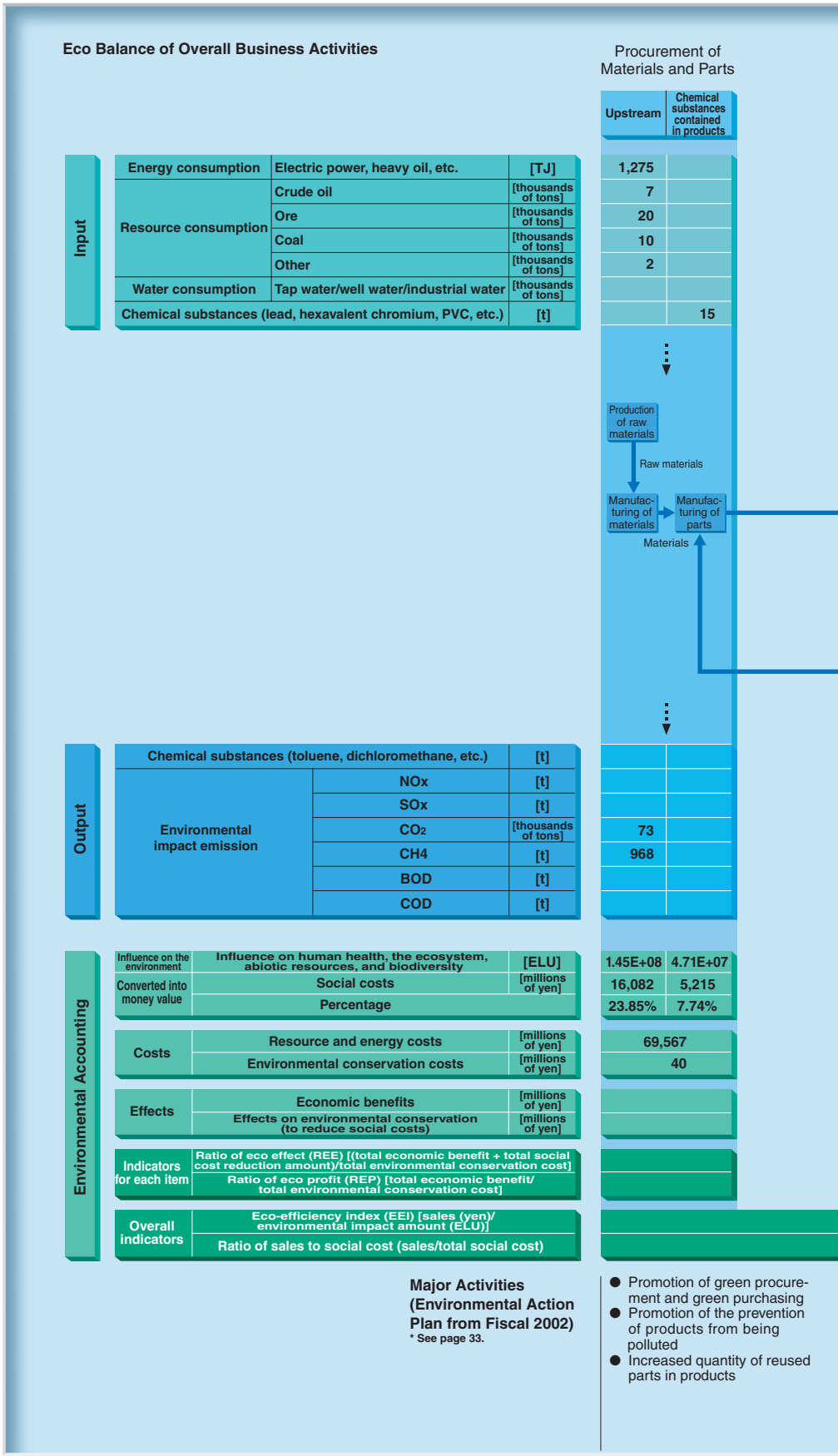
Identifying Environmental Impact (Eco Balance)

