

Fiscal 2002–2004 Environmental Action Plan and Fiscal 2003 Results

In fiscal 2001, the Ricoh Group compiled an environmental action plan for the period from fiscal 2002 to fiscal 2004. The plan sets 17 environmental impact reduction goals and activity targets in the following areas: improved environmental performance of products (ener-

gy conservation, prevention of global warming, resource conservation and recycling, and pollution prevention), environmental conservation activities at plants and offices (energy conservation, prevention of global warming, resource conservation and recycling, and pollution

The Ricoh Group's Environmental Action Plan (FY 2002–2004)

1. Improving environmentally-friendly functions and promoting technological development*

- 1) Promote the use of energy-saving technologies in products.
 - Achieve Ricoh's energy-saving goals.
- 2) Promote pollution-preventing measures with regard to products.
 - Completely eliminate the use of environmentally-sensitive substances (i.e., lead, hexavalent chromium, polyvinyl chloride, and cadmium) in products.
 - Reduce noise levels by at least 2 dB (weighted average value for the number of units sold out of the number of units marketed in fiscal 2000).
 - Observe Ricoh standards that cover environmentally-sensitive substances emitted by products, including styrene, ozone, and dust.
- 3) Develop new environmental technologies.
 - Develop practical application technologies for alternative paper and rewritable paper.

2. Increasing the resource conservation rate by improving the productivity of products and materials as well as profitability in the recycling business*

- 1) Improve the quantity of reusable parts used by a factor of at least 20 (compared to fiscal 2000 in Japan).
- 2) Improve the collection rate of used products and toner cartridges by at least 10% in terms of the number of units collected (the Ricoh Group as a whole, compared to fiscal 2000 figures.)
- 3) Increase the number of resource-recirculating-type products marketed by a factor of at least 20 (in Japan, compared to fiscal 2000 figures).
- 4) Improve the resource recovery rate for used products and toner cartridges.
 - The resource recovery rate for equipment and toner cartridges rises to 98% (in Japan).
 - The resource recovery rate for equipment and toner cartridges rises to 85% (in Europe).
 - The resource recovery rate for equipment rises to 95% and that of toner cartridges to 100% (in the Americas).
 - The resource recovery rate for equipment rises to 85% and that of toner cartridges to 85% (in the Asia-Pacific region).

3. Environmental conservation activities at plants and offices*

- 1) Reduce the amount of energy used.
 - Reduce CO₂ emissions at plants and offices by 62% in terms of CO₂ emissions per sales unit and by 13% in terms of total amount emitted (RicoH in Japan, compared to fiscal 1990 figures).
 - Reduce CO₂ emissions by 20% per sales unit (all Ricoh business sites in Japan, compared to fiscal 2000 figures).
 - Reduce CO₂ emissions by 2% (the Ricoh Group in Japan, compared to fiscal 2000 figures).
 - Reduce CO₂ emissions by 2% (RicoH Group manufacturing subsidiaries outside of Japan, compared to fiscal 2000 figures).
- 2) Promote pollution prevention.
 - Reduce environmentally-sensitive substances (RicoH Group's target substances to be reduced) to 8% of those used and 50% of those emitted (RicoH and RicoH Group manufacturing subsidiaries in Japan and RicoH Group manufacturing subsidiaries outside of Japan, compared to fiscal 2000 figures).
 - Completely eliminate the use of dichloromethane (RicoH and RicoH Group manufacturing subsidiaries in Japan and RicoH Group manufacturing subsidiaries outside of Japan).
 - Restrict the increase in greenhouse gas emissions to a maximum of 1% (RicoH and RicoH Group manufacturing subsidiaries in Japan and RicoH Group manufacturing subsidiaries outside of Japan, compared to fiscal 2000 figures).
 - Reduce emissions of ozone-depleting substances by 60% (RicoH and RicoH Group manufacturing subsidiaries in Japan and RicoH Group manufacturing subsidiaries outside of Japan, compared to fiscal 2000 figures).
- 3) Promote resource conservation and recycling.
 - Reduce generated waste by at least 13% (RicoH and RicoH Group manufacturing subsidiaries in Japan and RicoH Group manufacturing subsidiaries outside of Japan, compared to fiscal 2000 figures).
 - Improve the waste recycling rate to at least 90% (RicoH Group non-manufacturing subsidiaries in Japan).
 - Reduce water consumption by at least 10% (RicoH and RicoH Group manufacturing subsidiaries in Japan and RicoH Group manufacturing subsidiaries outside of Japan, compared to fiscal 2000 figures).
 - Reduce paper purchase by at least 10% (RicoH and RicoH Group manufacturing and non-manufacturing subsidiaries in Japan, RicoH Group manufacturing subsidiaries outside of Japan, compared to fiscal 2000 figures).

4. Promoting Green Partnerships to increase the number of customers and reduce costs*

- 1) Promote green marketing.
 - Improve the recycled pulp use rate for paper products to 60% (in Japan).
- 2) Promote green procurement.
 - Identify the environmental impact at suppliers' sites to set goals for reducing that impact (RicoH Group purchasing divisions).
 - Completely eliminate designated environmentally-sensitive substances in the suppliers' manufacturing process (RicoH Group purchasing divisions).
- 3) Promote green purchasing.
 - Improve the green purchasing rate (for office supplies) to 100% (the RicoH Group in Japan).

