



RICOH

R I C O H G R O U P

S U S T A I N A B I L I T Y

R E P O R T

(ENVIRONMENT)

2008

Earning the public's trust Activity reports from 3 perspectives: "environment," "corporate social responsibility," and "economic"

Being a good corporate citizen means striving to be a valued and respected member of society by contributing to its sustainable growth. To this end, the Ricoh Group believes in being outstanding in all areas of the environment, the economy, and corporate social responsibility as well as openly communicating its activities.

The Ricoh Group publishes information on its activities in reports written from three different perspectives: the environment, the economy, and corporate social responsibility. This report provides our shareholders, customers, and other stakeholders with information on our sustainable environmental management policies and performance in fiscal 2007 to facilitate a better understanding of what we do and how we work.

■ How to Obtain Ricoh's Corporate Information:

- Sustainable environmental management
<http://www.ricoh.com/environment/>
- Corporate social responsibility
<http://www.ricoh.com/csr/>
- IR (for shareholders and investors)
<http://www.ricoh.com/IR/>
- Social contribution
http://www.ricoh.com/about/csr_environment/sc.html
- Information security
<http://www.ricoh.com/about/security/index.html>

■ Reporting Guidelines

In compiling this report, we have referred to Sustainability Reporting Guidelines (version 3.0) by the Global Reporting Initiative (GRI) and Environmental Reporting Guidelines by the Japanese Ministry of the Environment to confirm the items that should be reported, and we have tried to disclose as much information as possible.

■ Cover photograph: Amur tigers

Amur tigers living in forests in the Russian Far East, the northernmost habitat for tigers, are the world's largest tigers. Currently there are an estimated 400-500 of them living in the wild. To protect this endangered species, Ricoh has been engaged in a project to conserve their habitat since 2004.

Environment



Sustainability Report (Environment)

- Concept of sustainable environmental management
- Improving our products
- Improvements made at business sites
- Basis for sustainable environmental management
- Environmental communication/ Social contribution of environmental conservation

Corporate Social Responsibility



Sustainability Report (Corporate Social Responsibility)

- Concept of CSR
- Integrity in Corporate Activities
- Harmony with the Environment
- Respect for People
- Harmony with Society

Economic



Sustainability Report (Economic)

- Management policy
- Management results
- Financial status

Editorial policy of the Ricoh Group Sustainability Report (Environment) 2008

The Ricoh Group aims to promote sustainable environmental management that contributes to environmental conservation while generating profits. This report provides information on the concept of, and specific measures and activities for, sustainable environmental management as well as on environmental accounting in an easy-to-understand manner in order to facilitate communication with society and to earn its trust.

● Target readers

This report is prepared for all present and future stakeholders of the Ricoh Group's sustainable environmental management. It was compiled not only to report on the results of our activities, but also to introduce our environmental policies and to explain how we proceed with our projects. We have adopted a communication style that we hope will inspire our readers to engage in environmental conservation activities and to encourage other people to do so too, thus creating a ripple effect throughout society.

● Policy for information disclosure

Disclosing information worldwide

Environmental problems are a global issue, and therefore in tackling environmental issues it is very important to act in close concert with the individual countries and communities in which the Ricoh Group operates. This report describes the Ricoh Group's sustainable environmental management activities that are based on global partnerships.

Disclosing financial information

To successfully carry out sustainable environmental management, the Ricoh Group endeavors to improve its management system by looking at all aspects of management from an environmentally-friendly point of view. The Ricoh Group identifies the effects and economic benefits of environmental conservation for each business unit and for the entire Ricoh Group and discloses relevant information through its environmental accounting.

■ Leadership Declaration on the "Business and Biodiversity Initiative"

Ricoh signed the Leadership Declaration on the "Business and Biodiversity Initiative" at the ninth meeting of the Conference of the Parties to the Convention on Biological Diversity (COP 9), held in Germany in May 2008. This German government initiative calls on businesses to take leading actions to implement the United Nations Convention on Biological Diversity. By signing the declaration, companies commit themselves to assessing and analyzing the impacts of their business activities on biodiversity and its conservation.

■ The UN Global Compact

Ricoh became the second Japanese company to sign the UN Global Compact (GC)¹ in April 2002. In June 2007, as a GC member, Ricoh also became a signatory to Caring for Climate: The Business Leadership Platform.²

1. <http://www.unglobalcompact.org/>

2. http://www.unglobalcompact.org/Issues/Environment/Climate_Change/index.html

■ Mislabeling on composition ratios of recycled pulp pulp in Japan.*

In January 2008, Japan Fair Trade Commission imposed a cease and desist order (regarding violations of the Act against Unjustifiable Premiums and Misleading Representations) on eight paper manufacturers for their mislabeling of the composition ratios of recycled pulp in their recycled paper products marketed in Japan. As a supplier of paper products, we expressed our deepest apologies for the troubles that we may have caused customers who used the products in question and many other stakeholders. Such a fraud of recycled content is totally unacceptable, because it could dampen the growing public awareness about environmental conservation. We at the Ricoh Group, as a leader of sustainable environmental management, should learn from this incident and be further disciplined in our actions. Working with regulatory authorities and other corporations, we will work to eliminate such false labeling.

* Although the problem occurred in Japan and is only relevant in Japan, we report it in our sustainability report in line with our commitment to transparent reporting on our activities.

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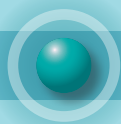
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The Ricoh Group will intensify and accelerate its sustainable environmental management, whereby it will continue developing environmental technologies that help reduce society's overall environmental impact, and it will strive to make our business model admired in a new society.

As the global environment is in critical condition, business communities are expected to take a leadership role in building a new social paradigm.

The changing global environment is posing a great threat to human society. Damages caused by climate change have been occurring frequently and at many locations around the globe. Natural resources have been depleted at an increasing pace. Now is the time for us to change our social paradigm. Departing from the traditional society driven by mass production, mass consumption, and mass disposal, we must create a new low-carbon, resource-recirculating society where ecosystems—the source of the Earth's self-recovery capabilities—are properly conserved. In this positive transformational process, business communities have a large role to play. They are expected not only to reduce the environmental impact of their own business activities, but also to help reduce that of consumers and society as a whole. With this planet facing a critical situation, the Ricoh Group is committed to becoming a business leader in promoting such a societal sea change.

We will strive to earn the public's trust while pursuing both environmental conservation and profit generation at an even higher level.

The goal of environmental conservation is to achieve a sustainable society where environmental impact is limited to a level that the Earth can deal with. The Ricoh Group describes its vision for an ideal society and global environment in its "Three Ps Balance." In its Extra-Long-Term Environmental Vision, the Group also expresses its recognition that advanced nations need to reduce their environmental impact to one-eighth the fiscal 2000 levels by 2050. Based on this recognition, we have set medium- to long-term targets, and put into effect a specific environmental action plan accordingly. This goal setting approach is called the back-casting method. Because creating economic benefits by reducing environmental impact

is important for private businesses to sustain their environmental conservation efforts over the long term, the Ricoh Group pursues both environmental conservation and profit generation at an even higher level through its sustainable environmental management. To this end, we are working to ensure the participation of all employees and to develop environmental technologies. Looking at the world economy, environmental issues are having tremendous business implications, such as soaring natural resource prices due to their dwindling supplies and the EU's possible restriction of imports from those non-EU nations that do not implement adequate environmental measures. It is obvious that environmentally irresponsible companies will not be able to survive in either the economic or the societal sense. I could never feel proud if the Ricoh Group were to increase its sales twofold or threefold in exchange for increased environmental impact that would be passed down to future generations.

We will focus on the development of environmental technologies even outside of the current business fields, as well as conservation of the biodiversity that will support our planet's self-recovery capabilities.

In fiscal 2008, the Ricoh Group announced its 16th Mid-Term Environmental Action Plan up to fiscal 2010, which has four key focal areas: effective use of resources to build a resource-recirculating society, development of environmental technologies to proactively address climate change, enhanced management of chemical substances to ensure our products and business activities are environmentally safe, and conservation of biodiversity. In line with these priorities, we aim to develop new products that burnish the appeal of Ricoh products and provide a longer product lifecycle, featuring energy-saving technolo-



Shiro Kondo

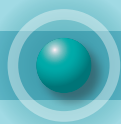
President and Chief Executive Officer

近藤 史朗

gies that help reduce customers' environmental impact and recycling technologies that allow effective use of finite resources. In developing environmental technologies, we will not remain within the range of our current business sectors, but aim at contributing to reduction of the environmental impact of society as a whole. In addition to reducing our negative impact on the global environment, supporting and increasing the self-recovery capabilities of the global environment is equally important. With this recognition, the Ricoh Group has formulated its forest resource-friendly paper procurement policy. As a part of our environment-conscious social contribution activities, we have also been focusing on conserving and restoring ecosystems together with non-profit organizations (NPO) and local communities. In May 2008, when our current action plan had just begun, we signed the Leadership Declaration on the Business and Biodiversity Initiative at the ninth meeting of the Conference of the Parties (COP 9) to the Convention on Biological Diversity, which was held in Germany, declaring our commitment to conserving biological diversity. We plan to assess the impact that our business activities impose on biodiversity and to incorporate the results of the assessment into future actions.

The Ricoh Group will enhance its sustainable environmental management, and strive to become a corporation that is always growing with the global environment.

A sustainable society cannot be built by the efforts of the Ricoh Group alone. It is important to discuss the way we want the global community to develop with our stakeholders, put forward and exchange ideas, and cooperate with each other in encouraging environmental conservation activities carried out in our respective capacity. We believe it is also important to enhance our longstanding sustainable environmental management to an even higher level. By doing so, we intend to create a new business model and actively communicate it to the public, which will lead to building an expanded network for our sustainable environmental management. In collaboration with its stakeholders around the world, the Ricoh Group will continue striving toward a sustainable society and work to become a corporation that is always growing together with the global environment.



Sustainable environmental management is a crucial element for increasing the corporate value of the Ricoh Group.

Concept of Sustainable Environmental Management

There are three stages in the Ricoh Group's environmental conservation efforts: the Passive Stage, the Proactive Stage, and the Responsible Stage. In the Passive Stage, we coped with social pressures by dealing with laws and regulations and competing with other companies. In the Proactive Stage, however, we began to take voluntary actions with a sense of mission as a global citizen. In the current Responsible Stage, the Ricoh Group is not only operating its business in an environmentally-friendly manner, but also pursuing both environmental conservation and profit generation at an even higher level. By reaching this stage, we as a business entity are now able to position ourselves to reduce our environmental impact for the long term. The Ricoh Group believes that addressing social concerns to help build a sustainable society through its corporate targets and action plans will lead to increased long-term corporate value.

Practicing Sustainable Environmental Management

In practicing sustainable environmental management, it is important to apply a plan-do-check-act (PDCA) cycle whereby we assess the environmental impact of our group-wide operations, set goals, reduce environmental impact, and achieve cost reduction and creation of added value. To facilitate this process, we developed and continually improve an information system to collect environmental impact data, and an environmental accounting and Eco Balance system to evaluate our environmental impact and its economic effects. We are also focusing on the development of environmental technologies that help promote recycling and energy saving and reduce our customers' environmental impact and financial cost, increase the products' added value, and contribute to reduction of the environmental impact of society as a whole. Another important element of effective sustainable environmental management is to motivate our employees and encourage their participation. Continual creation of new added value by integrating an environmental perspective into our offerings hinges on the participation by all Ricoh Group employees, regardless of their functions (e.g., R&D, manufacturing, planning, or sales) or their locations (whether within or outside of Japan). We are working diligently to build a corporate ethos embracing sustainable environmental management by providing environmental education and awareness-raising programs on a worldwide basis.

Three Steps in Environmental Conservation Activities (From Passive Stage to Proactive Stage and Responsible Stage)

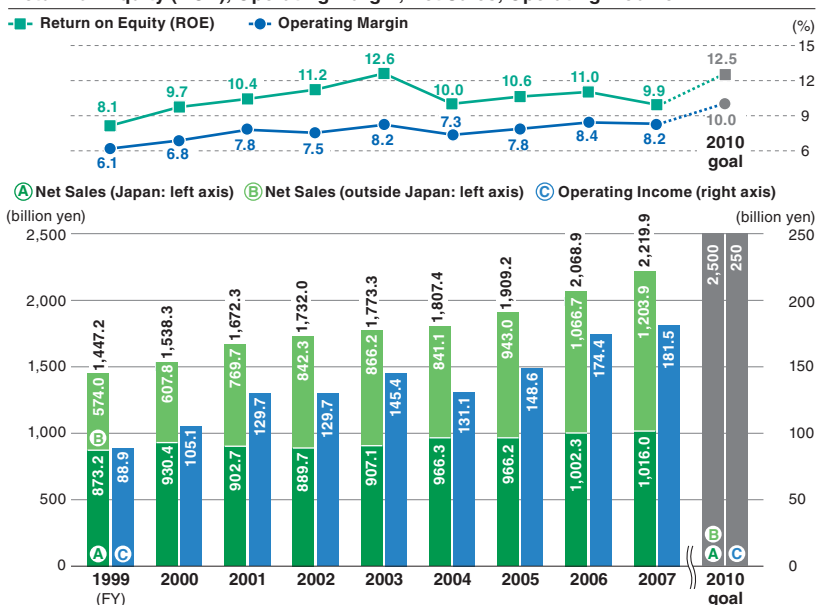
	Passive Stage	Proactive Stage	Responsible Stage
Purpose	Coping with social pressures <ul style="list-style-type: none">• Laws and regulations• Competition• Customers	Carrying out its mission as a global citizen <ul style="list-style-type: none">• Self-imposed responsibility• Voluntary planning• Voluntary activities	Simultaneously achieving environmental conservation and profits
Activities	Passive measures to meet laws and regulations, competing with other companies, and satisfying customer needs	1. High-aiming, aggressive activities to reduce environmental impact <ul style="list-style-type: none">• Energy conservation• Resource conservation and recycling• Pollution prevention 2. Improved awareness of all employees	Environmental conservation activities \approx QCD activities* Ex.: Reduced number of parts Reduced number of process steps Improved yield and operation rate
Tools		1. ISO 14001 2. LCA 3. Volunteer Leader Development Program	1. Strategic goal management system 2. Environmental accounting 3. Sustainable environmental management information system

* Activities to improve quality, control costs, and manage delivery times.

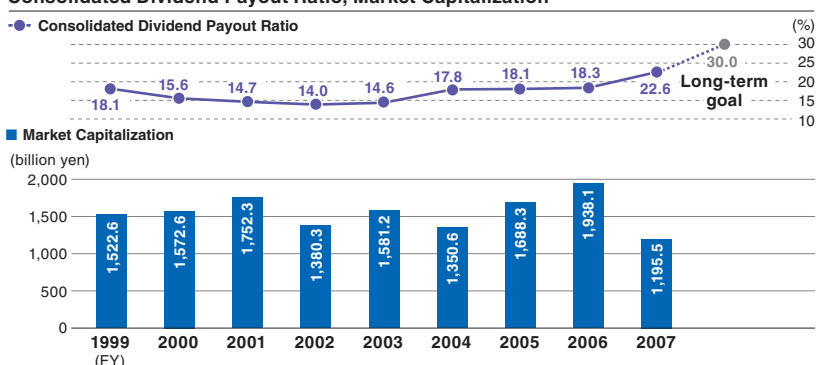
Enhanced Corporate Value as in Strong Earnings and External Recognition

During the time the Ricoh Group has been actively promoting its sustainable environmental management on a global basis as one of the most important business strategies, its corporate value has gone through a significant positive change. For the past 10 years in particular, the benefits of our sustainable environmental management have emerged in a clear-cut manner. In fiscal 2006, more than half of our sales were generated outside Japan and our net sales exceeded ¥2 trillion. In fiscal 2007, the Ricoh Group grew revenue for the 14th straight year. Our success is also measured by the many awards and external recognition we received within and outside Japan. Ricoh ranked first in the Corporate Environmental Management Level Survey organized by Nikkei Inc. —for the fourth time—and received the world's highest rating for corporate social responsibility given by Oekom Research AG of Germany. We were also chosen as one of the Global 100 Most Sustainable Corporations in the World, a ranking list announced by Corporate Knights Inc. of Canada to coincide with the World Economic Forum (the Davos Meeting), for the fourth consecutive year.

Return on Equity (ROE), Operating Margin, Net Sales, Operating Income



Consolidated Dividend Payout Ratio, Market Capitalization



External Recognition

April 2003	Received the 12th Grand Prize for the Global Environment Award
May 2003	Won the 2003 World Environment Center (WEC) Gold Medal as the first Asian firm
Dec. 2004	Ranked first in the 8th Corporate Environmental Management Level Survey organized by Nikkei Inc. (for the 4th time)
July 2005	Given the world's highest rating for corporate social responsibility by Oekom Research AG of Germany in its Environmental Ranking of the IT Industry
June 2007	Rated the highest, AAA, by Tohatsu Evaluation and Certification Organization Co., Ltd. for the third consecutive year
July 2007	Won the Grand Pearl Prize in the environmental management section of the Fifth Japan Sustainable Management Awards
Dec. 2007	Ranked top in five categories in Japan Customer Satisfaction study by J.D. Power Asia Pacific, Inc. (monochrome & color copier/multifunctional copier, monochrome & color laser printer, and solution provider [system planning and construction] categories)
Jan. 2008	Chosen as one of the Global 100 Most Sustainable Corporations in the World (Global 100) for the fourth consecutive year
Jan. 2008	Ranked the highest, AAA, by Innovest Strategic Value Advisors, Inc. of the U.S. in its social and environmental rating

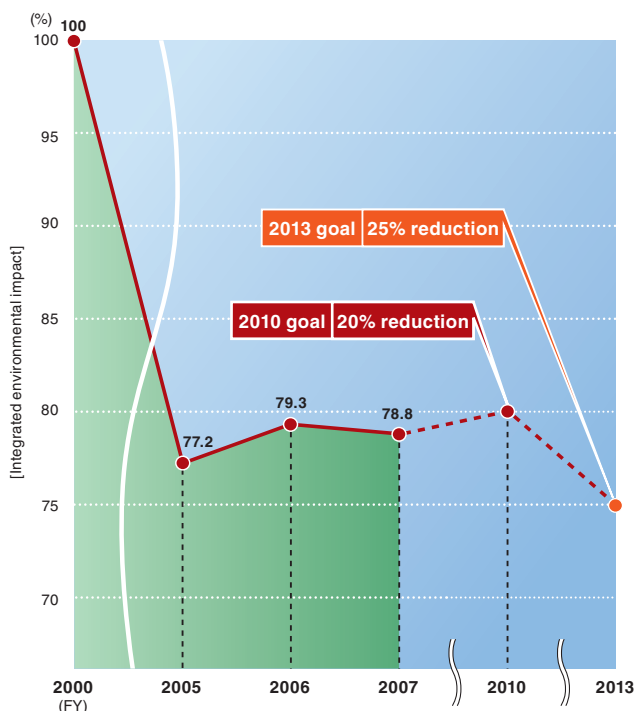
The results of environmental impact reduction and economic value creation in fiscal 2007 and changes in sustainable environmental management indicators showing the level of sustainable environmental management

Reducing Environmental Impact

The Ricoh Group has targets to reduce the environmental impact (integrated environmental impact¹) of our major business activities in advanced nations by 15% in fiscal 2007 (and by 20% in fiscal 2010, and 25% in fiscal 2013) over the levels in fiscal 2000. In fiscal 2007, we were able to meet this target by reducing the environmental impact by 21.2%. Although there was a rise in resource use due to an increase in sales of imaging equipment and an increase in paper consumption by customers using our products, this was more than offset by our positive contributions, mainly by reductions in chemical substances contained in our products and power consumption through the development of energy-saving technologies for copiers. As we expect to grow our business by more than 4% annually, we will continue making even greater efforts to reduce environmental impact and achieve our environmental impact reduction targets for 2010. Specifically, we will continue proceeding with our ongoing measures for resource-recirculating, such as increasing sales of recycled copiers and putting more efforts into developing environmental technologies to save energy and reduce paper consumption. In addition, our 16th Mid-Term Environmental Action Plan² running from fiscal 2008 calls for encouraging customers' greater use of energy-saving and duplex-copying functions to reduce their environmental impact, placing this item as a key priority.

1. See page 56. 2. See page 21.

Changes in Integrated Environmental Impact (Operations in Advanced Nations)



Business Results for Fiscal 2007 and Future Goals

The Ricoh Group's consolidated net sales in fiscal 2007 increased by 7.3% over the previous term to reach ¥2,219.9 billion, exceeding ¥2,000 billion for the second consecutive year. In the Office Solutions sector, sales of color digital plain paper copiers (PPC) and color multifunction printers (MFP) particularly showed continuous growth. There was an increase in income in all business sectors, and Group income increased for the 14th consecutive term. Net sales in Japan increased by 1.4% over the previous term, to ¥1,016.0 billion, and net sales outside Japan increased by 12.9%, to ¥1,203.9 billion. Operating income for the same period increased by 4.1% over the previous year, to ¥181.5 billion. This was due mostly to the increase in sales of high value-added products including color MFPs and to continuous cost-trimming campaigns. Going forward, the Group will target net sales of ¥2,500.0 billion and operating income of ¥250.0 billion by the end of fiscal 2010.

Review of Environmental Accounting

Environmental accounting is designed to present the costs incurred for environmental conservation activities during a given period in comparison to the resulting benefits. Such costs and benefits represent how well the environmental impact reduction activities by the Ricoh Group and across the entire life cycle of its products were performed. We therefore began presenting the environmental conservation effect and environmental impact by our upstream and downstream operations, together with those by the Ricoh Group from this year, so that the readers can understand and compare the environmental conservation effects and environmental impact by the Group and those generated throughout the product life cycle. When we look at the overall trend, we see a continuing improvement since fiscal 2006 in the Eco Index, while our business is expanding. This means that the Ricoh Group is able to reduce its environmental impact in proportion to the added value of its business activities (see graph (2)). The Ratio of Eco Profit, an indicator of the cost effectiveness of sustainable environmental management activities, and the Ratio of Eco Effect, an indicator that takes into account the social cost reduction values, improved over the figures for fiscal 2006. This means that we have been able to improve our cost-effectiveness (see graph (1)). When we look at the environmental accounting data* by item, we see a decrease in business area costs (including those of pollution prevention, global environmental conservation, and resource circulation) and social activity costs (including those of preparing environmental reports and advertisements), and an increase in the R&D costs for future environmental impact reduction. Among economic benefits, there is a substantial increase in those from products

and parts recycling activities. This continuing trend from the previous period contributes to boosting of the overall economic benefits. [* See page 59.](#)

Market Evaluation Results and Economic Performance (2007)

In 2007, Ricoh held the largest share of the office-use black-and-white copier market and the second largest share of the color copier market in Japan. In the same year, the Ricoh Group held the largest share of the color copier market and the second largest share of the office-use black-and-white copier market in the United States.¹ In Europe,² the Group held the largest share of the office-use black-and-white copier market for the 11th year in a row, and of the color copier market.

1. Total number of products marketed under the Ricoh, Savin, Gestetner, and Lanier brand names
 2. Including products marketed under the Ricoh, Gestetner, Nashuatec, Rex-Rotary, Lanier, and Danka brand names as well as OEM products (excluding the segment for personal copiers)
- * Office-use black-and-white copiers refer to A3 copiers.

Source: Gartner Dataquest, March 2008, GJ08200 (Data for Japan and the United States)
Infosource S.A. (Data for Europe)

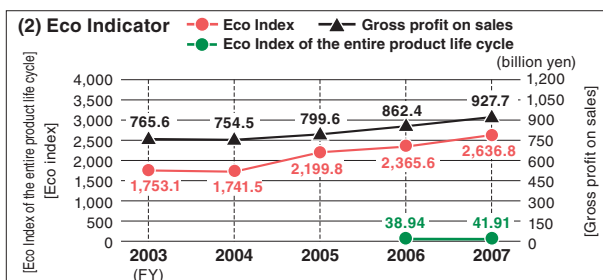
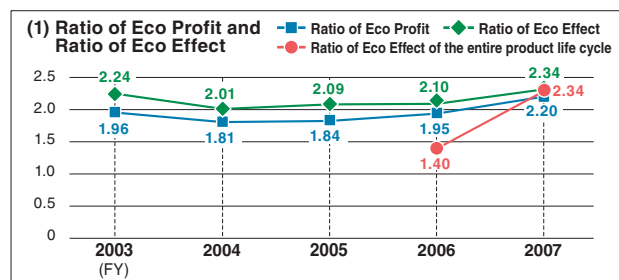
Winning the Minister of Economy, Trade and Industry Award in the 17th Global Environment Awards

Ricoh received the Minister of Economy, Trade and Industry Award, the second highest award in the 17th Global Environment Awards by Fujisankei Communications Group, for its efforts to reduce total environmental impact in absolute terms based on our long-term perspective: advanced nations need to reduce their environmental impact to one-eighth the fiscal 2000 levels by 2050 (Year 2050 Extra-Long-Term Environmental Vision). The ceremony was held at Meiji Kinenkan, Tokyo, on April 22, 2008.



Prince and Princess Akishino honored the ceremony with their presence (Mr. Kondo, president and CEO of Ricoh Co., Ltd., is at the extreme right of the front row).

Changes in the Ricoh Group's sustainable environmental management indicators



The Ricoh Group's Sustainable Environmental Management Indicators (fiscal 2007)		Results in fiscal 2007	Calculation formula
REP: Ratio of Eco Profit		2.20	Total economic benefit (39.51) / Total environmental conservation cost (17.99)
REE: Ratio of Eco Effect		2.34	[Total economic benefit (39.51) + Social cost reduction values (0.22+2.43)] / Total environmental conservation cost (17.99)
Eco Index		2,636.8	Gross profit on sales (¥927,700,000 thousand) / Total environmental impact (351,831)
RPS: Ratio of Profit to Social Cost		151.0	Gross profit on sales (927.7) / Total social cost (6.14)
* Monetary units are indicated in billions of yen unless otherwise indicated.			
Sustainable environmental management indicators of the entire product life cycle (fiscal 2007)		Results in fiscal 2007	Calculation formula
REP: Ratio of Eco Profit		2.20	Total economic benefit (39.51) / Total environmental conservation cost (17.99)
REE: Ratio of Eco Effect		2.34	[Total economic benefit (39.51) + Social cost reduction values (2.43+0.12)] / Total environmental conservation cost (17.99)
Eco Index		41.91	Gross profit on sales (¥927,700,000 thousand) / Total environmental impact (22,137,468.7)
RPS: Ratio of Profit to Social Cost		2.4	Gross profit on sales (927.7) / Total social cost (386.58)
* Monetary units are indicated in billions of yen unless otherwise indicated.			

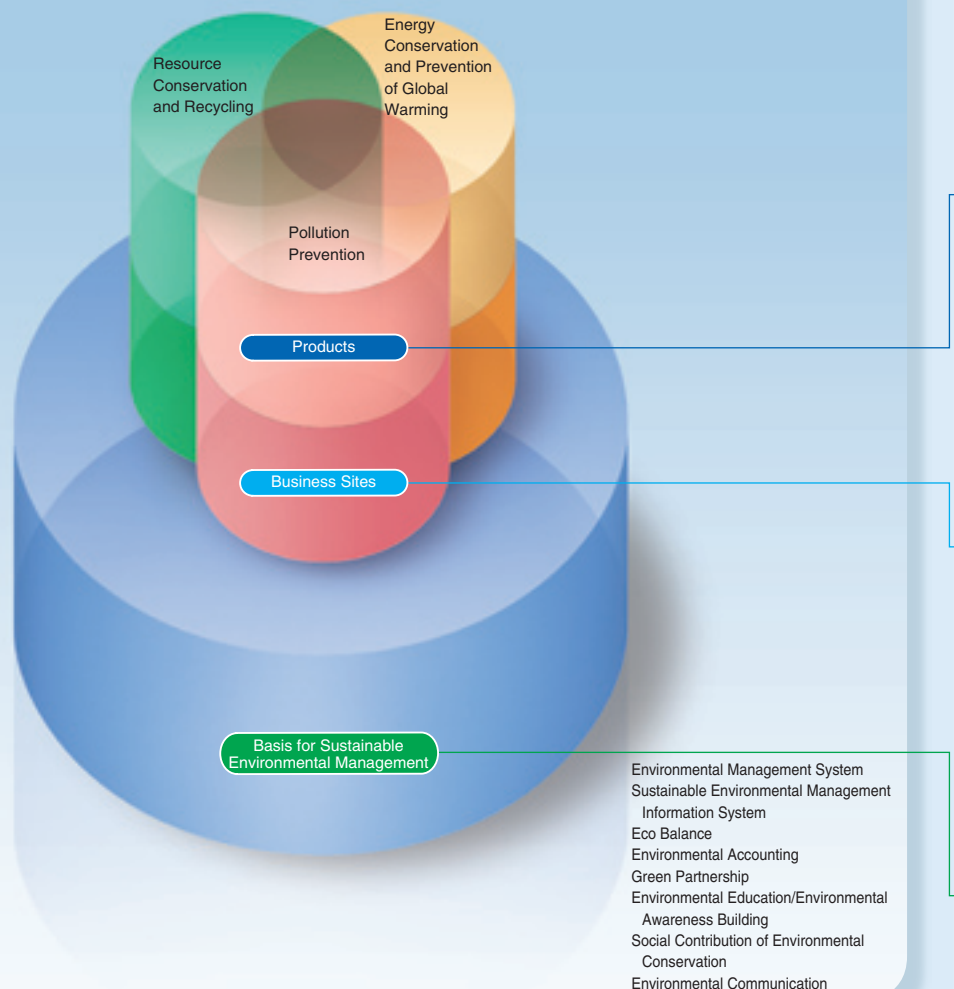
How the Ricoh Group promotes sustainable environmental management is outlined based on its overall picture (basis and three pillars).

This page and the next provide an outline of the entire structure of the report and list major awards and recognition the Ricoh Group received in fiscal 2007 as well as brief descriptions of the content.

Overall Picture of the Ricoh Group's Sustainable Environmental Management (Structure of the Report)

● Structure of the Report

This report is structured in the same way the general picture of the Ricoh Group's sustainable environmental management is structured. The report begins with **the concept of sustainable environmental management** and goes on to explain **improving our products (three pillars)**, **improvements made at business sites (three pillars)**, and **the basis for sustainable environmental management**.



■ Major Awards and Recognition Ricoh Received in Fiscal 2007

Voted One of the Global 100 Most Sustainable Corporations in the World
Ricoh was voted one of the Global 100 Most Sustainable Corporations in the World for the fourth year in a row as assessed by Corporate Knights Inc. of Canada based on analytical data presented by Innovest Strategic Value Advisors of the U.S.A.

Ricoh Stocks Incorporated in Leading SRI Indices*

In Japan, Ricoh's stocks are incorporated in many eco funds and SRI funds. Also, the Morningstar Socially Responsible Investment Index has included Ricoh since its establishment in 2003. In addition, Ricoh has been a constituent member of the Dow Jones Sustainability Indexes (DJSI), which are provided by Dow Jones & Company (U.S.A.) and SAM Group (Switzerland), for six consecutive years and of the FTSE4 Good Global Index for five years in a row. The latter index is published by FTSE Group, a joint venture between The Financial Times (U.K.) and the London Stock Exchange.

* As of May 1, 2008



The Ricoh Group's Concept of Sustainable Environmental Management is to simultaneously achieve environmental conservation and profits.

The Ricoh Group's sustainable environmental management means simultaneously achieving environmental conservation and profits. This policy is carried out through development of environment-oriented technologies and in activities conducted by all employees. Initiatives have been taken in the three areas of energy conservation and prevention of global warming, resource conservation and recycling, and pollution prevention for both products and business sites. To efficiently advance these activities, a basis for sustainable environmental management was established.

<Reference pages>

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Feature Article: Global Network for Sustainable Environmental Management

Various sustainable environmental management efforts are being made by the Ricoh Group at worksites. Some of these activities are reported in an easy-to-understand manner in the feature article.

Ricoh Global Eco Action

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Collaborating with Suppliers in CO₂ Emission Reductions

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TOPIC

"TOPIC" introduces activities of particular interest to readers and activities unique to the Ricoh Group.

INTERVIEW

Articles on interviews with people who are actually involved in Ricoh's environmental activities help readers become more familiar with such activities.

Global Network for Sustainable Environmental Management ① Ricoh Global Eco Action

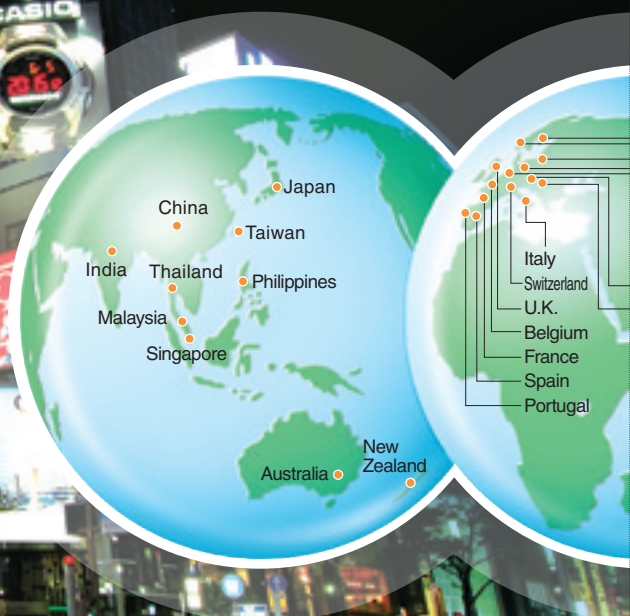
Think & Act!—The day to think about the environment and begin to take action

About 46,000 people in 38 countries/regions joined us to make a green difference, marking a significant increase in the number of participants.

On the night of June 5, 2007, Ricoh's seven advertising towers and 37 signs usually lit up at night in various parts of the world were turned off. Employees of the Group across the globe took a variety of environmentally-friendly actions.

--- Actions encouraged ---

1. Switch off lights and electric appliances whenever possible in the daytime to save energy.
 2. Finish work on time and turn off lights before leaving the office.
 3. Turn off lights in your house and talk about the environment with your family.
- Turned off the lights at advertising towers and signs.
 - In addition, individual subsidiaries and business sites took their own actions.



For more information, please visit: <http://www.ricoh.com/environment/info/2008/ecoaction.html>

Background photo: Turning off the light for Ricoh's billboard on the rooftop of San-ai Dream Center in Ginza, Tokyo

Eco Action held on World Environment Day expanded its network, reducing CO₂ emissions by an estimated 15 tons.

Ricoh Global Eco Action is an environmental event designed by the Ricoh Group to enhance awareness of the environment among its employees. In 2007, its second year, we carried out various attempts to attract a greater number of participants. For example, we prepared promotional posters in different languages and PC wallpapers and sent messages to encourage participation via emails, internal P.A., and company intranet systems. As a result, the participation increased significantly to 46,000 employees at 104 companies in 38 countries and regions. By holding the event on the UN's World Environment Day, the network of Ricoh Global Eco Action was further expanded by attracting a number of external participants such as customers, governments, and non-profit organizations. Collectively, the participants contributed to an estimated 15-ton reduction of CO₂ emissions.

Japan: 46 companies

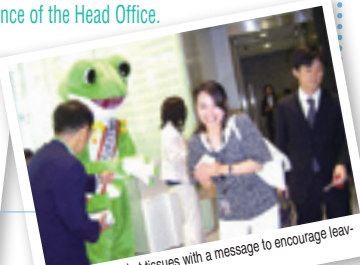
Head Office staff were encouraged to finish work on time and turn off lights before leaving the office.

With handing out message-attached pocket tissues and sending e-mail messages, a greater number of employees at the Head Office participated, reducing power consumption by about 900 kWh, equivalent to about 335 kg of CO₂ emissions.

Participants' voice It was fun to see Kaeru-kun ("kaeru" means frog and going home in Japanese) at the entrance of the Head Office.



Posting the environment-themed senryu poems received (Gotemba Plant)



Handing out pocket tissues with a message to encourage leaving the office on time (Head Office)

Asia Pacific/India: 11 companies in 8 countries/regions

Collaborating with NPOs, the public sector, and private businesses in Singapore

Ricoh Asia Pacific Pte. Ltd., in collaboration with the Singapore Environment Council, called on external parties to join the Eco Action, resulting in the participation of 18 organizations, including corporations, governmental organizations, schools, and hospitals. In the debriefing session, we received positive feedback from these external participants, including, "We were glad that you asked us to join," and, "We would like to join again next year." Ricoh India Ltd. conducted a street campaign promoting this environmental event and Lanier (Australia) Pty. Ltd. carried out an afforestation program with its customers.

Participants' voice

Our street campaign helped increase peoples' awareness of energy saving.



Photo with the Singapore Environment Council, an NPO (Ricoh Asia Pacific)



Planting trees with customers (Lanier (Australia))



Street campaign promoting the event (Ricoh India)

■ Participating Countries and Regions



The Americas: 16 companies in 14 countries/regions

Eco Action network expanded further with the participation of 12 new companies from Latin America.

An additional 12 group companies in Central and South America joined the latest event. In Ricoh Americas Corporation, each employee received a compact fluorescent light bulb. In Lanier Dominicana, S.A., division-based teams studied water, energy, nature, and other relevant topics and made presentations.

Participants' voice

It was a memorable day to learn and share the knowledge on the environment.



Bringing their own lunch to work to avoid using a car during the lunch break (Ricoh Electronics, Inc.)



Green Team members who made a nature-themed presentation (Lanier Dominicana)

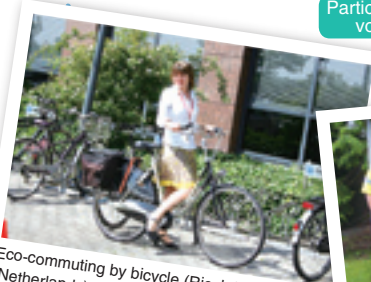
Europe: 26 companies in 14 countries

Offsetting CO₂ emitted during the Eco Action period

In addition to suspending elevator operation and encouraging eco-commuting, Ricoh Europe (Netherlands) B.V. offset CO₂ emitted during the Eco Action period by planting trees and other actions. Ricoh Italia S.p.A. carried out a "Tropical Morning" program, in which its main and branch offices left the air conditioning off during the morning.

Participants' voice

Eco Action spreads well among the employees.



Eco-commuting by bicycle (Ricoh Europe (Netherlands) B.V.)



Bike commuters wearing "Ricoh Eco Logo" jackets (GRAM in the U.K.)

China: 5 companies

Ricoh Express (S.Z.) Warehouse Ltd. encouraged its suppliers to join Eco Action

In Ricoh Asia Industry (Shenzhen) Ltd., Shanghai Ricoh Facsimile Co., Ltd. and Tohoku Ricoh (Fuzhou) Printing Products Co., Ltd., a variety of company-wide actions were taken, such as leaving the office on time, commuting by bus/bicycle, and avoiding the use of unnecessary energy. Ricoh China Co., Ltd. sponsored an environmental event in Changning District, Shanghai.

Participants' voice

Glad to see people pay more attention to environmental conservation.



Winning towels with the Eco Action logo printed on them (Ricoh Asia Industry)



Turning off office lights (Ricoh Express (S.Z.) Warehouse)

Global Network for Sustainable Environmental Management ② Collaborating with Suppliers in CO₂ Emission Reductions

In partnership with suppliers, the Ricoh Group is striving to reduce CO₂ emissions throughout the product lifecycle.

We encourage and support suppliers' carbon reduction activities with a newly developed tool to visualize the CO₂ emitted during their parts manufacturing processes.



Background photo: Scene from the Green Procurement Meeting at Ricoh Ohmori Office

Our green procurement activities aim to make the operations of the Ricoh Group and our suppliers leaner and meaner.

The Ricoh Group is promoting its green procurement activities in partnership with suppliers. Green procurement refers to the purchasing of raw materials, parts, and products that are manufactured in environmentally-responsible factories and have low environmental impact. Through green procurement, we aim to reduce our overall environmental impact throughout the product lifecycle, to reduce procurement costs by effectively using resources and energy, and, ultimately, to make the operations of both the Ricoh Group and suppliers leaner and meaner. In 1998, we began supporting suppliers in developing their environmental management systems. By the end of 2003, 1,089 suppliers worldwide had this system in place. In 2006, 734 suppliers around the world completed implementing their chemical substance management systems.

In addition to its own production process, the Ricoh Group's CO₂ reduction activities take place in the parts manufacturing processes.

Our analysis on greenhouse gas (GHG) emissions throughout the life-cycle of Ricoh products has revealed that a large portion of the emissions come from the manufacturing processes for raw materials and product parts. To mitigate global warming, which is one of the most important agendas of business communities, reducing GHG emissions at the supplier level is quite an effective measure in lowering the environmental impact of society as a whole. We at the Ricoh Group therefore began providing an effective reduction tool and piloted a CO₂ reduction support program for suppliers in 2007, leveraging our experience and the expertise obtained from our longstanding CO₂ reduction efforts in our own production processes. Full-scale operation of this support program started from 2008.

Voice of the staff in charge

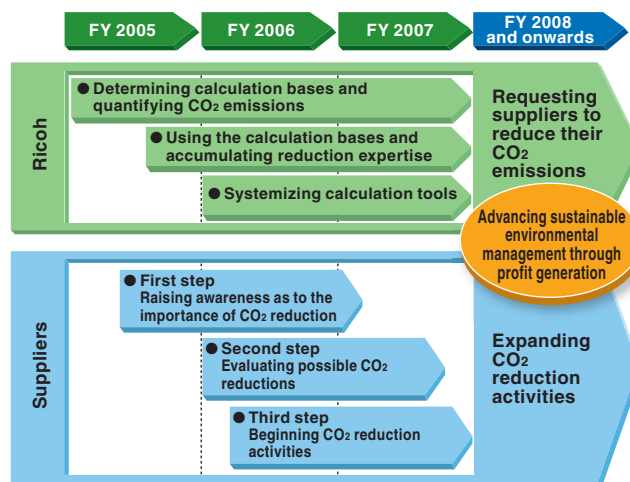
Providing an effective tool for suppliers to support their effective reduction activities

As measuring CO₂ emissions accurately is a difficult task, it posed a major hurdle for suppliers to take CO₂ emission reduction steps. To overcome this problem, we developed our original emission calculation tool, RICO₂RET*, which enables the visualization of CO₂ emissions per process and facility, and helps identify specific measures to reduce the emissions effectively. With this tool, suppliers do not require expertise to obtain their CO₂ emission data: all they need to do is to enter basic information such as power consumption and raw material weights. In fiscal 2007, the initial 69 suppliers started using this tool. During fiscal 2008, RICO₂RET



Minoru Kanno
Manager of Procurement
Strategy Office, Procurement
Control Center

Key Steps in Supplier CO₂ Reduction Activities



will be introduced to major Japanese suppliers in stages to help their endeavors to meet their voluntary CO₂ reduction targets.

