

**For the new targets and new strategies we have established, the Ricoh Group will implement a new Environmental Action Plan, addressing future change in society in a proactive manner.**

### Process of formulating the 17th Mid-Term Environmental Action Plan

Environmental conservation activities at the Ricoh Group started with envisioning the ideal global environment. To realize that ideal future, we then established our ambitious goals, which all employees have been striving to achieve. Based on our belief that long-term perspectives are the key to continuous improvement of our efforts in this area, we formulated the Mid- and Long-Term Environmental Impact Reduction Goals to be achieved by 2020 and 2050, respectively. Using the back-casting method, we also set a Mid-Term Environmental Action Plan every three years.

The new Environmental Action Plan for fiscal 2011 to fiscal 2013, the period corresponding to the duration of the 17th Mid-Term Management Plan period, is designed to address pressing global issues such as the acceleration of global warming and the depletion of natural resources, while taking into account the business strategies and the progress of the Ricoh Group in developing environmental technologies.

### Targets and key strategies under the 17th Environmental Action Plan

The Ricoh Group is determined to improve and accelerate its sustainable environmental management activities by implementing the 17th Environmental Action Plan, the targets and key strategies of which are summarized below:

#### (1) Promoting business activities and technological development which enable both business growth and global warming prevention

The Ricoh Group's 17th Mid-Term Management Plan specifies that we will aim to increase the efficiency of our core business, expand our service-based offerings, launch new businesses, enter emerging markets and take other necessary measures as part of our growth strategy. Although it is anticipated that business growth will inevitably entail the increase of CO<sub>2</sub> emissions from production processes, we intend to hold the net emissions increase to zero by aggressively developing environmental technologies and improving production processes.

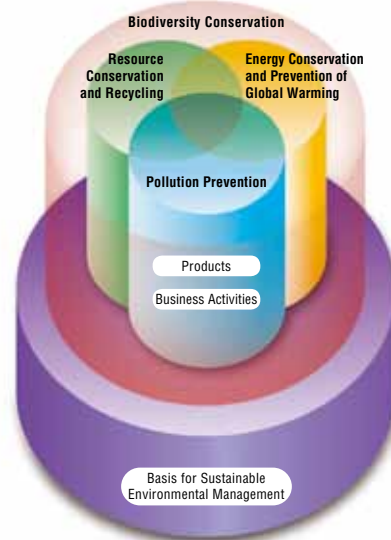
We are also aiming to reduce environmental impact across the entire lifecycle of our products. To this end, we will focus on developing products with enhanced energy efficiency and proposing solutions to not only reduce the energy consumption associated with the use of our products but also to slash CO<sub>2</sub> emissions from our customers' entire office operations.

#### (2) Effective use of resources toward building a resource-recirculating society

In our manufacturing processes, we will strengthen our efforts to make our products smaller and lighter, and to reuse and recycle used materials in order to minimize the input of new resources.

On the R&D front, we will focus mainly on: promoting the use of recycled materials, adopting common modules for product parts in order to realize the long-term reusability of those parts, establishing a technology for determining the remaining useful life of a product part, and developing technologies for recycling used products in order to achieve a low environmental footprint and low associated costs, as well as other measures. We will also work to enhance our recycling network

### The Ricoh Group's Sustainable Environmental Management (from fiscal 2011 onwards)



by developing and strengthening the infrastructure to collect used products on a global basis.

We will also work to effectively reduce CO<sub>2</sub> emissions in our logistics and transportation operations by visualizing the emissions levels worldwide, based on actual records regarding product delivery and the transportation between our production sites.

#### (3) Creating environmentally safe products and strengthening chemical substance management

We will aim to take our chemical substance management system to an even higher level. In addition to chemical substances under regulatory requirements, we will reduce the use of other chemical substances with high environmental risks or replace such substances with safer alternatives. We will also continue our efforts to reduce the emissions of environmentally sensitive substances from our products in use and maintain our compliance with the Blue Angel requirements. At the same time, we will work to establish related measurement and assessment technologies and develop emissions reduction technologies to prepare ourselves for possible future revision of the regulatory requirements.

#### (4) Biodiversity conservation activities for maintaining and restoring the Earth's self-recovery capabilities

To help improve the Earth's self-recovery capabilities, the Ricoh Group has been conducting tree planting and other biodiversity conservation activities. In addition to these ongoing efforts, we will also contribute to the conservation of biodiversity in the course of our business activities. Specifically, we will work to reduce the negative impact of our operational sites on biodiversity, by reducing the use of pesticides and other chemicals and by removing alien species from our factory premises. As the initial step, we will conduct a survey to see how green spaces and greenery in our operational sites are managed and to identify the population and variety of alien species living there.