5. Improving the sustainable environmental management system

- 1) Establish an environmental management indicator.
- 2) Construct a companywide audit system.
- 3) Construct an environmental management information system.

6. Promoting environment-conscious social contribution activities

- 1) Promote forest conservation activities to preserve the ecosystem (the RicoH Group).

prevention), promotion of Green Partnerships, improved sustainable environmental management system, and further contributions to the environment-conscious social contribution activities. This plan is regarded as the Ricoh Group's commitment to its employees and society at large.

Progress (FY 2003 Performance)

- ▶ The imagio Neo 752/602 series of high-speed multifunctional digital copiers (with a copying productivity of 60/75 pages per minute) equipped with improved energy conservation technologies and highest energy consumption efficiency were put on the market.
 - ▶ For products marketed in fiscal 2003, the volume of lead, hexavalent chromium, polyvinyl chloride (PVC), and cadmium was further reduced. Products in which lead, hexavalent chromium, PVC, and cadmium are completely eliminated are scheduled to be marketed from fiscal 2004.
 - ▶ The level of noise emitted from color copiers during operation and while on standby was reduced 1.6 dB and 8.6 dB, respectively.
 - ▶ All 81 models of copiers, facsimiles, and printers marketed in fiscal 2003 follow Ricoh's standards concerning styrene, ozone, and dust.
 - ▶ The RECO-View™ IC tag sheet, which enables information recorded on IC tags to be displayed and rewritten, was developed and put on the market.
 - ▶ Quantity of reusable parts used reached 2.3 times that used in fiscal 2000.
 - ▶ Collection rates of used products (compared to those in fiscal 2000)
 - Increased 28% in Japan; 92% in Europe; 26% in the Americas; and 35% in the Asia and Pacific region.
 - ▶ Thanks to an expanded lineup, the number of resource-recirculating-type products marketed increased steadily, reaching 10.4 times that in fiscal 2000.
 - ▶ Current status of resource recovery rate
 - Equipment: 99.2%; toner cartridges: 99.6% (Japan)
 - Equipment: 95.5%; toner cartridges: 94.7% (Europe)
 - Equipment: 95.0%; toner cartridges: 100% (the Americas)
 - Equipment: 84.6%; toner cartridges: 97.0% (Asia and Pacific)
 - ▶ Current status of CO₂ emissions
 - Ricoh in Japan: Reduced 29.1% per sales unit and 8.3% in terms of total amount emitted (compared to fiscal 1990 figures).
 - Ricoh in Japan: Reduced 0.8% per sales unit (compared to fiscal 2000 figures).
 - Ricoh and Ricoh Group manufacturing subsidiaries in Japan: Reduced 0.6% in terms of total amount emitted (compared to fiscal 2000 figures).
 - Ricoh Group non-manufacturing subsidiaries in Japan: Reduced 9.8- 19.7% in terms of total amount emitted (except Ricoh Leasing Company: increased 3.3%) (compared to fiscal 2000 figures; each subsidiary's goal was 2.0%).
 - Ricoh Group manufacturing subsidiaries outside of Japan: Reduced 1.5% in terms of total amount emitted (compared to fiscal 2000 figures).
 - ▶ Progress in pollution prevention (compared to fiscal 2000 figures)
 - Environmentally sensitive substances used were reduced 37% and those emitted 73%.
 - Efforts were made to replace the dichloromethane used in Organic Photo Conductor (OPC) with a substitute.
 - Greenhouse gas emissions other than CO₂ were reduced 4%.
 - The emissions of ozone depleting substances were reduced 80%.
 - ▶ Progress in resource conservation and recycling (compared to fiscal 2000)
 - The amount of waste generated was reduced 6.8%.
 - The waste recycling rate went up to 77.9%–97.5%.
 - Water consumption was reduced 1.8%.
 - Paper purchase was reduced 15.1%.
 - ▶ The recycled paper use rate for paper products improved to 52% (mass ratio).
 - ▶ A trial method for calculating environmental impact in the processing of parts was chosen.
 - ▶ Out of 754 domestic Group suppliers, 407 submitted certificates indicating the nonuse of chloric organic solvents.
 - ▶ The green purchasing rate in fiscal 2003 was 96% in terms of money value.
 - ▶ A trial evaluation using sustainable environmental management indicators was conducted on designated products.
 - ▶ Some of the issues that were identified in the sustainable environmental management system will be the basis for another action plan to improve performance and streamline the process.
 - ▶ A data collection system necessary for the evaluation using sustainable environmental management indicators was developed at the Group's overseas business sites.
 - ▶ Regional headquarters took part in forest preservation projects, which were expanded to regional sales companies and their plants.
 - Europe: 1 (started in fiscal 2002)
 - The Americas: 1 (started in fiscal 2003 in cooperation with Ricoh Latin America, Inc.)
 - Former Asia-Pacific region¹: 1 (started in fiscal 2002 in cooperation with Ricoh Australia Pty, Ltd.)
 - Former China region²: 1 (started in fiscal 2001)
 - Japan: 8 (started in fiscal 1999-2001), 3 (started in fiscal 1999-2001 and has now ended)
- 1: Asia (except Japan, China, Hong Kong, and Taiwan) and Oceania
2: China, Hong Kong, and Taiwan
* Number of projects driven by regional headquarters