* RICO₂RET: Ricoh CO₂ Reduction & Evaluation Tool



Scene from the briefing session

64 suppliers attended the RICO₂RET briefing session.

On December 5, 2007, 64 suppliers attended our RICO₂RET briefing session to receive explanations from Ricoh staff on how to use the new tool, to analyze the emission values calculated, and to explore specific reduction measures. In the following January, we set up a three-day follow-up session to meet with the suppliers individually and provided tailor-made advice to them.

Voice

Supplier's voice

Ricoh's tool has enabled more accurate assessment of our CO₂ emissions.

We are a global supplier of soft press products such as parts for OA equipment and PCs. RICO₂RET first came to our attention when we attended the Ricoh Group's Green Procurement Meeting. Soon after that, we offered to become an initial member to introduce the tool. The timing was opportune for us as we became ISO 9001+14001 certified in 2006 and were just about to take that opportunity to reevaluate our group-wide CO₂ emissions and implement more aggressive reduction measures. When we actually used the tool to evaluate our emissions, we were able to obtain important findings, such as different emission causes from different product parts. We were also able to identify target areas for improvement at a glance and easily discover possible actions, thanks to the tool's graphically presented analysis results. As the next step, we are planning to establish a group-wide emission target with the help of RICO₂RET while continuing our focus on business process improvement. We will be continuously working to demonstrate our environmental performance to our stakeholders.



Chiyoda Integre Co., Ltd.
Mr. Masaru Takayama
Managing Director

Mr. Akihiro Hayashi
Manager of Environmental
Control Department

Mr. Kotaro Yamamoto
Atsugi Office

Global Network for Sustainable Environmental Management ③ Sustainable Environmental Management in China

We are promoting sustainable environmental management in China, which is transforming itself to become an energy- and resource-conserving society.

With the country's economic development, environmental awareness is rapidly growing in China. At Ricoh China Co., Ltd., we offer environmental education not only to our employees, but to customers and sales agents, to permeate sustainable environmental management.

- An "eco-bag" with Ricoh China's environmental slogan, "Save our China, Save our global environment."

- Handbooks for environmental education (From left)
 - For all employees
 - For customers/new employees/general public
 - For managers/customer-facing staff



- Coasters made from recycled copier materials

Our quest for sustainable environmental management in China started with providing employee education.

Environmental activities by Ricoh China, the Ricoh Group's sales headquarters for China, started with the implementation of environmental education programs for employees in 2004. In practicing sustainable environmental management effectively, it is important to ensure that all Ricoh employees think anew about their day-to-day operations from an environmental perspective, which will naturally lead to all-employee participation. In 2005, Ricoh China began taking specific actions to save energy and reduce resource consumption. With the launch of environmental education for sales agents, the sustainable environmental management network in China has been expanding.

With growing national environmental awareness, we are working to meet customer demand for reduced environmental impact.

In China, the national government has been actively promoting environmental conservation by intensifying environmental regulations and implementing a variety of other initiatives. As a result, Chinese consumers are expecting to see reduced environmental impact from the office-use products they purchase. Ricoh China promotes energy-saving products and collects and recycles used products in an effective manner by using environmental awareness building tools. For instance, our sales personnel are demonstrating our products' energy-saving features and the flows of our product collection and recycling process to customers by using handbooks outlining our sustainable environmental management, eco-bags with an imprinted environmental slogan, coasters made from recycled copier parts, and many other tools.

Voice 1 Environmental Education at Ricoh China

Voice of staff in charge of sustainable environmental management

Our environmental education aims to make environmental conservation a natural part of our operations.

As we at Ricoh China believe that enlightening our employees is the very first step to make good progress in environmental conservation activities, we started with educating our employees about the reality of environmental problems in China, such as resource availability and pollution. We then launched a China Environmental Promotion Team (CEPT) comprising 35 project champions who are tasked with promoting behavioral change in employees. As a result, each of our employees is now mindful of environmental conservation; for example, by using energy effectively and separating garbage properly. From January 2006, the CEPT members have been leading the company's efforts to develop an environmental management system and to obtain ISO 14001 certification.



Environment Division, Ricoh China (From left)

Mitsuo Tanaka
Manager of Environment Division

Wen Yuan
Sustainable Environmental Management Department

Jian He
Sustainable Environmental Management Department

Toshiki Fujino
Head of Sustainable Environmental Management Department

Voice of CEPT members

Our behavior has changed, as has that of our coworkers, and our activities have been growing in the communities where we do business.

As CEPT members of the North China Office in Beijing, we took a series of environmental education programs, including those on Ricoh's environmental policy and goals, ISO 14001, and green procurement. Even though we did not have particular interest in the effective use of energy and resources before, once we came to be positioned to provide green education to departmental coworkers, we soon realized ensuring everyone in the office acts in an energy-saving manner is much easier said than done. However, as the importance of environmental conservation has been reiterated on many occasions, including top management's policy announcements and regular morning meetings, environmental awareness of every employee has grown gradually. As a result, avoiding unnecessary energy consumption has now become "business as usual" in our office. For instance, we turn on lights only for necessary locations. We also co-organized awareness-raising community events for the environment with local governments. We are looking forward to seeing that small improvements by individuals multiplied across a large number of participants will make a big difference in our society.



North China Regional Office, Ricoh China (From left)

Kenichiro Ushioda
Regional Manager

Xin Liu
Manager HR & Adminsection

Voice 2 Environmental Awareness-Building Programs for Sales Agents

Voice of marketing staff in Ricoh China

Supporting sales agent changes in environment-related attitude and behavior by emphasizing the close connection between environmental conservation and business interests

From January 2008, "environmental provisions" have been newly included in the annual contracts that Ricoh China enters with its sales agents. This is because we would like our sales agents to recognize that business and environmental interests indeed go hand-in-hand, and thus we, including our agents, need to implement sustainable environmental management in a proactive manner, not just merely in reaction to regulatory requirements. Rather than just encouraging the agents to sell our products in an environmentally-friendly manner, we wanted to see environmental consciousness become an integral part of their business. We thus decided to include three environmental provisions—i.e., taking environmental education, communicating environmental features of Ricoh products to customers, and collecting used equipment and supplies—



Yutaka Tamano
Manager of Sales Division
Ricoch China

in the annual contracts to which our sales agents agree and sign. We look forward to witnessing our environmentally-educated agents being able to communicate Ricoh products' energy-saving features to customers in even more easy-to-understand ways and reinforcing a positive cycle of sales-collection-recycling processes.

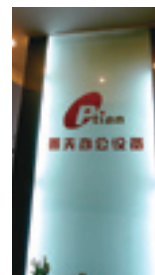
Voice of a sales agent

Integrating what I learned from the environmental education into my business operations

Since January 2007, I have taken four rounds of Ricoh China's environmental education on such topics as environmental labels, green marketing, and used product collection and recycling. Before taking the courses, I knew that environmental conservation was important, but did not know where to start. Ricoh China is the only business partner that included its sales agents like myself into its environmental education programs to teach the specific actions we should take. Now I am more confident about how I should integrate environmental elements in managing and operating our business. Our customers, especially non-Chinese and governmental organizations, are environmentally conscious. The environmental focus of our proposals is increasingly serving as a decisive factor in closing deals with customers. We place "Recyclable" stickers on the toner bottles we sell to emphasize that the products are properly collected and recycled after use. We also explain to our customers how collected bottles are recycled.



Song Guohua
President
Shenzhen Putian Office Machine



We need to reduce the environmental impact of society to a level that the Earth's self-recovery capabilities can deal with.

The purpose of environmental conservation activities is to reduce environmental impact to a level that Earth's self-recovery capabilities can deal with and sustain the global environment. The Ricoh Group, by considering how the relationship among the three Ps (planet, people, and profit) in environmental, social, and economic activities has changed over time, defines the kind of society we should pursue and carries out its responsibility as a company to create such a society.

Society and the Global Environment in the Past

In the past, the environmental impact caused by society was kept within the limit of the global environment's self-recovery capabilities. After the Industrial Revolution in the 18th century, however, the world entered an age of mass production, mass consumption, and mass disposal, which significantly increased environmental impact. At the end of the 20th century, some people began to warn against a deteriorating global environment and its impact on human society. Today, companies that are not seriously committed to environmental conservation cannot gain support from society.

Current Efforts by Society and Businesses

Today, people are paying more attention to activities that reduce damage to the global environment, including the sorting of waste, recycling, and prevention of global warming. Manufacturers face such challenges as promoting smaller products with longer lifecycles, energy conservation, and resource recycling, as well as providing the maximum benefit to society and companies with minimum resources. Global companies as well are expected to support and promote the awareness of environmental conservation in developing countries and regions so that they can achieve economic progress with minimum environmental impact. Another important issue is to increase the self-recovery capabilities of the global environment by such efforts as improving forest ecosystem conservation.

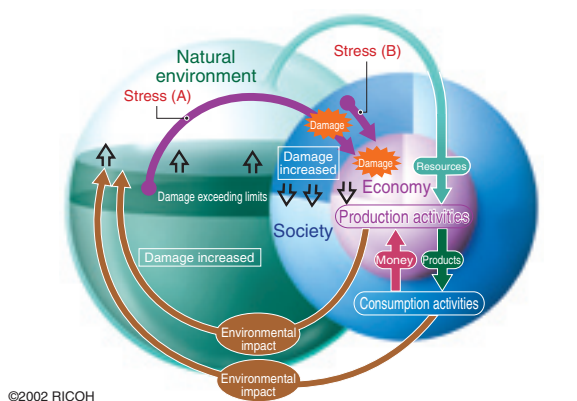
To Achieve the Ideal Society

To keep environmental impact within the self-recovery capabilities of the natural environment, setting specific goals for the prevention of global warming, the conservation of resources, and the prevention of pollution is important. Based on the Year 2050 Extra-Long-Term Environmental Vision¹ and as milestones on the path to attaining its long-term vision of the ideal sustainable society, the Ricoh Group has adopted the Year 2013 Long-Term Environmental Goals² and the Environmental Action Plans³, and has been working in accordance with these policies. To preserve the global environment for future generations, we need to continue taking action with greater environmental awareness and clearer goals.

1. See Page 19. 2. See Page 20. 3. See Pages 21 and 23.

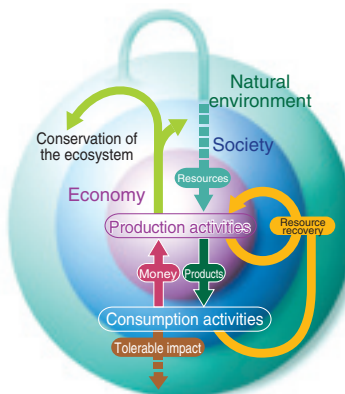
Three Ps Balance™: Representing the Relationship between the Global Environment and Society

■ Status Quo



Our environmental impact on the Earth has exceeded the planet's life-sustaining abilities as well as its self-recovery capabilities.

■ Pursuing the Ideal Society



Environmental impact remains within the self-recovery capabilities of the global environment.

For more information, please visit <http://www.ricoh.com/environment/management/earth.html>

The Ricoh Group contributes to the development of a sustainable society based on the Comet Circle concept.

The Comet Circle represents a sustainable society, the kind of society we pursue. It was formulated in 1994. Circles in the diagram indicate partners we work together with to achieve a sustainable society. The upper routes represent arteries of the system, and the lower routes veins of the system. Resources taken from the natural environment by materials suppliers shown at the upper right are processed into products, moving from right to left along the upper route, and are finally delivered to users (customers). The end-of-life products move from left to right along the lower route. The Ricoh Group contributes to the development of a sustainable society by focusing on the following five activities to make the Comet Circle work effectively.

(1) Identifying and Reducing Environmental Impact at All Stages

All parties involved, i.e., the Ricoh Group, suppliers, customers, and recycling companies, identify the degree of environmental impact at all stages, including the transportation stage, by using a sustainable environmental management information system and strive to reduce overall impact by promoting the development of environmental technologies as well as recycling and recovering products.

(2) Putting Priority on Inner Loop Recycling

Resources have the highest economic value when they are manufactured into products and used by customers. The Ricoh Group puts priority on reusing and recycling products on the inner loops of the Comet Circle with an aim to minimize the resources, cost, and energy needed to return used products to the state of highest economic value.

(3) Promoting a Multitiered Recycling System

Repeated recycling to the greatest extent possible (i.e., multitiered recycling) reduces the consumption of new resources and the generation of waste. The Ricoh Group is promoting the effective use of resources by establishing a system in which products recovered from the market are supplied to the market again.

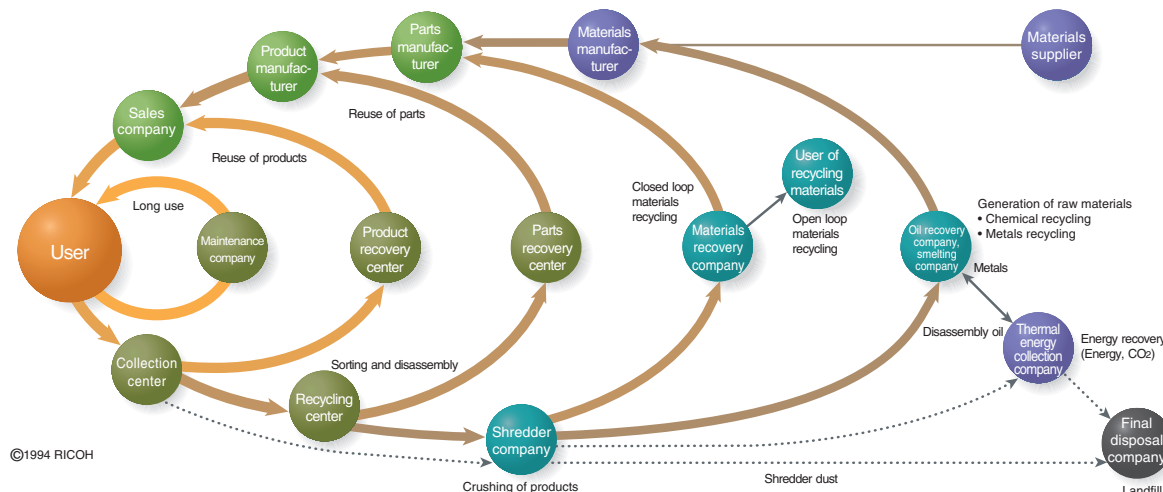
(4) More Economically Rational Recycling

A sustainable society must also establish a recycling system in which products and money flow in opposite directions in both post-product-use stages and original production and marketing stages. The Ricoh Group, making use of an upgraded design, is promoting a more economically rational recycling system in partnership with recycling companies. At the same time, it is important to establish a social system that helps people to be aware of environmentally-friendly business activities and buy products with less environmental impact.

(5) Establishing a Partnership at Every Stage

The Ricoh Group strives to reduce environmental impact in all of its business areas in an economically rational way through partnerships with parties at all stages. The initiatives include the reduction of environmentally-sensitive substances in cooperation with materials and parts manufacturers, improved efficiency in transportation, green marketing, and a reduction in recycling costs and the environmental impact generated by recycling. By disclosing information and know-how garnered through these activities and working with local communities, the Ricoh Group helps reduce the environmental impact of society as a whole.

Concept of a Sustainable Society: The Comet Circle™



For more information, please visit <http://www.ricoh.com/environment/management/concept.html>

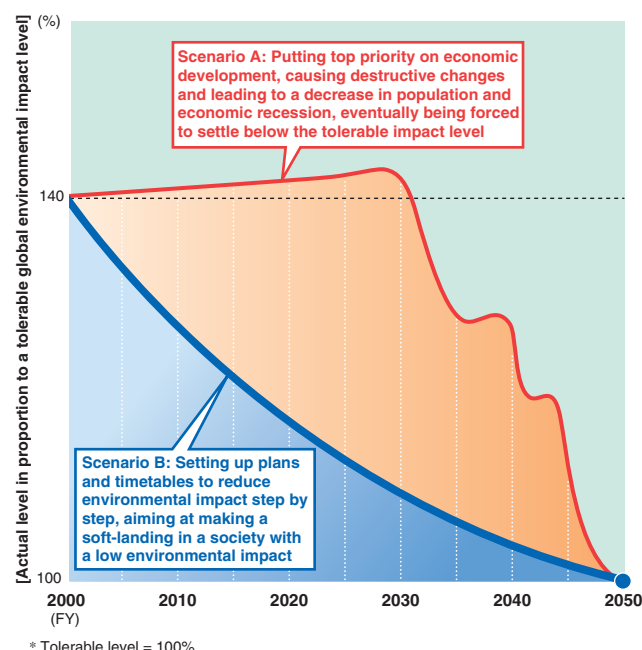
Advanced nations need to reduce their environmental impact to one-eighth the fiscal 2000 levels by 2050.

Based on this perception, the Ricoh Group has established environmental goals and an action plan, and is promoting sustainable environmental management.

Importance of actions that are based on a long-term vision

To conserve the global environment and achieve a sustainable society, it is necessary to limit environmental impact created by human activities to a level that is within the Earth's self-recovery capabilities. To meet this requirement, we must first envision the ideal society and global environment; then we must create a long-term vision to realize our ideals and aggressively promote environmental conservation activities. Global environmental conservation is a challenge for which there is no second chance, and it is highly probable that we will never be able to build our vision if we act on short-term goals. With this perception in mind, in developing the Environmental Action Plan that was implemented in fiscal 2005, we gathered and analyzed a variety of information to allow us to envision human society in 2050 and assessed its impact on our businesses. In light of the results, we formulated the Year 2050 Extra-Long-Term Environmental Vision, a perception that advanced nations need to reduce their environmental impact to one-eighth of the fiscal 2000 levels by 2050, and concluded that it was necessary to set up specific action plans under this vision.

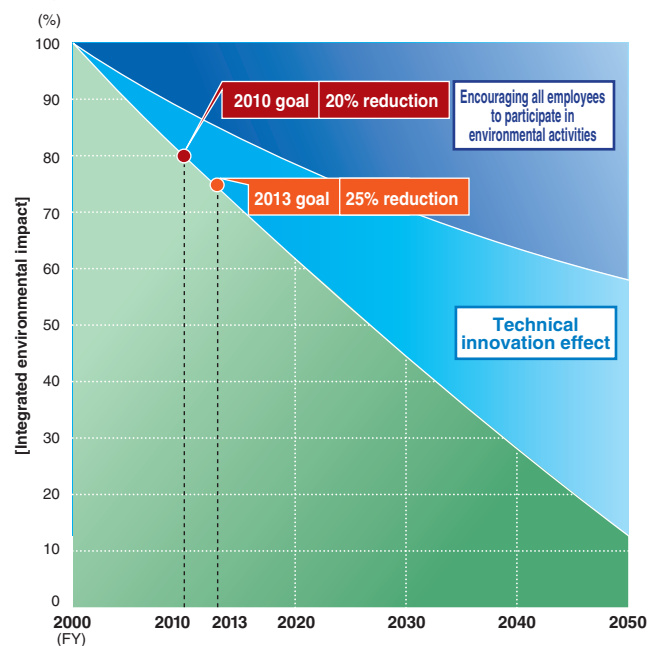
Two Scenarios for Reducing Global Environmental Impact



Social changes towards 2050 and how the Ricoh Group intends to cope with the changes

What will our society be like in 2050? The world's population will have reached nine billion. Mineral resources may have run out. Restrictions may be imposed on the use of land. On the other hand, energy sources may have shifted from oil to alternative energies in the hope of preventing global warming. These might lead to substantial changes in social and business models. To prepare for a new era in which we may no longer be able to use the abundant virgin materials and fossil fuels that we have used to date, the Ricoh Group is trying to develop environmental technologies that require fewer resources and new product materials that are alternatives to oil. Based on the perception of future social changes and the prospect of the impact such changes are likely to have on our businesses, we have set up an Environmental Action Plan depicting measures we should take today to prepare for the future. We believe that a quick response to a drastically changing society will strengthen our business competitiveness.

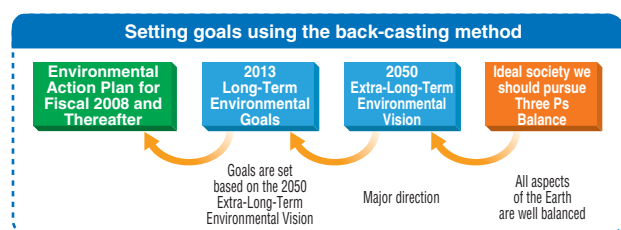
Integrated Environmental Impact Reduction Goals



Setting targets using the back-casting method to attain final goals

The Ricoh Group uses the back-casting method to set targets. In this approach, we first set final goals and then determine target values as milestones on the journey to those goals. Setting the Three Ps Balance as its final goals, the Ricoh Group created the Year 2050 Extra-Long-Term Environmental Vision. Based on this vision, we determined the Year 2013 Long-Term Environmental Goals, which aim to reduce environmental impact by 25% by fiscal 2013. Under the Environmental Action Plan, which will start in fiscal 2008 according to the Year 2013 Long-Term Environmental Goals, we will strive to achieve the target of reducing environmental impact by 20% from fiscal 2000 levels by fiscal 2010 on the estimation that our business will expand by 8% or more a year. We adopted “integrated environmental impact”^{*} as an index for target values and aim to reduce it in terms of absolute values. Integrated environmental impact is obtained by integrating all environmental impact caused by CO₂ emissions, resource use, use of chemical substances, etc. ^{*} See Page 56.

How to Set Environmental Goals



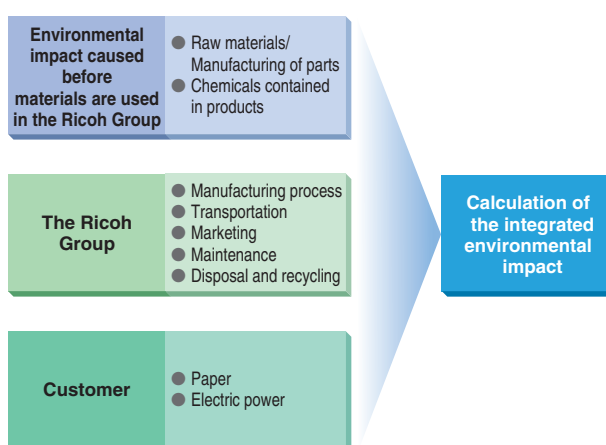
Consideration in Preparing an Environmental Action Plan



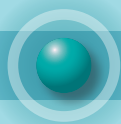
Reducing the environmental impact of all business activities in terms of absolute values

If reduction of CO₂ and resource conservation is promoted separately, environmental impact reduction goals might be achieved in a defined area, but the environmental impact might increase more than the amount reduced in other areas or processes. To ensure that environmental impact is reduced, we have to first identify the environmental impact of all business activities and then determine, from a comprehensive viewpoint, the kind of initiatives that should be taken at each stage of business. Also, goals set based on units and factors alone, which are efficiency-based relative indices, might not be effective for environmental conservation in practical terms. Therefore, it is important to set goals using “absolute values” for environmental impact as well. Thinking this way, the Ricoh Group aims to reduce the integrated environmental impact of its entire business activities by absolute values.

Reduction Areas of Environmental Impact (Eco Balance)



For more information, please visit <http://www.ricoh.com/environment/management/vision.html>



Ricoh carries out the Environmental Action Plan with new targets and strategies in anticipation of changes in society.

Process of forming the 16th Mid-Term Environmental Action Plan

The Ricoh Group strives for environmental conservation after envisioning the ideal global environment and imposing high goals upon itself. To that end, the Group sets a mid-term environmental action plan every three years and promotes all-participatory reduction activities. We believe it is also necessary to set longer-term goals for continuously achieving results and set the Year 2050 Extra-Long-Term Environmental Vision as one of our goals. The 15th Mid-Term Environmental Action Plan (from fiscal 2005 to 2007) is the first mid-term environmental action plan for which targets were set by the back-casting method. When formulating the 16th Mid-Term Environmental Action Plan (from fiscal 2008 to 2010), we reviewed the Extra-Long-Term Environmental Vision. The latest information, such as the IPCC Fourth Assessment Report, has revealed some issues that should be addressed without delay, including the acceleration of global warming and depletion of resources. We set the Year 2013 Long-Term Environmental Goals* in consideration of such global-scale issues, as well as long-term business forecasts of the Ricoh Group, development of environmental technologies and so forth, which are reflected in the action plan. [* See Page 20.](#)

Targets and important strategies of 16th Mid-Term Environmental Action Plan

The targets and main strategies of the 16th Mid-Term Environmental Action Plan are shown below. The Ricoh Group will carry out this plan while enhancing and accelerating sustainable environmental management under new strategies.

Fiscal 2010 goals
(integrated environmental impact)

20% reduction
from fiscal 2000 levels

(1) Making thorough efforts for effective utilization of resources to realize a resource-recirculating society

The depletion of resources is now a practical issue. It is feared that not only fossil resources, but also mineral resources and water, might run short in the near future. Some of them are forecast to run short within 20 years. We are no longer in an age when companies can use abundant resources for production. The Ricoh Group has striven to use resources efficiently from the viewpoint of reduction of waste. Under the 16th Mid-Term Environmental Action Plan, our priority will shift to effective

use based upon the reduction of resource use and recycling of resources. We will actively promote the innovation of manufacturing processes and endeavor to establish a recycling-oriented manufacturing system, aiming to become a pioneering corporate model in a resource-recirculating society.

(2) Developing environmental technologies contributing to the reduction of environmental impact in society as a whole

It will never be possible for the Ricoh Group to achieve the high goals it has set if its business activities are based solely upon the existing technologies and methodology. The Ricoh Group will accelerate technological development to reduce environmental impact in business activities while expanding the development areas beyond its business sectors. We will thus strive to develop environmental technologies that will contribute to the reduction of environmental impact in society as a whole.

(3) Making sure to contribute to the reduction of environmental impact at customers' sites

Ricoh has put much effort in developing energy-saving technologies for copiers for many years. A customer survey, however, has shown that less than 10% of the customers actually use the energy-saving mode. No matter how excellent the energy-saving function is, it is meaningless if it is not used. Under the 16th Mid-Term Environmental Action Plan, Ricoh will not only work to improve energy-saving technologies, but also focus on saving energy and reducing paper-caused environmental impact by raising the rates of energy-saving and duplex copying function use by customers.

(4) Promoting activities to conserve biodiversity aiming to sustain and restore the Earth's self-recovery capabilities

To realize the ideal global environment, it is not simply sufficient to reduce damage to the global environment. It is important to restore the Earth's self-recovery capabilities. Recognizing the influence caused by its business activities upon, and responsibility for, biodiversity, the Ricoh Group will promote social contribution activities aiming at the conservation of biodiversity as an essential complement to environmental conservation activities.

Ricoh Group's 16th Mid-Term Environmental Action Plan (FY 2008 to 2010) * For items that do not specify a target fiscal year, the target year is fiscal 2010.

1

Using resources effectively to realize a resource-recirculating society

(1) Develop environmental technologies aiming to reduce environmental impact.

- Develop environmental technologies contributing to the reduction of environmental impact in business and society as a whole.

(2) Increase recirculation of resources and use resources effectively to reduce the use of new resources in products.

1) Promote the reuse of parts.

- Increase the use of reusable parts recovered from used products to 1,910 tons by fiscal 2010 (Japan).
- Increase the use of reusable parts recovered from used products to 6,000 tons by fiscal 2010 (outside Japan).

2) Promote PCMR (plastic closed material recycling).

- Achieve the fiscal 2010 target for the quantity of recycled plastic used (Japan). Fiscal 2010 target: 750 tons

3) Increase the amount of resources recirculated from used products (outside Japan).

- Increase the amount of resources recirculated from used products (the amount reused + the amount recycled) to 16,000 tons by fiscal 2010.

4) Use plant-based plastic for products.

- Commercialize plant-based toners.

(3) Reduce waste generated by production activities.

1) Reduce waste of resources in the thermal media business.

- Reduce the amount of waste generated by 10%, compared to fiscal 2006 figures.

2) Reduce waste of resources relating to packaging materials.

- Reduce packaging material waste per production volume in the manufacturing of imaging products in Japan by 30%, compared to fiscal 2006 figures.

3) Reduce waste generated in the manufacturing of polymerized toners.

- Reduce waste generated per production volume by 77%, compared to fiscal 2006 figures.

2

Developing frontier environmental technologies to cope with climate change problems and promoting business activities that reduce energy consumption

(1) Promote development of energy-saving technologies.

- Develop technologies to save energy consumed by products and innovate production processes that contribute to the reduction of environmental impact in business and society as a whole.

(2) Improve the energy-saving performance of products.

1) Achieve Ricoh's energy-saving targets.

(3) Reduce greenhouse gas emissions in production activities.

- Reduce CO₂ emissions by 12% by fiscal 2010 (Ricoch and manufacturing subsidiaries in Japan, compared to fiscal 1990 figures).
- Reduce CO₂ emissions by 10% by fiscal 2010 (manufacturing subsidiaries outside of Japan, compared to fiscal 1998 figures).
- Reduce emissions of greenhouse gases other than CO₂ by 10% by fiscal 2010 (semiconductor business sector, compared to fiscal 1995 figures).

(4) Reduce greenhouse gas emissions in non-production activities.

- Reduce CO₂ emissions to a level that is below fiscal 2006 figures (Ricoch and non-manufacturing subsidiaries in Japan).

(5) Reduce CO₂ emissions in logistics.

- Improve by 1% or more by the basic quantity unit (compared to the previous fiscal year's figures).

(6) Expand CO₂ emission reduction efforts to involve suppliers.

(7) Contribute to the reduction of environmental impact at customers' sites.

1) Survey the frequencies of energy-saving and duplex copying functions used and raise their rates of use.

3

Upgrading chemical substance control aiming at environmentally safer manufacturing and business activities

(1) Improve environmentally-friendly functions.

1) Promote measures to reduce chemical emissions.

- Observe Ricoh standards that cover such substances as ozone, dust, and VOC.

(2) Upgrade risk management relating to chemical substances.

1) Establish a global system for management of risks from chemical substances.

2) Reduce environmentally-sensitive substances.

- Reduce the amount of environmentally-sensitive substances used by at least 30% (Ricoch production sites and manufacturing subsidiaries, compared to fiscal 2000 figures).
- Reduce environmentally-sensitive substance emissions by at least 80% (Ricoch production sites and manufacturing subsidiaries, compared to fiscal 2000 figures).

(3) Enhance the management of chemical substances contained in products.

1) Respond to the REACH Regulation.

- Upgrade systems for management and information transmission necessary for responding to the REACH Regulation.

4

Conserving biodiversity

(1) Promote ecosystem conservation activities to enhance the self-recovery capabilities of the global environment.

Environmental Action Plan up to Fiscal 2007 and Its Results

The Ricoh Group's 15th Mid-Term Environmental Action Plan (FY 2005-2007) * For items that do not specify a target fiscal year, the target year is fiscal 2007.

1 Improving environmentally-friendly functions and promoting environmental technological development	<p>(1) Develop new environmental technologies. (* Details of the progress of new technologies not currently released.) Page 25</p> <p>1) Develop new environmental technologies to reduce resource use.</p> <p>2) Develop new environmental technologies to realize a society that is less dependent on fossil resources.</p> <p>(2) Improve environmentally-friendly functions.</p> <p>1) Promote the use of energy-saving technologies in products. Page 27</p> <ul style="list-style-type: none"> • Achieve Ricoh's energy-saving goals. <p>2) Promote the use of resource-saving technologies in products.</p> <ul style="list-style-type: none"> • Improve the quantity of reusable parts used by a factor of at least five (compared to fiscal 2003 figures in Japan). • Increase the quantity of recycled plastic used to 1,000 tons or more. <p>3) Observe Ricoh standards that cover environmentally-sensitive substances emitted by products. Page 33</p> <ul style="list-style-type: none"> • Observe Ricoh standards that cover such substances as ozone, dust, and VOC.
2 Promoting green marketing	<p>1) Increase the number of recycled copiers sold. Page 30</p> <ul style="list-style-type: none"> • Increase the number of recycled copiers sold by a factor of at least 10 (compared to fiscal 2003 figures in Japan). <p>2) Promote the green marketing of paper.</p> <ul style="list-style-type: none"> • Improve the recycled pulp use rate for paper products to 60% or more (in Japan).
3 Environmental conservation activities that improve the effect on cost at plants and offices	<p>(1) Promote energy conservation at business sites.</p> <p>1) Reduce total amount of CO₂ emitted as a result of business activities. Page 37</p> <ul style="list-style-type: none"> • Reduce CO₂ emissions by 12% by fiscal 2010 (Ricoch and manufacturing subsidiaries in Japan, compared to fiscal 1990 figures). • Reduce CO₂ emissions by 10% by fiscal 2010 (manufacturing subsidiaries outside of Japan, compared to fiscal 1998 figures). • Reduce CO₂ emissions by 4% (Ricoch and manufacturing subsidiaries in and outside of Japan, compared to fiscal 2000 figures). • Reduce CO₂ emissions by 4% (non-manufacturing subsidiaries in Japan, compared to figures in the base fiscal year set at each company). <p>(2) Promote resource conservation at business sites.</p> <p>1) Reduce generated waste. Page 43</p> <ul style="list-style-type: none"> • Reduce generated waste by at least 3% (Ricoch and manufacturing subsidiaries in and outside of Japan, compared to fiscal 2000 figures). • Reduce generated waste by the ratio calculated by multiplying the number of years from the base fiscal year to fiscal 2007 by the yearly rate (2%) (non-manufacturing subsidiaries in Japan; the base fiscal year is set at each company). <p>2) Improve the waste recycling rate. Page 43</p> <ul style="list-style-type: none"> • Improve the waste recycling rate to at least 95% (non-manufacturing subsidiaries in Japan). <p>3) Reduce water consumption. Page 43</p> <ul style="list-style-type: none"> • Reduce water consumption to a level that is below fiscal 2000 figures (Ricoch production sites and manufacturing subsidiaries in and outside of Japan). <p>4) Reduce paper consumption.</p> <ul style="list-style-type: none"> • Reduce paper consumption by at least 10% (Ricoch, manufacturing and non-manufacturing subsidiaries in Japan, and manufacturing subsidiaries outside of Japan, compared to fiscal 2002 figures). <p>(3) Promote pollution prevention at business sites.</p> <p>1) Completely eliminate the use of chlorine organic solvents.</p> <ul style="list-style-type: none"> • Completely eliminate chlorine organic solvents used in manufacturing Organic Photoconductors at manufacturing contractors as well as at Ricoch manufacturing divisions. <p>2) Reduce greenhouse gas emissions (except CO₂). Page 38</p> <ul style="list-style-type: none"> • Reduce greenhouse gas emissions (except CO₂) in the semiconductor business division by 15% (compared to fiscal 2000 figures). <p>3) Examine and improve soil and underground water at Ricoch's non-production sites and leased land. Page 47</p> <ul style="list-style-type: none"> • Complete the examination of soil and underground water at Ricoch's non-production sites and leased land (Ricoch and affiliates in and outside of Japan). • Make and implement plans to improve sites where pollution is detected.
4 Improving the sustainable environmental management system and making it more consistent through systems integration	<p>(1) Improve the sustainable environmental management system.</p> <p>1) Improve the ISO 14001 system. Page 51</p> <ul style="list-style-type: none"> • Integrate the environmental management system with that of Ricoch (in fiscal 2005) and the Ricoch Group (in fiscal 2007). <p>2) Create a system of managing chemical substances contained in products. Page 33</p> <ul style="list-style-type: none"> • Create and enforce a management system for chemical substances contained in Ricoch Group products (in fiscal 2005). <p>3) Improve the sustainable environmental management information system. Page 53</p> <ul style="list-style-type: none"> • Introduce the information system, which manages real-time information on the environmental impact caused at resource processing sites, to various business divisions other than the imaging equipment division. • Introduce the information system, which manages real-time information on the environmental impact caused by transportation processes, to transportation processes outside of Japan.
5 Promoting environmentally-friendly social contribution activities to conserve the ecosystem	<p>1) Promote forest conservation activities and environmentally-friendly social contribution activities to conserve the ecosystem. Page 67</p> <ul style="list-style-type: none"> • Promote environmentally-friendly social contribution activities to conserve the ecosystem (regional headquarters outside of Japan; Ricoch production sites, manufacturing subsidiaries, and sales subsidiaries in Japan; Ricoch Logistics System Co., Ltd.; Ricoch Leasing Company, Ltd.; and Ricoch San-ai Service Co., Ltd.).

* Results for items 1 through 4 were reviewed by a third party.

Results

- ▶ Elemental technologies are being developed for reducing the size and weight of imaging equipment.
- ▶ Research and development for new materials are being promoted so that plant-based plastic, which has been used only for some of the parts of imaging equipment, can be used in a wider area.

- ▶ Our copiers, multifunctional copiers, and printers all meet energy-saving goals (achieved).

- ▶ Quantity of reusable parts used increased 5 times (achieved).
- ▶ Quantity of recycled plastic used reached 1,346 tons (achieved).

- ▶ Twenty copier, multifunctional copier, and printer models launched in fiscal 2007 meet Ricoh's standards for ozone, dust and VOC, which are as strict as the Blue Angel requirements 2007 (achieved).

- ▶ Sales of recycled copiers increased 7.9 times (not achieved).

- ▶ We would like to refrain from reporting, as it has become difficult for us to announce the progress according to the traditional calculation method due to mislabeling of the recycled pulp composition rates by papermakers.

- ▶ Total CO₂ emissions decreased 15.5%. * Calculated on the assumption that CDM will be applied to cope with any increase in CO₂ emissions caused by business growth of over 4% per year and changes in CO₂ emissions conversion coefficients
- ▶ Total CO₂ emissions increased 2.6%.
- ▶ Ricoh and manufacturing subsidiaries in Japan: Total CO₂ emissions decreased 10.6% (achieved). * Calculated on the assumption that CDM will be applied to cope with any increase in CO₂ emissions caused by business growth of over 4% per year and changes in CO₂ emissions conversion coefficients
- ▶ Manufacturing subsidiaries outside of Japan: Total CO₂ emissions increased 8.8% (not achieved).
- ▶ Total CO₂ emissions by non-manufacturing subsidiaries in Japan decreased 17.9% (achieved).

- ▶ Generated waste increased 3.9% (not achieved).

- ▶ Changes in generated waste: 28.4% reduction at sales subsidiaries in Japan* (achieved); 1.0% reduction at Ricoh Leasing (not achieved); 9.3% reduction at Ricoh San-ai Service (achieved); and 41.7% reduction at Ricoh Logistics System (achieved). Each company's base year for comparison: 2002 for Ricoh Logistics System and 2004 for other companies.
* The figure for sales subsidiaries in Japan is the total for all sales subsidiaries in Japan plus Ricoh Technosystems Co., Ltd.

- ▶ Waste recycling rate improved to 95.6%–99.5% (achieved).

- ▶ Water consumption decreased 15.7% (achieved).

- ▶ Paper consumption decreased 9.5% (not achieved).

- ▶ Use of chlorine organic solvents was completely discontinued in the consignment production of organic photoconductors at plants other than Ricoh's in fiscal 2005 (achieved). However, such efforts are still being promoted independently at the affiliates that joined the Ricoh Group after fiscal 2005.

- ▶ The emission of greenhouse gases other than CO₂ was reduced by 28.0% (achieved).

- ▶ The examination was completed in fiscal 2006 (achieved). However, the same examination is conducted for management purposes, if a business or land is newly purchased.
- ▶ No pollution that needed dealing with was found, or no new projects for improvement were started in fiscal 2007.

- ▶ The environmental management systems of the Ricoh Group companies were integrated (achieved). The Ricoh Group's Environmental Management Rules were established to fortify the management system of the Group.

- ▶ The PDCA cycle of the management system for chemical substances contained in products will be promoted so that management in compliance with new laws and regulations can be enhanced.

- ▶ An information system that manages information on the environmental impact of resources used in the semiconductor business sector was established (achieved).
- ▶ An information system was also created to calculate the CO₂ emissions per delivery in transportation processes outside of Japan (achieved).

- ▶ Social contribution activities to conserve the ecosystem were expanded at home and abroad, and sales subsidiaries and plants in various places actively participated in the projects.
 - Regional headquarters and sales subsidiaries outside of Japan: 22 projects
 - Manufacturing subsidiaries and production sites in Japan: 132 projects
 - Non-manufacturing subsidiaries in Japan (RicoH Logistics System, Ricoh Leasing, and Ricoh San-ai Service): 76 projects
 - Manufacturing subsidiaries outside of Japan: 28 projects
 - Sales subsidiaries in Japan: 111 projects

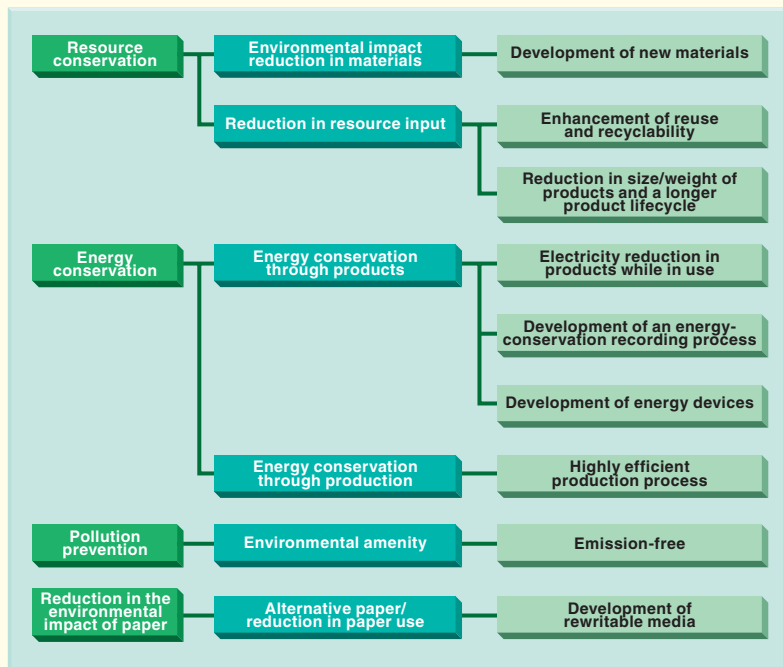
Promoting the development of environmental technologies and environmentally-friendly products based on the Extra-Long-Term Environmental Vision

■ Concept of Product Development

The Ricoh Group develops products that during their lifecycles keep the integrated environmental impact¹ below the limit at which the global environment becomes unsustainable. First, the Eco Balance² data on the environmental impact caused by overall business activities are identified, and based on the results, targets for products covered by the action plans are set (Plan). The design division then draws up LCA-based designs to achieve the targets (Do). Results from the LCA-based designs are reviewed again (Check) before being reflected in development goals for the next models (Act). To effectively reduce environmental impact throughout the product lifecycle, the Group is also working to develop environmental technologies for new product materials and technologies that will help reduce paper consumption. As a next step, we aim to develop environmental technologies that will contribute to reducing the environmental impact of society as a whole.