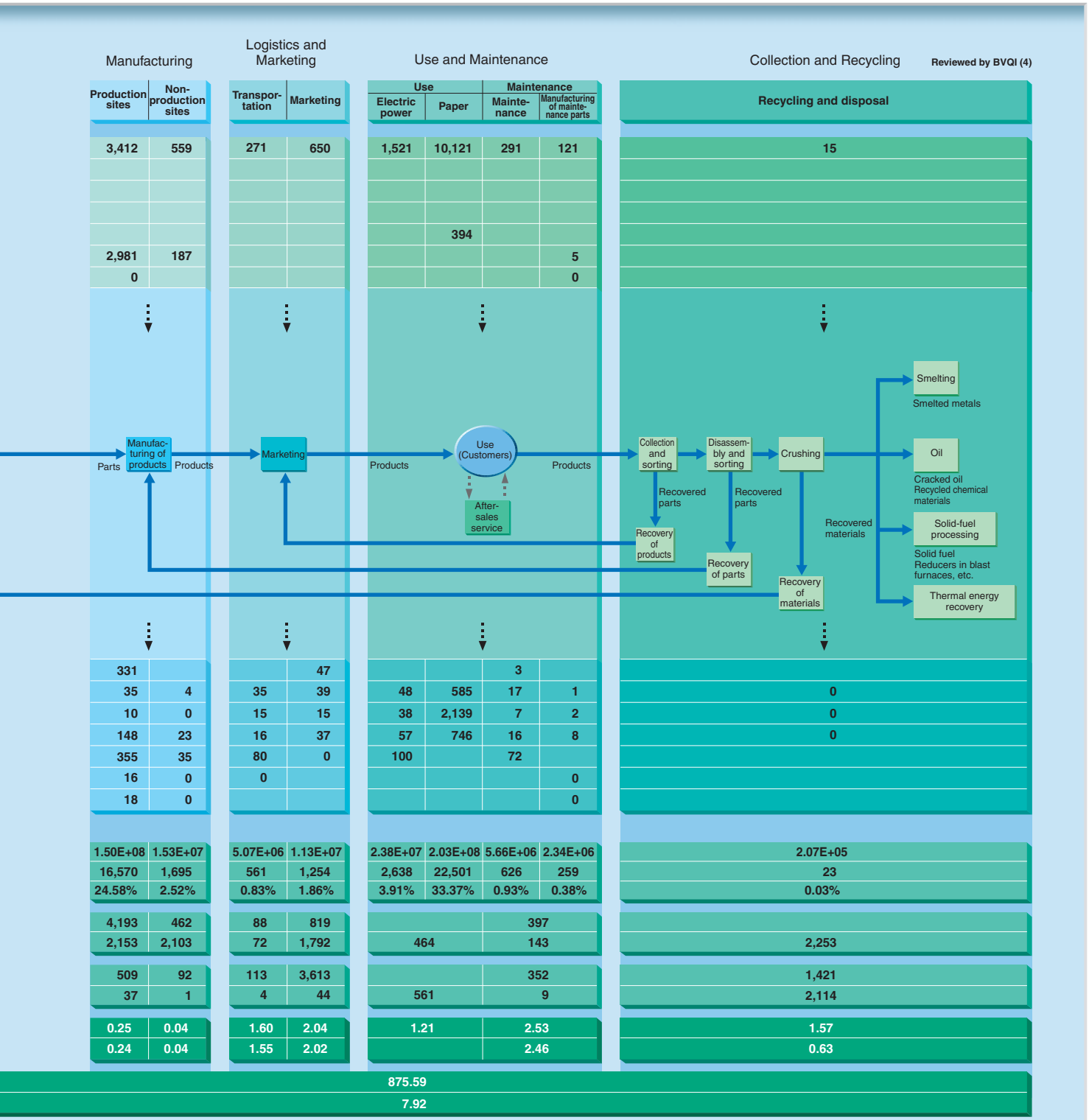
Identifying the environmental impact of business activities as a whole and translating it into numerical figures to be used in planning an environmental action plan

The Ricoh Group calculates the environmental impact and cost of each process based on data collected from the environmental management information system[1] to identify the Eco Balance[2] of the Ricoh Group's business activities as a whole. All kinds of business activity-related environmental impact, including global warming, ozone layer destruction, and ecosystem damages, are identified and translated into numerical figures using the integrated analysis method[3]. The Ricoh Group makes environmental action plans[4] based on these figures. Ricoh calls the environmental accounting based on these Eco Balance figures "Eco Balance Environmental Accounting." Eco Balance Environmental Accounting focuses on the environmental impact of each product and division as well as the cost and effect of individual environmental measures, enabling a stricter control of each product and division. In the future, each division will be evaluated by specific environmental management indicators, and numerical targets for all Ricoh Group business activities will be set in the environmental action plan as general environmental indicators.

1. See page 25.
2. Eco Balance is a system that involves the listing of environmental impact input/output data to identify, quantitatively measure, and report the environmental impact of companies.
3. Environmental priority strategies (EPS) for product design, which was developed by the Swedish Environmental Research Institute (IVL), is used in calculating the Eco Balance of business activities. Under EPS, damage caused by environmental impact on human health, ecosystems, non-living resources, and biodiversity is converted into monetary value using factors (CO_2=0.108 ELU/kg, NOx=2.13 ELU/kg, SOx=3.27 ELU/kg, BOD=0.002 ELU/kg, etc.) to calculate environmental load units (ELUs) of products.
4. See page 33.

* Data collection is limited to the image-related product business in Japan.
The environmental impact of upstream and downstream activities is roughly calculated based on the environmental impact data of specified models. (Blanks indicate environmental impact that is approximately zero or unknown.)





- Reduction in the amount of energy used at business sites
- Reduction of pollution at business sites
- Promotion of resource conservation and recycling at business sites

- Promotion of green marketing
- Increased number of resource-recirculating products

- Promotion of the development of energy-saving products
- Development of technologies useful in reducing the environmental impact of paper

See page 35 (Environmental Technologies and Products Development) for the reduction in environmental impact while machines are operating.

- Improvement in the collection rate for used products and toner cartridges
- Improvement in the resource recovery rate for used products and toner cartridges

"E+n" means "$\times 10^{n}$."
e.g.) $1.45E+08 = 1.45 \times 10^{8}$