The Sustainable Environmental Management Information System supports the decision-making process concerning sustainable environmental management, and promotes LCA-based design.

The Sustainable Environmental Management Information System is intended to identify and promote the progress of sustainable environmental management. The system comprises the Environmental Impact Information System to collect and process data about environmental impact, and the Environmental Accounting System to collect and process data on environmental costs and effects. Collected and processed data is used for decision-making concerning sustainable environmental management, the promotion of LCA-based designs,* improvement activities by each division, and disclosure to society.

*** See page 36.**

Environmental Impact Information System

This system collects and processes data on environmental impacts caused by each operational process and by our overall operations. Based on this data, the Eco Balance[1] of overall operations is identified, and this Eco Balance is used for establishing environmental action plans.[2] Thus, improvement work is conducted on a priority basis for processes with larger environmental impacts. Since particular data may be extracted or may be used with other data, this system is used for environmental improvement activities by each site, and for activities to reduce the use of chemical substances with serious environmental impact.

1. See page 29. 2. See page 15.

Environmental Accounting System

This system enables Corporate Environmental Accounting”[1] 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.[2]

1. See page 33. 2. See page 32.

Sustainable Environmental Management Information System

Environmental Impact Information System

Procurement

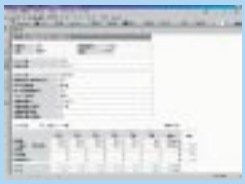
This is a system to promote green procurement in tandem with environmental action plans and information on laws and regulations. This system collects information on weight, component substances, and chemical substances in raw materials and parts by utilizing the network with suppliers. In fiscal 2003, this system also started operation in China.*

* See page 51.

Design

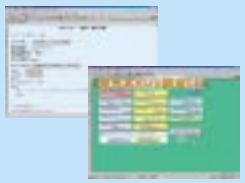
This is a system to select the most suitable materials and parts from the viewpoint of environmental conservation and costs in order to promote LCA-based design. This CAD system works in tandem with the procurement management system and the chemical substance management system.

Manufacturing



This is a system to identify environmental impacts caused by operations. This system collects data concerning power consumption, and the quantity of chemical substances used, CO_2 emissions, and waste discharged by all offices and sites, including production sites and non-production offices including Ricoh Head Office, using the intra-group network.

Transportation and Sales

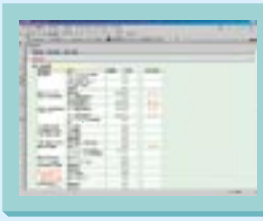


This is a system to collect data concerning power consumption, and the quantity of gasoline used and waste generated in order to reduce the environmental impact caused by logistics sites, transportation processes, and sales sites. This system begins to collect data as soon as a site establishes an EMS.

Use

This is a system to share data about environmental performances by product (power consumption, duplex copying productivity, recyclable design, etc.) and use such data for LCA-based design and information disclosure in catalogs. This system compiles environmental impact information by product based on design data.

Maintenance and Services



This is a system to identify and analyze environmental impacts caused by maintenance work on products. This system collects related information from the database of product maintenance records and the database of power and gasoline consumed in the maintenance sites.

Collection and Recycling

This system provides information infrastructure to utilize recycle plans that were prepared when products were designed for reuse or for the recycling of collected products, and stores detailed information on the recycling process of products. In fiscal 2003, this system was introduced on a global basis.

Information collected

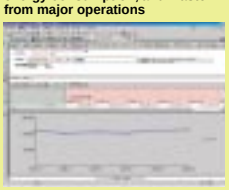
Integrated database

Information collected

The mechanism of collecting data needed for distribution is established.

- Number of units produced (by process)
- Weight of products
- Value of sales
- Relationship between divisions/facilities and products

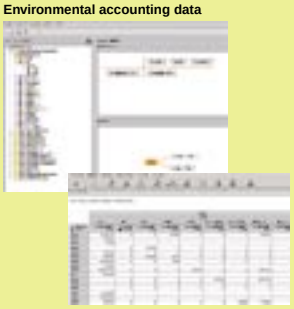
Data on chemical substances, energy consumption, and waste from major operations



Environmental impact data by product

Environmental impact data by division

Environmental accounting data



Recycling data

Analysis of information / Processing of information

Information needed for promoting PDCA (Plan-Do-Check-Action)* is output.

* See page 19.

Identifying Eco Balance

See page 29.

Preparing and managing environmental action plans

See page 15.

Sustainable environmental management indicators

See page 32.

Environmentally conscious design

See page 35.

Environmental Accounting System

Accounting system

Environmental expenses

Environmental capital investment

Environmental accounting database