakeholder Collaboration	Environmental Communication	P.26–29	Homepage access status
			Site specific environmental reports
			Site specific information disclosure via the Internet
			Commendations
			Environmental Web link for each company and site
			Contact details for each company and site report
		P.28	Opinions on Hitachi's Environmental Management Sustainability Report
	Employee Relations (Health and Safety)	P.31	Occupational accident rate
	Compliance with Laws & Regulations	P.32	Administrative guidance in environmental matters and responses to external complaints
Sustainable Business Models	Constructing Business Models	P.36	Number of household electrical appliances recycled and product recycling ratio
			PC Take-back Results

Company Profile

Company Profile

Corporate Name:	Hitachi, Ltd.
Incorporated:	Incorporated February 1, 1920 (founded in 1910)
Head Office:	6, Kanda-Surugadai 4-chome, Chiyoda-ku, Tokyo 101-8010, Japan
Representative:	Etsuhiko Shoyama, President and Director

Main Products and Services of the Hitachi Group

Information & Telecommunication Systems	System integration services, software, magnetic disc systems, servers, notebook and desktop computers, peripheral devices for computers, converters, optical components for communication systems
Electronic Devices	System LSI solutions, memory, multi-purpose semiconductors, liquid crystal displays, semiconductor manufacturing equipment, measurement and analysis equipment, medical equipment
Power & Industrial Systems	Nuclear power generation hardware, thermal power generation hardware, hydro power generation hardware, industrial machinery and plants, air conditioning systems, construction machinery, train carriages, elevators, escalators, machinery for automobiles, environmental equipment
Digital Media & Consumer Products	Optical storage drives, televisions, portable devices, liquid crystal projectors, air conditioners, refrigerators, washing machines, lighting fixtures, cooking equipment, batteries, media for recording information
High Functional Materials & Components	Electrical wires, cables, copper and brass products, iron castings, steel castings, high-grade specialty steel, magnetic material, chemical substances, electrical insulation materials, synthetic resins, carbon products, printed circuit boards, ceramic materials
Logistics, Services & Others	Electrical and electronic equipment sales, transportation of freight, real estate management, trade, and leasing
Financial Services	Sales of affiliated loans, leasing, life and non-life insurance businesses

Financial Data

As of March 31, 2003

Capital: \282,032 million

Stock information: Total number of authorized shares: 10 billion

Shares of common stock issued: 3,364,908,209

Number of shareholders: 421,138

Nominal share value : \50

Stock listings: Tokyo, Osaka, Nagoya, Fukuoka, Sapporo, Luxembourg, Frankfurt, Amsterdam, Paris, New York

Number of employees: 44,375

Number of consolidated employees: 339,572

Number of consolidated subsidiary companies: 1,112 (domestic: 708 companies, overseas: 404 companies)

Number of affiliated companies that use the equity method: 119 companies

Period: March 2003 (consolidated)

Net sales: \8,191.7 billion (102% compared with the previous year)

Operating income/loss: \152.9 billion

Net income: \27.8 billion

Capital investment: \787.4 billion (92% compared with the previous period)

R&D expenditure: \377.1 billion (91% compared with the previous period)

●Overseas
Net sales: \2,645.2 billion (104% compared with the previous period)

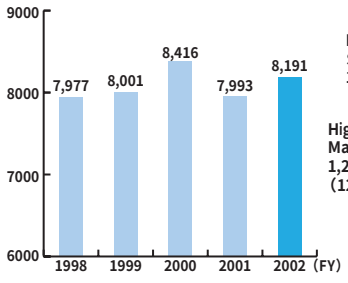
Output: \1,033.8 billion (95% compared with the previous period)

Overseas output as a percentage of consolidated net sales: 13%

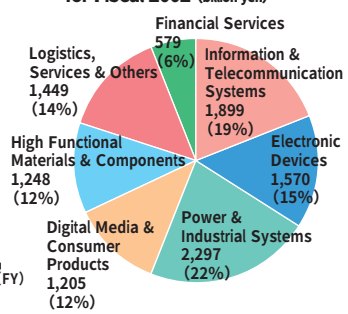
Overseas output as a percentage of overseas net sales: 39%

【Trends in Consolidated Performance Results】

Net sales (billion yen)