1. See Page 56. 2. See Pages 56 and 57.

Focused Areas for Environmental Technologies



Promotion of LCA-based Design

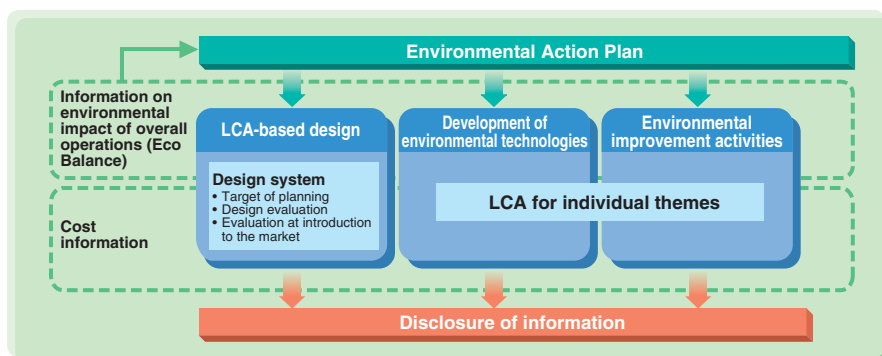
LCA-based design is a process where targets are set to reduce the environmental impact of products throughout their lifecycles, and the PDCA cycle is used to achieve these targets. To effectively reduce the environmental impact across the entire lifecycle of a product, the Ricoh Group quantifies targets for reduction by “integrated environmental impact” and keeps track of how much environmental impact is generated in each lifecycle phase, which ranges from material sourcing to the manufacturing, transportation, use, and disposal of products. In fiscal

2007, we focused on setting LCA-based reduction targets for multifunctional color copiers under development. Going forward, we intend to set reduction goals for all product models using this methodology.

Life Cycle Assessment (LCA)

LCA means quantitatively identifying which and how much environmental impact exists in the life-cycle of a product, from the resource extraction for the production of raw materials to manufacturing, transportation, marketing, use, maintenance, collection, recycling, and disposal. LCA may also be applied to part of the above cycle.

Position of LCA in Sustainable Environmental Management



Promotion of Development of Environmental Technologies

The development of environmental technologies is one of the most important efforts to realize sustainable environmental management. It is the basis for providing customers with “products that unobtrusively contribute to a reduction in environmental impact while in use” and for simultaneously realizing both a reduction in environmental impact and the creation of economic value. In addition, based on the Year 2050 Extra-Long-Term Environmental Vision, the Ricoh Group has established medium- and long-term plans for four fields: “energy conservation,” “resource conservation and recycling,” “pollution prevention (environmental comfort),” and “reduction in paper use in printing/copying.” In accordance with these plans, the R&D Division as well as all business divisions and affiliates are engaged in developing environmental technologies and products. The Group also began to address a technological theme that helps reduce the environmental impact of society as a whole in addition to the field of copiers.

Dry Washing Technology for Parts Recycling

A recycling practice will never be called effective if it generates significant environmental impact in the course of recycling resources. Based on this recognition, Ricoh has been making progress in developing resource-recirculating production systems. The development of original dry washing technology is among the latest examples. Previously, we used water to remove toner stain from used parts, which inevitably involves wastewater treatment and energy consumption to dry the washed parts. Using the new technology, which can achieve cleaning quality as high as that of ultrasonic cleaning, toner stain is scraped off by blasting it with tiny sheets of film, rather than water, at high speed. Its first practical use was for Ricoh Gotemba Plant's organic photoconductor unit cartridge recycling process, which saw considerably less operation time and less energy use for wastewater treatment and drying processes. We intend to make this dry washing technology available at other production sites and for wider purposes.



Dry washer

Disclosure of Information Using Environmental Labels

It is important not only to develop environmentally-friendly products through the use of environmental technologies and LCA-based design, but also to disclose information in an easy-to-understand manner. Ricoh is actively engaged in introducing Type I environmental label certifications so that customers will understand that our products are environmentally friendly. We are also working to disclose our environmental information in accordance with Type III environmental declarations.

* For details on environmental labels, refer to our web site: <http://www.ricoh.com/environment/label/index.html>

Practical Use of Plant-based Plastic

Ricoh has been working to develop product materials with less environmental impact because it noted the fact that a great percentage of the environmental impact caused by its business activities comes from material/parts procurement and manufacturing. In 2002, we started to develop plant-based plastic for application in our copiers. Plant-based plastic has been receiving increasing attention recently because it is recyclable and contributes less to global warming than its petroleum-based counterpart. In 2005, Ricoh rolled out the industry's first plant-based multifunctional digital copier, of which 50% of the main unit is made from plant-based materials. We intend to raise this ratio gradually in due course. We are also endeavoring to expand the application of plant-based materials into other areas, such as the development of a plant-based toner. As collection and recycling of toners after printing is rather difficult, it is important to reduce the environmental impact of their materials—currently, petroleum-based resins are the primary components. We are also keenly mindful that we should explore some manner of plant resource use that does not compete with sustenance needs.

RICO₂RET*—a Tool for Calculating CO₂ Emissions during Parts Manufacturing

To reduce the environmental impact of its products effectively, Ricoh developed RICO₂RET (RicoH CO₂ Reduction & Evaluation Tool) to calculate the CO₂ emitted during the manufacturing process of parts. With this tool, the amount of CO₂ emission can be obtained by process to manufacture one single unit of a part or by facility used for processing, by simply entering the required information, such as the type and quantity of parts materials or manufacturing supplies, and the amount of energy consumed by the use of production equipment, air conditioners and lighting fixtures. The tool is of great help in reducing environmental impact during a parts manufacturing process in an efficient manner, because its graphically presented calculation results explicitly highlight which process is a large CO₂ emitter. To ensure the tool will help reduce environmental impact during part manufacturing, we update the base unit for the calculation from time to time in order to maintain data quality.

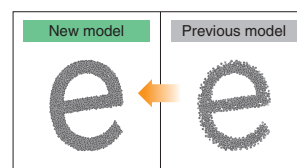
* See page 13.

TOPIC

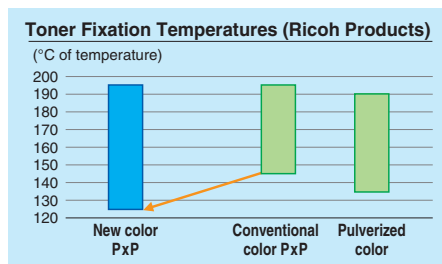
Development of New Color "PxP" Toner

Tin-free low-temperature fixing eco-toner with less environmental impact in the production process

Ricoh's production development policy is to create products that have minimal environmental impact throughout their lifecycles. Our new color PxP toner (a polymerized toner), made from newly developed polyester resin, is designed to fuse at a temperature 20°C lower than its predecessor while achieving higher picture quality with fine and uniform particles. This lower fusing temperature means the copier/printer consumes less energy when in use. Another environmentally-friendly feature of this new toner is the higher recyclability of wastewater and solvent enabled by its resource-saving production process. The new color PxP toner was first introduced in the imagio MP C7500/C6000 series launched in December 2007 in Japan.



Achieving higher picture quality with the new PxP toner



Development of User-Friendly and Energy-Saving Technologies

■ Concept

Products that are not easy to use will not be chosen by customers, even if their energy-saving performance is good. Such products can neither contribute to energy conservation nor help prevent global warming. Ricoh is further developing its unique energy-saving QSU (Quick Start-Up) technology*, which enables quick recovery from energy-saving mode, allowing users to make copies whenever they need to. It is also expanding the product line of QSU-equipped machines. Meanwhile, reducing unnecessary paper consumption (indirect energy saving) is important since paper production consumes a lot of energy. Ricoh helps decrease the environmental impact caused by customers' paper consumption by offering user-friendly duplex copying functions, digitization, and promoting sales of recycled paper.

* Ricoh's original energy-saving technology that enables quick recovery from energy-saving standby mode.

■ Targets for Fiscal 2007

◎ Achieve Ricoh's energy-saving goals.

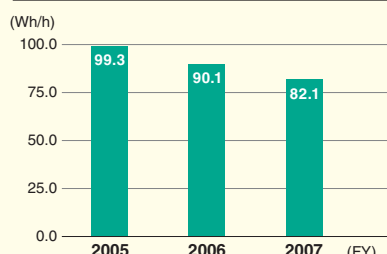
■ Review of Fiscal 2007

In the field of high-speed multifunctional color copiers, we have launched the imagio MP C7500 series,¹ with a warm-up time of less than 90 seconds,² and a recovery time from energy-saving mode of less than 45 seconds, and the Typical Electricity Consumption (TEC)³ of 9.91 kWh⁴ (about 30% less energy consumption than the previous model⁵). These new features were achieved by adopting the low-temperature fixing toner and improving the fusing system. In addition, sales of copiers using QSU technology with a recovery time of less than 10 seconds from energy-saving mode are steadily increasing, thus reducing CO₂ by approximately 50,400 tons a year (see Graph ④).

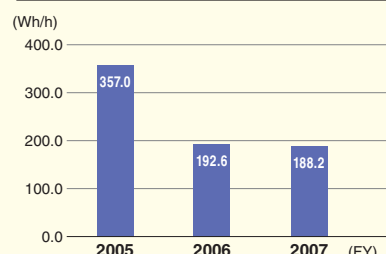
<Japan>

Changes in Energy Consumption

① Black-and-White Copiers and Multifunctional Copiers



② Color Copiers and Multifunctional Copiers



◎ Energy conservation values are calculated as follows:

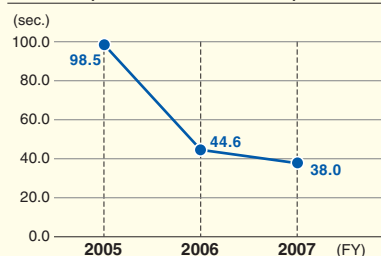
$\sum \{ \text{Effective energy consumption efficiency (Wh/h)}^{-1} \times \text{the number of units marketed} \} / \sum \text{the number of units marketed}$

1. Effective energy consumption efficiency is a figure measured for models with a 10-second recovery time from energy-saving mode in accordance with the Ministry of Economy, Trade and Industry's Law in Japan Concerning the Rational Use of Energy.

(Models with a recovery time of more than ten seconds were measured by electricity consumption in standby mode.)

Changes in Recovery Time from Energy-Saving Mode

③ Color Copiers and Multifunctional Copiers



◎ Recovery time was calculated as follows:

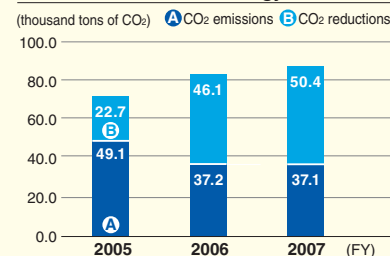
$\sum \{ \text{Recovery time from energy-saving mode (sec.)} > \times \text{the number of units marketed} \} / \sum \text{the number of units marketed}$

* Data for the previous years were corrected as shown in the graph.

* Graphs ① to ③ were compiled based on the number of units marketed in Japan.

<Global>

④ Reduction in CO₂ Emissions through the Use of QSU Technology



* CO₂ reductions (shown as B) represents the difference between the hypothetical emissions if none of our products use the QSU technology and the actual emissions.

■ Future Activities

We will further improve QSU technology, so that more customers will use energy-saving mode, and pursue user-friendliness (shorter recovery time from energy-saving mode) and energy-saving for color copiers.

Segment Environmental Accounting of Product Energy Conservation (Benefit on cost in color QSU product development)

Costs			Effects		
Item	Main costs	Costs	Economic benefits		Effect on environmental conservation
			Internal benefits	Customer benefits	
R&D Cost	Cost of developing energy-saving units, parts, etc.	¥647.7 million	Sales contribution ¥945.3 million	Reduction in payment for consumed power supply ¥238.2 million	Reduction in CO ₂ emissions 3,914.0 tons

* The reduction in payment for consumed power supply and CO₂ emissions is the annual benefit brought from 8 hours of operation per day, 20 days a month. Internal benefits refer to benefits on gross profits in sales results in fiscal 2007.

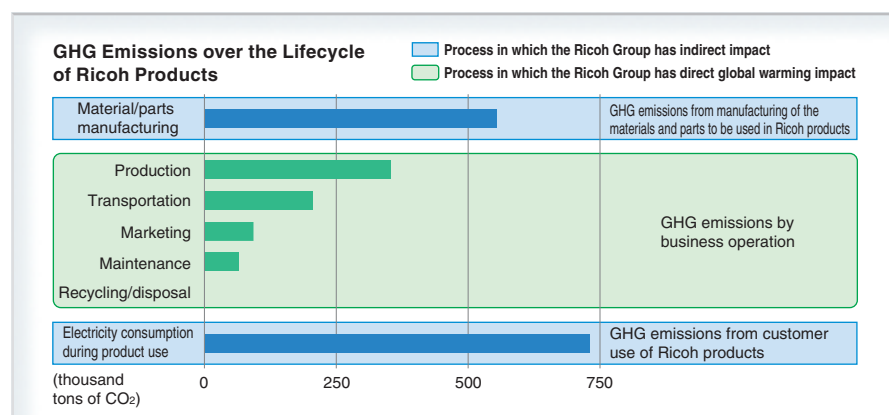
Assessing the Impact on Global Warming by Phase of Product Lifecycle

<Ricoh Group (Japan)>

Our assessment of the impact of our products on global warming shows that substantial levels of greenhouse gases (GHG) are emitted not only from Ricoh Group

operations such as production, transportation, marketing, and maintenance, but also from product use by the customers. We are therefore working to facilitate active

reductions on the customer side as well as on the side of our own operations. Even if customers want to reduce energy consumption to address global warming, they will not be able to do so effectively if the equipment they use in the office has poor environmental performance. Likewise, even if great environmental technology is used in an office-use product, customers do not select the product if it is not user-friendly. With this recognition, the Ricoh Group has continually been working to enhance the energy-saving features of its products and has been taking various steps to encourage more customers to use the energy-saving mode more often.



Environmental Performance of the Energy-Saving Mode

<Ricoh Group (Japan)>

To encourage more customers to use the energy-saving mode more often, it is important to drive the environmental benefits of using the mode home to customers. We are therefore actively communicating a comparison of the electricity consumption level (in terms of TEC¹) with the effective energy-saving mode activated on a Ricoh multifunctional digital full-color copier and with it not activated. The imagio MP C3500 series uses Ricoh's original Color QSU technology. Launched in May 2006, this model exhibits outstanding energy-

saving performance, such as a recovery time of less than 18 seconds from energy-saving mode and about one-fourth the gross energy consumption of the previous model.² Users can substantially reduce their electricity consumption, electricity costs, and CO₂ emissions (see the chart below) by using the energy-saving mode.

1. TEC: Typical Electricity Consumption, presenting the assumed consumption level per week under typical conditions of use.
2. A reference figure to compare the performance of the new imagio MP C3500SP with the previous imagio Neo C355 Model 75 using the revised Energy Star TEC Measuring Procedure, which became effective in April 2007.

Encouraging the Use of Energy-Saving Mode

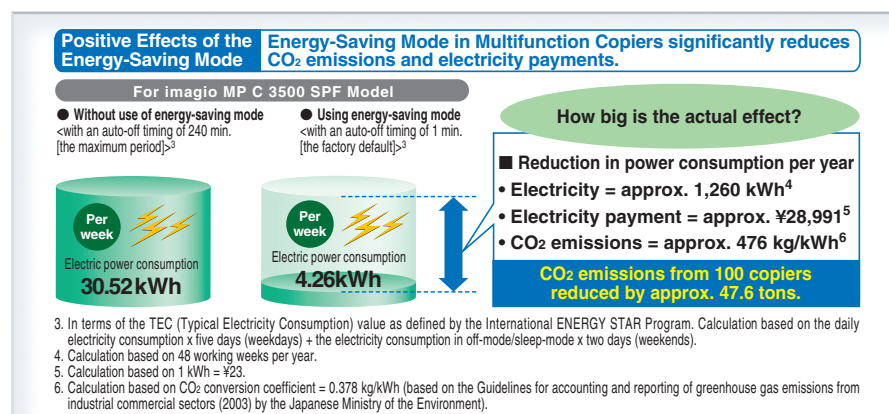
<Ricoh Group (Japan)>

Our customer survey shows that less than 10% of our customers use energy-saving mode regularly. To encourage the use of this helpful function to reduce environmental impact, Ricoh distributed stickers which aim to remind the user of the benefits of the energy-saving mode to customers and requested them to put the stickers on their Ricoh products. We have also prepared awareness-raising posters to encourage energy-saving and paperless operations.



Poster to encourage duplex printing (for Kyushu region)

Poster to encourage energy-saving



Developing Energy-Saving Products

Evolution of Energy-Saving Technology QSU

QSU (Quick Start-Up) is Ricoh's original energy-saving technology developed to achieve effective energy conservation for copiers. It enables quick recovery from energy-saving mode, allowing users to make copies whenever they need to. According to a customer survey, the longer it takes to recover from energy-saving mode, the less energy-saving mode is used. Ricoh has poured its efforts into developing QSU technology in a way that satisfies both user-friendliness and energy conservation so that our customers will use the energy-saving mode more often. In 2001, we launched the imagio Neo 350 series, the first multifunctional monochrome copiers equipped with QSU, and received the Minister of Economy, Trade and Industry Prize, the highest energy-saving award in Japan. Following that, we introduced HYBRID QSU, an integration of traditional QSU technology and capacitors (electric storage devices), in high-speed multifunctional digital copiers and have reinforced the lineup of QSU-equipped products ranging from low-speed monochrome copiers to high-speed copiers.¹ In fiscal 2006, Ricoh developed Color

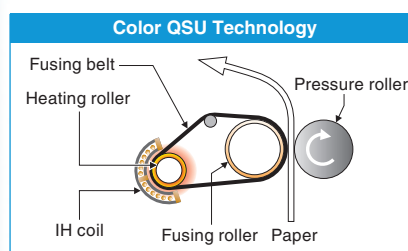
QSU technology, which adopts the IH² fusing system and achieved a reduction in recovery time from energy-saving mode for multifunctional color copiers, which had been a difficult challenge. We also developed energy-saving printers that use our GELJET technology, including the IPSiO GX 2500 launched in September 2007, with maximum energy consumption of

less than 35 watts, which is equivalent to the energy consumption of a fluorescent light.

1. Capacitors are incorporated only in the 100V machines marketed in Japan.
2. IH stands for "Induction Heating," a technology that heats metal instantly with the magnetic force generated by an electric current passing through a coil. This technology is also widely adopted in electric rice-cookers and stoves.

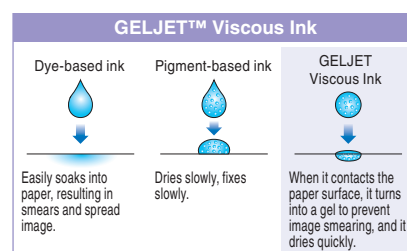
● Color QSU Technology

This technology adopts IH (Induction Heating) using a magnetic field to heat the fusing belt directly and quickly. This enables color copiers to both be user-friendly and highly energy efficient.



● GELJET Technology

GELJET Viscous Ink is a pigment-based ink with high viscosity and high penetration, which enables high-speed duplex printing on plain paper with a picture quality as high as that of laser printers. Its low energy consumption also allows users to save running costs.



Preventing Global Warming through Reduced Paper Consumption

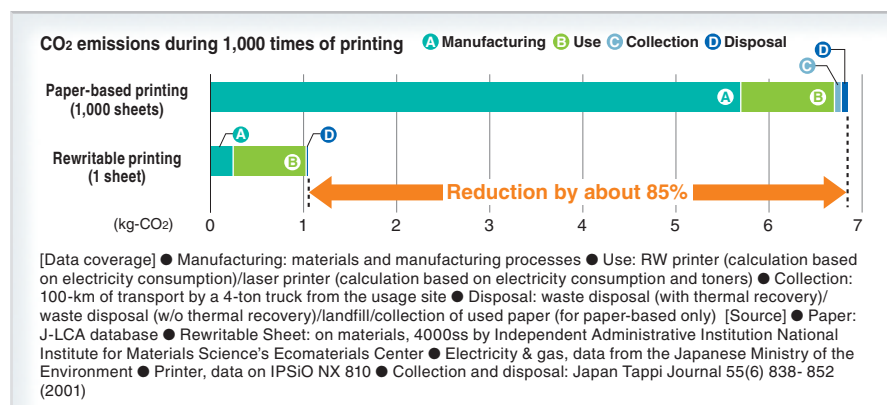
RECO-View RF Tag Sheet—Capable of Displaying Data on Rewritable RF Tags <Ricoch (Japan)>

In fiscal 2003, Ricoh developed the RECO-View RF Tag Sheet by combining RF tags with Ricoh's own rewritable technology, making the RECO-View RF Tag Sheet capable of rewriting and displaying data written on cards or sheets. This sheet displays digital data recorded on a tag, and the display changes as the tag is rewritten. A sheet is capable of being rewritten approximately 1,000 times.^{*} This tool helps prevent human error, as operators are able to visually confirm management information regarding the operation process written on RF tags.

We have received positive feedback from customers, including one from the CO-OP NET Oyama Distribution Center, which uses the tag sheet for the labeling of distribution containers saying, "Your product reduced

the workload and the waste of our labeling process, as we can rewrite data without detaching labels or disrupting the flow of the containers."

^{*} The number may vary, depending on the condition of use.



Global Promotion of Use of Recycled Resources Based on the “Comet Circle”

■ Concept

Based on the concept of the Comet Circle that puts “Priority on Inner Loop Recycling,”* the Ricoh Group is working on recycling materials with less environmental impact and high economic efficiency. Our efforts are thus focused on the following activities (in order of priority)—recovering products, reusing parts, and recycling materials. Ricoh, with recognition that the flow from collection of used products to the recycling of materials is one business unit, is making efforts to improve profitability in the recycling business on a global scale by increasing sales of recycled products such as recycled copiers and by establishing an efficient recycling system. * See page 18.

■ Targets for Fiscal 2007

- ◎ Improve the quantity of reusable parts used by a factor of at least five (compared to fiscal 2003 figures in Japan).
- ◎ Increase the quantity of recycled plastics used to 1,000 tons or more.
- ◎ Increase the number of recycled copiers marketed by a factor of at least 10 (compared to fiscal 2003 figures in Japan).

■ Review of Fiscal 2007

Compared to fiscal 2003, the quantity of reusable parts used increased five times and the quantity of recycled plastics used per year amounted to 1,346 tons, which indicates that we successfully reached our fiscal 2007 targets. The sales of recycled copiers in Japan increased 7.9 times, which means that although we missed our fiscal 2007 target, the number of reused units increased substantially. Through these activities, Ricoh is increasing the use of recovered resources globally and the amount is increasing steadily every year. We are also actively engaged in collecting used copiers and toner cartridges. As a result, the number of used copiers collected is increasing steadily. The number of used toner cartridges collected saw a decline due to the decrease in the sales of applicable products in certain territories.

■ Future Activities

We will continue to effectively use recovered resources by increasing the production and sales of recycled copiers as well as the use of recycled parts and materials, and thus provide our customers with products with less environmental impact and with higher economic efficiency. For this purpose, it is important to improve the collection rate and collection quality of used products. Through these activities, Ricoh will move forward with the utilization of recovered resources to contribute to creating a sustainable society.

Segment Environmental Accounting of the Product Recycling Business (Japan)

Costs		Effects		
Items	Costs	Economic benefits	Effect on environmental conservation	
		Items	Benefits	
Product recycling cost	¥732 million	Sales	¥11,977 million	Amount of resource recovery: 28,669 tons Down 2,761 tons from that in the previous year
Collection/resource recovery cost	¥2,545 million	Social effect	¥2,294 million	Amount of final disposal: 163 tons
Total cost	¥3,277 million			

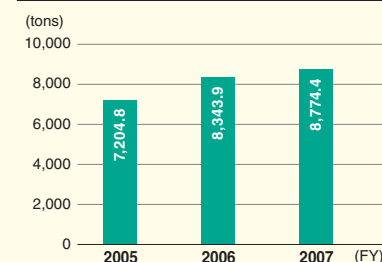
* Social effect refers to the cost of waste disposal that customers no longer have to pay.

<Global>

① Collection results and recycling rates for copiers and toner cartridges

	Amount of used products collected			Recycling rate
	Fiscal 2005	Fiscal 2006	Fiscal 2007	Fiscal 2007
Copiers	287,268 units	307,047 units	319,643 units	98.5%
Toner cartridges	1,388 tons	1,023 tons	993.5 tons	98.9%

② Changes in amount of recovered resources used



* Data for the previous years were corrected as shown in the graph.

Practicing Recycling with Less Environmental Impact

The Ricoh Group clearly prioritizes recycling methods to promote its recycling activities. Recycling collected products into commercially useful products generates less environmental impact and creates greater associated economic benefits than

if they were disassembled and sorted to be recycled into resources/energy. This idea is represented in the Comet Circle*. The flow of the recycling process, from the recovery of copiers collected from the market to the launch of recycled copiers, is shown in the second innermost loop. The recycled copier business contributes to the creation of a

sustainable society. In addition to focusing on this business, we are striving to reduce the level of resource consumption for new products in the development phase, and thus are reusing and recycling materials, water resources, manufacturing supplies, and many others in the course of each production process. * See page 18.

Putting the Recycling Business in the Black

<Ricoh Group (Japan)>

Resource conservation and recycling constitute one of the pillars of the Ricoh Group's environmental conservation activities. Since the early 1990s, we have been recycling our products, such as copiers and laser printers. More than 200,000 units of our used products are collected each year, all of which are fully recovered¹ or reused to make other recycled products. In order to continuously promote recycling, it is necessary to create



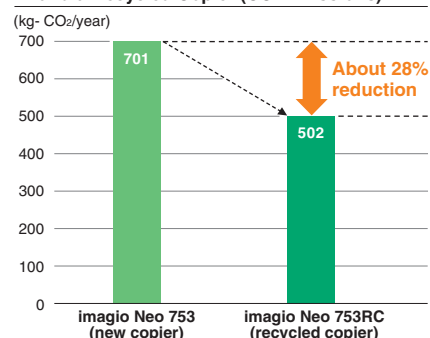
imagio Neo 753RC/603RC released in February 2008

economic value from recycling. Thus, Ricoh has been engaged in recycling copiers by collecting used machines from the market and putting them back on the market again. However, we had to deal with various problems before we could get our recycling business on track. Production plans for recycled products depend on the amount and quality of used machines collected from the market, and recycled copiers are the previous generation's products—thus they are functionally inferior to the current machines. Having overcome these obstacles one by one, we achieved sales of recycled copiers exceeding 10,000 units in fiscal 2006, and we achieved a profit for the first time since we commenced the recycling business in 1998. At present, we offer a wide variety of recycled machines with a copying productivity ranging from 35 pages/min. to 75 pages/min. Taking the imagio Neo 753RC as an example, an average of 88% (mass ratio) of the parts used are recycled parts, and its

environmental impacts over its whole life-cycle and during its manufacturing process are reduced by about 28% and about 94%, respectively, compared with those of the previous model.²

1. Recycling rate of 99.5% or more
2. Comparison between imagio Neo 753RC and imagio Neo 753 (new copier)

① LCA Comparison Between a New Machine and a Recycled Copier (CO₂ Emissions)



* A comparison is made by calculating the annual environmental impact of new and recycled copiers over a 5-year period and 10-year period (i.e., 5 years for new copiers and another 5 years for recycled ones), respectively.

* Figures for CO₂ emissions by copiers in operation at customer sites were not included in the calculation of the data.

Improving the Efficiency of Used Product Collection

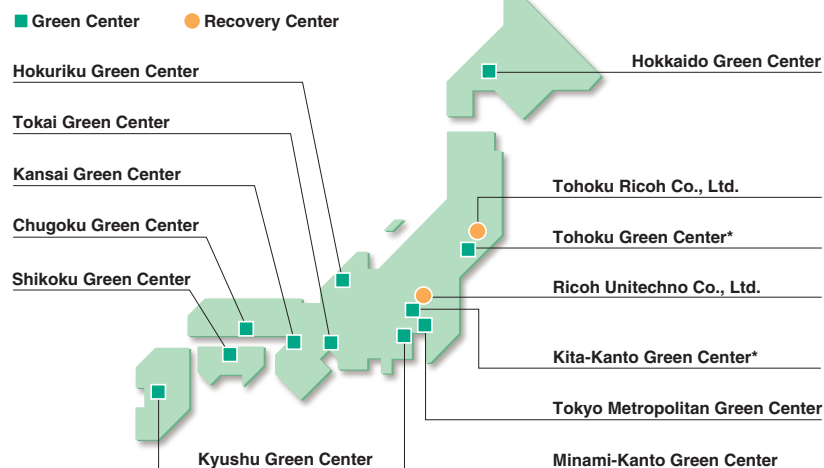
<Ricoh Group (Japan)>

Used copiers are first collected by Ricoh's local sales subsidiaries/dealers or our Green Centers located in 11 cities across Japan, where collected products are inspected and sorted. Specifically, serial number, the number of sheets copied, damage, conditions of power cables and paper feeders, etc., are checked to determine whether the collected products are recoverable enough to become recycled products. Collected products identified as being in good condition are then sent to regional Aggregation Centers, where further examinations are conducted, including the inspection of various functions such as power supply, panel display, and paper input and output. If necessary, simple repairs are also done there. Only those that have passed such a rigorous twofold inspection are finally sent to recovery centers. These processes underpin the high recovery efficiency of our used products. Furthermore, our original "Collection Forecast System," developed in

September 2004, allows us to project the number of units to be collected accurately, and thus to develop detailed production and

marketing plans and expand our recycled copier business substantially.

Key Green Centers (Collection Centers) and Recovery Centers in Japan (for Copiers)



* Also functioning as an Aggregation Center

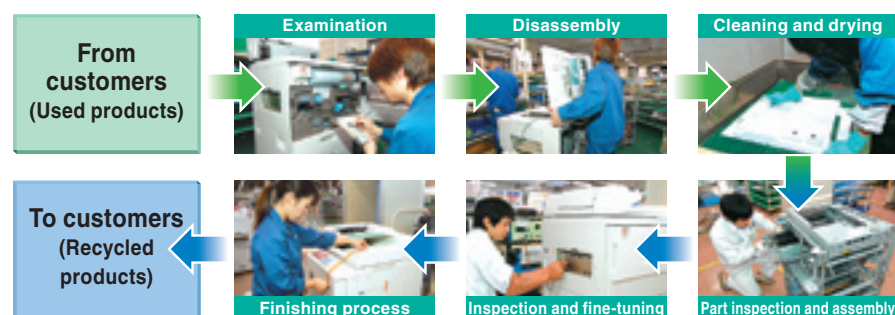
Quality Control and Efficiency Improvement in the Course of Production Processes for Recycled Products

<Ricoh Group (Japan)>

Our recycled products are manufactured in accordance with the same quality standards as our regular products. At recovery centers, used products are examined again to note the conditions (quality, deterioration, etc.) of each part, and they are then disassembled, cleaned, and washed. Data stored in the disk drives undergoes complete erasure at that time. In the assembling process, deteriorated parts and supplies are replaced with new ones. Then, assembled products, just as regular products, go through paper feeding tests, fine-tuning,

and a finishing process. Finally, the finished recycled products go to the market with the same quality warranty as our regular products. These recycling flows are managed under Ricoh's original "recycling information system," whereby each unit collected is bar-coded to trace its status throughout the process. The system allows efficient production of recycled products because its ability of unit-by-unit management enables identification of which collected items are currently going through which process.

Recycling process for copiers



Promoting Used Toner Cartridge Collection through the Internet

<Ricoh Group (Europe)>

The E Return Web System started to operate in October 2007 in Germany to promote the collection of used toner cartridges throughout Germany. The system accepts customers' requests on the Internet and arranges a pickup by DHL's home delivery service. Previously, used toner cartridges were returned through post offices. With this system, customers do not have to go to a post office. Collected toner cartridges are transported to the National Green Center in Germany for recycling, and reusable cartridges are sent to production sites in the U.K. and France. Building on this successful operation in Germany, the Ricoh Group will introduce the system and establish green centers in other countries.

Promoting Eco Packaging

<Ricoh Group (Japan)>

Ricoh has long been working to reduce the use of packaging materials. In 1994, we started "eco packaging" with less use of cardboard. In 2001, we introduced further advanced "resource-recirculating eco packaging" materials in the market. These resin-based packaging materials can be used repeatedly. As of fiscal 2007, about 70% of our copiers shipped from Japanese factories were packaged with these resource-recirculating eco materials. In addition, we are engaged in activities in which we deliver the product simply wrapped in damage-protection film only to the customers straight from the factory. Through these efforts, we are saving the consumption of packaging materials by some 8,400 tons, equivalent to about 11,000 tons of CO₂ emissions.

Collection of Used Products and Sales of Recycled Copiers in the Asian Market

<Ricoh (Thailand) Ltd. (Thailand)>

Ricoh (Thailand) Ltd., a sales subsidiary in Thailand, implemented its full-fledged copier recycling business in fiscal 2003, in response to market demand for high-quality recycled copiers. Roughly half of all recovered copiers are recycled and sold, thanks to an improved collection infrastructure and recycling technologies.



Manufacturing recycled copiers at Ricoh (Thailand) Ltd.



Resource-recirculating eco packaging

We offer products that are kind to the environment and people by reducing and strictly managing environmentally-sensitive substances.

■ Concept

Aiming to reduce the impact on the global environment and enhance end-user comfort and safety levels, the Ricoh Group is tackling important issues by establishing a strict management system for environmentally-sensitive substances contained in its products, reducing ozone, dust, and volatile organic compounds (VOCs)¹ emitted when products are used, and ensuring that its supplies are safe. Environmentally-sensitive substances contained in products will affect the environment when the products come to the end of their lifecycle and are improperly disposed of. An ecobalance² assessment shows that reducing the use of these substances will ultimately lessen the environmental impact a product has during its lifecycle and reduce recycling costs to a great extent. The Ricoh Group is making efforts to reduce environmentally-sensitive substances and create a reliable management system that covers the entire manufacturing flow, including suppliers.

1. VOC stands for volatile organic compound.
TVOC stands for total VOC.

2. See page 57.

■ Targets for Fiscal 2007

- Create and enforce a system of managing chemical substances contained in Ricoh Group products (in fiscal 2005).
- Observe Ricoh standards that cover environmentally-sensitive substances emitted by products. (Observe Ricoh standards that cover such substances as ozone, dust, and VOC.)

<Global>

① Achievement of Standards for Environmentally-sensitive Chemical Substances

	Models that Achieved the Standards ¹	Ricoh Standards (mg/h) ²	
		Color	Monochrome
Ozone	20	3.0	1.5
Dust		4.0	4.0
TVOC		18	10

1. Figures indicate the number of product series, including copiers, multifunctional copiers, and printers, launched in fiscal 2007 that achieve these standards.

2. Ricoch standards also meet the Blue Angel requirements, and were revised in 2007 in response to revisions to the Blue Angel requirements.

■ Review of Fiscal 2007

We made continuous progress in strengthening the management system for chemical substances contained in our products by using a PDCA cycle. During this year, we also reviewed and revised the list of chemical substances controlled by the Ricoh Group to implement even more stringent control and restrictions on the use of substances that carry substantial risk for the human body and the environment. To comply with the REACH Regulation, we also commenced developing a communication system to ensure that chemical substance information is communicated to every corner of the supply chain. Concerning emissions of environmentally-sensitive substances generated by products, Ricoh was quick to satisfy the Blue Angel requirements that came into force in January 2007, and a range of products, including 20 products—including a series of copier, multifunctional copier, and printer models—launched in fiscal 2007 have attained Ricoh standards for ozone, dust, and VOC.

■ Future Activities

To ensure that our chemical substance control across the entire supply chain of the Ricoh Group is fully compliant with the REACH Regulation, we will upgrade and strengthen the Group's management system. We will also continue our efforts to further reduce environmentally-sensitive substances in products.

Controlling the Use of Environmentally-sensitive Substances

<Ricoch Group (Global)>

Ricoh set original standards for environmentally-sensitive substances that could be used in its products in 1993 as part of efforts to reduce these substances. Since then, it has regularly reviewed the standards to incorporate the latest regulations and scientific knowledge and has controlled chemical substances accordingly. In fiscal 2007, we reviewed and revised the list of chemical substances controlled by the Ricoh Group to implement even more stringent control and restrictions of the use of the substances that carry substantial risk to the human body and the environment. In addition, all the divisions engaged in production (the design, procurement, and manufacturing divisions) have jointly worked to improve the chemical substance control system. At the end of March 2006, a chemical substance management system (CMS) to prevent chemical contamination at suppliers was created on a global basis. At the same time, the chemical substance control system within the Ricoh Group was strengthened, completing the management system for chemical substances contained in products within Japan. We completed building a system for outside of Japan in July 2006. In fiscal 2007, in order to comply with the REACH Regulation, we began developing a communication system to ensure that chemical substance information is communicated to every corner of the supply chain, and thus took our management system for chemical substances contained in products to another level. To manufacture products that do not contain environmentally-sensitive substances and promptly disclose information to customers, we will continue our efforts to enhance the chemical substance control system that covers the entire production flow, including suppliers.

Marketing Products Pursuant to the RoHS Directive

Ricoh has been engaged in reducing environmentally-sensitive substances and enhancing its management system for a long time, and has been sequentially launching products complying with the RoHS Directive since fiscal 2004. All applicable products that we launched in and after fiscal 2006 comply with the RoHS Directive.

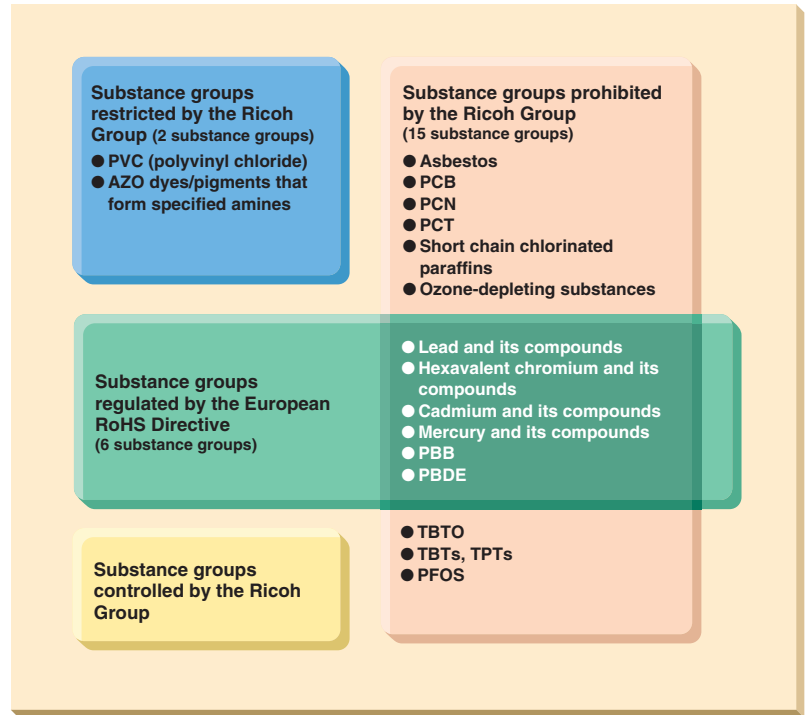
REACH Regulation

This is a new EU regulatory framework for Registration, Evaluation, Authorization and Restriction of Chemicals (REACH). It requires the registration and management of all chemical substances used in business in accordance with their conditions of use to ensure safe assessment of chemical substances. It came into force on June 1, 2007, and regulations have been gradually enforced from June 1, 2008.

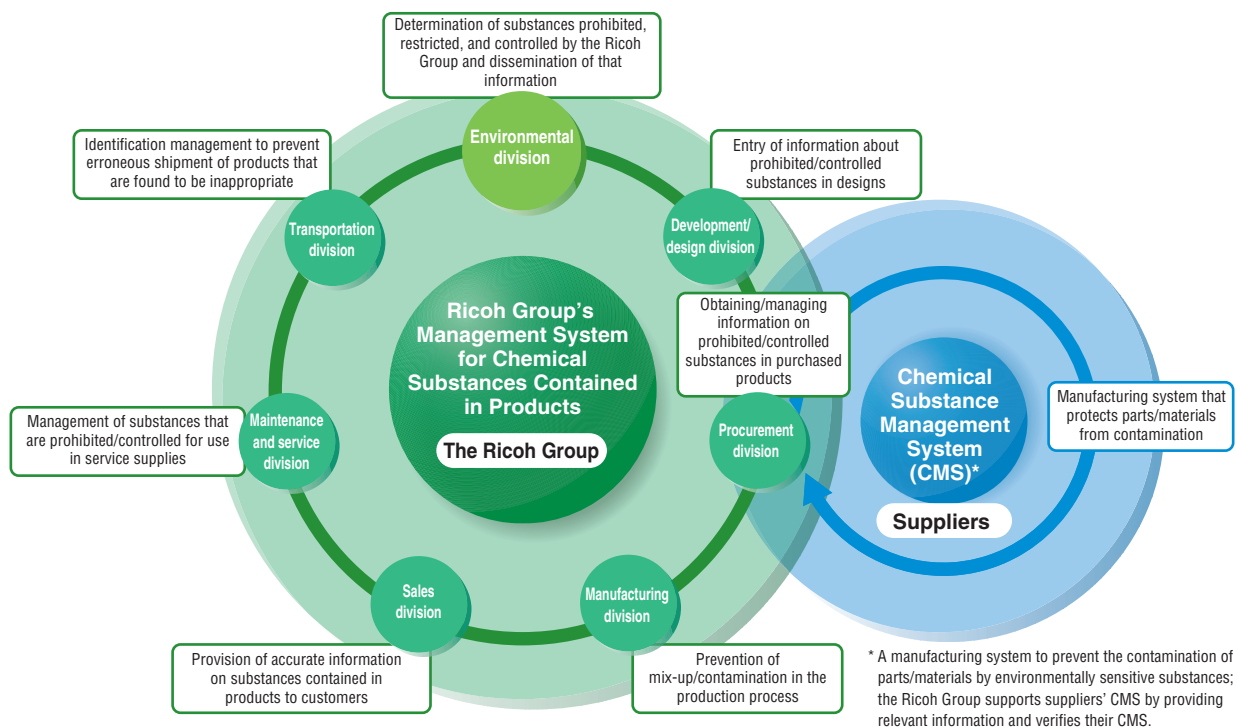
RoHS Directive

The RoHS Directive, which stands for the Restriction of Hazardous Substances Directive, is an EU Directive that restricts the use of certain hazardous substances in electrical and electronic equipment. The directive has been in effect since July 1, 2006.