## Environmental Action Plan for the period from Fiscal 2011 to Fiscal 2013

### Targets (Level to be attained)

1	Energy Conservation/ Prevention of Global Warming	<b>1) Reduce greenhouse gas emissions caused by production activities.</b>	
		- Reduce CO <sub>2</sub> emissions related to energy use.	- Reduce to the fiscal 2010 level or below (298,000 tons-CO <sub>2</sub> or less).
		- Reduce emissions of greenhouse gases other than CO <sub>2</sub> .	- Reduce by 38% compared with the fiscal 2000 level to less than 25,200 tons-CO <sub>2</sub> , even accounting for increases related to the expansion of business.
		<b>2) Reduce greenhouse gas emissions caused by logistics activities.</b>	
		- Reduce the total amount of greenhouse gases emitted by Ricoh Logistics System in connection with its operations.	- Reduce by 21% compared with the fiscal 2000 level to less than 7,600 tons.
		<b>3) Reduce greenhouse gas emissions caused by sales and maintenance activities.</b>	
		- Reduce the amount of CO <sub>2</sub> emitted in relation to the use of energy in sales and maintenance activities.	- Reduce by 21.5% compared with the fiscal 2000 level to less than 38,000 tons.
		- Monitor the amount of CO <sub>2</sub> emitted in relation to the use of energy in sales and maintenance activities and establish reduction targets by the end of fiscal 2011.	- Monitor the amount of CO <sub>2</sub> emitted in relation to the use of energy in sales and maintenance activities and establish reduction targets by the end of fiscal 2011.
		- Attain the established targets above.	- Attain the established targets above.
		<b>4) Reduce CO<sub>2</sub> emissions related to energy consumption of Ricoh products.</b>	
		- Develop products that can meet the mid-term environmental impact reduction goals.	- Attain the total CO <sub>2</sub> emissions reduction targets set for fiscal 2013 related to product energy consumption.
2	Resource Conservation and Recycling	- Encourage customers to use the energy-saving mode.	- Conduct activities to promote use of the energy-saving mode.
		<b>5) Reduce CO<sub>2</sub> emissions by encouraging the effective use of paper resources in relation to product use.</b>	
		- Improve paper use reduction rate by promoting duplex and multiple-page function utilization.	- Conduct activities to promote duplex and multiple-page function utilization.
		<b>6) Develop environmental technologies aimed at reducing mid- and long-term environmental impact.</b>	
		- Develop energy-saving technologies to help achieve the Year 2020 Mid-Term Environmental Impact Reduction Goals.	- Engage in the development of energy-saving technology with the potential to contribute to achieving the Year 2020 Mid-Term Environmental Impact Reduction Goals. (Reduce the total lifecycle CO <sub>2</sub> emissions by the Ricoh Group by 30% from the fiscal 2000 level.)
		<b>1) Achieve greater reduction in input of new resources.</b>	
		- Reduce input of new resources by implementing 3Rs and switching to alternative resources.	- Increase reduction amount fivefold or more compared to the fiscal 2007 level.
		<b>2) Contribute to reduction in input of new materials and parts by conducting sales activities for recycled products.</b>	
		- Increase reuse of products both in Japan and overseas.	- 14,000 t/year in fiscal 2013 (global total)
		- Improve product recovery rates.	- Conduct activities to promote product recovery. Disclose recovery data.
		<b>3) Reduce waste.</b>	
3	Pollution Prevention	- Reduce waste generated from the thermal media business.	- Reduce waste proportionate to production volume by 26% from the fiscal 2007 level.
		- Reduce waste in manufacture of polymerized toners.	- Reduce waste proportionate to production volume by 22% from the fiscal 2007 level.
		- Reduce packaging material waste (cardboard).	- Reduce the amount of waste packaging materials for imaging equipment generated per production volume by 6% from the fiscal 2010 level.
		<b>1) Establish a more comprehensive risk assessment system by evaluating risks related to chemicals, including environmental and ecological impact.</b>	
		- Establish a risk management system for chemical substances that is applicable worldwide.	- Establish risk assessment techniques to estimate risks to ecosystems posed by chemical substances emitted into the environment during the manufacturing process. Based on the findings, take measures to manage and reduce the risks.
		<b>2) Reduce the use and emission of environmentally sensitive substances.</b>	
		- Reduce the amounts of environmentally sensitive substances used and emitted.	- Objective 1: Reduce the converted use and emission by 75% and 90%, respectively, from the fiscal 2000 levels.
			- Objective 2: Establish a weighting method for hazard levels set in GHS* and establish reduction targets for the converted use and emissions based on the GHS.
			* The Globally Harmonized System of Classification and Labeling of Chemicals
		<b>3) Improve environmental functions of products.</b>	
		- Reinforce measures to reduce chemical emissions.	- Comply with the Ricoh Standards for ozone, dust and VOCs. These standards meet the Blue Angel requirements.
4	Biodiversity Conservation	<b>1) Contribute to maintaining and restoring the Earth's self-recovery capabilities.</b>	
		- Implement corporate social responsibility programs to preserve biodiversity.	- Implement corporate social responsibility programs within the Ricoh Group.
		<b>2) Implement programs to care for biodiversity within the premises of Ricoh plants.</b>	
		- Identify impact on biodiversity within the premises of Ricoh plants and reduce the impact.	- Develop guidelines for the management of Ricoh Group's operational sites and ensure that all Ricoh Group operational sites manage their premises in accordance with the guidelines.