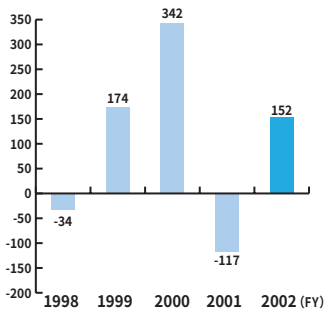


Net Sales by Industry Segment for Fiscal 2002 (billion yen)

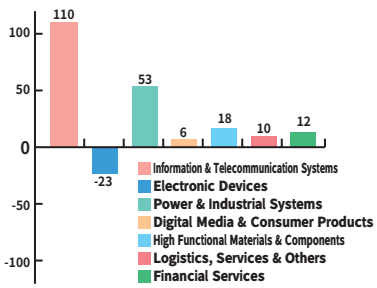


Total Sales for Industry	\10,249 billion
Consolidated Net Sales	\8,191 billion

Operating Income/Loss (billion yen)



Operating Income by Industry Segment for Fiscal 2002 (billion yen)



Total Operating Income for Industry Segments	\187 billion
Consolidated Operating Income	\152 billion

List of Companies Covered by This Report

The following list includes 298 companies covered by this report. The companies are listed according to their names as of March 31, 2003.

Domestic

POWER SYSTEM SERVICE Co., Ltd.
Kokubu Kiki Engineering Corporation
Japan AE Power Systems Corporation
Hitachi Ibaraki Technical Service Ltd.
Hitachi Ibaraki Business Enginering Co.,Ltd.
Hitachi Engineering Consulting, Co., Ltd.
Hitachi Ibaraki Triple Win Co.,Ltd.
Japan Motor & Generator Co.,Ltd.
Hitachi Ibaraki Net Sourcing Co.,Ltd.
Hitachi Kasado Kikai Kogyo Co., Ltd.
Hitachi Kasado Engineering CO., Ltd.
Hitachi Industries Co., Ltd.
T-TEC Co.,Ltd.
Sanki Service Co., Ltd.
Sanki Precision Co., Ltd.
Ebina Technos Co., Ltd.
Techno Create Co., Ltd.
Hitachi Techno Service Co., Ltd.
Hitachi Engineering & Services Co., Ltd.
HESTECH Service Co., Ltd.
Hitachi Haramachi Electronics Ltd.
Hitachi Kyowa Engineering Co., Ltd.
Nikkyo Ltd.
Hitachi Setsubi Engineering Co., Ltd.
Nisetsu Service Co., Ltd.
Hitachi Information & Energy Systems Co.,Ltd.
Chubu Electric Engineering Co., Ltd.
Chubu System Service Co.,Ltd.
Hitachi Electric Systems Co., Ltd.
Hitachi Engineering Co., Ltd.
ICC Co., Ltd.
ICH Co., Ltd.
Ibaraki Hitachi Information Service Co., Ltd.
Babcock-Hitachi Kabushiki kaisha
Bab Hitachi Industry Co., Ltd.
Bab Hitachi Engineering Co., Ltd.
BHK Business Service Corporation
Bab Hitachi Machinery Co.,Ltd.
Hitachi Mito Engineering Co.,Ltd.
Mito Engineering Service Company
Hitachi Building Systems Co., Ltd.
Hitachi Information Academy Co., Ltd.
Hitachi Security Service Co., Ltd
HITACHI Hi-System21 Co.,Ltd.
HITACHI PUBLIC SYSTEM SERVICE CO. ,LTD.
Hitachi Information & Control Systems,Inc.
Omika Creative Services, Inc
Hitachi Advanced Systems Corporation
Shonan Service Co., Ltd.
OpNext Japan,Inc.
Kanagawa High-Tech Services Co.,Ltd.
Hitachi Printed Wiring Board Solution Co., Ltd
Odawara Custom Manufacturing Service Co., Ltd.
Hitachi H.B.M. Co., Ltd.
HBM Solution Co., Ltd.
Hitachi Government and Public Corporation System Engineering, Ltd.
Universalcom,Ltd.
Hitachi System & Services,Ltd.
Hitachi System Engineering & Assist, Ltd.
Net Services,Ltd
Hitachi Touhoku Software, Ltd.
Hitachi Touhoku Software, Ltd.
Hitachi Chugoku Software,Ltd.
Hitachi Open Platform Solusions,Ltd.