The relationship among substance groups prohibited, restricted, and controlled by the Ricoh Group and substances restricted by the European RoHS Directive



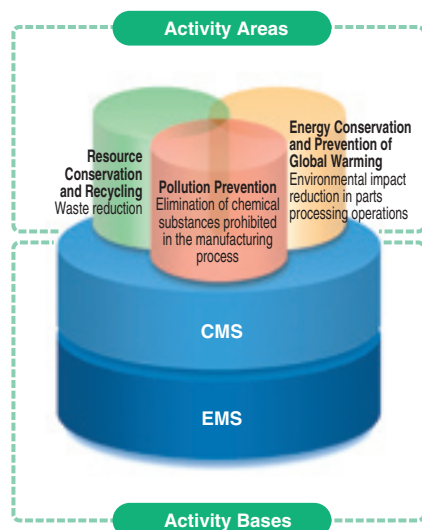
Management System for Chemical Substances Contained in Products and CMS



Green Procurement Activities in Partnership with Suppliers

The Ricoh Group promotes green procurement activities that place emphasis on partnership with suppliers. Green procurement refers to the procurement of raw materials, parts, and products with less environmental impact. Parts and products so designated are manufactured in plants that are advanced in environmental conservation. The purpose of green procurement is to reduce the environmental impact over the whole lifecycle of Ricoh products and to reduce the costs to the Ricoh Group and its suppliers by using resources and energy effectively. Moreover, by establishing these activities, we aim to contribute to global environmental protection and reinforce management practices of the Ricoh Group and its suppliers. Ricoh's support for suppliers' environmental conservation activities is provided in three areas: resource conservation and recycling, pollution prevention, and energy conservation and prevention of global warming. As part of this support, we have assisted suppliers in building the foundations of their environmental conservation activities, namely environmental management systems (EMS) and chemical substance management systems (CMS) since 1998. At present, we are focusing on supporting and promoting suppliers' CO₂ reduction activities.* [* See page 13.](#)

Suppliers' Activity Areas and Bases



History of Green Procurement

	Activities
1998	Started supporting the establishment of environmental management systems (EMS) at suppliers
2001	Started a survey on environmental impact information (survey on chemical substances contained in products)
2002	Commenced Ricoh Group's efforts toward the total elimination of environmentally-sensitive substances/Established Ricoh Group's green procurement policy
2003	Completed environmental management systems (EMS) at 1,089 suppliers throughout the world
2004	Issued Chemical management system guidelines for suppliers
2005	Commenced educational activities for CO ₂ reduction at suppliers
2006	Completed chemical management systems (CMS) at 734 suppliers (1,700 sites) throughout the world
2007	Started supporting the establishment of chemical management systems (CMS) at second-tier suppliers and subsequent tier suppliers Started supporting CO ₂ reduction activities by suppliers (preliminary). Plan to commence the support on a fuller scale in 2008.

* For the text of our Green Procurement Standards/Guidelines and Chemical Substance Management System (CMS) Guidelines, please visit <http://www.ricoh.com/environment/guideline/01.html>

Establishing CMS at Suppliers

<Ricoh Group (Global)>

To ensure that products do not contain environmentally-sensitive substances, it is necessary to monitor the upstream manufacturing process at every step. To help establish a chemical substance management system (CMS) across its entire supply chain, the Ricoh Group commenced a program to train and certify supplier employees as CMS examiners in 2005. In addition to internal audits of their own companies, certified examiners will conduct audits at upstream second- and third-tier suppliers that deal with important processes involving environmentally-sensitive substances

and will support them in establishing CMS. As of the end of March 2008, 1,081 CMS examiners at 597 suppliers were certified, and the establishment of CMS was completed at all first-tier suppliers (1,823 sites of 909 firms) and at 136 second- and third-tier suppliers that are engaged in important processes involving the use of environmentally-sensitive substances, such as solder and plating.



Audit of an upstream supplier (Thailand)

Chemical Substance Control for Supplies

<Ricoh Group (Global)>

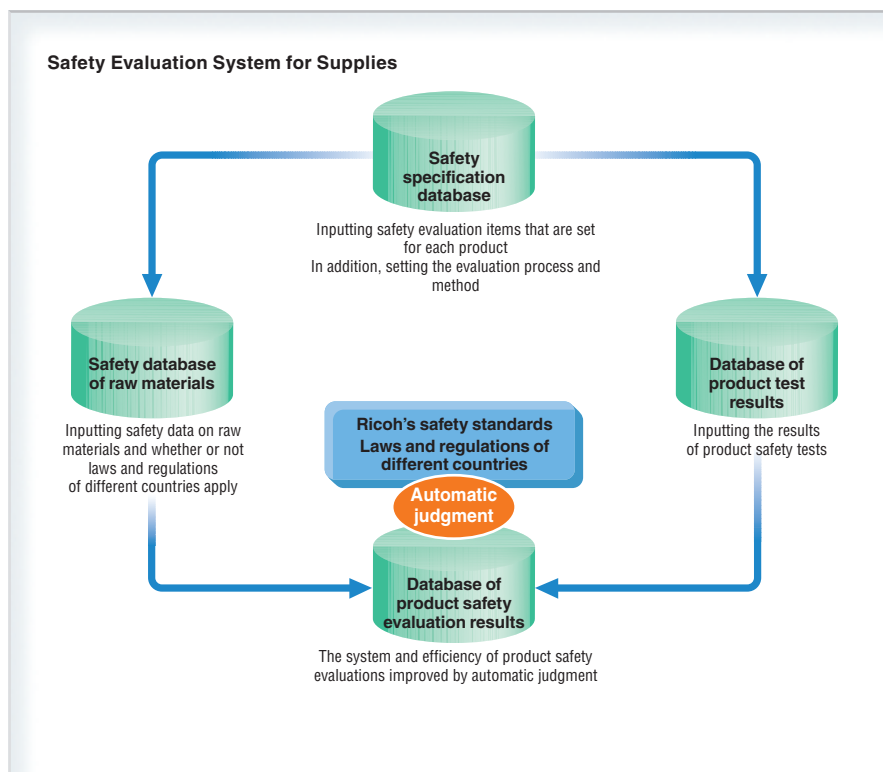
Various chemical substances are used in supplies, including toner and developer. Based on the belief that “product safety is a basic condition for customer satisfaction,” the Ricoh Group ensures the safety of its supplies through the appropriate chemical substance control. We use an information system called RECSIS¹ to evaluate safety. Depending on the type of product, we set items for which safety should be confirmed, create MSDS,² evaluate new chemical substances, check on the method of treatment and disposal, consult the relevant laws and regulations, and prepare safety specification data for products. In fiscal 2006, we upgraded the system. The new system can make automatic safety judgments by referring to the laws and regulations of different countries and Ricoh standards for the chemical substances contained in supplies. In fiscal 2007, by using this system’s database of raw materials, we began taking necessary steps to satisfy the REACH Regulation (Registration, Evaluation, Authorization and Restriction of Chemicals),³ under which a pre-registration process commenced in June 2008.

Reduction in Environmentally-Sensitive Substances Generated While in Use

<Ricoh (Japan)>

Ricoh has established its own standards on chemical emissions* generated by products while in use and endeavors to reduce these emissions. Chemical substances emitted by products like copiers and printers are measured at the emission-measuring testing laboratory located within the company. Ricoh is certificated as an official testing laboratory by Germany’s BAM (Bundesanstalt für Materialforschung und -prüfung; Federal Institute for Materials Research and Testing), and measurement data from Ricoh’s testing laboratory will be recognized in registering for the Blue Angel, a German environmental label.

* Chemical emissions are chemical substances emitted by products and include ozone, dust, and volatile organic compounds (VOCs).



1. Ricoh Environmental & Chemical Safety Information System

2. Material Safety Data Sheet

3. See page 34.



Emission-measuring testing laboratory
(Ricoh Ohmori Office)

We have set higher goals than those set out in the Kyoto Protocol to help prevent global warming.

We will reduce total CO₂ emissions by 12% by the end of fiscal 2010.

■ Concept

The Ricoh Group has set goals that it wants to achieve by the end of fiscal 2010, aiming not only to attain the goals set out in the Kyoto Protocol, but also to lead the efforts to prevent global warming. Since a reduction in total CO₂ emissions is important in preventing global warming, the Ricoh Group companies in Japan have set a higher goal of reducing total emissions by 12% over the figures in fiscal 1990 by the end of fiscal 2010, compared with the goal for Japan of a 6% reduction set out in the Kyoto Protocol. Our group companies are striving to reduce global warming under this goal, which has been set in anticipation of an expansion in the scale of business. To attain this goal, the Ricoh Group is working to innovate its production processes¹, introduce more efficient facilities, and utilize natural energy sources. In addition, the Group is making preparations for the Clean Development Mechanism (CDM)² as a scheme to prepare as far as possible for a rapid expansion of business through M&As and, although unlikely, increased CO₂ emissions due to the worsening of CO₂ emissions conversion coefficients. Efforts will also be made to reduce greenhouse effect gases other than CO₂ by 10% over the level in fiscal 1995 by the end of fiscal 2010.

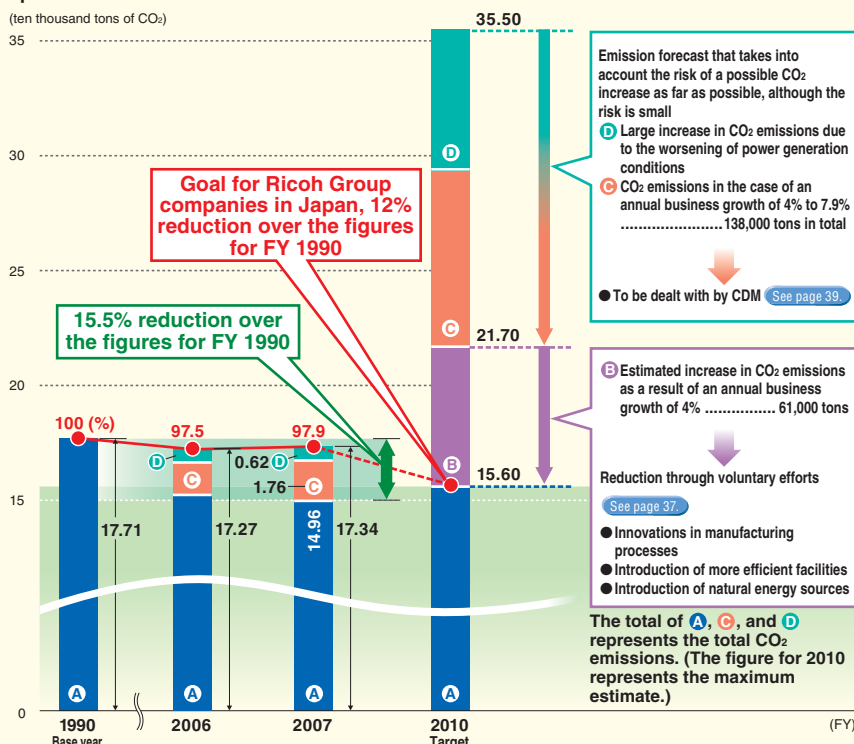
1. See page 39.

2. See page 41.

■ Targets for Fiscal 2007

- Reduce CO₂ emissions by 4% (Ricoch and manufacturing subsidiaries in and outside of Japan, compared to fiscal 2000 figures).
- Reduce CO₂ emissions by 4% (non-manufacturing subsidiaries in Japan, compared to figures in the base fiscal year set at each company).
- Reduce greenhouse gas emissions (except CO₂) in the semiconductor business division by 15% (compared to fiscal 2000 figures).

Scenario for Reductions in Total CO₂ Emissions for Ricoh Group (Production) in Japan up to Fiscal 2010



Segment Environmental Accounting of Energy Conservation Activities at Business Sites (Japan)

Costs			Effects		
Item	Main cost	Costs	Economic benefits		Effect on environmental conservation
			Item	Benefits	Reduction item Amount
Business area cost	Cost of global warming prevention	¥296.3 million	Reduction in lighting and heating expenses	¥1,113.4 million	CO ₂ emissions (Reduction amount) 38,260.0 tons

* The amount of reduction in CO₂ emissions is the total of reductions realized through measures taken by respective sites to prevent global warming (including the effects of measures taken in the past).

■ Targets for Fiscal 2007 and Fiscal 2010

The Ricoh Group's Targets for Reducing CO₂ Emissions (Total Amount Emitted)

		Target for fiscal 2007	Target for fiscal 2010
Japan	Ricoh and Ricoh Group manufacturing subsidiaries	4% reduction (compared to fiscal 2000 figures)	12% reduction (compared to fiscal 1990 figures)
	Ricoh Group non-manufacturing subsidiaries	4% reduction (goals for each company)	—
Outside Japan	Ricoh Group manufacturing subsidiaries	4% reduction (compared to fiscal 2000 figures)	10% reduction (compared to fiscal 1998 figures)

The Ricoh Group's Targets for Reducing Greenhouse Effect Gases Other Than CO₂ (Manufacturing, Total Amount Emitted)

	Target for fiscal 2010
The Entire Ricoh Group	10% reduction (compared to fiscal 1995 figures)

■ Review of Fiscal 2007

CO₂ emissions at production sites increased 3.7% at home and 8.8% overseas over fiscal 2000 levels (see graphs ① and ②). This was because the increased energy consumption caused by the larger production of consumables supplied in Japan and the larger production of products and parts in China more than offset the amount of energy saved by efforts to reduce CO₂ emissions mainly through innovation in manufacturing processes. CO₂ emissions at non-production sites in Japan decreased 3.5% over the previous fiscal year's levels (see graph ③). While Ricoh aims to reduce total emissions by 12% over the figures in fiscal 1990, it achieved a 2.1% reduction in fiscal 2007. In real terms, however, this represents a 10.6% reduction over the figures for fiscal 2000 and a 15.5% reduction over fiscal 1990 levels, because Ricoh will introduce CDM to cope with any increase in CO₂ emissions caused by business growth of over 4% per year and changes in CO₂ emissions conversion coefficients. As for greenhouse gases other than CO₂, the semiconductor business division achieved a 28.2% reduction, and the entire Ricoh Group, a 13.9% reduction, over fiscal 2000 levels (see graph ④).

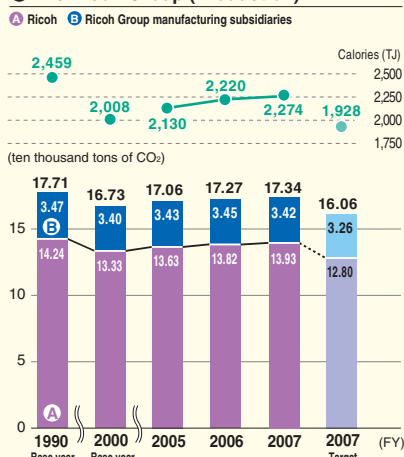
■ Future Activities

Ricoh will strive to innovate production processes to reduce energy consumption in manufacturing as part of its efforts to continue reducing CO₂ emissions at production sites in fiscal 2008 and thereafter. In particular, efforts will be made to reduce the increase in CO₂ caused by growth of over 4%, especially aiming to reform processes in the supply sector and the parts business in China, which have shown marked growth. Positive efforts will also be made to introduce high-efficiency facilities and new energy sources to make investment more effective and operations more efficient. In fiscal 2006, it became possible to collect detailed data on distribution. The analysis of such detailed data will be promoted so that effective efforts can be made to reduce costs and CO₂ emissions at the same time.

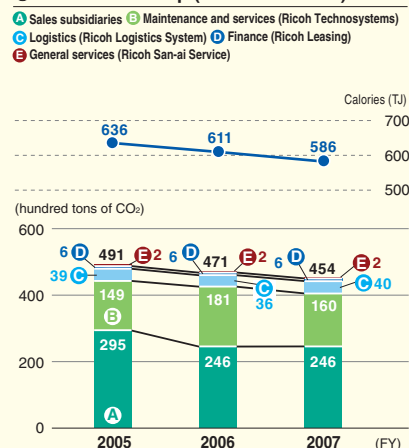
<Japan>

Energy Consumption (CO₂ conversion and calories)

① The Ricoh Group (Production)



② The Ricoh Group (Non-Production)



Breakdown of Major Energy Consumption

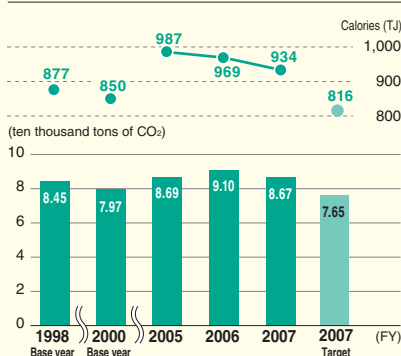
③ The Ricoh Group (production)

	FY 2004	FY 2005	FY 2006	FY 2007
Kerosene (kℓ)	5,989	2,205	1,525	1,389
Heavy oil A (kℓ)	2,748	2,701	2,730	2,706
Town gas (1,000 m ³)	15,339	15,400	15,899	15,789
Natural gas (1,000 m ³)	0	6,079	7,219	7,257
Electric power purchased (1,000 kWh)	295,042	274,273	291,276	296,150

<Outside Japan>

Energy Consumption (CO₂ conversion and calories)

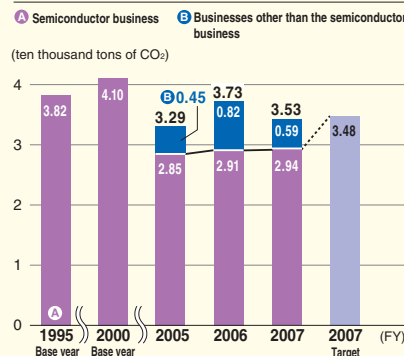
④ The Ricoh Group (Production)



<The Entire Ricoh Group>

Greenhouse Gas Emissions other than CO₂* (CO₂ conversion)

⑤ The Ricoh Group (Production)



* NF₃ and substances that have a global warming effect and designated in the Kyoto Protocol

* Data for the previous years were corrected as shown in the graph.

* The following CO₂ emissions coefficients are used in the graphs above.

①, ②, and ③: Guidelines for accounting and reporting of greenhouse gas emissions from industrial commercial sectors (2003) by the Japanese Ministry of the Environment

④: GHG Protocol

* Data on Ricoh Printing Systems, Shanghai Ricoh Digital Equipment, and Yamanashi Electronics are not included in graphs ① through ⑤.

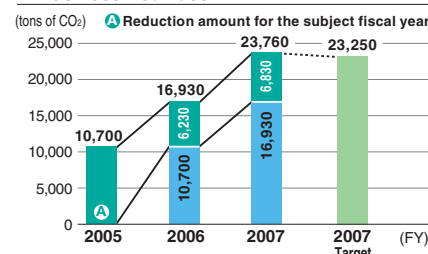
Setting a Target for CO₂ Reduction through Improvements in Business Activities

<Ricoh Group (Japan)>

To ensure that we achieve the goal of reducing CO₂ emissions by 12% by fiscal 2010, it is necessary to make systematic reduction efforts. In 2003, Ricoh estimated growths in business up to 2010, and set a target for CO₂ reduction through improvements in business activities without relying upon CDM at around 61,000 tons. By clarifying a mid-term reduction target,

activities can be implemented systematically, although it may be a long time before the effects appear after we start the project. In fiscal 2007, CO₂ emissions were reduced by about 6,830 tons mainly through innovations in production processes.

Total Reduction in CO₂ through Improvements in Business Activities



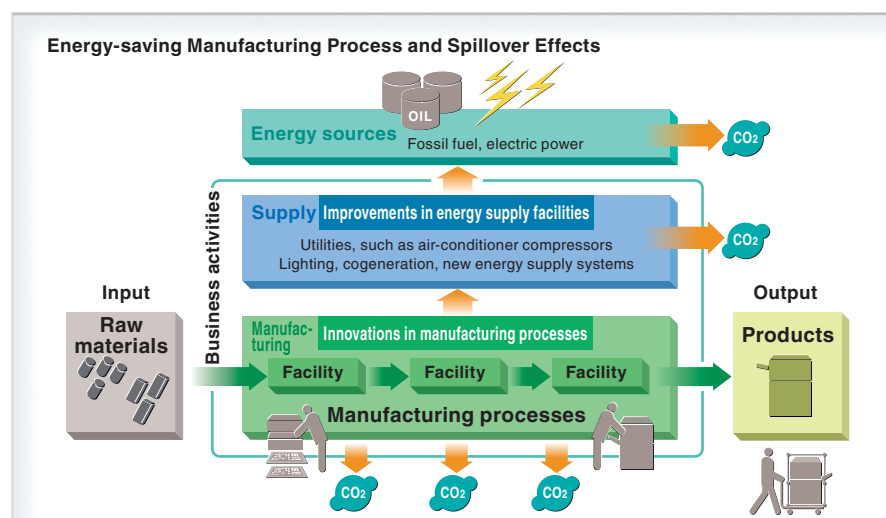
* There were some errors in the form of the graph in the 2007 report. The stacked bar method is applied instead to correctly represent the total.

Innovations in Manufacturing Processes

Innovations in Manufacturing Processes to Achieve the Goal of CO₂ Reduction

<Ricoh Group (Global)>

To achieve the ambitious goal of reducing CO₂ emissions by 12% of the fiscal 1990 level by fiscal 2010, the Ricoh Group's energy-saving production process committee, which is made up of people in charge of the Group's major production sites in Japan, checks the manufacturing processes of those production sites, identifies energy losses, and assigns a quota on reducing CO₂ emissions. Focusing on innovations in manufacturing processes may save energy at downsized production lines and have a spillover effect on associated equipment, such as air conditioners and air compressors, at production lines. To date, downsized production lines for organic photoconductors used in copiers have been put in operation, while the size of toner filling devices was been dramatically reduced. In addition, innovated processes have been realized, including changes in the toner crush lines and thermal sheet painting methods.



Process Innovation in Thermal Media Production Lines

<Ricoh Thermal Media (Wuxi) Co., Ltd. (China)>

A new manufacturing process with less environmental impact is in operation at Ricoh Thermal Media (Wuxi) Co., Ltd. (RTM) in Wuxi, China, which started operation in July 2007. Under the conventional method for manufacturing thermal paper, the energy used in the drying process, which is necessary for painting chemicals in many layers, accounted for 70% of the total energy used in all of the processes and imposed a considerable burden. RTM applied a new production method that significantly reduced the burden caused by the drying process and reduced energy con-

sumption by about 60% compared to that in conventional manufacturing processes. In addition, improved stability in quality was achieved because the manufacturing process became more efficient, while less space is needed for facilities, resulting in reduced costs. RTM intends to export this manufacturing process to thermal media production sites in Japan, Europe, and the U.S.



Ricoh Thermal Media (Wuxi) (Wuxi, China)

Introduction of High-efficiency Equipment

Introduction of New Compressors

<Ricoh UK Products Ltd. (U.K.)>

Ricoh UK Products Ltd. (RPL), a manufacturing subsidiary in the U.K., has been working on energy conservation for three compressors since fiscal 2002. The energy consumed by the compressors accounted for 40% of the total energy consumption at the plant.

RPL began its energy conservation endeavors with the installation of high efficiency cooling pump motors. This was followed with the introduction of efficient use of facilities by reducing

site air pressure, selecting the optimum size of the compressor to be used (based on daily production plans) and external air intakes.

A small variable-speed compressor to drive the blow molding machines was introduced in 2005. This allowed the site air pressure to be reduced and minimized the weekend demand on the central compressor house. In 2007, a large fixed speed compressor was replaced with a high efficiency variable speed compressor. This unit has increased the site compressed air system efficiency by a further 20%.

These efforts have resulted in an annual reduction of CO₂ emissions by 400 tons. In recognition of these and other activities to improve energy efficiency, in December 2007 RPL was accredited as an energy-efficient company and received nomination for National energy manager of the year within the Energy Efficiency Accreditation Scheme (EEAS). The EEAS is managed by the Carbon Trust, a government-funded independent company in the U.K.



RPL employees receiving an Excellent Energy Saving Office Award and an award presenter, Dame Ellen MacArthur (Center)

Introduction of Dry Cooler

<Ricoh Industrie France S.A.S. (France)>

Ricoh Industrie France S.A.S. (RIF), a manufacturing subsidiary in France, introduced dry coolers into the cooling system for its toner production lines in December 2007. Cool water to remove heat from the toner materials and plastic bottles manufacturing process can be generated with high efficiency by means of air fans. Whenever the outside temperature is below 4°C, which is the case for approximately 100 days/year in the Alsace area, a set of air fans takes over the production of cool water instead of the chiller units, thus reducing the electrical consumption drastically.



Dry Cooler cooling device for toner production line

A 135,000 kWh saving leading to a cost reduction of 100,000 euros is expected annually.

Introduction of Natural Energy

Purchasing Green Power

<Ricoh (Japan)>

Since 2002, Ricoh has purchased wind-generated energy under the Green Power Certification System operated by Japan Natural Energy Company Limited. In March 2004, Ricoh started purchasing biomass green power as well. As a result, CO₂ emissions are reduced by about 357 tons and 100 tons each year via wind power generation and biomass, respectively.



Wind Power Generation Certificate

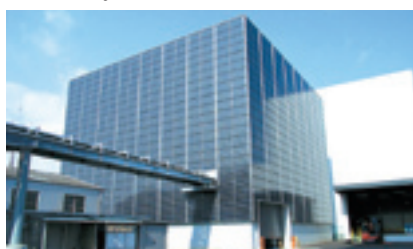


Biomass Power Generation Certificate

Introduction of Solar Panels in the New Plant

<Ricoh Numazu Plant (Japan)>

Electricity generated via solar power is used for the waste water treatment facility at the toner mass production plant in Ricoh Numazu Plant, which started operation in October 2006. Using special technology, this facility has 1,080 solar panels on three exterior walls of the building, generating approximately 148 MW annually, which is used as a power source for treating waste water. This facility reduces CO₂ by about 56 tons each year.



Waste water treatment facility with solar panels on the exterior

Introduction of Natural Energy at Sales Subsidiaries

<Ricoh Group (Europe)>

Ricoh's sales subsidiaries in Europe have actively promoted a switch to natural energy sources. In January 2007, three business sites of Ricoh Europe (Netherlands) B.V. a regional sales headquarters in Europe switched all sources for electricity to green energy. Ricoh Nederland B.V., a sales subsidiary in Netherlands, followed.

In addition to the head office of Ricoh Europe PLC in London, where natural energy has



Certificate to certify exclusive use of natural energy

been introduced, it is estimated that all of the efforts combined will reduce annual CO₂ emissions by approximately 1,300 tons.

Approach for CDM Project

The CDM* allows advanced nations to conduct projects to combat global warming in developing countries, thereby helping those countries comply with their commitment to reduce greenhouse gas emissions specified under the Kyoto Protocol. If businesses in advanced nations reduce greenhouse gases through projects in developing countries, they may have that reduction reflected in their own CO₂ reduction goals under certain rules, and ultimately such reduction is used by the governments of their countries to meet national targets. Developing countries benefit from this mechanism as well since they are given opportunities to receive investments and technology transfers. Ricoh

estimates the maximum increase in CO₂ caused by rapid business expansion associated with M&A and external factors such as changes in CO₂ emissions conversion coefficients at 138,000 tons, and is preparing for CDM to mitigate the increase. When selecting CDM projects, Ricoh takes cost performance into account. In addition, by using networks that were created through environment-conscious social contribution activities with environmental NPOs, Ricoh tries to choose projects that contribute to the conservation of ecosystems and improvement of living standards of the local people. In terms of the organizations that execute projects, Ricoh assesses their

commitment to corporate social responsibility. In January 2008, a 30,632-ton credit for emissions was issued for wind power generation projects in India, which is the first credit issued to Ricoh.

* CDM: Clean Development Mechanism

The Ricoh Group established the following criteria for the selection of CDM projects.

- (1) Projects should be valuable from the perspective of biodiversity and ecosystem conservation.
As for afforestation projects, they should be recognized by environmental NGOs.
- (2) Projects should be socially recognized by every stakeholder.

CDM Projects Promoted by Ricoh

Project name	Progress of projects		
	Approval of methodology	Registration with the UN	Issuance of credit/quantity permitted in the credit (CO ₂)
Wind power generation <India>	_____	December 15, 2006	January 22, 2008/30,632 tons
Bagasse electricity generation <El Salvador>	_____	November 30, 2007	Monitoring under way
Environmental afforestation <Ecuador>	February 15, 2007	Preparation of project design under way	

Wind Power Generation <India>

The rapid economic growth in India has caused concern about the increased number of low cost, coal-fired power stations that satisfy the growing need for power. Responding to this concern, Ricoh is taking part in a number of wind power projects carried out in various parts of India in order to switch from fossil fuel to wind energy to generate electricity.



Bagasse Electricity Generation Project <El Salvador>

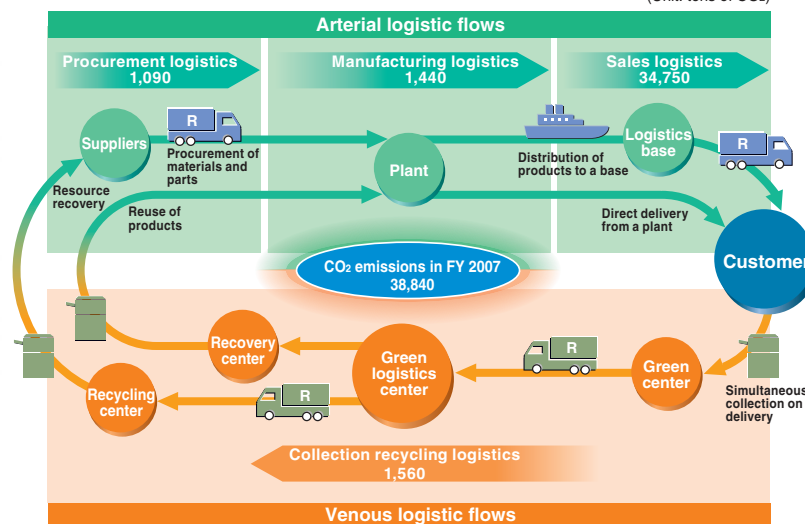
El Salvador is giving priority to electricity generation from bagasse as a CDM project of the UN, aiming to reduce its dependence on fossil fuel. CO₂ emissions from sugar refining, which is one of the major industries of El Salvador, can be reduced by switching from fossil fuel-fired power generation to bagasse (pulp left after the juice has been extracted from sugar cane) power generation to supply energy to refining factories. Under this project where Ricoh takes part, generators capable of producing a total of 45 MW were introduced in 2002 through 2005. In addition, Ricoh helped improve energy utilization efficiency by introducing a cogeneration system and has created a system of selling surplus electricity through electric power companies.

Environmental Afforestation <Ecuador>

Although the Choco Manabi region in Ecuador is famous worldwide for its biodiversity, forests were cut down by stockbreeders, but afterwards the deforested areas were abandoned as the livestock business in Ecuador went into a recession. Under the project, seeds to grow seedlings for reforestation purposes are collected, local people are employed to conduct afforestation, and virgin forests are maintained and managed. It is difficult to measure the CO₂ absorption levels in afforestation projects, which makes it difficult to obtain the approval of the UN CDM Executive Board. This project was the first afforestation project that was invested in solely by an individual Japanese corporation, where the CDM Executive Board approved the methodology. It is also the world's first case approved among the projects for which the main purpose is biodiversity conservation.

The Ricoh Group is working to reduce CO₂ emissions and costs from transportation by global optimization of SCM.

To achieve a sustainable society, one of the most important issues is to reduce CO₂ emissions from logistics. To address this issue as a company, it is essential to reduce costs in parallel with curbing CO₂ emissions. To achieve this purpose, opportunities for improvement in the logistic process are identified and logistic costs as well as CO₂ emissions are visualized simultaneously to encourage improvements to be made. In addition, the effects are leveraged by rapidly spreading the improvement horizontally within the group. The Ricoh Group is striving to reduce environmental impact by optimizing Global SCM (Supply Chain Management), through modal shifts, direct delivery to each customer, improved efficiency of transportation among warehouses, the introduction of the milk run system, and so forth.

CO₂ emissions from logistics in Japan (Ricoh)(Unit: tons of CO₂)

- Arterial logistic flows**
- Establishment of a direct transportation system from plants to customers
 - Modal shift from truck to railway and marine transportation
 - Uses of reusable packaging materials

- Venous logistic flows**
- Establishment of a direct collection system for used products
 - Expansion and improvement of infrastructure including collection centers

* CO₂ emissions (fiscal 2007 results) have been calculated in compliance with the Energy Saving Law.

Efforts for Reducing Environmental Impact via the Supply Chain as a Whole <Ricoh Group (Japan)>

For reducing the burden caused by distribution, it is important for Ricoh, as a shipper, and logistics companies to make efforts in close cooperation with each other. Ricoh Logistics System Co., Ltd., which is in charge of sales and collection logistics for products, has established an information system to visualize CO₂ emissions in transportation. This system offers detailed information on the distance between the starting point and the destination, weight, vehicle type, fuel used, and loading rate for each transport, which has allowed Ricoh Logistics System to present the shippers with effective ways to reduce environmental impact. In addition, the Ricoh Group is promoting SCM in logistics for procurement, manufacturing, and sales, aiming to reduce costs and CO₂ emissions. Other efforts that are being actively promoted include modal shifts in distribution between warehouses, route collection of parts, and improvement of the cargo-carrying efficiency through review of packaging materials.

① CO₂, NO_x, and SO_x Emissions in Transportation by Ricoh Logistics System

FY	CO ₂ (tons)	NO _x (tons)	SO _x (tons)
2005	1,467.7	2.8	0.4
2006	1,368.0	2.6	0.4
2007	1,383.1	2.7	0.4

TOPIC

Reducing Environmental Impact in Procurement Logistics

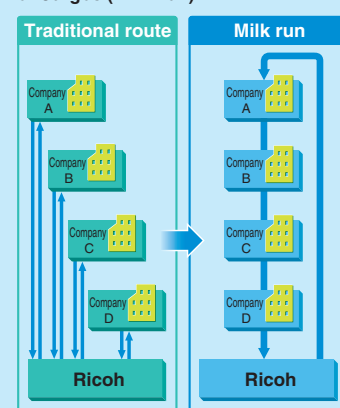
Parts Supply through Milk Runs (Cooperative Loop Collection of Cargos)

<Ricoh Numazu Plant (Japan)>

Several companies supplying toner materials to Ricoh Numazu Plant are located within a 10-kilometer radius, and they used to deliver materials individually to the plant by truck one to three times a day. This method involved waste in terms of the total distance travelled by each truck, load-carrying efficiency, etc.

In order to remove such waste, Ricoh started operating the supply system through milk runs in October 2007. Under the new system, one truck goes around to different companies collecting materials, which has brought about reduction of both environmental impact and costs. CO₂ emissions have decreased by about 50% from the level in the past, due to the shortened travelling distance for vehicles and improved load-carrying efficiency. In addition, the traffic at the time of delivery has been less busy because of the decreased number of trucks, which has resulted in shorter waiting time for drivers. Ricoh plans to expand the system to cover more suppliers in the future.

Image of Cooperative Loop Collection of Cargos (Milk Run)



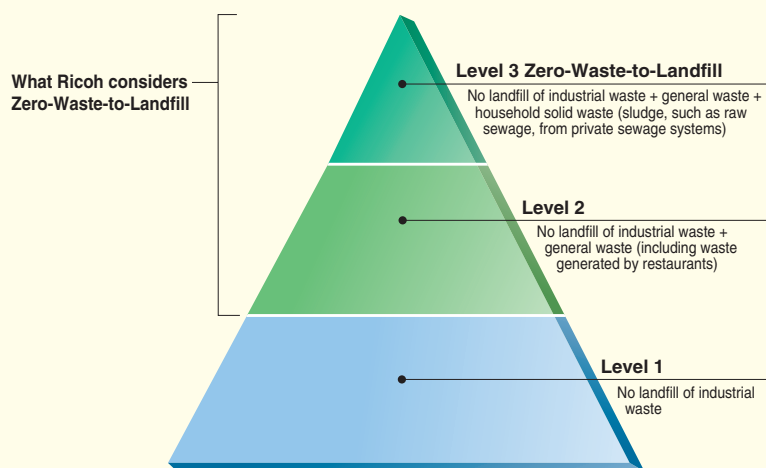
We promote Zero-Waste-to-Landfill activities worldwide while reducing waste and costs.

■ Concept

The Ricoh Group is globally working to maximize resource productivity, primarily limiting the production of waste, reducing water consumption, and reducing paper consumption. The Ricoh Group promotes Zero-Waste-to-Landfill* activities as a part of its sustainable environmental management system by efficiently using resources, improving production efficiency, reducing waste disposal costs, and improving corporate quality by promoting employee awareness of environmental conservation. In fiscal 2001, the Ricoh Group achieved Zero-Waste-to-Landfill at its major global production sites. These activities are now promoted at non-production sites and sales subsidiaries worldwide. In addition, an audit system for waste disposal service providers was introduced in Japan, aiming to upgrade and expand proper waste disposal.

* Zero-Waste-to-Landfill means a 100% resource recovery rate and no waste used as landfill.

Definition of Zero-Waste-to-Landfill Levels by the Ricoh Group



■ Targets for Fiscal 2007

- ◎ Reduce generated waste by at least 3% (Ricoch and manufacturing subsidiaries in and outside of Japan, compared to fiscal 2000 figures).
- ◎ Reduce generated waste by the ratio calculated by multiplying the number of years from the base fiscal year to fiscal 2007 by the yearly rate (2%) (non-manufacturing subsidiaries in Japan; the base fiscal year is set at each company).
- ◎ Improve the waste recycling rate to at least 95% (non-manufacturing subsidiaries in Japan).
- ◎ Reduce water consumption to a level that is below the results of fiscal 2000 (Ricoch production sites and manufacturing subsidiaries in and outside of Japan).
- ◎ Reduce paper consumption by at least 10% (Ricoch manufacturing and non-manufacturing subsidiaries in Japan, and manufacturing subsidiaries outside of Japan, compared to fiscal 2002 figures).

■ Review of Fiscal 2007

Waste volume generated at production sites increased by 3.9% from fiscal 2000 levels, reflecting an increase in production (see graph ①). At non-production sites in Japan, the resource recovery rate is steadily improving while the volume of generated waste is being reduced (see table ④). In terms of water consumption, our continued efforts have brought about a 15.7% reduction over the fiscal 2000 level (see graph ②).

■ Future Activities

In reducing waste*, priority will be given to areas for which emissions account for large proportions or are expected to increase. To be specific, particular efforts will be made for reducing waste of resources in sectors that are expected to generate more waste reflecting business growth (thermal media business and polymerized toner production) and packaging materials (packaging materials used in production for transportation between overseas sites) that increased due to global production activities. Ricoh will also continue to carry out conventional resource-saving activities.

* Until fiscal 2007, Ricoh classed all materials generated as by-products of business activities as "waste," including valuables, general waste, and industrial waste. From fiscal 2008 on, however, these by-products will be classified as "discharged matter," and only general waste and industrial waste will be called "waste."

