

Results of Environmental Action Plans as of Fiscal 2001

The Ricoh Group established environmental action plans for the fiscal years 1999–2001 and took various approaches to achieve its goals of promoting innovative environmental conservation activities and successfully carrying out sustainable management on a global scale. The results of these efforts are shown below. The environmental action plans that were prepared for fiscal 2002 through fiscal 2004 are described on page 18.

Environmental Management System (EMS)

See pages 20–22.

Environmental Management Information System

See pages 23, 24.

Resource Conservation and Recycling (Products)

See pages 50–55.

Resource Conservation and Recycling (Business Sites)

See pages 39, 40.

Energy Conservation (Products)

See pages 47–49.

Energy Conservation (Business Sites)

See pages 35, 36.

Pollution Prevention (Products)

See pages 32 and 49.

Pollution Prevention (Business Sites)

See pages 37, 38.

Goals (FY 1999–2001)

- It is essential for all Ricoh Japanese business sites as well as production sites to acquire ISO14001 certification by September 2000 and for the Ricoh Group as a whole to do so by the end of fiscal 2001 pursuant to standards that take environmental impact and a company's business scope into consideration.
- Complete an environmental impact information system for copiers, facsimiles, and laser printers by the end of fiscal 2000 (by the end of fiscal 2001 for other product lines)
- Complete an environmental management information system by the end of fiscal 2000
- Establish a collection and recycling system for products and supplies (especially toner cartridges), in Japan, Europe, the Americas, China and Taiwan, and the Asia-Pacific region by the end of fiscal 2001
- Increase the resource recovery rate for copiers, facsimiles, and laser printers, including toner cartridges, to 90% or more by the end of fiscal 2001
- Ricoh is to reduce final waste 90%, compared with that in fiscal 1992, by the end of fiscal 2001.
- Achieve a 100% resource recovery rate (Zero-Waste-to-Landfill) at all production sites in Japan by the end of fiscal 2000
- Achieve a 70% resource recovery rate at all nonproduction sites in Japan by the end of fiscal 2001
- Achieve a 100% resource recovery rate (Zero-Waste-to-Landfill) at all production sites outside Japan by the end of fiscal 2001
- Reduce generated waste at least 4% at all production sites in Japan in fiscal 2001, compared with that in fiscal 2000 (this item added in fiscal 2001)
- Reduce energy consumption per product marketed in Japan 30%, compared with that in fiscal 1996, by the end of fiscal 2001
- Increase the speed of duplex copying and the number of types of recyclable paper that can be used in copiers to promote the efficient use of paper and thus reduce CO₂ emissions during paper manufacturing
Achieve 95% duplex copying productivity (duplex copying speed/simplex copying speed) in products that have a duplex copying function and were marketed in fiscal 2001
Enable all imaging technology products marketed in fiscal 2001 to use 100% recycled paper and paper weighing 64 g/m²
- Ricoh is to reduce CO₂ emissions at least 15% by the end of fiscal 2001 on a per sale basis, compared with those in fiscal 1990. (Production sites other than Ricoh's are to set numeric goals of 15% or more each compared with that of fiscal 1990.)
- Reduce the volume of specified chemical substances, such as lead and polyvinyl chloride (PVC), hexavalent chromium at least 50% on a per product basis in all products introduced in fiscal 2001, compared with products introduced in 1997
- Reduce the level of noise at least 2 dB and emissions of ozone and other by-products at least 20% for all copiers, facsimiles, and laser printers introduced in fiscal 2001, compared with products introduced in 1997
- All production sites, research centers, and manufacturing subsidiaries of the Ricoh Group are to reduce the use of 'Ricoh Group's target substances for reduction' at least 20% and emissions at least 50% and completely eliminate landfill waste by the end of fiscal 2001, compared with those in fiscal 1997.
- The Ricoh Group is to completely eliminate the use of trichloroethylene, tetrachloroethylene, chloroform, and dichloromethane (except in the manufacturing of existing photosensitive materials) by the end of fiscal 2001 and to completely eliminate the use of dichloromethane in the manufacturing of existing photosensitive materials by the end of fiscal 2007.