NAKAYO TELECOMMUNICATIONS,INC.
Hitachi Communication Technologies, Ltd.
Telecom Kiki, Ltd.
Hitachi Hybrid Network Co.,Ltd.
Hitachi INS Software,Ltd.
Hitachi Electronics Services Co., Ltd.
Hitachi Information Technology Co., Ltd.
Shonan Hi-tech Planning Co.,Ltd.
Kanagawa Production and Services Co.,Ltd.
Hitachi Computer Peripherals, Co., Ltd.
Hitachi Video and Information System,Inc.
Hitachi Microsoftware Systems,Inc.
Media Tech Co.,Ltd.
TOKAI TEC CO., LTD.
Hitachinaka denshi,Inc.
Hitachi Asahi Electronics Co.,Ltd.
Hitachi Postal Technology Co.,Ltd.
Chubu High Technology Service,Co., Ltd.
Hitachi Joei Tech Co., Ltd.
Hitachi Kodaira Semicondudtor Co., Ltd.
Takasaki Semiconductor Co.,Ltd.
Hitachi LSI Technologies,Ltd.
Hitachi Semiconductor and Devices Sales Co., Ltd.
Hitachi Electronic Devices Sales Co., Ltd
Hitachi Hi Components, Ltd.
Tsuruta Electronics,Ltd
Eastern Japan Semiconductor Technologies,Inc.
Ome Semicon Co., Ltd.
Hitachi Yanai Semicon Co., Ltd
Northern Japan Semiconductor Technologies
Haguro Electronics Co., Ltd.
Hokkai Electronics Co., Ltd.
Hitachi ULSI Systems Co., Ltd.
AKITA ELECTRONICS SYSTEMS CO.,LTD.
AKITA SEMICONDUCTOR CO.,LTD.
Trecenti Technologies,Inc.
Hanshin Electric Co.,Ltd.
Jidousha Denki Kogyou Co.,Ltd.
MOBARA ATECS Co.,Ltd
Chiba Electronics Co.,Ltd.
Hitachi Industrial Equipment Systems Co,Ltd.
Hitachi Keiyo Engineering & Systems, Ltd.
Nakajyo Engineering Co., Ltd.
Hitachi Home & Life Solutions, Inc.
Iwaki Metal Manufacturing Co., Ltd.
Hitachi Taga Technology, Ltd.
Hitachi Tochigi Material Co., Ltd.
Tochigi Industrial Co., Ltd.
Hitachi Lighting Co. Ltd.
Ome Sangyou, Ltd.
Hitachi Hometec, Ltd.
Nichiho Products,Ltd.
Nichinetsu Engineering Co., Ltd.
Hitachi Lighting, Ltd.
Hitachi Ryugasaki, Ltd.
Sawara Electronic Products Co., Ltd.
Hitachi Tochigi Electronics Co., Ltd.
Hitachi High-Technologies Corporation
Instruments Technology Ltd.
Hitachi Metals, Ltd.
Hitachi Metals Kiko Co., Ltd.
Hitachi Ferrite Electronics, Ltd.
HMY,Ltd.
Hitachi Tool Engineering, Ltd.
Tool Tech, Ltd.
Seitan Inc.
Kyushu Techno Metal, Ltd.
Hitachi Metals MPF,Ltd.
Hitachi Cable, Ltd.
Takasuzu Engineering
Hitachi Cable Mech-Tech,Ltd.
Hidec Systems Co.,Ltd.
J-Power Systems Corp.
Hitachi Cable Fine-Tech,Ltd.
Hirasawa Kogyosyo
Hitachi Copper Products, Ltd.
Hitachi Alloy, Ltd.
Tonichi Kyousan Cable,Ltd.
Tounichi Densenkako
Tounichi Shoji
Kyoteku
Tohoku Rubber Co., Ltd.
Tohoku Kako
Tohoku Rabber Sales Co.,Ltd
Hitachi Chemical Co., Ltd.
Neuron Co., Ltd.
Goi Chemical Co.,Ltd.
Hitachi Chemical Electronics Co., Ltd.
Shimodate Sangyo Co., Ltd.
Hitachi Housetec Co., Ltd.
Shin-Kobe Electric Machinery Co., Ltd.
Shin-Kobe Platechs Co.,Ltd.
Shin-Kobe Techno Service., Ltd.
Hitachi Battery Sales & Service, Ltd.