Segment Environmental Accounting of Recycling Activities at Business Sites
(The Entire Ricoh Group)

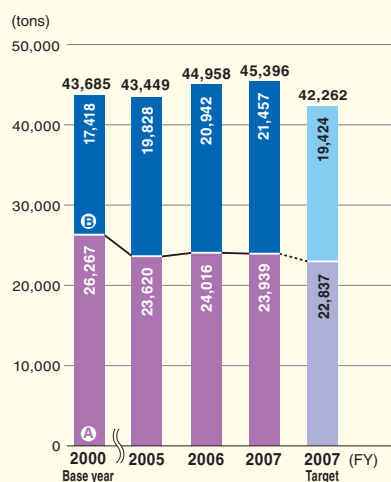
Costs			Effects			
Item	Main cost	Costs	Economic benefits		Effect on environment conservation	
			Items	Benefits	Reduction item	Amount
Business area cost	Resource circulation cost	¥1,425.9 million	Reduction in waste disposal expenses	¥12.4 million	Final amount of waste disposed (Reduction amount)	10.7 tons
			Proceeds from sale of valuables	¥639.9 million		

<The Entire Ricoh Group>

Total Amount of Waste Generated

① The Ricoh Group (Production)

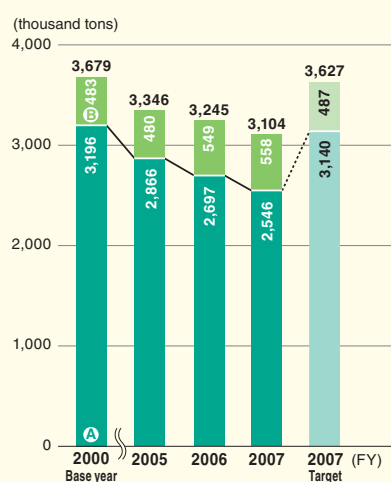
● Japan ● Outside Japan



Volume of Industrial Water Used

② The Ricoh Group (Production)

● Japan ● Outside Japan

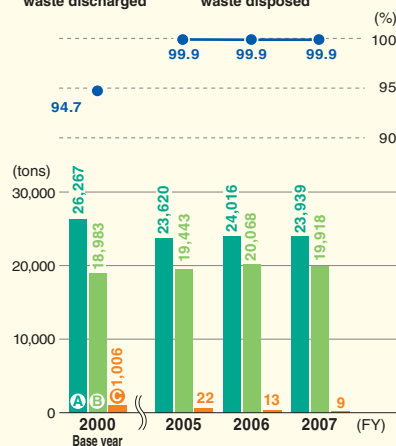


<Japan>

Resource Recovery Rate of Waste/Total Amount of Waste Generated/Total Amount of Waste Discharged/Final Amount of Waste Disposed

③ The Ricoh Group (Production)

● Resource recovery rate of waste ● Total amount of waste generated
● Total amount of waste discharged ● Final amount of waste disposed



Resource recovery rate of waste:
Amount of resource recovered/amount discharged
Total amount of waste generated:
Amount of waste generated at business sites
Total amount of waste discharged:
Amount of waste discharged outside business sites
(including the waste undergoing disposal processing inside the plants)
Final amount of waste disposed:
Amount of discharged waste used in landfills and incinerated

④ The Ricoh Group (Non-Production)

	Resource recovery rate of waste (%)	Total amount of waste discharged (tons)	Final amount of waste disposed (tons)
Sales subsidiaries	95.6	1,536	68
Maintenance and services (Ricoh Technosystems)	96.9	666	21
Logistics (Ricoh Logistics System)	99.5	3,166	14
Finance (Ricoh Leasing)	96.8	56	2
General services (Ricoh San-ai Service)	99.5	23.9	0.1

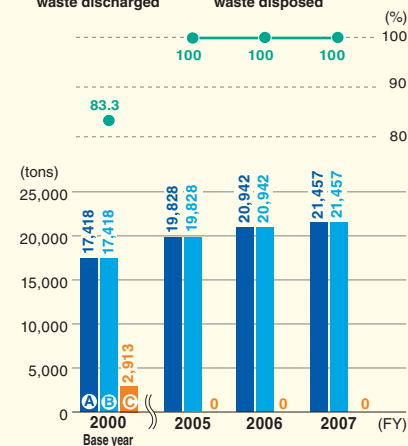
* At non-manufacturing subsidiaries, the amount of waste generated and the amount of waste discharged are the same, because waste is not processed at the business site. Therefore, only the total amount of waste discharged is listed.

<Outside Japan>

Resource Recovery Rate of Waste/Total Amount of Waste Generated/Total Amount of Waste Discharged/Final Amount of Waste Disposed

⑤ The Ricoh Group (Production)

● Resource recovery rate of waste ● Total amount of waste generated
● Total amount of waste discharged ● Final amount of waste disposed



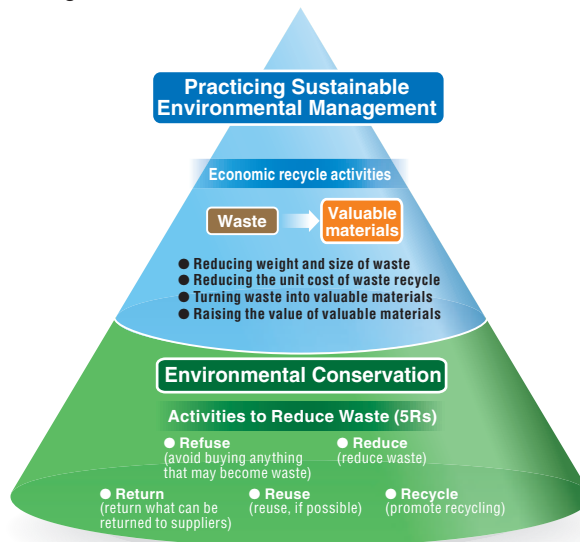
* Data on Ricoh Printing Systems, Shanghai Ricoh Digital Equipment, and Yamanashi Electronics are not included in graphs ① through ⑤. Waste generated from the manufacturing of polymerized toner at Ricoh Numazu Plant is not included either. Data that include waste from these sources are shown on [Page 79](#).

Developing and Raising the Level of Zero-Waste-to-Landfill Activities

<Ricoh Group (Global)>

Zero-Waste-to-Landfill activities are carried out at Ricoh's sites all over the world. The Ricoh Group defines Zero-Waste-to-Landfill as a 100% resource recovery rate, or no waste used as landfill. Zero-Waste-to-Landfill was achieved at its major production sites in Japan in March 2001 and at production sites outside of Japan in March 2002. Thus, the Group achieved Zero-Waste-to-Landfill at all its major global production sites. Since then, these activities have been promoted at non-production sites worldwide and at companies that have newly joined the Group. At sites that have already achieved Zero-Waste-to-Landfill, efforts are being made to raise the level of Zero-Waste-to-Landfill, including controlling the volume generated and the conversion of waste into useful materials, under the concepts of sustainable environmental management.

Concepts in Raising the Level of Zero-Waste-to-Landfill Activities



Efforts for Reducing Packaging Waste in Transportation between Global Production Sites

<Ricoh Gotemba Plant (Japan)/ Ricoh Asia Industry (Shenzhen) Ltd. (China)>

The Ricoh Group is actively making efforts to reduce packaging waste, because the Ricoh Group has a global manufacturing system and packaging materials used for transportation between production sites are increasing. The parts and half-finished goods transported from Ricoh Asia Industry (Shenzhen) Ltd. (RAI) to Ricoh Gotemba Plant are placed in corrugated cardboard, which is then carried in containers. Waste materials are recycled

as corrugated cardboard, but recycling does cause some environmental impact and costs, which makes it necessary to reduce resource use. In light of these, returnable racks that can be used repetitively were introduced in May 2007 for the transportation of some parts, including scanner units. At the same time as the introduction of returnable racks, efforts were also made to improve the load-carrying efficiency, which led to the simultaneous realization of reduced packaging material waste and reduced costs. As a result, CO₂ emissions are reduced by about 270 tons and costs by ¥23 million on an annual basis.

costs, causing a heavy cost burden. Thanks to the new technology, paste solder can be heated on the spot and separated cleanly into metal solder and solvent, which are collected and used in other processes. The original technology including the separation method and automatic control was adopted in the newly installed facility, which realizes steady treatment of solder. As a result, no more solder is disposed of, which has reduced both purchasing and disposal costs. In fiscal 2007, RME started recycling paste solder collected from other business sites of the Group (Ricoh Hatano Plant, Tohoku Ricoh Co., Ltd., and Ricoh Keiki Co., Ltd.) as well.

Recycling Solder Used in the Manufacturing Process for Printed Circuit Boards

<Ricoh Microelectronics Co., Ltd. (Japan)>

Ricoh Microelectronics Co., Ltd. (RME) collects and reuses unused paste solder generated during the manufacturing process for printed circuit boards, using a waste solder recycling facility developed in-house. The use of paste solder in manufacturing printed circuit boards was under strict control in order to maintain the quality of the solder, and paste solder exceeding the time limit had to be thrown away. The introduction of lead-free products, however, led to higher solder



Transportation by returnable rack



Waste solder recycling facility

Auditing Waste Disposal Service Provider

<Ricoh (Japan)>

Ricoh has been making efforts to enhance the audit of waste disposal service providers since 2005, so that waste generated by Ricoh will be disposed of properly and appropriately by reliable partners. In the past, because each business site audited these service providers individually, evaluations were sometimes inconsistent due to differences in the knowledge and experience of the auditors. To address these issues, Ricoh established uniform audit standards for the Ricoh Group, conducted auditor training for employees engaged in waste

disposal at respective business sites, and certified them as auditors. Ricoh then audited all the service providers that have business relations with the Group's production sites. Any service providers where any incongruity was detected were given directions and requested to make improvements, and after a few days, a confirmation audit was completed. In fiscal 2007, service providers handling waste from non-production sites and those which newly started handling waste from production sites were audited. In and after fiscal 2008, Ricoh will try to raise the audit level by improving the efficiency of audits and promoting an auditor rotation system and follow-up educa-

tion. Thus, efforts will be made to ensure even more reliable and efficient waste disposal.



Auditing of a waste disposal service provider



INTERVIEW

Oil Plant Natori Co., Ltd.



Taking advantage of the Ricoh Group's audit, we strove to raise our operations to a greater degree.

Offering training opportunities to staff members of partner companies

Our waste disposal operation was audited by the Ricoh Group for the first time in June 2006. Our company, which has been engaged mainly in intermediate processing and recycling of waste oil and fluids, has disposed of waste fluids generated by the Ricoh Group for more than ten years. We are audited and visited by more than 100 companies every year, including companies generating waste. We found that the audit by the Ricoh Group covered a greater number of items and was at a higher level than the examination for ISO14001. We sometimes felt it was severe, but we thank them very much now, because they correctly pointed out problems that we had not recognized. Such problems included the checking of whether the companies collecting and transporting waste always carried copies of certification in their vehicles as well as the confirmation of the term of validity of certificates. The section in charge of our company immediately examined the issue and started operating a confirmation flow. We were also offered advice on the necessity of implementing emergency action training. In response, we conducted training simulating leakage and ignition in March, inviting 10 people from two companies collecting and transporting waste. Our company handles an average of 1,700 tons of waste every month, of which 20 to 30% is brought in by vehicles of partner companies. We believe that employee training is important and have made particular efforts for such training since we acquired ISO certification. Ricoh kindly pointed out that we should offer training opportunities to the employees of partner companies as well, which was a blind spot for us. We immediately put it into practice.



Mr. Masami Kusaka
Section Chief,
Marketing Department

Mr. Yoichi Takeda
President & CEO

Mr. Shuichi Saito
Marketing
Department

Addressing global environment issues in cooperation with stakeholders

Needs held by society towards waste disposal service providers like us are changing with the times. They changed from "reclamation and incineration" to "recycling," and then to "recycling plus safety and security." "The prevention of global warming" has been added, and we are now required to take concrete action to reduce CO₂ through recycling. Our company is currently establishing a scheme to report CO₂ emissions reduced in waste treatment to the companies generating waste, on a monthly basis, while recycling waste cooking oil as fuel for busses on regular routes by applying our waste oil treatment technology. In addition, we are engaged in efforts that will lead to the reduction of environmental impact in society, supporting people at a neighboring welfare institution in their use of waste oil to make candles. We intend to make active efforts to have even more profound communications with our important stakeholders, namely the companies generating waste, partner companies and the community, and develop the trust relationship for safety even stronger, while addressing global environment issues.

Efforts are being made to reduce the amount of chemical substances used/discharged, based upon the idea of risk management.

■ Concept

The Ricoh Group categorizes and controls chemical substances that are regulated in various countries around the world according to whether they are to be prohibited, reduced, or controlled. As for chemical substances classified as those to be reduced, particular efforts are made for reduction based on a concept of risk management. According to this concept, the environmental impact is determined by calculating the amount of chemical substances used/discharged and the environmental impact potential¹ which is set according to the significance of environmental impact of each substance. Additionally, the Group sets a standard to prevent environmental risk from occurring. Based on the standard, each business site strives to prevent percolation or outflow to the environment. They also have a system established for immediate detection and purification of contamination, if any. As for soil and underground water contamination, the Group promptly sets up efforts for understanding environmental liabilities² that could affect its finan-

cial accounting.

1. Value set by Ricoh, taking toxicity, carcinogenicity, and the possibility of ozone depletion into consideration.

2. See pages 49 and 50.

■ Targets for Fiscal 2007

- ◎ Completely eliminate chlorine organic solvents used in manufacturing organic photoconductors at manufacturing contractors as well as at Ricoh manufacturing divisions.
- ◎ Complete the examination of soil and underground water at Ricoh's non-production sites and leased land (Ricoch and affiliates in and outside of Japan).
- ◎ Make and implement plans to improve sites where pollution is detected.

■ Review of Fiscal 2007

Ricoh completely attained its target to eliminate the use of chlorine organic solvents in the consignment production of organic photoconductors by the end of fiscal 2005. As for companies that joined the Ricoh Group after that time, however, efforts for complete elimination are

currently being promoted. The use of environmentally-sensitive substances was reduced 52.5%³ from fiscal 2000, while the amount emitted decreased 88.8%⁴ from fiscal 2000 (Graph ①). In fiscal 2007, the reuse of waste organic photoconductor edge coating remover (closed recycling) and the promotion of non-coating manufacturing accelerated the reductions.

3 & 4. The figures have been converted using an environmental impact coefficient.

■ Future Activities

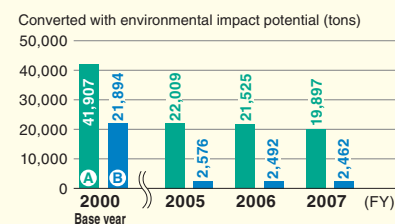
We will continue our efforts to reduce the use and emissions of chemical substances so that they will not increase even though business operations will be significantly expanded. In fiscal 2008, we plan to continue the efforts we have made so far to reduce them. In addition, efforts will be made to upgrade the levels of risk assessment and management of chemical substances and risk communication.

<The Entire Ricoh Group>

Changes in the Amount Used and Discharged of Ricoh Target Substances for Reduction

① The Ricoh Group (Production)

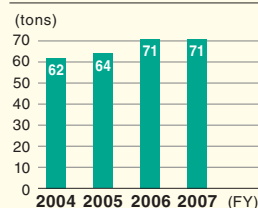
A Amount used B Amount discharged



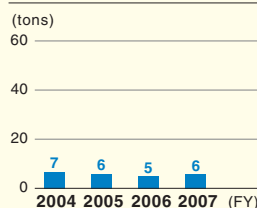
Changes in the Amount of NOx, SOx and BOD

② The Ricoh Group (Production)

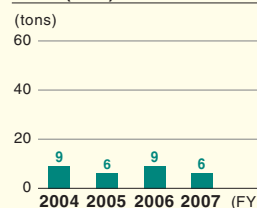
Air (NOx)



Air (SOx)



Water (BOD)⁵



5. Represents total emissions directly released into public-use water areas.

* The Ricoh target substances for reduction are defined as the PRTR substances designated by four electric/electronic industrial associations in Japan between fiscal 1998 and fiscal 2000. Coverage of chemical substances by Ricoh may differ slightly from those provided by the PRTR Law. As for the uses and emissions of respective substances, please refer to our Web site at <http://www.ricoh.com/environment/data/index.html>

* Graphs ① and ② do not include data for Ricoh Printing Systems, Shanghai Ricoh Digital Equipment, and Yamanashi Electronics.

* Data for the previous years were corrected as shown in graph ①.

Segment Environmental Accounting of Pollution Prevention Activities at Business Sites (The Entire Ricoh Group)

Costs			Effects			
			Economic benefits		Effect on environmental conservation	
Item	Main cost	Costs	Items	Benefits	Items	Amount
Business area cost	Pollution prevention cost	¥242.4 million	Reduction in social cost	¥210.3 million	NOX	8.6 tons
					SOX	0.6 tons
					BOD	3.4 tons
			Amount of risk avoidance effect (incidental effect)	¥2,069.5 million	PRTR substances	33.4 tons (calculated with the conversion potential)

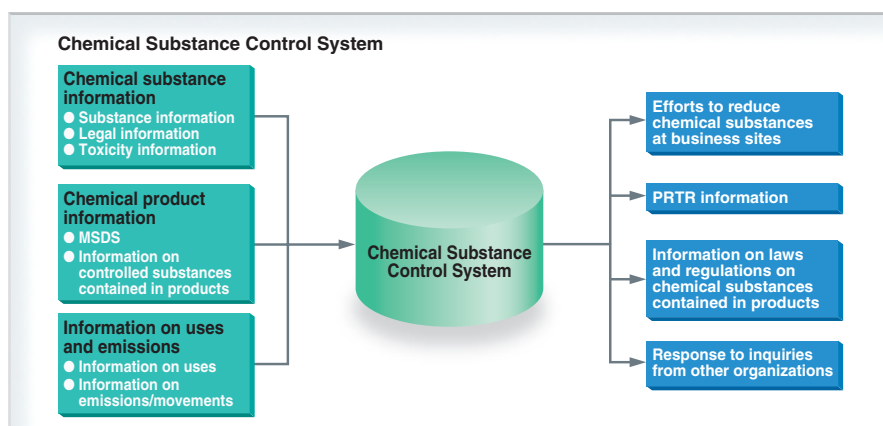
* PRTR substances refer to the Ricoh target substances for reduction.

Chemical Substance Control

Chemical Substance Control and Information Disclosure

<Ricoh Group (Global)>

The Ricoh Group uses its chemical substance control system to monitor data on chemical substances used, discharged, and disposed of at business sites. The system is designed to promote reduction in the use of chemical substances, to prepare materials for PRTR reporting, and to speedily respond to inquiries from around the world concerning the amount of chemical substances used.



Establishment of All-Site Soil Contamination Risk Management System/Efforts Concerning Asbestos and PCBs

Surveys at 1,022 Non-Production Sites Completed

<Ricoh Group (Global)>

The Ricoh Group has established Basic Policies Concerning Soil and Underground Water Contamination and Standards for the Management of Risks Related to Soil and Underground Water Contamination. According to the policies and standards, each site monitors the current situation and prepares a scenario for implementation, including estimates of future costs for completing purification. In addition, the Group started surveying the history of all Group business sites—including both the production and non-production sites of subsidiaries of Ricoh's subsidiaries—in fiscal 2004 and established a soil contamination risk management system. The survey of owned and leased land at 1,022 non-production sites worldwide was completed in September 2006. The history of business activities and the use of chemical substances were surveyed at non-production sites for sales, distribution, services, and technological development, as well as production sites of subsidiaries of Ricoh's subsidiaries. The topsoil was surveyed at the five sites that had used chemical substances that could lead to contamination to confirm that there were no contamination risks. As a result of completing the

surveys, the Ricoh Group now understands and manages soil contamination risks at all its sites including production sites. In the future, efforts will be made to continue and improve management and surveying of new business sectors acquired by Ricoh through M&A, etc.

Asbestos and PCBs

<Ricoh (Japan)>

As for asbestos used at Ricoh's business sites and facilities, a survey was conducted on sprayed asbestos, which showed that it has been applied in seven places at three business sites. Measures to prevent dispersal, such as containment and enclosure, have been taken at all sites and it has been confirmed that it is at a level that would not negatively affect human beings, neither people in the neighborhood nor employees. We will continue our systematic efforts for improvement and removal. In the meantime, Ricoh has surveyed all of the PCB-containing products held by Ricoh, and has managed them and completed notification in compliance with laws and regulations. Ricoh plans to complete their disposal by fiscal 2016 (excluding low-density PCBs). As for the Ricoh Group as a whole, it is currently revising the range of management, with regard to the

amount contained and properties/condition. The Group will set appropriate management levels in consideration of social interests, trends in laws and regulations of other countries, the costs of surveys and management, and the ideal future the Group should pursue as a corporate goal.

Petroleum Pollutants Also Covered by Investigation; Decontamination Completed

<Ricoh UK Products Ltd. (U.K.)>

Ricoh UK Products Ltd. (RPL), a manufacturing subsidiary in the U.K., conducted an investigation into groundwater contamination by petroleum in March 2007 by drilling 12 new locations, in addition to the ongoing monitoring of groundwater contamination by chemical substances. The investigation revealed contamination beneath a manufacturing facility that exceeded the environmental standards specified by the Department for Environment, Food and Rural Affairs of the U.K. To remove the contamination promptly, RPL started decontamination work in September 2007 using equipment to remove oil. The work was completed in January 2008. A third-party organization verified that the contamination level had been reduced to less than 1 mg/l (unit to be confirmed), half of the standard value.

Ricoh Group's Basic Policies Concerning Soil and Underground Water Contamination

- (1) Top priority is given to controlling impact on the living environment in the neighborhood.
- (2) Efforts will be made to carry out surveys and measures to cope with contamination caused by the Ricoh Group's business activities.
- (3) Laws, regulations, and ordinances set by national and local governments shall be observed.
- (4) Efforts will be made to establish risk communication with local governments and residents.
- (5) Soil is checked for contamination when land is purchased/transferred or rented/returned.



Oil remover

① Survey Results of Underground Water Pollution and Purification Efforts at the Ricoh Group's Production Sites (as of March 2008)

Business site		Pollutant	Survey result (mg/ℓ)	Standard value in Japan (mg/ℓ)	Measures in implementation
Japan	Ricoh Ohmori Office	Cis-1,2-dichloroethylene	0.057	0.04	<ul style="list-style-type: none"> • Pumping up underground water • Purification with iron powder deoxidizer • Regular monitoring
		Trichloroethylene	0.13	0.03	
		Tetrachloroethylene	0.044	0.01	
	Ricoh Optical Industries	Cis-1,2-dichloroethylene	0.19	0.04	<ul style="list-style-type: none"> • Pumping up underground water • Bioremediation • Regular monitoring
		Trichloroethylene	0.22	0.03	
		Tetrachloroethylene	0.23	0.01	
	Ricoh Elemex, Okazaki Plant	Cis-1,2-dichloroethylene	0.033	0.04	<ul style="list-style-type: none"> • Pumping up underground water • Neutralization of soil gas • Regular monitoring
		Trichloroethylene	1.4	0.03	
		1,1-dichloroethylene	0.4	0.02	
		Hexavalent chromium	1.7	0.05	
		Cadmium	0.073	0.01	
	Ricoh Elemex, Ena Plant	Cis-1,2-dichloroethylene	0.57	0.04	
		Trichloroethylene	2.9	0.03	
		Hexavalent chromium	0.14	0.05	
		Fluorine	1.3	0.8	
	Ricoh Keiki	1,1-dichloroethylene	0.044	0.02	<ul style="list-style-type: none"> • Pumping up underground water • Bioremediation • Regular monitoring
Outside of Japan	Ricoh Electronics Inc., Irvine Plant (U.S.A.)	Cis-1,2-dichloroethylene	0.03		<ul style="list-style-type: none"> • Pumping up underground water • Regular monitoring • Neutralization of soil gas
		Trichloroethylene	0.095		
		Tetrachloroethylene	4.7		
	Ricoch Industrie France S.A.S. (France)	Tetrachloroethylene	0.37		<ul style="list-style-type: none"> • Pumping up underground water • Regular monitoring
	Ricoch UK Products Ltd. (U.K.)	Cis-1,2-dichloroethylene	12.0		<ul style="list-style-type: none"> • Pumping up underground water • Regular monitoring • Original regiochemistry oxidation • Oil removal
		Trichloroethylene	2.7		
		Tetrachloroethylene	16.0		
		Vinyl chloride	0.29		

- Contamination cases that seem to be attributable to natural causes are excluded.
- The highest densities recorded at the monitored wells are shown in the above survey results.
- The areas surrounding all business sites are not affected by pollutants.
- For a list of business sites, including those that do not have any contamination records, please visit our Web site at <http://www.ricoh.com/environment/data/index.html>

Understanding Environmental Liabilities

<Ricoh Group (Global)>

Companies are responsible for environmental contamination and anything that can lead to environmental contamination, whether caused by their past, current, or future business activities, and they must make efforts into the future to prevent contamination or its expansion, while at the same time take necessary measures such as purification and repair. The Ricoh Group has endeavored to keep the local residents and employees from suffering health damage caused by soil/underground water contamination, asbestos, PCBs, etc., while promoting measures to prevent any negative effect on the environment and the ecosystem. Additionally in fiscal

2007, the Group organized a project through cooperation among the accounting, environment, and facility divisions to appropriately reflect the impact on corporate performance of the purification and repair obligation that should be assumed by companies (environmental liabilities) in financial accounting and obtaining the support of external consultants. Under the project, the Group carefully examined possible environmental costs needed for future surveys and measures in relation to soil contamination, asbestos, and PCBs, and estimated (1) the amount of asset retirement obligations calculated in compliance with the accounting standards (costs needed for future retirement of assets), (2) the amount

that could become liabilities in financial accounting in the future in compliance with laws or contracts, and (3) the costs of purification and monitoring the Ricoh Group will carry out according to its own policies, although such purification or monitoring is not required by laws or contracts. As for soil contamination, surveys had been completed and the implementation scenario prepared by each site included the condition at that time and estimates of future costs up to the completion of purification, which allowed us to calculate the costs to be paid by the Group as a whole. As for asbestos and PCBs, the surveys at Ricoh have been completed, while those for the Group as a whole are still under

way. The estimated future expenditure of asset retirement obligations of the Ricoh Group recognized as of the end of fiscal 2007 was ¥490 million (¥260 million after discounts, calculated according to the accounting principles), and we confirmed that the amount was immaterial to the financial accounting.

Besides the liabilities in financial accounting, we also confirmed that ¥1,240 million could become liabilities in the future in compliance with laws and/or contracts, while ¥1,220 million could become necessary for purification and monitoring carried out as the Group's voluntary efforts. These liabilities are not

likely to cause a significant impact on the financial condition or business performance of the Ricoh Group. However, it is important to keep environmental liabilities (including possible liabilities) transparent and control and reduce them. The Group will continue disclosing them in an appropriate manner.

Expert
interview

INTERVIEW

Ms. Miki Mitsunari, Mizuho Information & Research Institute, Inc.

Promptly beginning disclosure of environmental liabilities, where corporate attitude toward the environment is important.

Figures showing corporate responsibility and determination in environmental purification

Environmental liabilities refer to the cost that companies have to pay in the future in relation to the environment. Accounting that requires the recognition of the future cost for purification of soil contamination etc. as liabilities was stipulated in the U.S. in the 1990s, and it then spread to other countries. In a broad sense, environmental liabilities include the cost of lawsuits in relation to the environment, as well as the possible cost that companies will have to pay to reduce greenhouse gas emissions to levels below the fixed limits when such limits are set in the future. The environmental liabilities reported in financial accounting, however, include only part of the future cost for environmental measures in many cases, and differ depending upon the regulations of respective accounting standards. In Japan, the Accounting Standard for Asset Retirement Obligations was established on March 31, 2008, and will be applied from fiscal 2010. The standard sets criteria for the retirement cost of fixed assets, which includes the cost for measures to cope with soil contamination and asbestos. Such disclosure is required because companies need to recognize the cost for measures to address environmental contamination as liabilities and report their financial competence in their accounting. In other words, such disclosure is designed to express the will of companies to engage themselves appropriately in purification and other measures to stakeholders such as shareholders and investors. In addition, the cost for environmental measures that is reported in financial statements as liabilities will be directly reflected in decision-making in management, which will accelerate the purification of contamination and other countermeasures in society as a whole.

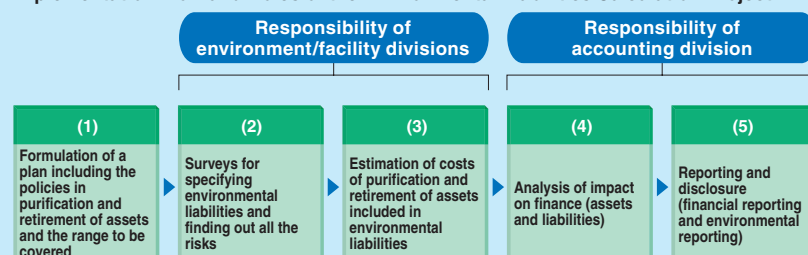
Ms. Miki Mitsunari
Chief Consultant
Environment, Natural
Resources and Energy
Division
Mizuho Information &
Research Institute, Inc.



Cooperation between the accounting and environment divisions essential for the calculation

At the request of Ricoh, I joined the Environmental Liabilities Calculation Project in October 2007. As the Ricoh Group had completed soil contamination surveys on a global level, we could finish specifying environmental liabilities, discovering all the risks, and estimating the cost for retirement of assets in a very short period, although these processes usually impose the heaviest workload. My main role was to organize the collected data referring to the accounting rules. I learned a lot, knowing that estimated amounts differ depending upon the purification levels. For the calculation of environmental liabilities, it is essential for the accounting and environmental divisions to cooperate with each other, and at Ricoh, they did so quite smoothly. We discovered that the amount of environmental liabilities in compliance with the accounting standard was small because Ricoh had promoted voluntary purification activities. Efforts for environmental liabilities have started at only some of the companies. I would like Ricoh to continue setting precedents for prompt decision-making and effective management.

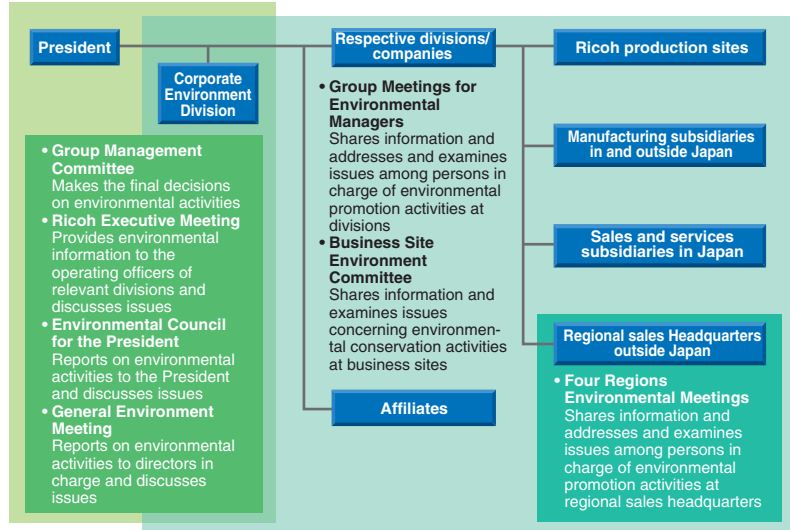
Implementation Flow and Roles of the Environmental Liabilities Calculation Project



Ricoh promotes the harmonization of environmental preservation and business operations to realize sustainable environmental management.

The Ricoh Group's environmental management system (EMS) is an important tool in facilitating sustainable environmental management on a global scale. We established a system to reflect the environmental action plan set by management in the goals of respective divisions and provide feedback on the results of their actions to management. Under the system, the group as a whole, and each of its business sites and divisions, promotes the plan-do-check-act (PDCA) cycle. Furthermore, based upon the Group-wide Strategic Management by Objectives (SMO), which takes an environmental conservation perspective, the Ricoh Group continually evaluates the performance of respective divisions. Sustainable environmental management will be further promoted by incorporating EMS into the processes of respective businesses.

Organizational Chart for the Ricoh Group's Sustainable Environmental Management System

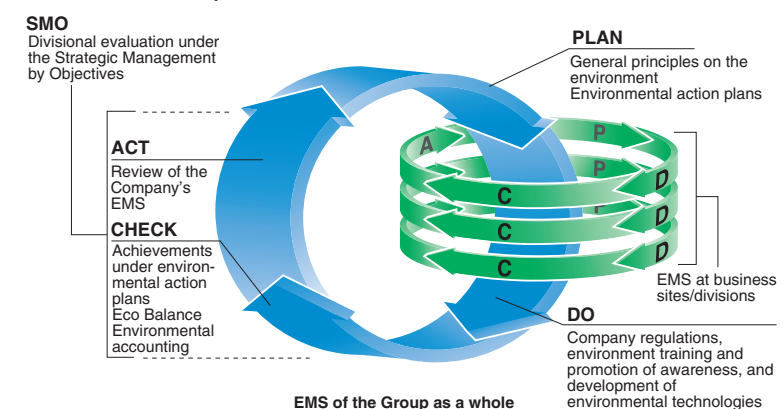


Upgrading the Level of the Environmental Management System

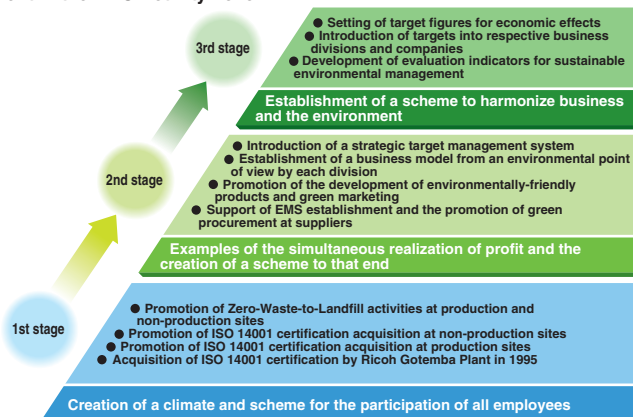
To realize sustainable environmental management, it is essential to incorporate environmental conservation into business operations instead of separating environmental preservation activities from business operations. The Ricoh Group has traditionally promoted the acquisition of ISO 14001 certification by each business site and division to fortify its environmental management system. Starting with Ricoh Gotemba Plant, which received ISO/DIS 14001 certification in 1995, all major Ricoh production sites worldwide were ISO 14001 certified as of March 2000. In 2001, the sales group in Japan as a whole was ISO 14001 certified. Sales subsidiaries other than those in Japan are also making every effort to acquire ISO 14001 certification. Thus, the Group has promoted the creation of a climate for sustainable environmental management by all employees through the acquisition of ISO 14001 certification. In addition, Ricoh and its sales subsidiaries in Japan acquired integrated ISO 14001 certification in February 2007, aiming to harmonize business and the environment. This resulted in the establishment of an infrastructure for carrying out environmental measures from various angles under the 16th Environmental Action Plan, which will start in fiscal 2008, with each business division setting its own targets and taking the initiative.

* For the status of the Ricoh Group's ISO 14001 acquisition, please visit <http://www.ricoh.com/environment/base/iso.html>

EMS of the Ricoh Group



Improvement in the EMS Activity Level



Participatory Approach by All Employees

The Ricoh Group is making an effort to improve sustainable environmental management based on an “all-employee participatory approach.” This “all-employee participatory approach” means that all employees in all divisions—such as R&D, product design, materials procurement, manufacturing, transportation, sales, maintenance/services and collection and recycling—participate in environmental activities. These activities are regarded as just as important as “QCD activities*,” which involve pursuing profitability. To improve environmental activities, internal benchmarks and know-how are provided to all employees from time to time to make them more environmentally aware.

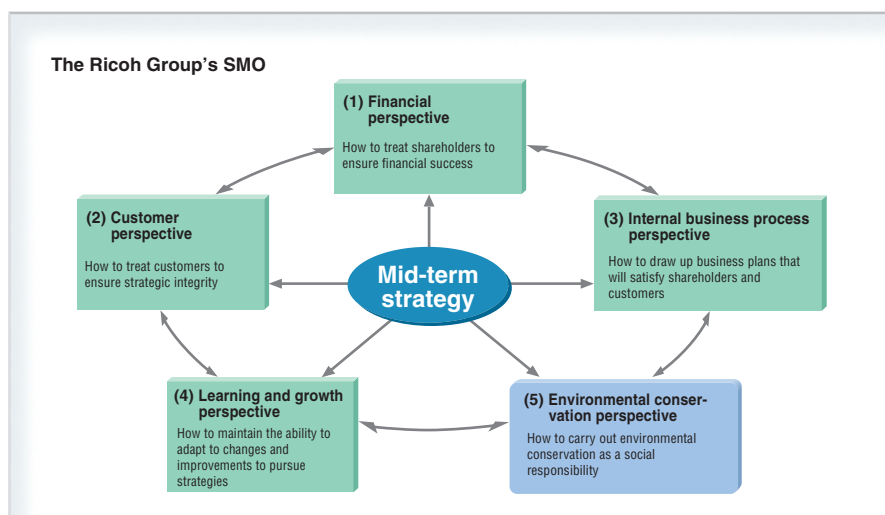
* QCD activities improve the management of Quality, Cost, and Delivery.

Strategic Management by Objectives (SMO)

Ricoh introduced SMO in 1999 to clarify evaluation standards for environmental conservation activities that are used in divisional performance evaluations. This system is based on the Balanced Scorecard system, a performance management system developed in the 1990s in the United States and characterized by the use of four perspectives. Ricoh has added a specific environmental conservation perspective to the system and is promoting SMO for global sustainable environmental management.

Risk Management

The Ricoh Group carries out risk management using the PDCA cycle. This includes the setting of basic goals/targets; formulation of measures for the prevention of crises, as well as initial measures to cope with them; implementation of preventive and initial measures; evaluation of preventive/initial measures and the risk management system, as well as formulation of measures for correction/improvement; and implementation of corrective/improvement measures. These are based upon the Ricoh Group's Business Process Risk Manage-



ment Basic Rules. As for initial measures taken when crises arise, they are categorized into 43 types, and the sections in charge and reporting levels for respective types are clearly defined so that appropriate handling and reporting to the top management can be realized.

Penalties and Fines Concerning the Environment (Rico Group)

	FY 2005	FY 2006	FY 2007
No. of cases	0	0	0
Amount	0	0	0

The Sustainable Environmental Management Information System supports the decision-making process for sustainable environmental management and promotes environmentally-friendly design.

The Sustainable Environmental Management Information System is designed to identify and promote the progress of sustainable environmental management. The system utilizes the Environmental Impact Information System to collect and process data on environmental impact and the Environmental Accounting System to collect and process data on environmental costs and effects. The collected data are processed and analyzed to identify the integrated environmental impact¹ of overall operations; draw up environmental action plans²; support decision-making in sustainable environmental management; promote environmentally-friendly design; improve activities by each division; process Corporate Environmental Accounting³; and disclose information to the public.

1. See pages 56 and 57. 2. See pages 21 and 23. 3. See page 59.

Environmental Impact Information System

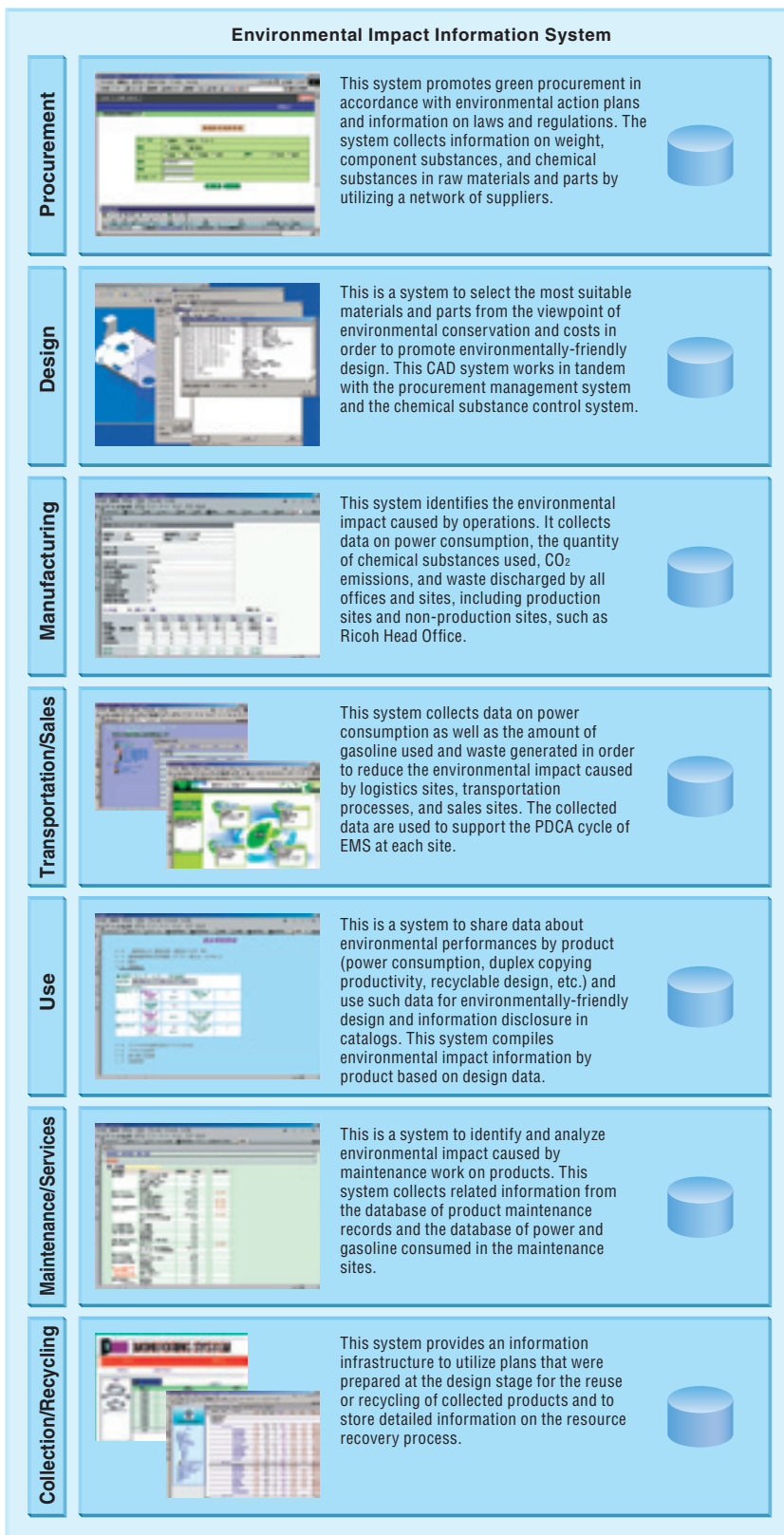
This system collects and processes data on environmental impact caused by each operational process—including procurement, design, manufacturing, transportation/sales, use, maintenance/services, and collection/recycling—as well as by overall operations. Besides identifying the environmental impact of overall operations, the system automatically collects environmental data from the operational flow of each process, and such data is used to support PDCA in environmental improvement activities carried out at each process. Efforts are being made to improve the system so that it can be used more easily for data analyses and improvement activities as well as for the expansion of the items and range of collected data and improvement in precision. In fiscal 2007, a tool for the business division itself to evaluate environmental impact of procurement information was developed, a system to obtain information on the CO₂ emissions in transportation¹ was established, and preparation for the REACH Regulation² was promoted.