Results (FY 2001 Performance)

(Reviewed by BVQI [3])

- ▶ 35 out of 40 bases and 789 out of 794 sites, both in Japan and outside Japan, acquired ISO 14001 certification. The remaining five bases and five sites will be certified by November 2002.
- ▶ A system was established to identify and analyze the environmental impact of all production sites in Japan and the impact of major business activities concerning copiers, facsimiles, and printers in Japan. The system was implemented in fiscal 2001 and included Ricoh Asia Industry Ltd. (RAI) and Taiwan Ricoh Co., Ltd. In fiscal 2002, the Ricoh Group will merge its environmental impact information system and environmental accounting information system into an environmental management information system.
- ▶ The establishment of a cost accumulation system was completed in fiscal 1999. The cost accumulation system has been in operation at Ricoh from the second half of fiscal 1999.
- ▶ All systems designated for completion (i.e., databases on environmental laws and their revisions, product recycling/energy conservation measures, external queries, World Wide Web inquiries, and the kinds of waste generated at business sites as well as information from environmental label forums, environmental forums for sales companies and divisions, and the CO₂ Forum) were established by fiscal 2000.
- ▶ **Product Collection and Resource Recovery System**
Nationwide networks of collection and recycling centers for used products are completed in Japan.
In Europe, the Americas, China and Taiwan, and the Asia-Pacific region, collection and resource recovery systems are almost completed.
- ▶ **Toner Cartridge Collection and Resource Recovery System**
In Japan, collection networks are almost completed. In Europe, the Americas, China and Taiwan, and the Asia-Pacific region, collection systems are almost completed, and resource recovery systems have, with the exception of some countries, already started.
- ▶ All of Japan, Europe, the Americas, China and Taiwan, and the Asia-Pacific region achieved the goal of at least 90% resource recovery rate.
- ▶ Final waste was reduced by 99.6%, surpassing the goal in fiscal 2001.
- ▶ Surpassed the Zero-Waste-to-Landfill goal by the end of fiscal 2000 and maintained that level in fiscal 2001
- ▶ Achieved a 98.1% resource recovery rate at nonproduction sites in fiscal 2001, surpassing the goal in fiscal 2001; five business sites (Ricoch Aoyama Office, Ginza Office, Shinagawa System Center, Toda Technical Center, and Shin-Yokohama Office) achieved Zero-Waste-to-Landfill.
- ▶ All production sites outside Japan (Ricoch Industrie France S.A., Ricoch Electronics Inc., Ricoch UK Products Ltd., Ricoch Asia Industry (Shenzhen) Ltd., and Taiwan Ricoch Co., Ltd.) achieved Zero-Waste-to-Landfill by the end of fiscal 2001.
- ▶ Reduced generated waste by 9%, surpassing the goal in fiscal 2001
- ▶ Energy consumption of black-and-white copiers and multifunctional copiers was reduced by 53.2%, surpassing the goal in fiscal 2001.
- ▶ Energy consumption of color copiers and multifunctional copiers was reduced by 48.34%, surpassing the goal in fiscal 2001.
- ▶ Energy consumption of facsimiles was reduced by 89.55%, surpassing the goal in fiscal 2001.
- ▶ Energy consumption of black-and-white and color printers was reduced by 47.37%, surpassing the goal in fiscal 2001.
- ▶ Achieved a duplex copying productivity of 97%–100% in black-and-white copiers and multifunctional copiers as well as black-and-white laser printers marketed in fiscal 2001
- ▶ Enabled the use of paper with a thickness of up to 64 g/m² in products marketed in fiscal 2001
- ▶ Enabled the use of 100% recycled paper in products marketed in fiscal 2001
- ▶ Ricoh reduced CO₂ emissions by 24.1%, surpassing the goal in fiscal 2001. Seven manufacturing subsidiaries in Japan reduced CO₂ emissions by 20.9%–57.4%, surpassing the goal in fiscal 2001. Among five manufacturing subsidiaries outside Japan, four achieved a 23.1%–32.2% reduction in CO₂ emissions, reaching the goal. One had an 8.5% increase and, therefore, did not achieve the goal. (The average total reduction in CO₂ emissions by all manufacturing subsidiaries outside Japan was 31.6%.)
- ▶ For products marketed in fiscal 2001, the volume of lead, polyvinyl chloride (PVC), and hexavalent chromium was reduced by 47%, 47%, and 58%, respectively. The Ricoh Group continues its efforts in reduction and strives to completely eliminate specified chemical substances for products to be marketed from fiscal 2004 onward.
- ▶ The level of noise emitted during operation and while on standby was reduced by 3.3 dB and 2.7dB, respectively, surpassing the goal for products marketed in fiscal 2001. Also, the goal of reducing ozone by 70% and dust by 29%, respectively, was surpassed.*
- * Calculations are based on the weighted number of copiers, facsimiles, and printers sold and use a copying productivity of 50 sheets per minute for all machines.
- ▶ Reduced the use of 'Ricoch Group's target substances for reduction' 46.6% and emissions 58.2%, surpassing the goal in fiscal 2001
- ▶ Completely eliminated the use of trichloroethylene, tetrachloroethylene, and chloroform worldwide. Also, completely eliminated the use of dichloromethane (except in the manufacturing of existing photosensitive materials). Continuous efforts are made to completely eliminate the use of dichloromethane in the manufacturing of existing photosensitive materials by the end of fiscal 2004, which is earlier than the original deadline.