Hitachi AIC Inc.
Shinmachi Condenser, Ltd.
Haitekusu, Ltd.
Yamagishi AIC Inc.
Hitachi Powdered Metals Co., Ltd.
MEC, Ltd.
Hitachi Kasei Polymer Co., Ltd.
Hitachi Chemical Industrial Materials Co., Ltd.
Hitachi Chemical Automotive Products Co.,Ltd.
Japan Brake Industrial Co., Ltd.
Namie Japan Brake Co., Ltd.
NARUTO MANUFACTURING CO.,LTD.
HIROSHIMA JAPAN BRAKE INDUSTRIAL CO.,LTD.
Hitachi Chemical Coated Sand Co., Ltd.
Nikka Touchu Co., Ltd.
Hitachi Chemical Filtec Inc.
Nippon Denkai, Ltd.
Hitachi Kokusai Electric Inc.
Hitachi Construction Machinery Co., Ltd.
Hitachi Kenki Business Frontier Co., Ltd.
Hitachi Kenki FineTech Co.,Ltd.
Hitachi Construction Machinery Comec Co.,Ltd.
Hitachi Kenki Logistics Technology Co.,Ltd.
Hitachi Construction Machinery Tierra Co.,Ltd.
Hitachi Transport System, Ltd.
Higashinippon Hitachi Transport Service Co.,Ltd.
Ibaraki Hitachi Transport Service Co.,Ltd.
Higashikanto Hitachi Transport Service Co.,Ltd.
Kitakanto Hitachi Transport Service Co.,Ltd.
Keiyo Hitachi Transport Service Co.,Ltd.
Nishikanto Hitachi Transport Service Co.,Ltd.
Chubu Hitachi Transport Service Co.,Ltd.
Kansai Hitachi Transport Service Co.,Ltd.
Higashicyugoku Hitachi Transport Service Co.,Ltd.
Nishicyugoku Hitachi Transport Service Co.,Ltd.
Hokkaido Hitachi Transport Service Co.,Ltd.
Minamikanto Hitachi Transport Service Co.,Ltd.
Tohoku HB Service Co.Ltd.
Kyushu Hitachi Transport Service Co.,Ltd.
Nisshin Transportation Co., Ltd.
Tozai Transport Co., Ltd.
HB Air Cargo Service, Ltd.
Hitachi Auto Service (Ibaraki) Co., Ltd.
Hitachi Auto Service (Tokyo) Co., Ltd.
Hitachi Travel Bureau., Ltd.
HTB Service Co., Ltd.
Unique Co., Ltd.
Sunwork Co., Ltd.
Syunan Transport Sevrice Co., Ltd.
IEC Co., Ltd.
Hitachi Distribution Software Co., Ltd.
F&H AIR EXPRESS Co., Ltd
NISSHIN TRANS CONSOLIDATOR CO.LTD.
Hitachi Plant Engineering & Construction Co., Ltd.
Hitachi Maxell, Ltd.
Maxell Life, Ltd.
Maxell Engineering Co., Ltd.
Maxell Seiki, Ltd.
Maxell Logistics Co., Ltd.
Maxell Hi Tec, Ltd.
Kyushu Hitachi Maxell, Ltd.
Toko, Ltd.
Sanpo Trading, Ltd.
Hitachi Air Conditioning Systems Co., Ltd.
Hitachi Shimizu Engineering Co., Ltd.
Hitachi Shimizu Technology Co., Ltd.
ShinMaywa Industries, Ltd.
TOKICO LTD.
Hitachi Koki Co., Ltd.
Hitachi Information Systems, Ltd.
Hitachi Medical Corporation
Hitachi Medico Technology Corporation
Kokusan Electric Co., Ltd.
Toyo Machinery & Metal Co.,Ltd.
Japan Servo Co., Ltd.
Hitachi Electronics Engineering Co., Ltd.
Hitachi D .E. Technology Co., Ltd.
Hitachi Via Mechanics, Ltd.
Keihin Sangyo, Ltd.
Hitachi Seiko Engineering, Ltd.
Hitachi Media Electronics Co., Ltd.
Hitachi Life Corporation
Sliontec Corporation
Slion Service Co., Ltd.
Hitachi, Ltd.