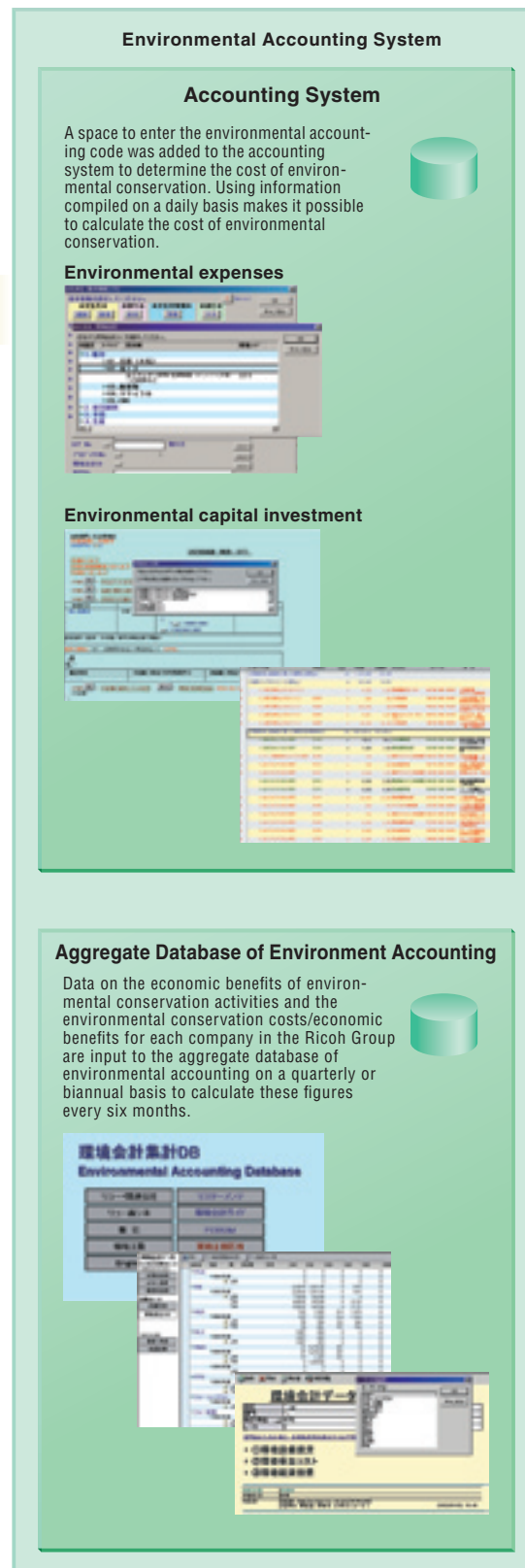
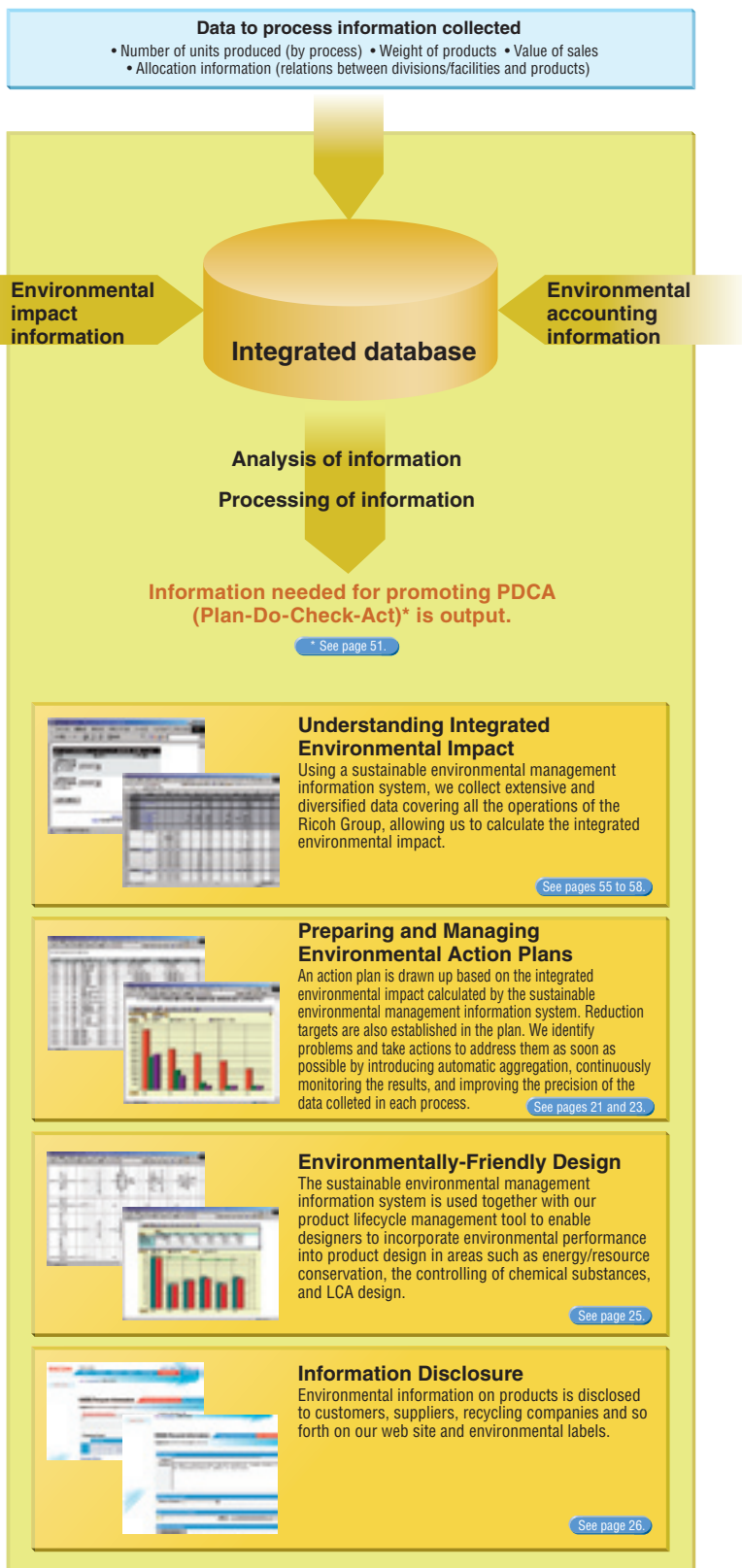
1. See page 42. 2. See pages 34 and 36.

Environmental Accounting System

This system enables “Corporate Environmental Accounting” in a timely manner by collecting data on environmental conservation effects obtained from the Environmental Impact Information System and environmental cost data obtained from the accounting system, and processing this into sustainable environmental management indicators*. * See page 8.

Sustainable Environmental Management Information System

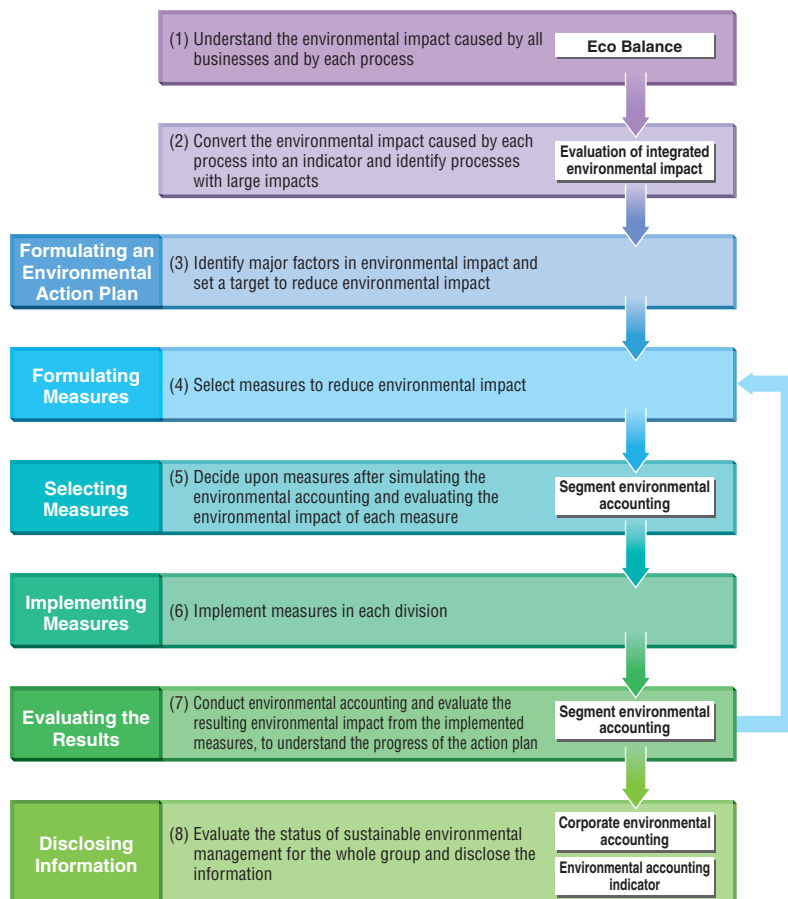




Action plans are mapped out and sustainable environmental management is evaluated using Eco Balance, integrated environmental impact, and environmental accounting as tools.

The Ricoh Group has an extra-long-term environmental vision to reduce environmental impact generated by the advanced nations to one-eighth the fiscal 2000 levels by 2050. We are striving to achieve this target by improving the level of sustainable environmental management. Improvements in the sustainable environmental management level mean that environmental impact is reduced while economic effects are enhanced as a result of promoting environmental conservation activities. To achieve this, it is necessary to map out appropriate action plans to reduce environmental impact caused by all our businesses, consider and implement effective measures, and establish a scheme to evaluate and disclose the results. The Ricoh Group is operating PDCA, evaluating action plans, measures, and activity results, using Eco Balance¹, integrated environmental impact², and environmental accountings as tools. ^{1&2. See page 56.}

PDCA and the Roles of Tools for Sustainable Environmental Management



Understanding the Environmental Impact Caused by All Our Businesses Using Eco Balance and Integrated Environmental Impact Evaluation

The Ricoh Group obtains information on the environmental impact caused by all its businesses and by each process, using Eco Balance and integrated environmental impact as tools, to effectively reduce the environmental impact generated by processes with large environmental impact. First, Eco Balance is prepared based upon input and output data for each process and for each environmentally-sensitive substance. The data are collected by the sustainable environmental management information system¹. At this stage, however, the significance of the environmental impact generated by each process cannot be compared because each process employs different environmentally-sensitive substances. Therefore, an integrated analysis method is used to convert the total environmental impact caused by business activities—including impact upon human health,

depletion of resources, and impact upon ecosystems/biodiversity—into indicators to evaluate the integrated environmental impact and identify processes generating large environmental loads. The Ricoh Group has set the Year 2013 Long-Term Environmental Goals² and has prepared an environmental action plan³ based upon its evaluation of the integrated environmental impact that is identified by Eco Balance.

^{1. See page 53. 2. See pages 19 and 20. 3. See pages 21 and 23.}

Selecting Measures by Environmental Accounting and Evaluating Activity Results

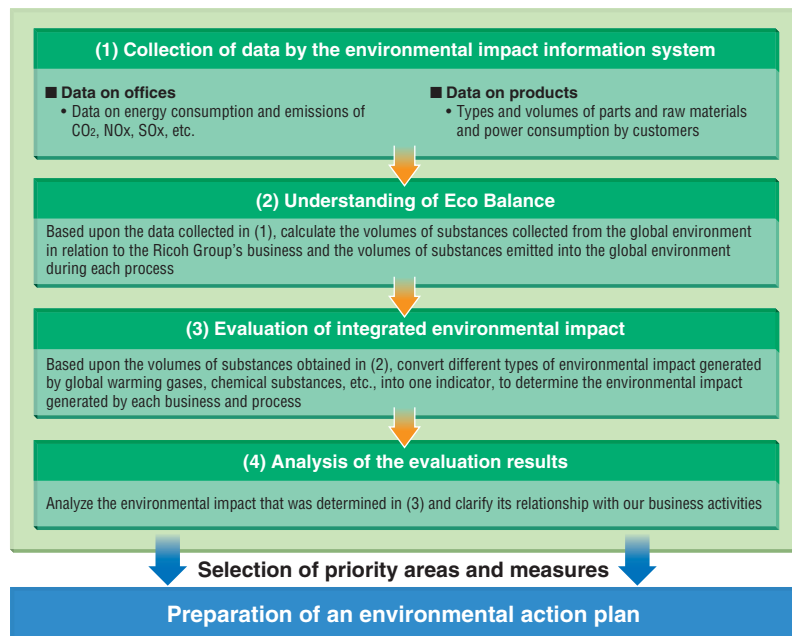
Reducing environmental impact using measures that will lead to the creation of benefits is crucial to promoting sustainable environmental management. The Ricoh Group uses environmental accounting to determine what measures should be taken for what processes and for what operations so that the maximum effect can be obtained. A number of improvement plans to reduce the identified environmental impact are examined in consideration of developments in society and laws/regulations and competition to improve processes generating large environmental impact identified through evaluation based upon Eco Balance and the integrated environmental impact. Then, using segment environmental accounting, we simulate how much environmental impact is reduced and how much profit is created compared with the costs for each measure, while surveying the results of the individual measures.

Eco Balance of the Ricoh Group

The Ricoh Group introduced the concept of Eco Balance in fiscal 1998 to clarify the environmental impact caused by all its businesses and effectively reduce it. Currently, the Ricoh Group is calculating the integrated environmental impact using EPS, which is an integrated analysis method developed by IVL Swedish Environmental Research Institute Ltd. We adopted EPS because we found that its characteristics agree with the Ricoh Group's ideas about environmental impact caused by the collection of resources and the Comet Circle*, Ricoh's original concept aiming at establishing a sustainable society, after evaluating various methods adopted at home and/or abroad. We have mapped out environmental action plans based upon the concept of Eco Balance since fiscal 2002 and have applied the concept in the formulation of long-term environmental goals since fiscal 2005.

* See page 18.

Flow of Eco Balance and Evaluation of Integrated Environmental Impact



Ricoh Group's environmental accounting

The Ricoh Group disclosed its environmental accounting for the first time in 1999. Subsequently, the Group introduced corporate environmental accounting to determine the status of sustainable environmental management and disclose related information, as well as segment environmental accounting etc., that are used to prepare environmental action plans, select measures, and verify achievements. Thus efforts are being made to establish environmental accounting as a tool for sustainable environmental management.

● Corporate Environmental Accounting

The Ricoh Group calculates and announces the cost spent in its business activities for environmental conservation, as well as their conservation and economic effects, as quantitatively as possible. The Ricoh Group prepares such data in compliance with the Environmental Accounting Guidelines set by the Japanese Ministry of the Environment, by taking the necessary portion from the Eco Balance data and calculating the cost and effect (in quantity and monetary value) of its environmental conservation activities based on its own formulas and indicators. The calculated results are verified by a third-party organization. In fiscal 2007, the Group started disclosing environmental impact from a viewpoint of Eco Balance, in addition to direct environmental impact (environmental impact at business sites).

● Segment Environmental Accounting

This is an environmental accounting tool to forecast the costs and environmental conservation/economic effects of individual investment activities and projects for environmental conservation from among all processes of operations and to evaluate their results, in order to judge the effectiveness of respective measures.

● Material Flow Cost Accounting

This is a method used to detect processes that can be improved cost-effectively by analyzing loss in each process of the material flow of products. The Ricoh Group has introduced this accounting into some of the business areas on a trial basis and found that it is particularly effective in sectors with large amounts of material loss.

Eco Balance

Eco Balance means the preparation of a list of input and output data on environmental impact to identify, quantitatively measure, and report environmental impact caused by companies; or such a list itself. It is based upon the same concept as LCA*, and direct environmental impact as well as indirect environmental impact is calculated.

* See page 25.

Integrated Environmental Impact

This is an integrated indicator shown in ELUs (environmental load units), incorporating various types of environmental impact caused by environmental load. Substances that put a load on the environment cause various phenomena including global warming and air pollution, which negatively affect the ecosystem and human health. In addition to these, the depletion of resources is taken into consideration, and all these

factors are incorporated into one single indicator that represents the significance of environmental impact as a whole. Determining the environmental load caused by all our businesses and calculating the integrated environmental impact allow us to formulate a specific plan to reduce them. A method called EPS, which was developed by IVL Swedish Environmental Research Institute Ltd., is used for calculation.

● Review of Fiscal 2007

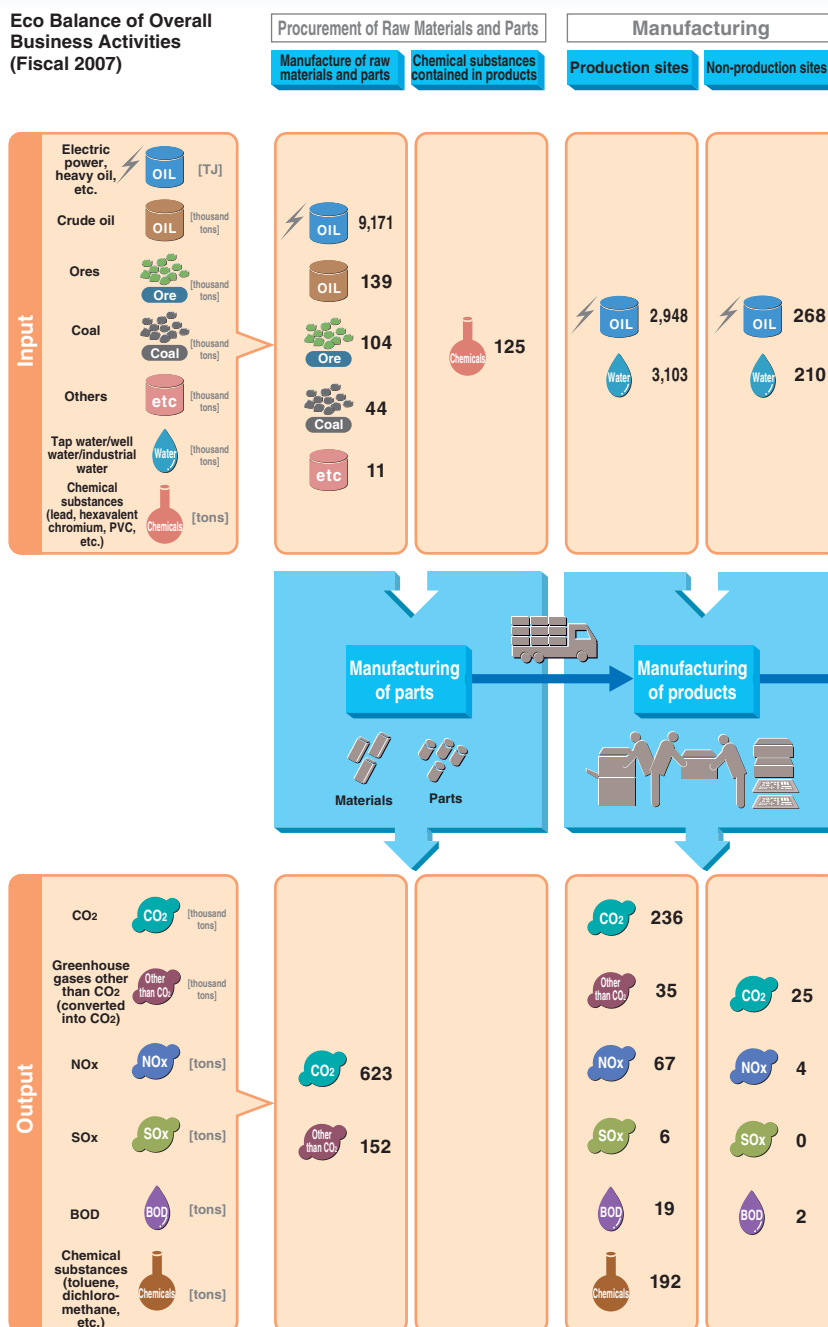
Ricoh Group sales increased 7.3% from the previous fiscal year's level, while the integrated environmental impact in relation to corporate activities was almost the same as that in the previous fiscal year. The areas covered are the same as those in the previous fiscal year and the achievement rate of environmental impact caused by business activities of the entire Ricoh Group was 92.45% (based upon sales). Large environmental impact is caused by business processes such as the procurement of raw materials and parts and when products are used by our customers (power and paper consumption). Compared with the previous fiscal year, the environmental impact generated by business sectors showing favorable results, such as the imaging equipment business, increased with the procurement of raw materials and parts. However, resources used in measuring appliances (gas meters, water meters, etc.) decreased, which contributed to a reduction in the total environmental impact caused by the procurement of raw materials and parts. As for the environmental impact caused by the use of our products by customers, both the impact caused by power consumption and that generated by paper consumption increased. The reduction in power consumption owing to the introduction of energy-saving technology could not offset the increase caused by increased sales of products.

* The figures reported in Eco Balance in the previous fiscal year's report were those for business activities for advanced nations. The figures in this report, however, represent those for all business activities, as in the previous reports excluding the last year's. Because of this, the fiscal 2006 figures shown in this report differ from those shown in the Sustainability Report (Environment) 2007.

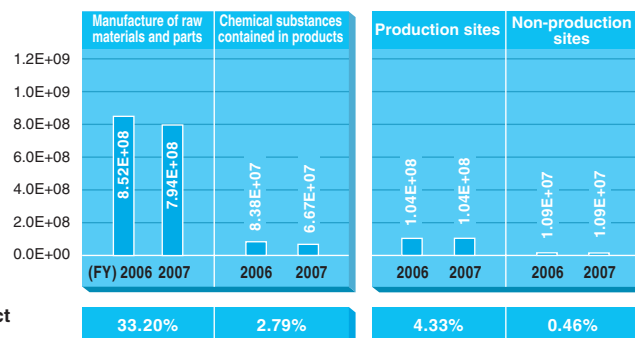
Achievement Rate of Environmental Impact

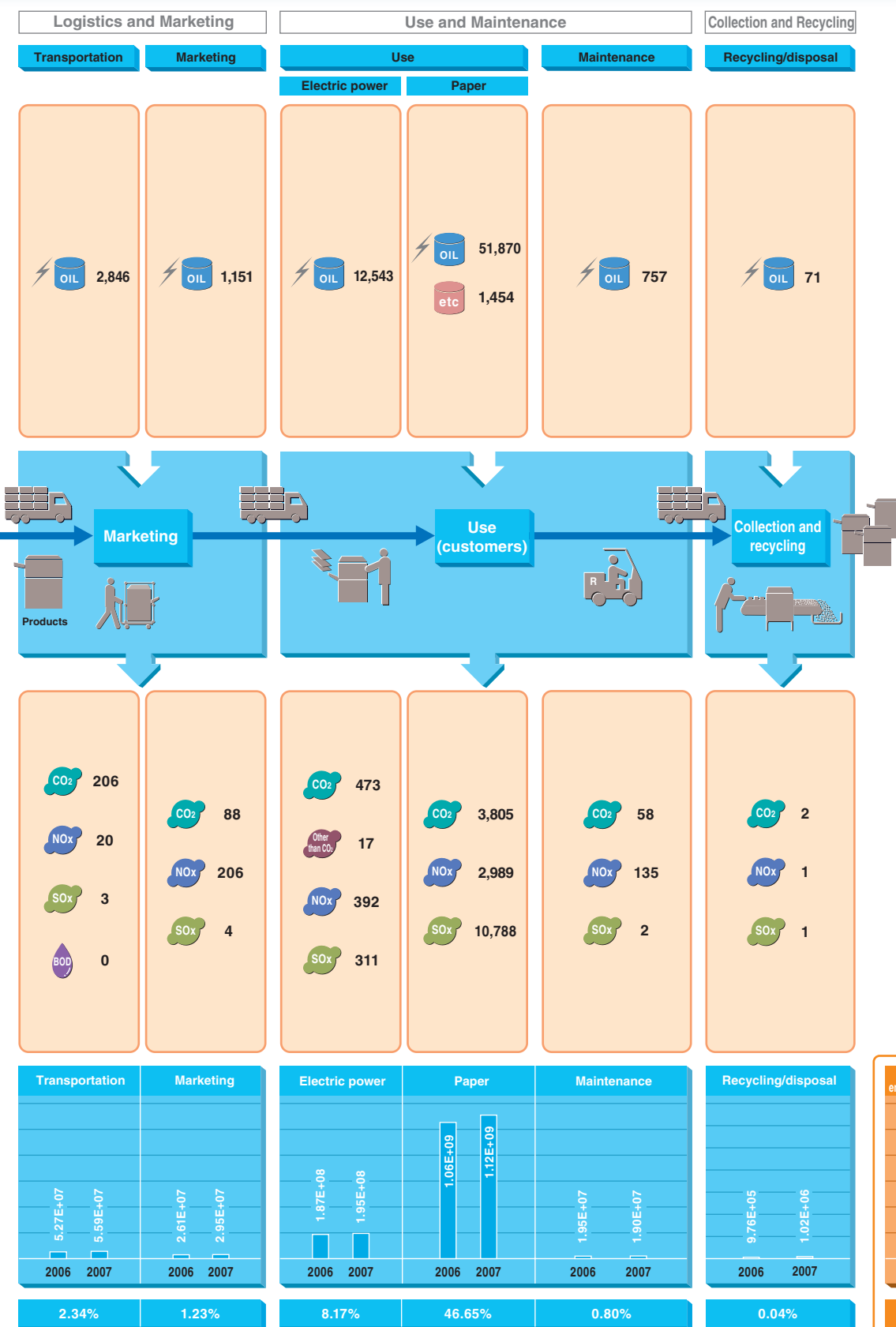
The achievement rate of the integrated environmental impact of the Ricoh Group in fiscal 2007 is 92.45% of all business activities. This rate is calculated based upon sales of respective business sectors in consolidated sales (excluding purchasing). As for new businesses (Ricoh Printing Systems, Ltd., Yamanashi Electronics Co., Ltd., and InfoPrint Solutions Company LLC), which were acquired through M&A etc. and account for 5.87% of the entire operations, efforts will be made for comprehending the figures successively, which will be reflected in Eco Balance.

Eco Balance of Overall Business Activities (Fiscal 2007)



Figures Integrating Environmental Impact of Business Activities
Unit: ELU





"E+n" means "x 10ⁿ"
 (Example) 1.45E+08 = 1.45 × 10⁸

Ricoh Group's Corporate Environmental Accounting in Fiscal 2007

Environmental conservation costs are classified according to "Categories corresponding to business activities" defined in the "Environmental Accounting Guidelines 2005" of the Japanese Ministry of the Environment.

Costs refer to expenditure on environmental conservation activities (in a broad sense), and consist of environmental investments and environmental costs (in a narrow sense).

● **Environmental investments**
These investments correspond to "investments in fixed assets" in financial accounting. The amount of environmental investments is distributed as environmental costs over the service life of fixed assets in accordance with depreciation procedures.

● **Environmental costs**
These environmental costs correspond to the "period cost" in financial accounting. (Depreciation cost of environmental investments is included.)

Cost unit: ¥100 million (Exchange rate: \$1 = ¥114.40 €1 = ¥161.69)

Item	Costs		Monetary Effects	Category	Economic Benefits	
	Environmental Investments	Environmental Costs			Item	
Business area costs	2.8	20.2	Pollution prevention cost	0.4	a1	Energy savings and improved waste processing efficiency
			Global environmental conservation cost	59.4	b	Contribution to value-added production
			Resource circulation cost	20.7	c	Avoidance of risk in restoring environments and avoidance of lawsuits
Upstream/Downstream costs	0.1	88.7	Cost of collecting products, turning recycled materials into saleable products, and so forth	239.9	a1	Sales of recycled products, etc.
				[22.9]	S	Reduction in society's waste disposal cost
Administration costs	0.2	37.9	Cost generated by the division in charge of environmental conservation; cost to establish and maintain an environmental management system	14.9	b	Effects of media coverage and environmental education
Research and development costs	3.1	24.4	Research and development costs for environmental impact reduction	50.3	a2	Contribution to gross margin through environmental research and development
Social activity costs	0.0	7.3	Costs of preparing environmental reports and advertisements	[1.4]	S	Reduction in user's electricity expenses thanks to an improved energy saving function and product performance
				9.4	b	Publicity from environmental advertisements, etc.
Environmental remediation costs	0.0	1.0	Costs of restoring soil and environment-related reconciliation	—	—	None
Other costs	0.0	0.5	Other costs for environmental conservation	—	—	—
Total	6.3	179.9		395.1	Sum of a1: 240.2, a2: 50.3, b: 83.8, and c: 20.7	
				24.3	Total S's	

a1: Substantial effect
a2: Estimated substantial effect
b: Secondary effect
c: Incidental effect
S: Social effect
(Customer benefits)

• **Environmental investment rate: 0.7%**
[= environmental investment (6.3)/total investment (852)]

• **Environmental R&D cost rate: 1.9%**
[= Total environmental R&D cost (24.4)/Total R&D cost (1,260)]

Economic benefits refer to benefits that were obtained by environmental conservation activities and which contributed to the profits of the Ricoh Group in some form. Economic benefits are classified into five categories as follows:

● **Substantial effect (a1)**
This means economic benefits that fall into either of the following two cases:

- 1) Cash or cash equivalent is received as a benefit. This corresponds to "realized gain" in financial accounting.
- 2) The amount of savings in such costs that would have occurred if environmental conservation activities had not been conducted. This amount is not recognized in financial accounting.

● **Estimated substantial effect (a2)**
Substantial contributions to sales or profits whose value cannot be measured without estimation. They include improving the environmental performance of a product, which leads to an increase in sales or profit.

● **Secondary effect (b)**
The expected amount of contribution in the case that expenditure on environmental conservation activities is assumed to have contributed to profits for the Ricoh Group. If environmental conservation costs are assumed to be costs that are indispensable for the Ricoh Group to conduct its operations, for example, it can be safely said that such costs contribute to profit in some form. In practice, out of the effects generated by environmental conservation activities, those which do not appear as an increase in sales or profit or a reduction in costs are represented in monetary value calculated by the formula specified for each item.

● **Incidental effect (c)**
Expenditure on environmental conservation activities can help avoid the occurrence of environmental impact. Therefore, it can be safely said that the expenditure contributed to the avoidance of such damage of environmental impact that would have taken place without the expenditure. In practice, the incidental effect is computed by multiplying the expected amount of damage by an occurrence coefficient and impact coefficient.

● **Social effect (S)**
Social effect means such effect that is generated by expenditure on environmental conservation activities not for the Ricoh Group but for society. In practice, social effect means the amount of reduction in the expense of electric power and waste disposition that is enabled through environmentally-friendly products for customers.

* For the computation formulas, see page on the right.

Effect on environmental conservation means the effect of activities to prevent and control the occurrence of environmental impact and to eliminate and remove such environmental impact. The Ricoh Group reports the amount of reduction in the emission of substances with serious environmental impact for the current year as compared with the previous year (=emissions in the previous year – emissions in the current year).

● **Conversion Coefficient**
This is a weighting coefficient that is used in identifying environmental impact by totaling and weighting various types of environmental impact expressed in different units (CO₂ = 1). Values of coefficients are based on the Swedish EPS method.

● **Converted Quantity of Reduction/Converted Quantity of Impact**
Converted quantity of reduction is obtained by multiplying environmental impact reduction by conversion coefficients and converted quantity of impact by multiplying total environmental impact by the coefficients. In other words, these values refer to the degree of seriousness of such environmental impact reduction and total environmental impact that are converted into figures in t-CO₂.

● **Social Cost Reduction Values/Social Costs**
Social cost reduction values represent financial figures obtained by converting the converted quantity of reduction into money and social costs by converting the converted quantity of impact into money. Computations are made using the factor of 108 Euro/t-CO₂ of EPS Ver2000.

This is the quantity of substances with environmental impact emitted by the Ricoh Group in the current fiscal year.

Effect on Environmental Conservation				Environmental Impact			
Environmental Impact Reduction (tons)	Conversion Coefficient	Converted Quantity of Reduction	Social Cost Reduction Values	Total (tons)	Conversion Coefficient	Converted Quantity of Impact	Social Costs
Reduction in environmental impact caused at business sites				Environmental impact caused at business sites			
CO ₂ 5,625.7	1.0	5,626	0.98	CO ₂ 311,494	1.0	311,494	54.39
NO _x 10.9	19.7	214	0.04	NO _x 168	19.7	3,314	0.58
SO _x 0.7	30.3	22	0.00	SO _x 8	30.3	257	0.04
BOD 3.5	0.02	0	0.00	BOD 6	0.02	0	0.00
Final amount of waste disposed 59.6	104.0	6,204	1.08	Final amount of waste disposed 112	104.0	11,645	2.03
Emissions of the Ricoh target substances for reduction (Ricoh standards per substance)		666	0.12	Emissions of the Ricoh target substances for reduction (Ricoh standards per substance)		25,121	4.39
Environmental impact reduction in lifecycle as a whole				Environmental impact in lifecycle as a whole			
CO ₂ -226,638	1.0	-226,638	-39.58	CO ₂ 5,516,692	1.0	5,516,692	963.35
NO _x -194	19.7	-3,820	-0.67	NO _x 3,813	19.7	75,107	13.12
SO _x -596	30.3	-18,051	-3.15	SO _x 11,115	30.3	336,788	58.81
Fossil fuel -	(Ricoh standards per substance)	-666,407	-116.37	Fossil fuel -	(Ricoh standards per substance)	9,518,994	1,662.26
Mineral resources -	(Ricoh standards per substance)	541,668	94.59	Mineral resources -	(Ricoh standards per substance)	4,976,996	869.11
Other -	(Ricoh standards per substance)	380,069	66.37	Other -	(Ricoh standards per substance)	1,712,892	299.11
Total (environmental impact reduction at business sites)		12,732	2.22	Total (environmental impact at business sites)		351,831	61.44
Total (environmental impact reduction in lifecycle as a whole)		6,821	1.19	Total (environmental impact in lifecycle as a whole)		22,137,469	3,865.76

* The figures for lifecycle as a whole include those for business sites.

* For quantity details on fossil fuel, mineral resources, and other resources, please see [pages 57 and 58](#) (Eco Balance).

* The Ricoh target substances for reduction are defined as the PRTR substances designated by four electric/electronic industrial associations in Japan between fiscal 1998 and fiscal 2000. Coverage of chemical substances by Ricoh may differ slightly from those provided by the PRTR Law.

Data coverage ● **Companies:** 89 Ricoh Group companies. [See page 76.](#)
● **Period:** From April 1, 2007 to March 31, 2008 (for costs and total environmental impact).

* Social cost is calculated using the factor of 108 Euro/t-CO₂ (17,463 yen/t-CO₂).

* Environmental impact reduction represents the difference between figures in fiscal 2006 and fiscal 2007.

(1) Formula of Substantial Effects

Reduction in heat, light, and water cost	Heat, light, and water expenses in the previous year – heat, light, and water expense in the current year
Reduction in waste disposal cost	Waste disposal expenses in the previous year – waste disposal expenses in the current year
Sales value of valuable materials	Sales value of valuable materials sorted from waste
Sales of recycled products and parts	Sales of recycled products and parts
Subsidies	Environmental subsidies from the government, etc.

(2) Formula for Estimated Substantial Effects

R&D profit contribution amount	Product gross margin × gross margin contribution rate calculated using environmentally-friendly points
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(3) Formula for Secondary Effects

Contribution to value-added production	Gross profit on sales × environmental conservation costs / selling, general and administrative expenses, etc.
Effects on media coverage	Area of newspaper advertisement / newspaper page area × advertisement cost per page
Effects of environmental education	Number of people attending internal environmental education seminars × seminar fee for outside participants
Publicity from environmental advertisements	Number of visitors to environmental Web site × unit price of the sustainability report

(4) Formula of Incidental Effects

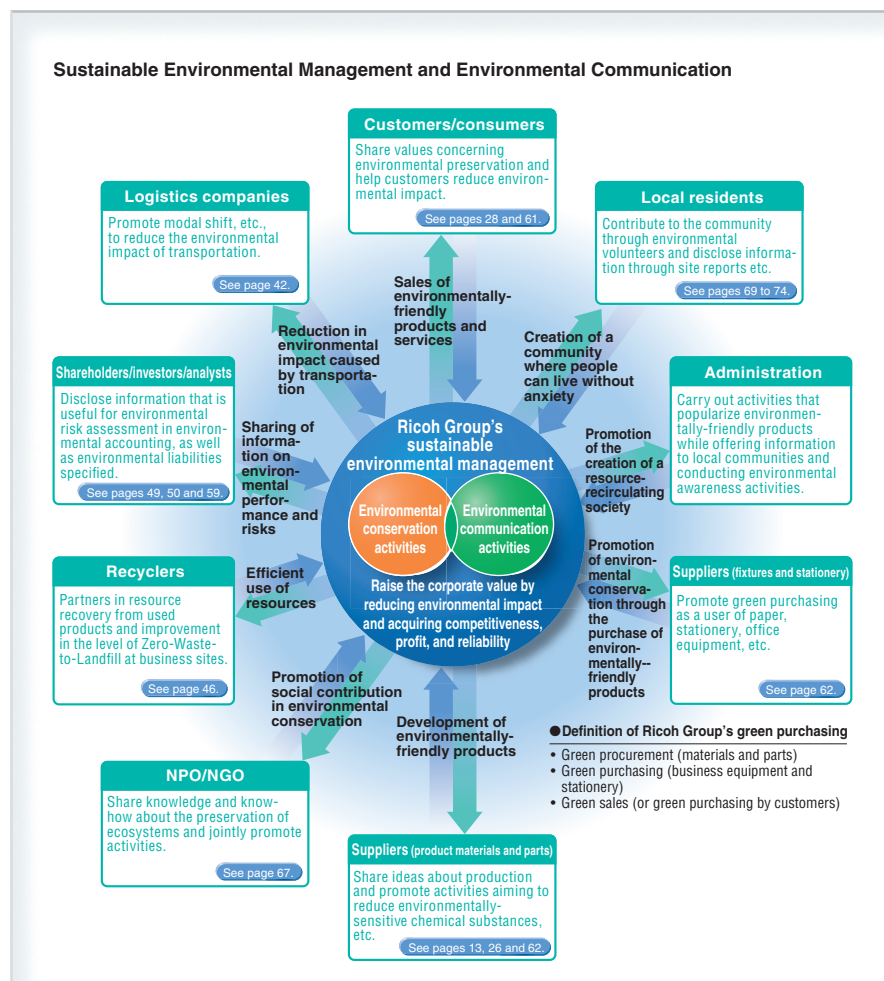
Amount of incidental effects	Standard amount × occurrence coefficient × impact coefficient × continuance coefficient
Items to be calculated	Areas of improvement to prevent pollution
Standard amount	Amount set aside for lawsuits, suspension of operations, and restoration
Coefficient	Occurrence coefficient and impact coefficient to be set according to occurrence frequency and affected extent

(5) Formula for Social Effects (economic benefits from use of products by customers)

Total electric power	Electric power consumption of a product × number of products sold
Electric power cost reduction effect	(Total electric power for old models – total electric power for new models) × electric power unit cost
Waste disposal cost reduction effect	(Weight of collected products – weight of final waste) × outside disposal unit cost

We will promote communication with all stakeholders in good faith and expand the network of sustainable environmental management.

To be a going concern that is favorably rated by society, it is important to not only promote environmental conservation activities, but also to make an effort to inform as many people as possible of our philosophy and activities so that we may win public confidence. The active disclosure of information to internal and external stakeholders will contribute to the further activation of activities and the creation of a resource-recirculating society. With the firm belief that environmental communication and conservation activities are the two wheels of sustainable environmental management, the Ricoh Group is expanding its network of the conservation activities through the promotion of communication in good faith.



Communication with Customers

Developing "Live Offices" Globally <Rico Group (Japan and Singapore)>

The Ricoh Group implements rigorous recycling measures through paperless offices and thoroughgoing separation of office waste to create environmentally-friendly offices. We provide customers with the know-how that we have gained from such practices by opening our offices to the public as "live offices." Live offices started in Japan, and currently more than 50 offices have been opened throughout Japan. Ricoh Asia Pacific Pte. Ltd. (RA), a regional sales headquarters in the Asia-Pacific region, stepped up environmental measures at its offices as well. As a result, RA received the Eco Office Certification from the Singapore Environment Council in fiscal 2004 and renewed its certification in fiscal

2007. SAP Asia Pacific and many other customers have visited RA's office to gain firsthand knowledge of the company's know-how for reducing the environmental impact. Applying this know-how, some customers have actually achieved environmentally-friendly offices at their sites. Through this initiative, we are helping to extend the network of sustainable environmental management.



Live office in Japan (Rico Sales)



RA receives Eco Office Certification.

Customer
Interview

INTERVIEW

University of California

The Ricoh Group is actively promoting green marketing throughout the world. In the United States, the Group is promoting sustainable environmental management and implementing a collection, reuse and recycling process for used products and toner cartridges. These initiatives have won admiration and resulted in successful business negotiations. Moreover, the Group is often asked for support as a sustainable environmental management partner. Through its green marketing, Ricoh is working to expand the network of sustainable environmental management.

We meet environmental challenges seriously to build environmental awareness for students who will be future leaders.

The University of California (UC) system boasts leading-edge research achievements in the areas environmental science, energy conservation, sustainable agriculture, global studies and ecology. All of the University's 10 campuses have sustainability committees that lead proactive initiatives to address environmental issues at their respective locations. These groups, comprised of students, faculty, administrators and staff, are leaders in their local communities and the higher education community in highlighting global sustainability issues and raising the awareness of more than 214,000 students at UC who will determine the future of the global environment. In a current project to reduce paper consumption and environmental



University of California
Official Seal and
Ms. Lesley Clark,
Commodity Manager,
Strategic Sourcing Office of
the President



impact, the University is promoting conversion to 30% PCW (Post-Consumer Waste) paper and duplex printing. UC highly evaluates the Ricoh Group's resource-saving and recycling efforts and expects Ricoh to provide the necessary education for our staff and students so that they can fully leverage the environmentally sustainable functions of Ricoh products.

Communication with Suppliers

Supporting Suppliers in Zero-Waste-to-Landfill Activities

<Ricoh Electronics, Inc. (U.S.)>

The California Plant of Ricoh Electronics, Inc. (REI), a manufacturing subsidiary in the U.S., is supporting suppliers in Zero-Waste-to-Landfill activities under the concept of having more partners for the creation of a sustainable society. In fiscal

2007, Memory Experts International, Inc. and U.S. Copy, Inc. followed Triple A Containers, Inc., which achieved Zero-Waste-to-Landfill in fiscal 2005. The recognition that Zero-Waste-to-Landfill is not the goal, but a tool to achieve environmental conservation and produce economic value such as cost reduction, is spreading among the suppliers as well.



People from Memory Experts International achieving Zero-Waste-to-Landfill and REI employees

Green Purchasing

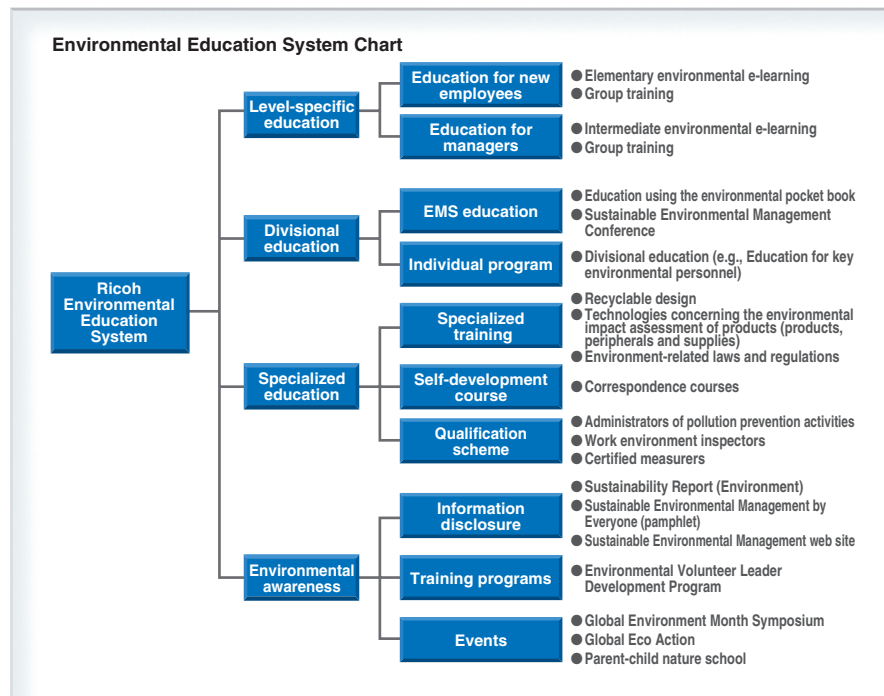
<Ricoh Group (Global)>

The Ricoh Group is promoting green purchasing, which promotes the active use of environmentally-friendly products, as a user of paper, stationery, office equipment, etc. In April 2002, the Ricoh Group formulated Green Purchasing Guidelines in Japan for eight categories: paper, stationery, office equipment, OA equipment, home appliances, work gloves, work uniforms, and lighting. Production and non-production sites outside of Japan are also promoting green purchasing by establishing their own standards.

Environmental Education and Environmental Awareness Building for Employees

Implementation of Educational
Measures Based upon an
Environmental Awareness Survey
<Ricoh Group (Japan)>

To realize all-employee participatory sustainable environmental management, the commitment of senior management and the active efforts of all divisions are essential, and so is the fostering of employees who can carry out sustainable environmental management in their own operations. The results of sustainable environmental management will widely differ depending on the awareness of about 83,000 individual employees of the Ricoh Group around the world. The Ricoh Group defines high environmental awareness as knowledge of the environment and participation in environmental activities. The Ricoh Group takes a variety of measures for environmental awareness activities and education based upon regular environmental awareness surveys of employees, aiming to foster employees who can spontaneously incorporate environmental viewpoints into their own business activities and put them into practice.



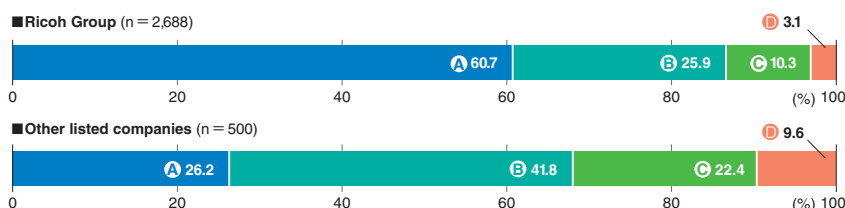
Implementing the Ricoh Group Environmental Awareness Survey in Fiscal 2007

In fiscal 2007, the Ricoh Group conducted a survey to compare the environmental awareness of the Group and that of other companies. The survey aimed to clarify the characteristics of the awareness and behavior of the Ricoh Group employees and gauge the difference in awareness levels compared with other companies, by conducting a similar survey of other companies' employees (about 500 employees of machine- and IT-related companies that are listed on the stock market and have more than 1,000 employees). In the future, the Ricoh Group will organize educational programs based upon the results of the survey.

Results of Survey in Fiscal 2007 (extract)

● Which is the closest to your ideas about environmental conservation and profit generation by companies?

- Ⓐ It is necessary to generate profit through environmental conservation activities.
- Ⓑ It is desirable to generate profit through environmental conservation activities, but not absolutely necessary.
- Ⓒ Environmental conservation activities are necessary, even if they show a deficit.
- Ⓓ I have no definite ideas.



The Ricoh Group employees are more aware of the basic ideas of sustainable environmental management—realization of both environmental conservation and profit generation—than employees of other companies.

Elementary and Intermediate
Environmental e-Learning for
Employees

<Ricoh Group (Japan)>

An elementary e-learning course, "First Steps to Sustainable Environmental Management," was conducted over the in-house LAN for Ricoh employees in fiscal 2006. The curriculum covered "Companies' Missions in Global Environment Problems," "Activity Cases in Respective Divisions," and other subjects, and aimed to enhance understanding and awareness towards sustainable environmental management. In fiscal 2007, the program was expanded to cover employees of other Group companies in Japan. In April 2008, intermediate e-learning was introduced for managers and employees in charge of environmental activities in each division at Ricoh; the curriculum covered how to incorporate environmental viewpoints effectively into operations and how to understand the effects of sustainable environmental management.



Ricoh Group's Sustainable Environmental Management Conference

<Ricoh Group (Global)>

Ricoh Group's 14th Sustainable Environmental Management Conference was held in February 2008. Ricoh Ohmori Office was the main venue of the conference, with Ricoh Head Office and Ricoh Technology Center as satellite venues where simultaneous airing was provided, and a total of 470 employees participated in the conference. The theme was "Let's think of what each one of us should do to help achieve the targets of the 16th Mid-Term Environmental Action Plan!" Lectures titled "Challenges of Life on the Earth," by Mr. Mamoru Mori, an astronaut, and "Developments after the Kyoto Protocol," by Mr. Sakurai, chairman of Ricoh, were followed by a review of the results of sustainable environmental management up to fiscal 2007¹ and an explanation of the 16th Mid-Term Environmental Action Plan² that will start in fiscal 2008. A commendation ceremony for the 6th Ricoh Group Sustainable Development Award was also held during the conference, with "Exercising Sustainable Environmental Management through Realization of Both Environmental Conservation and Business Creation in Product Recycling"³ winning the grand prize. Mr. Kondo, president and CEO of Ricoh, gave general comments and concluded the conference by saying, "Let us promote energy conservation with even higher aims."

1. See page 23.

2. See page 21.

3. See pages 31 and 32.



Ricoh Group employees listening to general comments by Mr. Kondo, president and CEO of Ricoh Co., Ltd.

European Environment Conference <Ricoh Group (Europe)>

The European Environment Conference was held in May 2007 in Halderen in the Netherlands. Seventy people in charge of the environment and recycling efforts from 35 sales subsidiaries and manufacturing subsidiaries in 16 countries in the European region participated in the conference. They reviewed the 15th Mid-Term Environmental Action Plan, confirmed policies and strategies for achieving the targets presented in the 16th Mid-Term Environmental Action Plan, presented excellent cases in respective countries, and actively exchanged opinions about improving relationships with stakeholders. Like last year, trees were planted to offset the CO₂ generated during the conference, but this year's planting of 804 trees was done for "climate neutral," to offset not only CO₂ but also other greenhouse gases such as NO_x and SO_x.

Chinese Environment Conference <Ricoh Group (China)>

The 1st Chinese Environment Conference was held in the head office building of Ricoh China Co., Ltd. (RCN), regional sales headquarters for the China region, in November 2007. One hundred and forty-three people participated in the conference, including the presidents and employees in charge of the environment, sales, or services of group companies in China. The theme was "Promotion of Sustainable Environmental Management and Green Marketing through Coordination of Development/Design, Procurement/Production, Sales/Services, and Logistics." Representatives of companies with respective functions presented environmental conservation activities at their companies. In addition, all the participants visited leading recyclers in China that handle waste from RCN and Shanghai Ricoh Digital Equipment Co., Ltd. (SRD) on consignment. Today's China is faced with rapid growth in environmental awareness. RCN will lead the industry in

sustainable environmental management under the environmental slogan, "To Protect Our China and Our Global Environment!"



Organization of Environment-Related Specialized Training Courses <Ricoh Group (Japan)>

To develop personnel who can manufacture environmentally-friendly products or manage chemical substances properly at their workplaces as sustainable environmental management specialists, environment-related specialized training courses, such as LCA and recyclable design, are organized for employees.

Environment-Related Specialized Training Courses
(Number of Participants)

Name of course	Number of participants in fiscal 2007
Life Cycle Assessment (LCA) (basic)	30
Life Cycle Assessment (LCA) (application)	10
Safety of Supplies (elementary)	20
Safety of Supplies (advanced)	36
Environment-Related Laws and Regulations	64
Noise (basic)	31
Recyclable Design	35
Thermal Design for Office Equipment	17
Ricoh Group's Chemical Substance Management System (outline)	24
Total	267

Communication with Children

The Wonders of a Photocopier Exhibition at Miraikan

<Ricoh (Japan)>

The Wonders of a Photocopier Exhibition was held from June to August 2007 at the National Museum of Emerging Science and Innovation (Miraikan) in Odaiba, Tokyo. Various hands-on exhibits that could be enjoyed by everyone from children to adults were displayed so visitors could learn the attraction of scientific principles that are applied in copiers as well as the significance of global

environmental conservation. A variety of people, including children, families, and students on a school trip, enjoyed wondrous experiences, and the number of visitors during the 70-day exhibition period reached about 70,000. The event was organized in compliance with the official partnership contract Ricoh signed with Miraikan in October 2006.



Ricoh Parent-Child Nature School Held

<Ricoh Group (Japan)>

The sixth Ricoh parent-child nature school was held in July 2007 in Afan Woodland of Kurohime in Nagano Prefecture under the joint sponsorship of Ricoh and the C.W. Nicol Afan Woodland Trust. It was a two-day nature-experiencing program for the Ricoh Group employees and their families to learn the importance of nature through actual experiences. Author C.W. Nicol started buying parcels of land in abandoned community forests—now Afan Woodland—20 years ago, hoping to restore them to rich forests where wild animals and people could co-exist. And today he continues his forest restoration efforts. Twenty-four people from nine families fully enjoyed the nature in the forest through such programs as “Bug Exploration Party,” “Art Therapy,” and “Treasure Hunt in the Forest.”

**Supporting Environmental Activities by Students**

<Ricoh Americas Corporation, Ricoh (Global)>

Various companies of the Ricoh Group lend a hand to student environmental activities. For example, Ricoh Americas Corporation (RAC), the Ricoh Group's regional sales headquarters for the Americas, is one of the major sponsors of the International Science & Engineering Fair (ISEF). ISEF is one of the largest science contests for high school students. About 1,500 students, not only from the U.S. but also from more than 40 other countries and regions, participate in ISEF. RAC has been giving the Ricoh Sustainable Development Award since 2005 to studies contributing to making environmental conservation and business compatible. In fiscal 2007, the best awards were given to Ms. Erica E. David, Mr. Jesper L. Rasmussen, and Mr. Michael K. Madsen,



(From left) RAC employee, Ms. Erica Elizabeth David, Mr. Jesper Lykke Rasmussen, Mr. Michael Kaergaard Madsen, Mr. Ashutosh Patra, and Mr. Parker Owan

while special awards were awarded to Mr. Ashutosh Patra and Mr. Parker Owan. In addition, Ricoh sponsors the School Eco Awards which recognize eco-activities carried out at elementary and junior high schools all over Japan and essays about ecology. The fourth round of awards was given in March 2008.

Environmental Web Site for Children

<Ricoh (Global)>

Ricoh's environmental web site has a learning section for children, “Ecoday Tempel-Tuttle Story.” In it, forest ecosystem conservation activities supported by Ricoh are explained in an easy-to-understand way, using examples from Russia, Ghana, Malaysia, and Japan, and children can learn about environmental problems through quizzes and games.

* <http://www.ricoh.com/environment/ecoday/>

**Disclosing Sustainable Environmental Management Information****Issuance of Sustainability Reports (Environment)**

<Ricoh Group (Global)>

The Ricoh Group's environmental report has been issued annually since its first publication in April 1998, which disclosed fiscal 1996 data. Since the 2004 edition, we have been

issuing, in June, three kinds of reports at the same time; namely, Sustainability Report (Environment), Sustainability Report (Corporate Social Responsibility), and Sustainability Report (Economic). The Sustainability Report (Environment) 2007 was given the Grand Prize of the 11th Environmental Report

Award. The Ricoh Group's sustainability reports can be ordered from our web site.*

* http://www.ricoh.com/about/csr_environment/request/

Environmental Reports Issued by Business Sites

<Ricoh Group (Global)>

To enhance relationships with local communities, Ricoh Group business sites issue their own environmental reports as a means of communication with government offices, residents of neighboring areas, and family members of their employees. The Ricoh Group established the guidelines for the preparation of site reports on environmental conservation for its business sites in fiscal 2001, which is currently used within the Group. Ricoh Fukui Plant was given the Site Report Award of the 11th Environmental Report Award.

Issue Dates of Sustainability Reports (Environment) and Number of Copies Issued

		Date of Issue	No. of Copies	No. of Pages			Date of Issue	No. of Copies	No. of Pages
Ricoh Group Environmental Report 1998	Japanese	Jan. 1999	26,200	30	Ricoh Group Sustainability Report (Environment) 2003	Japanese	Jun. 2003	21,770	84
	English	Jan. 1999	500			English	Sept. 2003	7,000	
Ricoh Group Environmental Report 1999	Japanese	Sept. 1999	51,300	32	Ricoh Group Sustainability Report (Environment) 2004	Japanese	Jun. 2004	18,790	84
	English	Sept. 1999	8,375			English	Sept. 2004	7,000	
Ricoh Group Environmental Report 2000	Japanese	Sept. 2000	45,950	60	Ricoh Group Sustainability Report (Environment) 2005	Japanese	Jun. 2005	18,535	84
	English	Dec. 2000	6,800			English	Sept. 2005	7,000	
Ricoh Group Sustainability Report 2001	Japanese	Sept. 2001	25,950	74	Ricoh Group Sustainability Report (Environment) 2006	Japanese	Jun. 2006	18,270	84
	English	Dec. 2001	7,000			English	Sept. 2006	7,000	
Ricoh Group Sustainability Report (Environment) 2002	Japanese	Jul. 2002	21,315	84	Ricoh Group Sustainability Report (Environment) 2007	Japanese	Jun. 2007	17,700 (As of the end of April 2008)	84
	English	Sept. 2002	6,000			English	Sept. 2007	7,000	

* Reports in Chinese for fiscal 2005 and subsequent years are available on our web site.
<http://www.ricoh.com/environment/report/pdf2007/china/all.pdf> (2007 version)

Environmental Web Site

<Ricoh (Global)>

Ricoh's environmental web site* focuses on visibility, simplicity, and user-friendliness so that visitors can easily find the information they want, including that on efforts made at business sites, environmental information of products, and the latest news. It is also available in English and is linked to affiliates throughout the world. In fiscal 2007, an online interactive questionnaire was started to collect opinions about the Ricoh Group's sustainable environmental management from people visiting Ricoh's web site in Japanese. In the first questionnaire, the respondents were requested to offer opinions about the Ricoh Group's Extra-Long-Term Environmental Vision. During a period of almost five months, 276 people answered the questionnaire, 62% of whom said they agreed with the Extra-Long-Term Environmental Vision. Some of the respondents said, "I highly value that Ricoh sets its targets using the back-casting method from a long-term point of view on a global level, instead of setting short-term profit targets," and, "I would like Ricoh to prove and demonstrate to people in and outside Japan that companies can generate profit while reducing the absolute amount of environmental impact." The response rate of the online interactive questionnaire reached 94%. Ricoh will continue conducting the questionnaire and reflect customers' views in its sustainable environmental management.

* <http://www.ricoh.com/environment/>

Environmental Advertisements

<Ricoh Group (Global)>

Ricoh produces environmental advertisements to inform of its idea of sustainable environmental management based on actual company activities. In fiscal 2007, we launched environmental advertisements with "sustainable society" as the theme. The advertisements aimed to promote the Comet Circle concept, Ricoh's concept of a sustainable society with less environmental impact, by introducing a variety of environmental activities carried out under this concept. Ricoh's environmental advertisements are launched outside as well as inside Japan.

* <http://www.ricoh.com/environment/advertisement/index.html>



Advertisement in a magazine introducing an example of sustainable environmental management



Advertisement in a magazine for environmental awareness building

Exhibitions

<Ricoh Group (Japan)>

In December 2007, Ricoh participated in a general environmental exhibition titled Eco-Products 2007 held at Tokyo Big Sight. Under the theme, "Expanding the Network of Sustainable Environmental Management," Ricoh presented the ideal state of the Earth Ricoh aims to realize, while comprehensively exhibiting technologies, products, and activities relating to sustainable environmental management. On the last day, Prime Minister Fukuda visited Ricoh's booth and experienced using the heat of an iron to erase letters from a rewritable thermal sheet produced by Ricoh.



Prime Minister Fukuda erasing the written letters with an iron

External Lectures

<Ricoh (Japan)>

Ricoh gives lectures to people in every sector, including companies and groups, aiming to expand the network of sustainable environmental management. Ricoh employees talk about the Group's environmental conservation activities so that people can refer to them when they carry out their own activities. The lectures are mainly about the concept of sustainable environmental management, environmental conservation activities in relation to Ricoh's main business, environment-conscious social contribution activities (forest ecosystem conservation by environmental volunteers), and so forth. In fiscal 2007, 33 lectures were delivered at national and other public entities, chambers of commerce and industry, companies, universities, etc.



Ricoh employee giving a lecture (Environmental Communication Symposium sponsored by the Japanese Ministry of the Environment, etc.)

Global Environment Month Symposium

The second Ricoh Global Environment Month Symposium was held in June 2007 at Miraikan in Odaiba, Tokyo. Under the theme, "Aiming to Realize Both Corporate Activities and Conservation of Ecosystem and Biodiversity," representatives from companies and NPOs gave lectures and held a discussion.*

* For details of the symposium, see [page 68](#).



We are making efforts to expand the network of forest ecosystem conservation and enhance our employees' global citizen awareness.

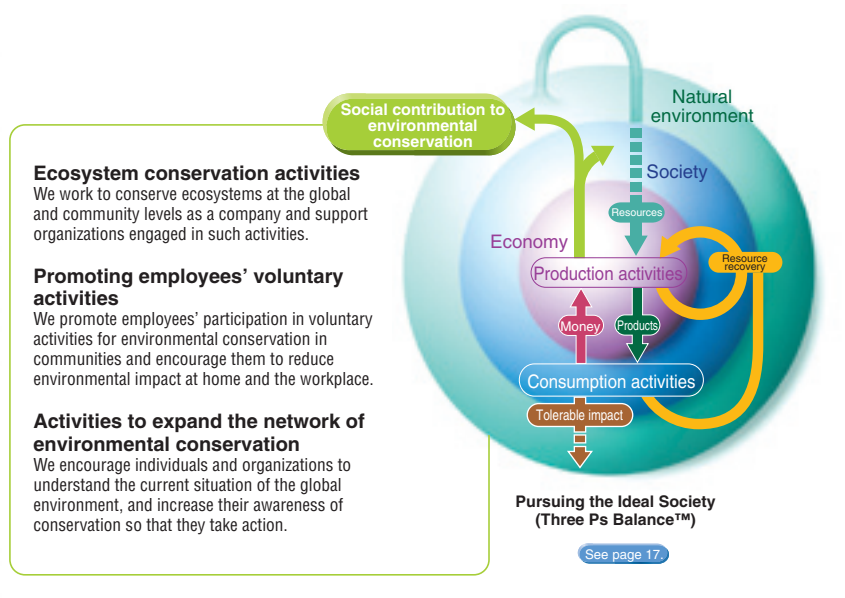
To conserve the global environment, it is important not only to reduce environmental impact, but also to maintain and enhance the self-recovery capabilities of the global environment. Ricoh is promoting forest ecosystem conservation projects in many places all over the world in partnership with environmental NPOs and local communities. Considering that in order to expand the network of this activity and make it more effective, it is important to promote cooperation with other companies and stakeholders, Ricoh is engaged in the promotion of communication through holding symposiums etc. Furthermore, manufacturing subsidiaries and sales subsidiaries in various regions in the world are committed to environment-conscious social contribution activities with NPOs and customers. In Japan, the Ricoh Group is implementing an Environmental Volunteer Leader Development Program to enhance each employee's global citizen awareness and help employees take initiatives in local communities to conserve the global environment.

Forest Ecosystem Conservation Projects

<Ricoch (Global)>

On the earth, various life habitats exist and unique ecosystems are maintained in forests, lakes and ponds, coral reefs, and oceans. If these ecosystems are damaged, the natural environment that is indispensable for maintaining the life of human beings will be harmed. Ricoh places priority particularly on forest ecosystems with rich biodiversity and has been promoting forest ecosystem conservation projects since fiscal 1999 in partnership with environmental NPOs and local communities. Unlike simple afforestation, the main aim of these activities is to protect the habitats of indigenous species and the life of residents, and in such activities, priority is given to creating a partnership with environmental NPOs and local residents. The projects are financed by the social contribution reserve that Ricoh established to continuously carry out social contribution activities. Provided that approval is gained at the general shareholders' meeting, 1% of Ricoh's annual profit after deducting annual dividends is allocated for the reserve (up to ¥0.2 billion).

Three Areas of Environmentally-Friendly Social Contribution Activities



Ricoh's Forest Ecosystem Conservation Projects (As of the end of March 2008)

Start date	Country	Name/NPO	Activity
June 1999	Bangladesh	Restoration of satoyama (community forests)/ Bangladesh Poush	Education of children, development of afforestation activities, and raising saplings (completed in fiscal 2007)
February 2000	Sri Lanka	Conservation and restoration of forests at World Heritage Sites/ Field Ornithology Group of Sri Lanka	Preservation and expansion of forests where the Sri Lankan long-tailed fowl can live (completed in fiscal 2007)
March 2000	Philippines	Restoration of tropical rain forests*/Conservation International	Restoration of rich forests where the Philippine Eagle and other forest creatures can coexist with people
October 2000	Malaysia	Restoration of tropical forests and orangutan habitats*/WWF	Expansion of the habitats of endangered species, including the orangutan
November 2001	China	Restoration of temperate forests and giant panda habitats*/WWF	Conservation of habitats for endangered species, including 437 vertebrates, such as the giant panda, and 4,000 plants, to prevent their extinction (completed in fiscal 2007)
November 2001	Japan	Conservation of the Afan Forest in Kurohime, Nagano*/C.W. Nicol Afan Woodland Trust	Conservation of natural forests that have enough space and food for bears, dormice, and other animals to live and where people can feel close to nature
November 2001	Japan	Conservation of the Yanbaru Forest in Okinawa*/Yanbaru Forest Trust	Conservation of habitats of endangered species unique to the region, including Rallus okinawae
March 2002	Ghana	Restoration of tropical rain forests*/Conservation International	Preservation of forests through sustainable agriculture, specifically, raising cocoa in the shade of trees so that people can live with other living things
May 2004	Russia	Conservation of Taiga, the northern limit habitat of tigers*/ Friends of the Earth Japan (FoE Japan)	Conservation of rich forests where many wild animal species, including the Amur tiger, live harmoniously with people
August 2007	China	Conservation of biodiversity at the Three Parallel Rivers, a World Heritage Site*/Asia Green-Culture Association	Conservation of forests at a World Natural Heritage Site where rare wildlife, including golden monkeys, is observed
August 2007	Brazil	Restoration of forests in Boa Nova, lowland tropical forests along the Atlantic coast*/Bird Life Asia	Restoration of tropical forests along the Atlantic coast which have shrunk to 7% of their original size to create a society where people can live together with forests

* Projects covered under the social contribution reserve system

Projects Completed in Fiscal 2007

With Ricoh's support, the initial targets of three projects were achieved by fiscal 2007. The Project for the Restoration of Temperate Forests and Giant Panda Habitats aimed to restore forests that had been split into sections as a result of farmland development near the wildlife sanctuary in Wolongin, Sichuan Province. As a result of Ricoh's support since 2001, the lives of the residents became stable and coexistence with wildlife started taking hold. Under the Project for the Restoration of Satoyama (Community Forests) in Bangladesh, activities to offer jobs including afforestation and raising of saplings were carried out, as well as those to promote education to stabilize the lives of the poor classes. As a result of the support Ricoh had offered since 1999, 11 schools were established in the southern part of the country. Elementary education and education for sustainable fishery and agriculture are now being provided in these schools. The Project for the Conservation and Restoration of Forests at World Heritage Sites in Sri Lanka aimed to restore the habitats of wildlife that became endangered by the development of forests into farmland in the western part of the country and stabilize the lives of the residents. With Ricoh's support from 2000, the restoration of forests and sustainable use of forests by residents were promoted.

Projects Started in Fiscal 2007

In fiscal 2007, Ricoh decided to offer support to the Project for Forest Ecosystem Conservation at the Three Parallel Rivers in Lijiang, Yunnan Province in China and the Project for the Restoration of Boa Nova Lowland Tropical Forests along the Atlantic coast in Bahia, Brazil. The Three Parallel Rivers is a World Heritage Site where three great rivers of the Chang Jiang, the Mekong, and the Salween run in parallel and magnificent views of the mountains and rivers as well as rare wildlife



The Three Parallel Rivers area in Lijiang, Yunnan Province, China

can be seen. However, the biodiversity there is threatened by poaching, illegal lumbering, overgrazing, etc. Under the local project promoted by Asia Green-Culture Association, the association is engaged in activities to leave nature with rich biodiversity to the next generations. In Bahia, Brazil, the area of tropical rain forests that used to cover the Atlantic coast shrank to 7% of their original size due to illegal lumbering, plantations, slash-and-burn farming, overgrazing, and so forth. The local project carried out by Bird Life Asia aims to create a resource-recirculating society where the residents can live together with the forests through agroforestry.

Project for the Restoration of Tropical Rain Forests in Ghana

Ghana is the second largest producer of cacao in the world. To grow cacao, they used to clear tropical forests and move to another place when the land became sterile after a few years. This process had been repeated many times. Partly because of an increase in population in recent years, however, many tropical forests in various parts of the country have been cut down and split into small sec-

tions. Conservation International launched a project to restore tropical rain forests through cultivating cacao and Ricoh has supported the project since 2002. Under the project, efforts are being made to increase the income of farmers in the local community and stabilize their lives while maintaining the environment of virgin forests and operating agriculture successfully by organically cultivating cacao, which grows well even in the shade of trees, in the areas around virgin forests. This cultivation method, which does not require the cutting down of forests, has led to an increase in the crop, which will contribute to the development of the community.



The cacao harvest increased to eight times its normal size in the most successful case

TOPIC

Ricoh Global Environment Month Symposium
For Joint Creation of a Sustainable Society
Part II: Aiming to Realize Both Corporate Activities and Conservation of Ecosystem and Biodiversity

A total of 204 people from companies, NPOs, etc. participated in a meeting to think about the realization of both corporate activities and conservation of biodiversity.



Total number of participants: 204
(122 from companies, 27 from NPOs, 12 from administrative bodies, and 43 from the Ricoh Group)

The second Ricoh Global Environment Month Symposium was held in June 2007. The symposium aimed to discover how corporate economic activities are related to biodiversity and how companies should address biodiversity issues. It started with a special message, "The Responsibility of Human Beings as Life on the Earth," which was delivered by Mr. Mamoru Mori, Executive Director of Miraikan, where the symposium was held. Following the message, representatives from companies, NPOs, etc. gave lectures and actively exchanged opinions. "I felt that participants from companies were even keener than last year," said a person from an NPO, while a company participant said, "The symposium gave me a good chance to think about whether we could establish company policies on biodiversity that would not be affected even if the top management of the company were replaced."

Promotion of Environmental Volunteer Activities

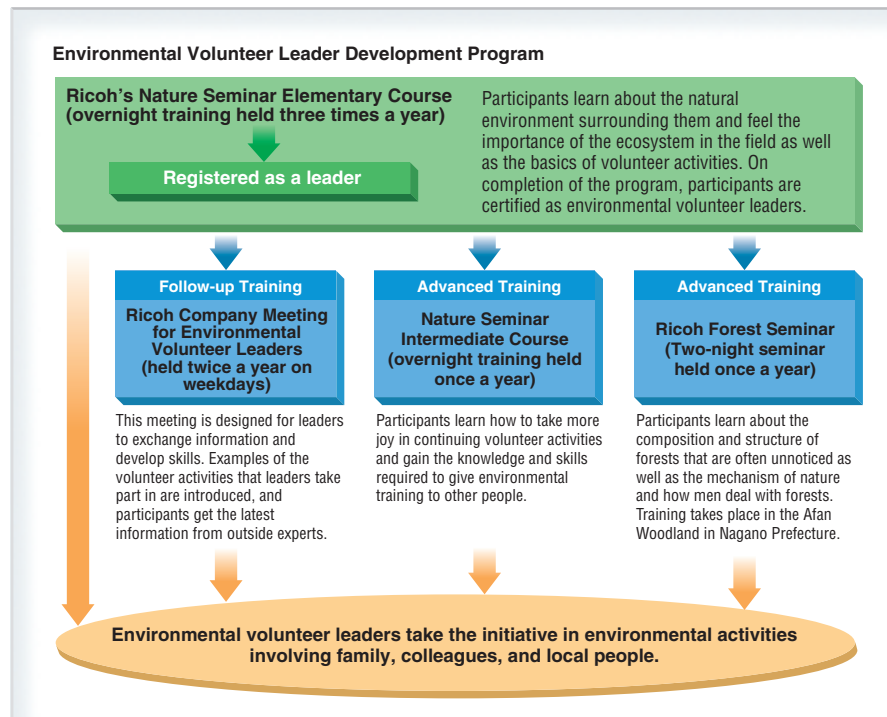
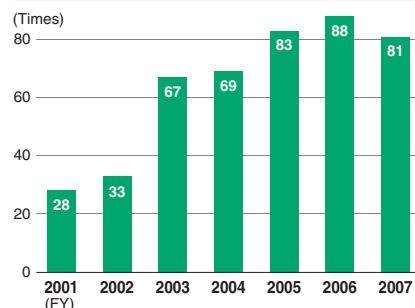
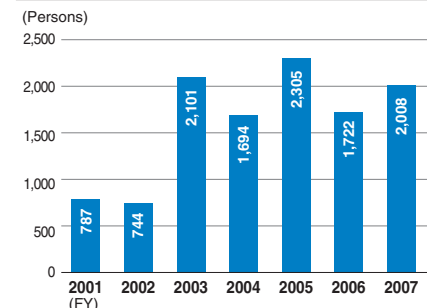
Promotion of Environmental
Volunteer Activities

<Ricoh Group (Japan)>

For the conservation of the global environment, it is important for each staff member to carry out activities spontaneously inside and outside the company, maintaining a sense of being a global citizen. Ricoh launched the Environmental Volunteer Leader Development Program in June 1999 as part of its staff training and expanded the program in fiscal 2001 to include staff members working at group companies as well as retired employees. By the end of fiscal 2007, 412 environmental volunteer leaders, including directors, had been fostered. The programs consist of Nature Seminar Elementary Courses, Nature Seminar Intermediate Courses, Forest Seminars, and Ricoh Company Meetings for Environmental Volunteer Leaders. Activities after the seminars are also followed up. After taking a Nature Seminar Elementary Course, each participant engages in volunteer activities involving his or her division or community. Environmental volunteer leaders have expanded their activities significantly. Although at first they worked only with their families and friends, they now participate in more extensive activities involving local children and communities.

Ricoh Company Meeting for
Environmental Volunteer Leaders

On February 28, 2007, the 22nd Ricoh Company Meeting for Environmental Volunteer Leaders was held at Ricoh Atsugi Plant. The meeting, designed for leaders to develop skills and exchange information, is held twice a year as part of the Environmental Volunteer Leader Development Program. The theme this time was "To Expand the Network of Natural Environment Conservation into the Community." About 90 people participated in the meeting—including not only environmental volunteer leaders, but also other Ricoh employees, as well as representatives from other companies in the Atsugi area, administrative bodies and NPOs.

Number of Activities Sponsored by
Environmental Volunteer LeadersNumber of Participants in Activities Sponsored
by Environmental Volunteer Leaders

People from NPOs that have been working to expand the network of natural environment conservation through environmental education were invited to give lectures, and they talked about the purposes and methods of promotion as well as troubles they went through and their creative ideas. In the panel discussion, Ricoh employees certified as environmental volunteer leaders joined the lecturers, and they had a lively discussion about the issues and the roles of companies and individuals that must be considered when expanding the network of natural environment conservation into the community through volunteer activities.



Trash Survey in Tanzawa

On May 12, 12 Ricoh Group employees participated in the survey of trash in Tanzawa, organized jointly by Tanzawa Gomi Chosa-Kai and Yokohama Miroku Sangaku-Kai. This project aims to help prevent careless discarding of trash by surveying and collecting trash left on mountain trails and identifying the reasons why such trash is thrown away. They collected 11 bags of burnable trash and 17 bags of unburnable trash on the day.



Environmental Volunteer Activities

Community Forest Conservation on Mt. Satsuki (Mt. Sekku) in Ikeda City

On May 19, 10 Ricoh environmental volunteer leaders and Ricoh Group employees participated in the satoyama (community forests) conservation activities organized by Satsukiyama Green Echo on Mt. Satsuki (Mt. Sekku) in Ikeda City, Osaka Prefecture. They cut down withered bamboos and cleared the forest floor, and as a result, the bamboo forest that used to be thick with bamboos turned into a new bright forest.



Thicket Conservation by Lake Shinsei

On June 12, 9 people, including members of the Hatano Thicket Conservation Group, one of Ricoh's environmental volunteer groups, and their families, carried out conservation activities in thickets by Lake Shinsei in the suburbs of Hadano City, Kanagawa Prefecture. They weeded and picked up small branches. They then made wood chips from the collected branches and spread them on footpaths, which was welcomed by local residents who said, "Now it's easier to walk."



Conservation of Afan Woodland

On September 23 and 24, 11 members of Ricoh Yadoriki Shinboku Group carried out conservation activities in Afan Woodland in Kurohime, Nagano Prefecture. To cooperate with the C.W. Nicol Afan Woodland Trust in forest conservation activities, they surveyed the vegetation of the trees in the woodland that the Trust planted 4 years ago, and weeded the new lot of land the Trust purchased.



Replacement of Thatched Roofs of an Old Private House Designated as a Cultural Asset

On November 10, 10 members of Shishigaya Green Zone Conservation Group, a Ricoh environmental volunteer group, helped replace the thatched roof of the Yokomizo Residence, an old private house located in Tsurumi-ku, Yokohama City that is designated as a cultural asset. They carried away waste thatch and took care of other work, and the locals, including people related to the old house, were really thankful.



Conservation of Ricoh Chiba's Fureai-no-Mori

On November 17, 30 people, including members of Wakaba-Ku Shimoizumi Satoyama Conservation Group for Ricoh Chiba's Fureai-no-Mori, one of Ricoh's environmental volunteer groups, and their families, carried out forest conservation activities for the 34th time. Amid the chill of late autumn, they thinned Japanese cedars and repaired steps in the forest, aiming to create a mixed forest.



Sample Activities in Japan

2007 Festa Coste del Gomi in Senbonhama in Shizuoka Prefecture <Ricoh Numazu Plant etc.>

On June 17, 130 people, which was the largest number ever, participated in 2007 Festa Coste del Gomi in Senbonhama held in Numazu, Shizuoka. They included employees of Ricoh Numazu Plant and Ricoh Group companies, staff members of temporary staffing agencies, and their families. Parents and children collected trash during a "treasure hunt" and enjoyed this worthwhile event.



Creation of Hyakunen-no-Mori and Aya-no-Mori in Shizuoka Prefecture <Shizuoka Ricoh Co., Ltd., Ricoh Chubu Co., Ltd.>

On September 16, 7 employees of Shizuoka Ricoh Co., Ltd. and Ricoh Chubu Co., Ltd. participated in the Hyakunen-no-Mori and Aya-no-Mori Project carried out in the Sumatakyo Valley along the upper course of Oi River. This project is part of activities to replace conifers with broad-leaved trees to vitalize mountains and forests. They built fences to protect young trees from deer and Japanese antelopes.



"Forests on Mt. Fuji Created by the Green Fund-Raising Campaign" in Shizuoka Prefecture <Ricoh Leasing Co., Ltd., etc.>

On September 1, 160 employees of Ricoh Leasing Co., Ltd. and the Ricoh Group joined activities in "Forests on Mt. Fuji Created by the Green Fund-Raising Campaign," sponsored by the National Land Afforestation Promotion Organization. Since fiscal 2005, Ricoh Leasing has donated to the Project to Restore National Forests at the Foot of Mt. Fuji while engaging in conservation activities twice a year. The national forests were seriously damaged by a typhoon in 1996. This time, participants conducted weeding to help the previously planted trees grow.



Beautification and Conservation of Natural Forest Environment in Yamanashi Prefecture <Yamanashi Branch of Ricoh Sales Co., Ltd., etc.>

On October 20, 35 employees of Ricoh Sales Co., Ltd. and the Ricoh Group weeded and culled excessive Japanese larches in the community forest preserve surrounding Sawara Pond on Mt. Amari in Yamanashi Prefecture. They were the first activities that were carried out in compliance with the Community Forest Preserve Maintenance Agreement concluded by Yamanashi Prefecture, Nirasaki City, and the Yamanashi Branch of Ricoh Sales. They plan to conduct such activities continually twice a year.



Conservation Activities for a Forest Park in Ibaraki Prefecture <Ricoh Printing Systems, Ltd.>

On September 2, 16 employees of Ricoh Printing Systems, Ltd. carried out conservation activities in a forest park in Mito City, Ibaraki Prefecture. Under the comfortable weather, they struggled with the unaccustomed use of scythes for weeding. After the hard work, they listened to a member of the Ibaraki Forest Club, which offered support to the activities, talk about forest volunteer activities.



Afforestation Activities to Develop Forests Rich in Water and Greenery in Miyazaki Prefecture <Miyazaki Ricoh Co., Ltd.>

On March 20, volunteer activities to develop forests rich in water and greenery, organized by Miyazaki Prefecture, were carried out in Kiyotake Citizens' Forest, where seven people from Miyazaki Ricoh Co., Ltd., including their families, participated. All in all, 270 people participated, planting about 2,000 wild cherry trees, blue Japanese oaks, etc. all at once.



Map of Forest Conservation Activities by Sales Subsidiaries in Japan

Hokkaido

- Volunteer activities to restore the forest on Mt. Tarumae (Hokkaido Ricoh)
- Arbor Day in Sennen-no-Mori (Hokkaido Ricoh)
- Moiwayama Cleanup Climb (Hokkaido Ricoh)
- 58th National Arbor Day (Hokkaido Ricoh)

Akita Prefecture

- Social gathering for forest volunteers (Akita Ricoh)
- Tree planting volunteer experience on Mt. Shirakami (Akita Ricoh)
- Tree planting volunteer experience at Shimohama Beach (Akita Ricoh)
- Japanese beech planting volunteer experience on Mt. Ryugamori (Akita Ricoh)

Iwate Prefecture

- Morioka Afforestation Festival by Citizens (Iwate Ricoh)

Yamagata Prefecture

- Yamagata Mori-no-Kanshasai (Yamagata Ricoh)

Miyagi Prefecture

- Arbor Day in Zao (Ricoch Tohoku)

Fukushima Prefecture

- Afforestation activities on Mt. Myonjingadake (Fukushima Ricoh)
- Afforestation activities on Mt. Hakase (Fukushima Ricoh and Ricoh Technosystems)

Gunma Prefecture

- Arbor Day in Gunma Prefecture (Gunma Ricoh)
- Afforestation activities in Mine Park (Gunma Ricoh)

Saitama Prefecture

- Thicket conservation on Mt. Kannon (Ricoch Sales and Ricoh)
- Conservation of Sayama Hills (Ricoch Sales, Ricoh Technosystems, and Ricoh)
- Conservation of Ohya thicket in Higashimatsuyama City (Ricoch Sales, Ricoh Technosystems, Ricoh Software, and Ricoh)

Chiba Prefecture

- Conservation of Ricoh Chiba's Fureai-no-Mori (Ricoch Sales, Ricoh Technosystems, NBS Ricoh, and Ricoh)

Tokyo

- Tachikawa Kids Nature Exploration (Ricoch Sales)

Kanagawa Prefecture

- Conservation of Shishigaya Green Zone (Ricoch Sales, Ricoh Technosystems, and Ricoh)
- Maintenance of bamboo forest in Murase-no-Mori (Ricoch Sales)
- Community nature conservation activities (Ricoch Sales)
- Conservation of Harudake-no-Mori (Ricoch Sales)
- Gathering at the Yadoriki spring in Kanagawa Prefecture (Ricoch Sales)
- Thicket conservation by Lake Shinsei (Ricoch Sales)

Yamanashi Prefecture

- Environmental beautification and conservation activities for natural forests (Ricoch Sales and Ricoh Technosystems)
- Cleanup campaign on Mt. Fuji (Yamanashi Ricoh)

Shizuoka Prefecture

- Afforestation activities on Mt. Fuji (Ricoch Sales and Ricoh)
- Forests on Mt. Fuji Created by the Green Fund-Raising Campaign (Ricoch Sales, Ricoh Leasing, and Ricoh)
- Hyakunen-no-Mori and Aya-no-Mori Project (Shizuoka Ricoh and Ricoh Chubu)

Mie Prefecture

- 35th Suzuka Range Cleanup Climb (Mie Ricoh)

Nara Prefecture

- Afforestation volunteer experience (Nara Ricoh)

Fukui Prefecture

- Maintenance of the environment in Boken-no-Mori on Mt. Jouyama (Fukui Ricoh)

Osaka Prefecture

- Conservation activities on Mt. Sekku by Ikeda Green Echo (Ricoch Kansai)

Tottori Prefecture

- 53rd Arbor Day in Tottori Prefecture (Tottori Ricoh)
- Festival of Thanks for Forest Blessings (Tottori Ricoh)

Okayama Prefecture

- Conservation of Kurashiki Beautiful Forest (Okayama Ricoh and Ricoh Technosystems)

Shimane Prefecture

- Afforestation activities in the Yasugi area (Shimane Ricoh)

Kochi Prefecture

- Conservation of the Hokigamine Forest Park (Shikoku Ricoh)

Fukuoka Prefecture

- Planting of 100,000 trees in Koga City (Ricoch Kyushu)
- Conservation of the Onojo Trust Forest (Ricoch Kyushu)

Oita Prefecture

- Tree planting activities around the Kitsuki Cultural Gymnasium (Oita Ricoh)

Miyazaki Prefecture

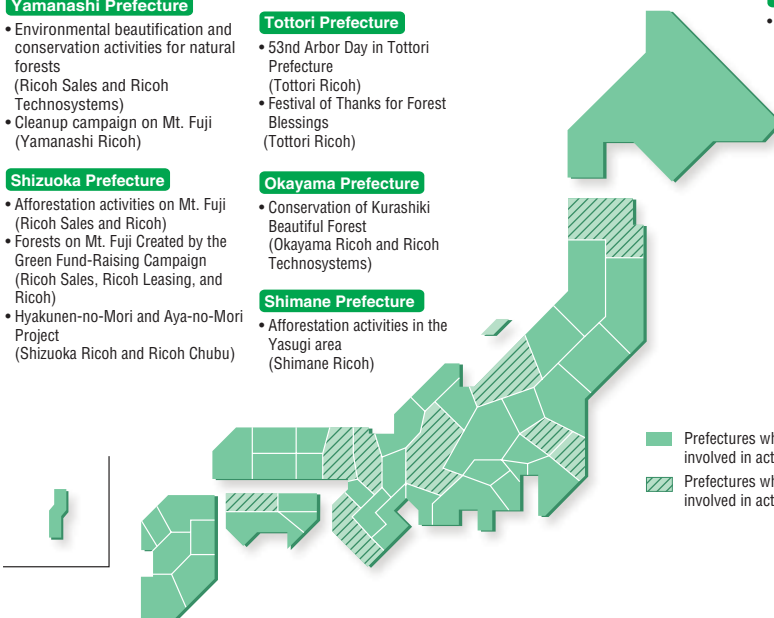
- Afforestation activities in the Kanmuridake Furusato Millennium Forest (Miyazaki Ricoh)
- Development of forests rich in water and greenery (Miyazaki Ricoh)
- Afforestation activities by the Acorn Millennium Forest Project (Ricoch Technosystems)

Kagoshima Prefecture

- Kyushu Homeland Forestation Program (Kagoshima Ricoh)

Okinawa Prefecture

- Green Growing Festival (Okinawa Ricoh)



- Prefectures where Ricoh Group companies were involved in activities in fiscal 2007
- ▨ Prefectures where Ricoh Group companies were not involved in activities in fiscal 2007

Nagano Prefecture

- Activities to conserve Nagano Citizens' Forest (Nagano Ricoh)

Toyama Prefecture

- Forest Festival in Toyama (Toyama Ricoh)

Ishikawa Prefecture

- Volunteer activities for Oonumi Green Tourism Promotion Council (Ishikawa Ricoh)

Aichi Prefecture

- Nagoya Higashiyama Forest Conservation Group (Ricoch Chubu and Ricoh Technosystems)

Shiga Prefecture

- Environmental conservation activities in forests on Mt. Konze (Shiga Ricoh)

Hiroshima Prefecture

- Volunteer activities for Gongenzan Ikoi-no-Mori (Ricoch Chugoku)

Yamaguchi Prefecture

- Afforestation at springs (Yamaguchi Ricoh)
- Fiscal 2007 campaign to protect and maintain planted trees (Yamaguchi Ricoh)

Tokushima Prefecture

- Conservation of forests owned by Kamiyama-cho (Shikoku Ricoh)

Kagawa Prefecture

- Conservation of Kagawa Fureai-no-Mori (Shikoku Ricoh)

Saga Prefecture

- The 22nd-Century Asian Forest Project (Saga Ricoh)
- Kyushu Homeland Forestation Program in Omachi (Saga Ricoh)

Nagasaki Prefecture

- Forestation volunteer experience on Mt. Unzen-Fugen (Nagasaki Ricoh, Ricoh Technosystems, and Ricoh Logistics System)

Kumamoto Prefecture

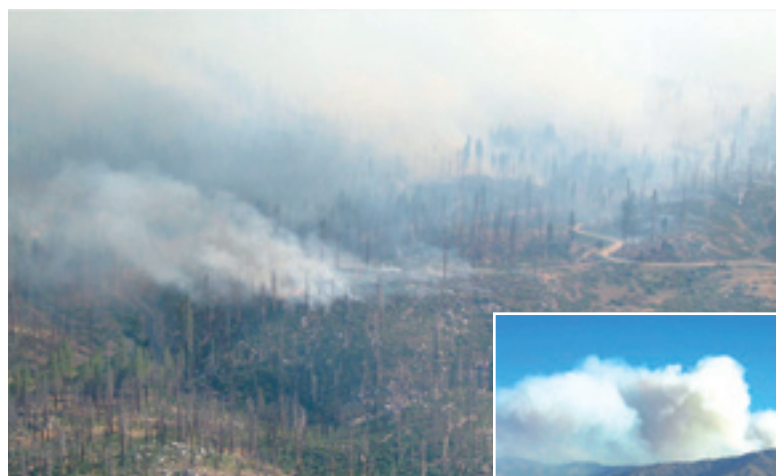
- Forest conservation by Aso YMCA (Kumamoto Ricoh)
- Conservation of the Blue Clean Green Forest (Kumamoto Ricoh)

Sample Activities outside Japan

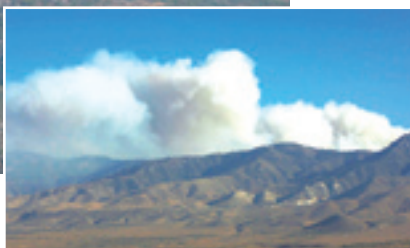
Tree Planting Activities in Cooperation with Customers

<Ricoh Hong Kong Limited (Hong Kong)>

Ricoh Hong Kong Limited (RHK), a sales subsidiary, has engaged in the restoration of woodland in Tai Lam Country Park, ravaged by forest fire in 2006. The kick-off ceremony held on June 9, 2007 was attended by more than 100 people in total, including RHK employees, their family members and staff from 12 customer companies. More than 10,000 trees will be planted on two hectares of land over the next three years. RHK believes that to preserve the environment, it is also important to raise the awareness of employees and customers through environment-conscious social contribution activities.



Large-scale fire in San Bernardino in Southern California



Support for Restoration of Forests Destroyed in Large-Scale Fire

<Ricoh Americas Corporation (U.S.)>

In October 2007, a large-scale fire broke out in southern California and destroyed vast areas of forest. Ricoh Americas Corporation (RAC), Ricoh's regional sales headquarters for the Americas, donated \$10,000 in March 2008 for the restoration of approximately 100 million acres* of woodland in the San Bernardino National Forest destroyed in the fire. This gift of money will be used to grow seedlings of endangered species. Nursery trees will be planted in fiscal 2009.

* One acre is about 4,047 m².

Support for Mangrove Planting in a National Park

<Ricoh (Malaysia) Sdn. Bhd. (Malaysia)>

Ricoh (Malaysia) Sdn. Bhd. (RMS), a sales subsidiary, planted mangrove seedlings in Tanjung Piai National Park from November 10 to 12, 2007. Looking out on the Straits of Malacca, the national park serves as a corridor that connects two important marshlands. The activity attracted 70 RMS employees, 59 students and volunteers and five customers. They listened to a talk on the roles played by mangrove forests and marshlands in the ecosystem and then planted 500 mangrove seedlings.



TOPIC

Leadership in Environmental Conservation in Local Community

We are expanding the network of local environmental conservation activities through environmental awareness building and vegetable garden experience programs for children.

<Ricoh Distribution Center (Uruguay)>

Organically grown vegetables donated to a local elementary school

At Ricoh Distribution Center (RDC), a distribution site in Uruguay, employees grow squashes, onions, cabbages and other vegetables organically, using organic waste generated from employees' leftover meals. This effort is promoted by volunteer employees as a part of Ricoh's Zero-Waste-to-Landfill activities. RDC started reclaiming land in fiscal 2003, sowed seeds in October 2004 and harvested vegetables for the first time in March 2005. Harvested vegetables are always donated to Villa Castellana Elementary School, as a contribution to the local community.

Raising children's awareness of environmental conservation

Exchanges with the elementary school began before the vegetable donation program. Since 2003, RDC has put together books on global warming and water, read them to students and donated the books on a continuous basis to raise awareness of environmental issues in the local community. Moreover, since fiscal 2007, RDC has invited students at EYTAC, a school for disabled children in Montevideo, the capital of Uruguay, to visit RDC's vegetable garden and offered them the opportunity to try vegetable gardening and interact with nature, which cannot be experienced through ordinary school programs. In fiscal 2008, RDC plans to keep bees, harvest the organic honey and donate it to the school.



Harvesting vegetables grown by employee volunteers

Calling for support for environmental conservation

RDC informs the local community of its environmental activities and calls for support for its activities through local newspapers in an effort to expand the network of environmental conservation. As a result, more companies have started support activities in the Free Zone area where RDC is located.

Expanding the Network of Tree Planting Activities

<Ricoh New Zealand Ltd. (New Zealand)>

The Auckland office of sales subsidiary Ricoh New Zealand Ltd. (RNZ) started its tree planting program on Motuihe Island in 2004. Thus far, the Ricoh Auckland staff have planted 6,500 trees. For its 2007 activities, its fourth visit to the Island, the office invited customers and their families in addition to its employees and their families. Ninety-six participants completed the planting of 1,500 seedlings in a record-breaking one hour. Afterwards, they had a good time and enjoyed a barbecue. The children also enjoyed playing in the tree planting area and on the beach. Later, the office received words of gratitude from the customers who were invited.



Ricoh Co., Ltd., was established in Japan on February 6, 1936. The Ricoh Group consists of Ricoh Co., Ltd., 306 subsidiaries, and 11 affiliates.* The Ricoh Group engages in activities on a global scale that include the development, production, marketing, after-sales services, and recycling of office equipment including copiers and printers in five regions around the world (Japan, the Americas, Europe, China, and the Asia-Pacific region). The Group has approximately 83,500 employees.

* The definition of a subsidiary/affiliate follows the U.S. Generally Accepted Accounting Principles (U.S. GAAP), which differ slightly from the definition given in Japan's GAAP.

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Ricoh Group Brands

The Ricoh Group markets products under the following brand names.

● Brand logos

RICOH

SAVIN®

nashuatec

Rex•Rotary

Gestetner

LANIER

infotec

RICOH | IBM
InfoPrint Solutions Company™

Office Solutions

● Imaging Solutions

Digital copiers, color copiers, analog copiers, printing machines, facsimiles, diazo copiers, scanners, multifunction printers (MFP), printers, and related supplies and maintenance services, related software, and others

● Network System Solutions

Personal computers, servers, networking equipment, network-related software, applications, services and support, others

Industrial Products

Thermal media, optical devices, semiconductors, electronic component units, measuring instruments, and others

Other

Optical disk-compatible products, digital cameras, and others

Targeted Period/Scope of This Report

Targeted Period

This report describes the sustainable environmental management activities of the Ricoh Group in fiscal 2007 (April 1, 2007 to March 31, 2008).

Environmental impact and environmental accounting data: fiscal 2007 data

Descriptions in articles and chronological tables: fiscal 2007 data (in principle)

The environmental impact and environmental accounting data are taken from the Ricoh Group's major business sites in five regions—Japan, the Americas, Europe, China, and the Asia-Pacific region—and as such, may differ from Ricoh Group data presented elsewhere in this report, e.g., in the organization profile. The Ricoh name refers to Ricoh Co., Ltd, not the Ricoh Group as a whole.

● Important Organizational Changes Made During the Report Period

On June 1, 2007, Ricoh and International Business Machines Corporation (IBM) established a joint venture company called InfoPrint Solutions Company LLC. (IPS). While Ricoh and IBM respectively own 51% and 49% of IPS initially, Ricoh will progressively increase its stake in IPS over the next three years as the joint venture evolves into a fully owned subsidiary of Ricoh. IPS began its operations based on the former IBM Printing Systems Division (fiscal 2006 sales of about \$1.0 billion; employees numbering about 1,200). Within a year of the establishment, some 1,000 IBM printer maintenance specialists are expected to transfer to IPS.

● Past and Future Reports

The Ricoh Group has published annual environmental reports every year since 1997, which covered fiscal 1996. The 2008 Report in English was issued in September 2008. The 2009 Report in English will be issued in September 2009.

Scope of Collection of Environmental Impact and Environmental Accounting Data

Environmental impact and environmental accounting data are collected from Ricoh's production and non-production sites and Ricoh Group companies that have established their own sustainable management systems.

■ Japan

- **Ricoh production sites:**
Atsugi Plant, Hatano Plant, Numazu Plant, Gotemba Plant, Fukui Plant, Ikeda Plant, Yashiro Plant
- **Ricoh non-production sites:**
Head Office, Ohmori Office, Ricoh System Center, Shin-Yokohama Office, Ricoh Service Parts Center, Research and Development Center, Software Research Center, Toda Technical Center, Applied Electronics Laboratory, Technology Center
- **Ricoh Group major manufacturing subsidiaries:**
Tohoku Ricoh Co., Ltd.; Hasama Ricoh, Inc.; Ricoh Unitech Co., Ltd.; Ricoh Optical Industries Co., Ltd.; Ricoh Keiki Co., Ltd.; Ricoh Microelectronics Co., Ltd.; Ricoh Elemex Corporation; Ricoh Printing Systems, Ltd.¹; Yamanashi Electronics Co., Ltd.⁴
- **Ricoh Group major non-manufacturing subsidiaries:**
Ricoh Logistics System Co., Ltd.; Ricoh Technosystems Co., Ltd.; 6 sales administration companies; 29 sales subsidiaries; NBS Ricoh Co., Ltd.; Part Component System Co., Ltd.²; Ricoh Leasing Co., Ltd.³; Ricoh San-ai Service Co., Ltd.³

■ The Americas

- **Manufacturing subsidiary:**
Ricoh Electronics, Inc. (U.S.A.)
- **Non-manufacturing subsidiaries:**
Ricoh Americas Corporation (U.S.A.)
Ricoh Canada Inc. (Canada)³
Ricoh Latin America, Inc. (U.S.A.)³

■ Europe

- **Manufacturing subsidiaries:**
Ricoh UK Products Ltd. (U.K.)
Ricoh Industrie France S.A.S. (France)
- **Non-manufacturing subsidiaries:**
Ricoh Europe PLC (U.K.)
Ricoh Europe (Netherlands) B.V. and 26 sales subsidiaries in the region

■ China

- **Manufacturing subsidiaries:**
Ricoh Asia Industry (Shenzhen) Ltd. (China)
Shanghai Ricoh Facsimile Co., Ltd. (China)
Shanghai Ricoh Digital Equipment Co., Ltd. (China)⁴

■ Asia-Pacific Region

- **Non-manufacturing subsidiary:**
Ricoh Asia Pacific Pte. Ltd. (Singapore)

1. Environmental impact data are given in the Business Site Data. [See page 79.](#)
2. Environmental accounting data only
3. Environmental impact data only
4. Only environmental impact data are given in the Business Site Data. [See page 79.](#)

Corporate Philosophy/General Principles on the Environment/Management Philosophy/
Principles of the Environmental Reporting

Corporate Philosophy

The Ricoh Group's corporate philosophy "The Spirit of Three Loves" was established by its founder, Kiyoshi Ichimura. He explained the philosophy as follows: Everyone at least loves himself/herself. As time passes, however, this feeling of love grows and expands to include all people, plants, and animals in the world. This philosophy drives the Ricoh Group toward better sustainable environmental management.

—The Spirit of Three Loves—
Love your neighbor
Love your country
Love your work

Management Philosophy

Ricoh's management philosophy was formally introduced in 1986 based on the corporate philosophy of "The Spirit of Three Loves" in order to establish and nurture the corporate culture and system to ensure survival in a time filled with increasing change, information-oriented societies, diverse values, and more intense competition.

- Our Purpose** To constantly create new value for the world at the interface of people and information
- Our Goal** To be a good global corporate citizen with reliability and appeal
- Our Principles**
- To think as an entrepreneur
 - To put ourselves in the other person's place
 - To find personal value in our work

Environmental Principles

Ricoh introduced the Ricoh Environmental Principles, which are based on its management philosophy, in 1992 and revised them in 1998, 2004, and 2008. These principles show Ricoh's commitment to sustainable environmental management and are widely disclosed to the public through various media, including Web sites. Based on these principles, Ricoh Group companies have independently established and managed their own rules regarding the environment according to their business type.

Basic Policy

As a global citizen, the Ricoh Group is obligation-conscious of environmental conservation. In addition, we strive to honor our environmental responsibilities and concentrate group-wide efforts in environmental conservation activities, implementation of which we believe to be as significant as our business operations.

Action Guideline

1. Achieve superior targets
Complying with laws and regulations as a matter of course, we dutifully fulfill our environmental responsibilities, setting targets that go ahead of those that society currently requires, and by achieving these, create economic values.
2. Develop innovative environmental technologies
We will take steps to develop and promote innovative environmental technologies that will give increased value to our customers and can be utilized by various people.
3. Encourage all employees to participate in environmental activities
In all our business activities, we strive for awareness of environmental impact, thereby involving all Ricoh employees in implementing continuous improvements to prevent pollution, and use energy and natural resources more efficiently.
4. Be attentive to product lifecycle
To provide our products and services, we spare no effort to reduce environmental effects in all stages of the product lifecycle, from procurement, manufacturing, sale, and logistics, to usage, recycling, and disposal.
5. Improve employees' environmental awareness
We at Ricoh wish each employee to be attentive to a broader range of social issues and mindful of enhancing environmental awareness through proactive learning processes, designed to commit the employee to environmental conservation activities according to his or her responsibility.
6. Contribute to society
By participating in and supporting environmental conservation activities, we will contribute to creating a sustainable society.
7. Optimize communication with stakeholders
Rico Group will expand its environmental conservation activities with stakeholders. In addition, we will fully communicate and proactively cooperate with our stakeholders to reassure communities of our dependability and commitment to the environment.

February 2008

Principles of the Environmental Reporting

In fiscal 2001, Ricoh established principles of environmental reporting, which comprise requisites for providing information useful to stakeholders when they make their decisions on sustainable environmental management. The environmental reporting is based on corporate accounting principles as no official principles or terminology have been developed for sustainable reporting.

1. The environmental reporting must contain true statements about companies' state of sustainable environmental management¹.
2. The environmental reporting must fairly represent the results of all the sustainable environmental management activities².
3. The environmental reporting must clearly represent the facts necessary for stakeholders not to misjudge the environmental impact of companies^{3 and 4}.
4. The environmental reporting must continuously reflect the principles and procedures of basic data processing and representation methods every fiscal year and may not change those principles, procedures, and representation methods without good reason⁵.

Notes:

1. "Companies" refer to the Ricoh Group as a whole, Group companies, and/or their business sites, depending on the coverage and level of the report.
2. The avoidance of disclosing negative information shall not be regarded as a fair representation of all information.
3. The state of companies' environmental risk management shall be included in the information stakeholders use in decision making.
4. Significant subsequent events shall be described in the report. Subsequent events refer to events that occur during the period from the day after the reporting period ends to the date the report is completed. Such events may influence the state of companies' sustainable environmental management from the next fiscal year onward.

Examples of significant subsequent events are as follows:

- a) Critical damage caused by environmental pollutants and similar causes
 - b) The announcement and implementation of large environment-related investment projects
 - c) The assignment and transfer of significant environment-oriented business transactions
 - d) Significant, controversial environment-related cases that arose or were solved
 - e) The announcement of significant development in environment-oriented technologies
- Subsequent events disclosed as notes are useful as supplemental information to determine the state of companies for future sustainable environmental management.
5. Ongoing applications may be cancelled only if there is good reason and it has been determined that environmental reporting would be more rational if it followed procedure or if there were changes in representation. "Good reason" includes significant changes in company management policies, business reorganization, drastic technological innovation, and amendments in and the abolition of relevant laws, regulations, and standards.

The Ricoh Group's Environmental Conservation Activities in Fiscal 2007

■ Fiscal 2007 (from April 2007 to March 2008)

	The Ricoh Group's Activities		Society's Recognition of the Ricoh Group's Activities
2007 May	Ricoh Americas Corporation (RAC) presents the Ricoh Sustainable Environment Award in the International Science & Engineering Fair (ISEF), one of the largest science contests for high school students.	2007 April	The Ricoh Group Sustainability Report (Environment) is given an Excellence Award at the 10th Environmental Report Awards.
May	The European Environment Conference is held in Halderen, the Netherlands.		Ricoh Fukui Plant's 2006 Environmental Report is given a Continued Excellence Award for the Site Report at the 10th Environmental Report Awards.
June	Ricoh Global Eco Action is held at all Group companies around the world to think about the global environment and take action.	June	The Ricoh Group receives the highest AAA environmental rating by the Tohmatsu Evaluation and Certification Organization, Japan, for the third consecutive year.
June	Ricoh signs Caring for Climate: The Business Leadership Platform of the United Nations Global Compact.	June	Miyazaki Ricoh is recognized by the Miyazaki Environmental Council as a great contributor to environmental conservation in Miyazaki Prefecture in 2007.
June	Ricoh organizes the Wonders of a Photocopier Exhibition held at the National Museum of Emerging Science and Innovation (the exhibition lasts until August).	June	Ricoh Asia Industry receives the Guangdong Eco-Friendly Manufacturer Award from Guangdong Province, China.
July	Construction of Ricoh's new manufacturing plant for P&P toner (polymerized toner) starts on the premises of Ricoh Numazu Plant. The new plant is scheduled to begin operation in August 2008.	June	Ricoh receives the Grand Pearl Prize in the environmental management section of the Fifth Japan Sustainable Management Awards
October	The 24th Ricoh Nature Seminar Elementary Course is held at Higashimatsuyama Training Center. The total number of environmental volunteer leaders reaches 395.	July	Ricoh Asia Pacific is once again recognized by the Singapore Environment Council as a corporation promoting eco offices.
November	The 1st Chinese Environment Conference is held at Ricoh China in Shanghai.	2008 January	Ricoh is chosen as one of the Global 100 Most Sustainable Corporations in the World for the fourth consecutive year.
November	The 25th Ricoh Nature Seminar Elementary Course is held in Shibata-machi, Miyagi Prefecture. The total number of environmental volunteer leaders reaches 411.	January	Ehime Branch of Shikoku Ricoh is accredited as an Ehime Prefecture Resource-Recirculating Model Office
November	Ricoh Asia Pacific holds the 5th Asia Pacific AP Environment Meeting in Hong Kong.	January	Ricoh is given the Minister of Economy, Trade and Industry Award in the Global Environment Awards.
November	Ricoh acquires CO ₂ emission credits of 30,632 tons for its CDM projects (wind power generation in India).	February	Ricoh Keiki is recognized by Saga Prefecture as a contributor to the prefectural campaign to promote environmental activities.
December	GREEN ADVANTAGE, an environment conference in the Americas, is held in RAC's Head Office.	February	South Plant of Ricoh Numazu Plant receives the Kanto Bureau of Economy, Trade and Industry Director-General's Award as an excellent energy management plant.
December	Ricoh holds a briefing session on RICO ₂ RET (Ricoh CO ₂ Reduction & Evaluation Tool), with 64 suppliers attending.	February	Sanai Logistics System (Kyushu) is accredited as a Fukuoka Prefecture Eco-Office.
December	Ricoh's imagio MP C7500/6000 is launched, featuring a new low-temperature fixing P&P toner (polymerized toner) with greater energy-saving capability.	February	Ricoh Group's 2007 sustainability reports (Environmental Report, Corporate Social Responsibility Report, and Annual Report) and Ricoh Fukui Plant's 2007 Environmental Report are given Excellence Awards in the 11th Environmental Communication Awards (organized by the Japanese Ministry of the Environment and others).
2008 February	Environmentally-friendly multifunctional digital copier, imagio Neo 753RC/603RC series, is launched.		
February	The 14th Ricoh Group's Sustainable Environmental Management Conference is held at Ricoh Ohmori Office.		
February	The 7th Ricoh Green Procurement Meeting is held, with 274 suppliers attending.		

* For the chronology of our activities before April 2007, please visit <http://www.ricoh.com/environment/global/all/index.html>

Business Site Data

	Site (Resource Conservation and Recycling) <small>See page 43.</small>					
	Waste recovery rate (%)	Total amount of waste generated (tons) ¹	Total amount of waste discharged (tons) ²	Final amount of waste disposed (tons)	Water consumption (thousand tons)	
Ricoh's Business Sites						
Atsugi Plant —Office equipment and other products 1005 Shimo-Ogino, Atsugi, Kanagawa 243-0298, Japan	100	1,039	1,039	0.0	105	
Hatano Plant —Printed circuit boards and electronic components 423 Hirasawa, Hadano, Kanagawa 257-8586, Japan	100	123	123	0.0	12	
Numazu Plant —Supplies 16-1 Honda-machi, Numazu, Shizuoka 410-8505, Japan	100	15,182	11,161	0.0	1,587	
Gotemba Plant —Copiers, fax machines, and data processing systems 1-10 Komakado, Gotemba, Shizuoka 412-0038, Japan	100	2,796	2,796	0.0	41	
Fukui Plant —Supplies 64-1 Ohmi, Sakai-cho, Sakai, Fukui 919-0547, Japan	100	2,255	2,255	0.0	202	
Ikeda Plant —Electronic devices and office equipment 13-1 Himemuro-cho, Ikeda, Osaka 563-8501, Japan	100	165	165	0.0	128	
Yashiro Plant —Electronic devices 30-1 Saho, Kato, Hyogo 673-1447, Japan	100	507	507	0.0	157	
Non-production sites	99.5	1,920	1,920	9.1	210	
Total	99.9	23,987	19,966	9.1	2,441	
The Ricoh Group's Manufacturing Subsidiaries in Japan						
Tohoku Ricoh Co., Ltd. —Office equipment and parts for copiers 3-1 Shinmeido, Nakanomyo, Shibata-machi, Shibata-gun, Miyagi 989-1695, Japan	100	1,438	1,438	0.0	147	
Hasama Ricoh, Inc. —Parts for copiers and data processing equipment 86 Aza-Kitasanden, Sanuma, Hasama-cho, Tome, Miyagi 987-0511, Japan	100	2,791	2,791	0.0	8	
Ricoh Unitechno Co., Ltd. —Fax machines, copiers, and microfilm equipment 713 Tsurugasone, Yashio, Saitama 340-0802, Japan	100	311	311	0.0	17	
Ricoh Optical Industries Co., Ltd. —Photographic equipment 10-109 Ohata, Hanamaki, Iwate 025-0303, Japan	100	834	834	0.0	49	
Ricoh Keiki Co., Ltd. —Parts for copiers and data processing equipment 3144-1 Aza-Ipponguri, Shimoizumi, Kuboizumi-machi, Saga 849-0903, Japan	100	177	177	0.0	4	
Ricoh Microelectronics Co., Ltd. —Printed circuit boards 10-3 Kitamura, Tottori, Tottori 680-1172, Japan	100	460	460	0.0	16	
Ricoh Elemex Corporation —Office equipment, clocks, watches, and educational equipment 2-14-29 Uchiyama, Chikusa-ku, Nagoya, Aichi 464-0075, Japan Ena Plant, Okazaki Plant	100	1,099	1,099	0.04 ⁵	70	
Ricoh Printing Systems Ltd. ⁴ —Printers and related equipment 2-15-1 Konan, Minato-ku, Tokyo 108-6021, Japan	100	2,061	2,061	0.0	97	
Yamanashi Electronics Co., Ltd. —Photoconductor drums 1014 Miyabara-cho, Kofu, Yamanashi 400-0058, Japan	99.4	100	100	0.6	309	
Total	99.9	9,272	9,272	0.6	717	
The Ricoh Group's Manufacturing Subsidiaries outside Japan						
Ricoh Electronics, Inc. (REI) —Office equipment and supplies One Ricoh Square, 1100 Valencia Avenue, Tustin, CA 92780, U.S.A.	100	7,183	7,183	0.0	182	
Ricoh UK Products Ltd. (RPL) —Copiers and supplies Priorslee, Telford, Shropshire TF2 9NS, U.K	100	1,154	1,154	0.0	25	
Ricoh Industrie France S.A.S. (RIF) —Copiers and supplies 144, Route de Rouffach 68920, Wettolsheim, France	100	11,097	11,097	0.0	76	
Ricoh Asia Industry (Shenzhen) Ltd. (RAI) —Copiers Color TV Industrial Zone, North Hung Gang Road, Shenzhen, People's Republic of China	100	1,336	1,336	0.0	236	
Shanghai Ricoh Facsimile Co., Ltd. (SRF) —Facsimiles No. 885, Jingang Road, Jinqiao Export Processing Zone, Pudong New Area, Shanghai, People's Republic of China	100	686	686	0.0	39	
Shanghai Ricoh Digital Equipment Co., Ltd. (SRD) —Printers, other digital equipment and related components No.887 Jingang Road, Jinqiao Export Processing Zone, Pudong New Area, Shanghai, People's Republic of China	100	719	719	0.0	12	
Total	100	22,176	22,176	0.0	570	

1. Total amount of waste generated

When waste is generated after waste reduction processing during manufacturing, the total amount of waste generated means the amount of waste at the point of generation. When waste is processed after manufacturing at a facility in a business

site, the total amount of waste generated means the amount of waste prior to waste processing. Waste includes valuable materials. Waste generated from recycling business and waste production equipment and utility equipment is excluded.

	Sites (Preventing Global Warming) <small>See page 37.</small>		Sites (Pollution Prevention) <small>See page 47.</small>				
	Energy consumption		Emissions into air (NOx) (tons)	Emissions into air (SOx) (tons)	Water discharge (BOD) (tons)	'Ricoh target substances for reduction' used³ (tons)	'Ricoh target substances for reduction' discharged³ (tons)
	(tons of CO₂)	(TJ)					
	12,473	140.0	1.372	0.008	—	138.2	0.1
	1,195	11.9	0.029	0.000	—	92.7	0.0
	36,194	571.4	18.883	—	4.113	9,180.0	1,073.7
	3,066	34.6	0.605	0.004	0.063	—	—
	23,840	467.1	13.536	0.001	0.542	7,920.9	809.3
	7,898	85.4	0.879	—	—	82.0	33.6
	30,627	334.2	3.768	—	—	802.3	323.5
	23,973	259.0	2.608	0.159	0.002	—	—
	139,266	1,903.8	41.680	0.172	4.720	18,216.1	2,240.2
	10,276	114.5	2.593	1.853	—	416.9	86.5
	1,917	20.9	0.301	0.064	0.026	38.2	32.5
	1,316	14.1	0.114	—	0.018	2.8	2.1
	9,645	106.6	1.915	1.091	0.086	40.4	31.1
	901	8.7	—	—	—	13.2	0.3
	3,128	31.6	0.253	1.800	0.145	172.9	0.0
	6,976	73.3	0.342	0.066	—	214.8	22.5
	6,715	69.6	1.071	0.380	0.054	49.1	49.1
	5,721	67.5	1.681	0.580	0.294	7,030.5	5,153.0
	46,595	506.9	8.270	5.834	0.623	7,978.8	5,377.1
	45,777	421.5	12.271	—	0.925	428.3	8.9
	7,532	74.6	1.198	—	—	154.6	0.0
	10,973	316.4	7.700	—	—	6.6	0.0
	20,333	109.6	0.884	0.827	—	190.6	39.8
	2,088	11.8	—	—	—	—	—
	3,349	16.9	—	—	—	—	—
	90,053	950.8	22.053	0.827	0.925	780.1	48.7

2. **Total amount of waste discharged:** the amount of waste discharged outside business sites.
This includes residual waste after the intermediate processing of waste at business sites.
3. **Ricoh target substances for reduction:** PRTR substances designated by four Electric & Electronic Industries Associations in Japan between fiscal 1998 and 2000. The figures are indicators multiplied by the environmental impact potential.

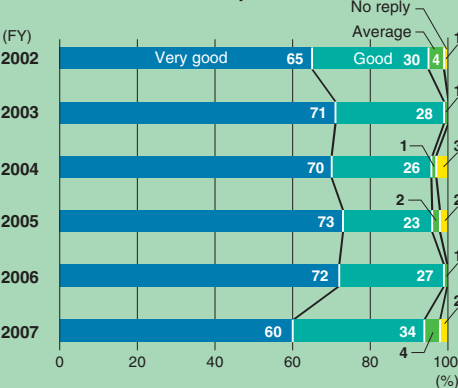
4. The data for Ricoh Printing Systems is the aggregate data of Katsuta and Yamagata Plants (Ricoh Printing Technologies).
5. We failed to meet our Zero-Waste-to-Landfill target because its definition was not accurately understood by staff at Okazaki Plant, who therefore commissioned their contract landfill operator to dispose of 40 kg of waste alkali, which ended up being sent to a landfill in August 2007. Waste alkali will be recycled from now on, and the Group will be taking necessary measures to prevent such an incident from happening again.

We appreciate customers responding to our questionnaire. We will use your valuable opinion to improve our activities and future reports.

Responses to Our Questionnaire

A total of 17,700 copies of the Japanese version report were distributed and 97 readers answered the questionnaire as of the end of April 2008. The main responses are as follows.

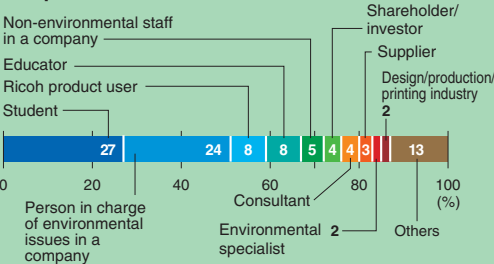
① How would you rank the Ricoh Group's environmental conservation activities that are described in the report?



② Which section(s) of the report were you most interested in?

- 1st Business Sites: Energy Conservation and Prevention of Global Warming
- 2nd Social Contribution of Environmental Conservation
- 3rd Feature Article: Ricoh Global Eco Action
- 3rd Extra-Long Term Environmental Vision and Promotion of Sustainable Environmental Management
- 5th Feature Article: Ricoh Tree Dedication Programme
- 6th Feature Article: Ricoh Environmental NPO Meeting
- 6th Products: Energy Conservation and Prevention of Global Warming
- 6th Products: Resource Conservation and Recycling
- 9th Summary of Sustainable Environmental Management in Fiscal 2006
- 9th Pursuing the Ideal Society (Three Ps Balance)
- 9th Products: Concept of Product Development

③ In what capacity did you read this report?



Some of the opinions from the Ricoh Group Sustainability Report (Environment) 2007 and Improvements in the 2008 Report

- I needed to visit your web site to obtain supplemental information to fully understand certain parts of your report.
- ▶ We disclose information in paper-based reports, on our corporate web site, or by using both, depending on the nature of the reporting content. In accordance with the issuance of the report this year, our web site was also updated. The latest information is available both electronically and in hard copy. For information on our environmental activities that began in a previous year and are generating ongoing benefits, please visit our web site (<http://www.ricoh.com/environment/>).
- I am engaged in the development of Ricoh products. The report reminded me that my work for Ricoh allows me to make positive contributions to the environment. My coworkers and I are very proud of our job.
- ▶ In addition to reducing its own environmental impact, the Ricoh Group is working to reduce the environmental impact of each of the upstream (procurement of raw materials and parts), product use (power and paper consumption, maintenance), and downstream (disposal, recycle) processes. From fiscal 2007, lifecycle-wide sustainable environmental management indicators are reported, which help us and the report readers to better understand how much environmental impact we have reduced across the entirety of our business activities. We have also developed and distributed a tool to support our suppliers in reducing their environmental impact. [See pages 8 and 13.](#)
- I think negative information (such as soil contamination and litigation) should be disclosed more.
- ▶ The information on soil contamination and penalties/fines is included in the report. [See page 52.](#)
- ▶ We began disclosing environmental liabilities in financial accounting. [See page 49.](#)
- I prefer to see some additional guidance (e.g., a simple summary of how data shown is arrived at) on complicated items, such as Corporate Environmental Accounting.
- ▶ This report includes calculation formulas for key reporting items such as Corporate Environmental Accounting and sustainable environmental management indicators. In addition, each page includes explanations of key words when necessary. [See pages 8 and 57.](#)
- As a student seeking career opportunities after graduation, I picked up your report because I thought it would give me a kind of yardstick to evaluate a possible employer. I also expected to gain some insight on what kind of goals I should aim at in the future by learning specific examples of your green actions. After reading the report, I have become strongly interested in Ricoh, a company that always strives for ambitious goals with concrete actions to contribute to the global environment. I hope I will be able to become part of your team in the future.

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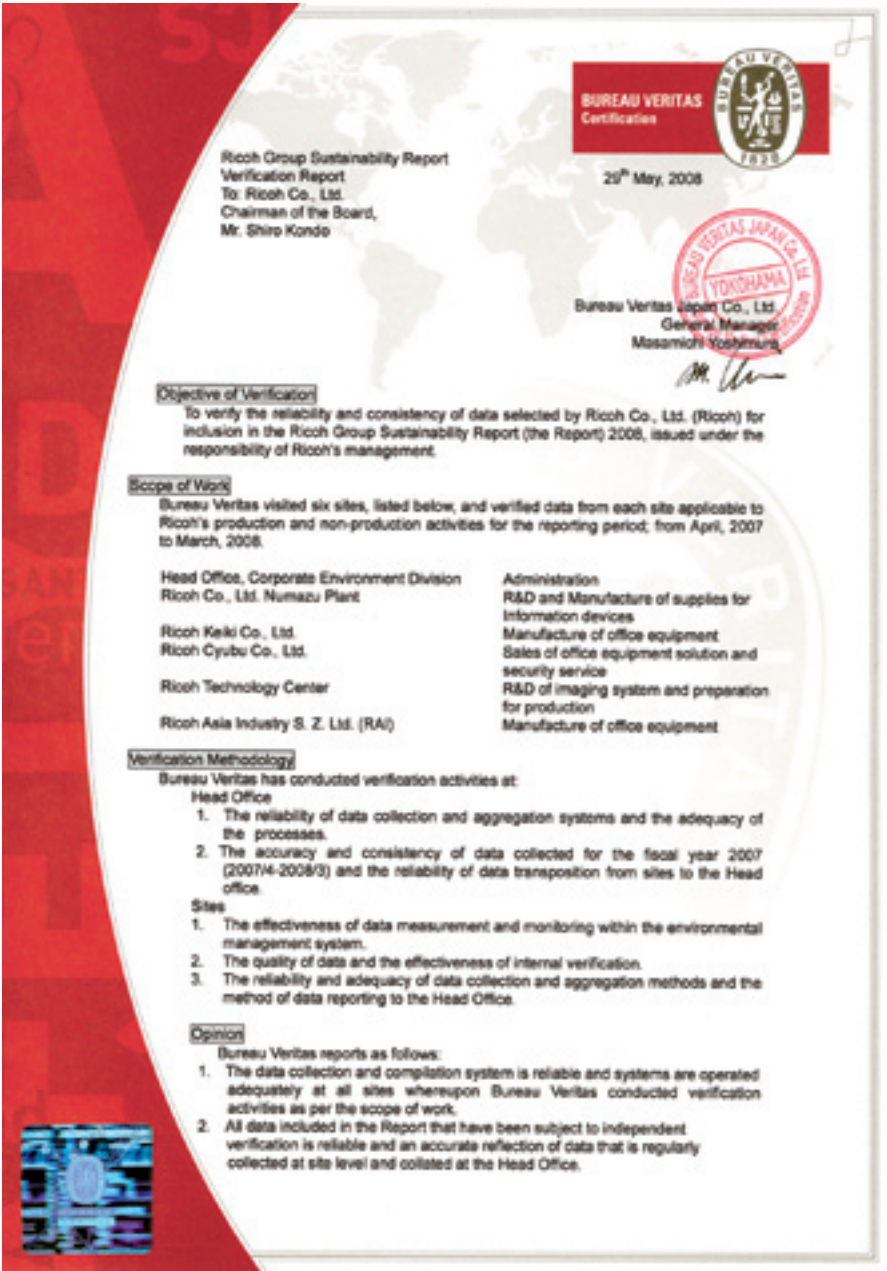
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The Ricoh Group receives a third-party review of its environmental performance data and collection/aggregation system (Sustainable Environmental Management Information System). The related information is provided to stakeholders in the sustainability report (Environment). Furthermore, the results of this review are used to improve and advance sustainable environmental management. In fiscal 2004, the concept of system verification was introduced. System verification checks for consistency between data and whether the system effectively functions to collect/aggregate highly reliable data. The Ricoh Group continues to promote sustainable environmental management by using third-party reviews more effectively.



Reference View

Bureau Veritas has reported its findings and opinions through the data verification process at both the head office and site level, and concluded the following:

1. Positive Findings

- Ricoh Group's data management system, which collects and aggregates all environmental performance data, has matured over the reporting period, incorporating an increased degree of consistency through automation
- The installation of solar photovoltaic power generation systems at its Numazu Plant, demonstrates Ricoh's proactive investment for environmentally-friendly technology.
- Accurate and regular data measurement and management of asbestos across the Ricoh Group is a positive step in managing such risks.
- There has been full awareness and appropriate management of underground pollution occurring at Ricoh Keiki Co., Ltd., the interaction between the site and Head Office regarding risk management is commendable.

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2. Opportunities for Improvement

- Bureau Veritas has identified more than one site which does not have established processes to prevent data input error. Those sites with such error prevention processes (that have been previously audited by Bureau Veritas), have generated data of greater reliability and these good practices should be shared across the Ricoh Group to improve data reliability on a global basis.
- The partition coefficient for chemical substance (PRTR) release and transfer data has been applied; however, there is a minor inappropriate application for this reporting period. Internal communication between Head Office and the sites is expected to improve the application on this issue to ensure this is prevented in future reporting.
- CO₂ emissions from steam used in China will not be included in this year's report due to data uncertainty. The next fiscal year (2008-2009) will be the first of the Ricoh Group's mid-term plan for its Extra-Long-Term Environmental Vision. Bureau Veritas expects Ricoh to consider including these data, subject to revised data aggregation rules, to ensure more complete reporting going forward.

The English versions of the Independent Verification Report and Reference View from Bureau Veritas are translated from the original Japanese versions. The Japanese versions shall be the sole official texts in case of discrepancy.



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- Ricoh Group Sustainability Report (Environment) has been independently verified by Bureau Veritas (BV) to ensure the reliability of the data gathering used in preparing the report.



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