Overseas

Asia

Hitachi Semiconductor (Shzhou) Co., Ltd.
Hitachi Display Device (Shzhou) Co., Ltd.
Shanghai Hitachi Household Appliances Co., Ltd.
Hefei Hitachi Excavators Co., Ltd
Hitachi Transport System (Hong Kong) Ltd.
Hitachi Transport System (Shanghai) Ltd.
Nisshin Transportation (SHANGHAI) Co.,Ltd.
Hubei Huxin International Warehouse and Transportation Co., Ltd.
Nisshin Transportation (QINGDAO) Co.,Ltd.
Nam Yang Metals Co.,Ltd.
Kaohsiung Hitachi Electronics Co., Ltd.
Hitachi Chemical Co., (Taiwan) Ltd.
Taiwan Hitachi Co., Ltd.
TAIWAN HITACHI AIR CONDITIONING PRODUCTS (PHILIPPINES) CORP.
HITACHI CONSUMER PRODUCTS (THAILAND),LTD.
HITACHI COMPRESSOR (THAILAND),LTD.
HITACHI TRANSPORT SYSTEM (THAILAND), LTD.
KABINBURI LOGISTICS CENTER,LTD.
HITACHI COMPUTER PRODUCTS (ASIA) CORP.
MANILA INTERNATIONAL FREIGHT FORWARDERS,INC.
HITACHI CONSUMER PRODUCTS (MALAYSIA) SDN. BHD.
Hitachi Semiconductor (MALAYSIA) SDN.BHD.
HITACHI SEMICONDUCTOR (KEDAH) SDN. BHD.
HITACHI SEMICONDUCTOR TECHNOLOGY (MALAYSIA) SDN.BHD.
HITACHI SEMICONDUCTOR (PENANG) SDN. BHD.
HITACHI AIR CONDITIONING PRODUCTS (M) SDN.BHD.
HITACHI CABLE (JOHOR) SDN.BHD.
HITACHI CHEMICAL (JOHOR) SDN.BHD.
HITACHI TRANSPORT SYSTEM (MALAYSIA) SDN.BHD.
SUNRISE INTEGRATED SERVICES (MALAYSIA) SDN.BHD.
Hitachi Nippon Steel Semiconductor Singapore Pte. Ltd.
Hitachi Chemical Asia-Pacific Pte, Ltd.
HITACHI EXPRESS SINGAPORE PTE. LTD.
HITACHI TRANSPORT SYSTEM (ASIA) PTE.LTD.
P.T. Hitachi Chemical Electronic Products Indonesia
P.T.HITACHI CONSTRUCTION MACHINERY INDONESIA

America

Hitachi Home Electronics (AMERICA),INC.
HITACHI AUTOMOTIVE PRODUCTS (USA),INC.
HITACHI ELECTRONIC DEVICES (USA),INC.
HITACHI MAGNETICS CORPORATION
WARD MANUFACTURING INC.
AAP ST.MARYS CORPORATION
HITACHI METALS NORTH CAROLINA,LTD.
ACP MANUFACTURING COMAPNY LLC
SUNRISE AIR SERVICE,INC.
HITACHI TRANSPORT SYSTEM (AMERICA),LTD.
HITACHI CONSUMER PRODUCTS DE MEXICO S.A. DE C.V.
HITACHI SYSTEMA DE TRANSPORTE MEXICO, S.A.DE C.V.

Europe

HITACHI TRANSPORT SYSTEM (UK) LTD.
HITACHI TRANSPORT SYSTEM (NEDERLAND) B.V.
Hitachi Semiconductor (EUROPE) GmbH
HITACHI TRANSPORT SYSTEM (EUROPE) GMBH
HITACHI SYSTEME DE TRANSPORT (FRANCE) SARL.
HITACHI AIR CONDITIONING PRODUCTS EUROPE S.A.

Corporate Environmental Policy Division
Hitachi, Ltd.
May 2003

Hitachi Group —Environmental Sustainability Report 2003

Thank you for your concern and interest in the business activities of the Hitachi Group, and in particular, for the interest you have shown towards our environmental preservation activities.

With our compliments, please find enclosed a copy of the Hitachi Environmental Sustainability Report 2003, detailing the environmental activities undertaken by the Hitachi Group.

This year the word "management" has been added to the report's title in Japanese, illustrating the greater management-centered approach Hitachi is taking towards its environmental activities. The report also features details on GREEN 21 Version 2, a new evaluation tool for realizing the Hitachi Group's Environmental Vision, making it easy to understand the impact Hitachi's activities have on the environment at a glance. In addition to the Environmental Sustainability Report, we have included detailed information on the Company's homepage.

In the future, while striving to continually improve our environmental preservation activities, the Hitachi Group intends to pursue greater information disclosure in order to facilitate a greater understanding of these activities.

We hope you will enjoy reading our latest report, and look forward to receiving your unreserved thoughts and opinions.

Inquiries:
Corporate Environmental Policy Division
Hitachi, Ltd.
6, Kanda-Surugadai 4-chome,
Chiyoda-ku, Tokyo 101-8010, Japan

We would like to use the opinions and advice of our customers in formulating our future environmental activities and environmental reports. Please take the time to fill in the questionnaire on the reverse side of this page, and send your answers by fax to:

Tel: (81) 3-3258-1111
Fax: (81) 3-3258-5810
E-mail: kankyohon@hdq.hitachi.co.jp

FAX: (81) 3—3258—5810

Questionnaire

Please answer the questions below and mail or fax completed questionnaire to the address/ facsimile number on the right.

Corporate Environmental Policy Division Hitachi, Ltd.
6, Kanda-Surugadai 4-chome, Chiyoda-ku, Tokyo 101-8010, Japan
Fax: (81) 3-3258-5810

Q1. What did you think of the Hitachi Environmental Sustainability Report? (Check one box only)

(1) Comprehensibility	☐ High	☐ Average	☐ Low
(2) Volume	☐ Too much	☐ Appropriate	☐ Too little
(3) Content	☐ Good	☐ Average	☐ Poor

・Explain the reason(s) for your selection.

Q2. What impressed you most about the Hitachi Environmental Sustainability Report? (You may select more than one box.)

☐ 2002 Highlights ☐ Message from the President
☐ Environmental Impact Data for Corporate Activities ☐ Basic Environmental Philosophy
☐ Executive Commitment ☐ EcoValue Plan 2010 ☐ Environmental Action Plan and Evaluation
☐ GREEN 21 Version 2 Evaluation Standards ☐ Eco-management Structure
☐ Environmental Education —Nurturing Eco-minds ☐ Environmental Management System
☐ Integrated System for Environmental Management ☐ Environmental Accounting
☐ Design for Environment Assessment and Eco-products
☐ Application of the "Environmental Efficiency" and "Factors" Indicators
☐ Examples of Eco-products ☐ Green Procurement ☐ Chemical Substances Used in Products
☐ Green Purchasing ☐ Effective Utilization of Resources ☐ Increasing Product Transportation Efficiency
☐ Waste Reduction ☐ Prevention of Global Warming —Energy Conservation
☐ Chemical Substance Risk Management ☐ Environmental Communication
☐ Environmental Town Meetings ☐ Communication with Investors
☐ Opinions on Hitachi's Environmental Report
☐ Comments on Sustainable Business Models for the Future ☐ Employee Relations (personnel affairs)
☐ Employee Relations (health and safety) ☐ Compliance with Laws & Regulations
☐ Customer Relations ☐ Social Contribution Activities ☐ Constructing Business Models
☐ Offering Total Environmental Solutions ☐ In Correspondence with Guidelines
☐ List of Data Published on the hitachi green web ☐ Company Profile
☐ List of Companies Covered by Reports ☐ Our Determination as a Global Citizen

・If any of the selections above particularly interested you, please explain why.

Q3. Given the chance, would you be interested in sharing your opinions as a participant in one of Hitachi's environmental town meetings? (p.27)

☐ Yes ☐ No

Q4. From what standpoint did you read the Hitachi Environmental Sustainability Report? (Check one box only)

☐ Customer ☐ Business partner ☐ Government/Public administrator ☐ Researcher/Educator
☐ media organization ☐ Non-profit organization (NPO) ☐ Resident near a Hitachi Group facility
☐ Hitachi Group employee or employee family member ☐ Other ( )

Q5. How did you find out about the Hitachi Environmental Sustainability Report? (Check one box only)

☐ Newspaper ☐ Magazine ☐ Hitachi Web site ☐ Environmental seminar ☐ Exhibition
☐ Other ( )

Q6. If there are any environmental issues you would like to see us tackle, please let us know.

Thank you for your cooperation. Please fill in your personal details below (Optional).

Name: Male/Female Age:

Address:

E-mail

Occupation/Name of company: