

# Environmental Accounting

We analyze the cost effectiveness of our environmental activities conducted in course of business to the maximum possible extent. We tabulated relevant accounting data for fiscal 2002 based on the Ministry of the Environment's Environmental Accounting Guidelines (2002 edition).

## Casio's Concept of Environmental Accounting

The Casio Group started to introduce environmental accounting in fiscal 1999 and has been publishing its accounting results since fiscal 2000.

Regarding the accounting results, we publicly announce only valid and reliable figures. Internally, however, we experimentally tabulate data on the cost for recovery from environmental pollution; litigation costs; and reduction of CO<sub>2</sub> and waste emissions through energy and resource saving converted to monetary values as a tool to help decide on policies for environmental management.

Further, we continually evaluate and review the indicators for environmental management to make us more environmentally viable.

Economic effectiveness = $\frac{\text{Total economic effects}}{\text{Total environmental cost}}$ (Economic effectiveness represents the economic rationality of total cost spent on environmental activities.)																			
<table border="1"> <tr> <th colspan="3">FY 2002</th> <th colspan="3">FY 2001</th> </tr> <tr> <th>Electronic Component Division</th> <th>Electronics Equipment Division</th> <th>Total</th> <th>Electronic Component Division</th> <th>Electronics Equipment Division</th> <th>Total</th> </tr> <tr> <td>0.07</td> <td>0.53</td> <td>0.34</td> <td>-0.09</td> <td>0.57</td> <td>0.30</td> </tr> </table>		FY 2002			FY 2001			Electronic Component Division	Electronics Equipment Division	Total	Electronic Component Division	Electronics Equipment Division	Total	0.07	0.53	0.34	-0.09	0.57	0.30
FY 2002			FY 2001																
Electronic Component Division	Electronics Equipment Division	Total	Electronic Component Division	Electronics Equipment Division	Total														
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Environmental efficiency = $\frac{\text{Sales (in ¥1 million)}}{\text{Environmental impact (in CO}_2\text{ emissions: ton-CO}_2\text{)}} \times \left(\frac{\text{Environmental efficiency represents the sales per 1 ton of CO}_2\text{ emissions.}}{\text{the sales per 1 ton of CO}_2\text{ emissions.}}\right)$																			
<table border="1"> <tr> <th colspan="3">FY 2002</th> <th colspan="3">FY 2001</th> </tr> <tr> <th>Electronic Component Division</th> <th>Electronics Equipment Division</th> <th>Total</th> <th>Electronic Component Division</th> <th>Electronics Equipment Division</th> <th>Total</th> </tr> <tr> <td>0.98</td> <td>15.77</td> <td>3.40</td> <td>0.91</td> <td>12.79</td> <td>2.90</td> </tr> </table>		FY 2002			FY 2001			Electronic Component Division	Electronics Equipment Division	Total	Electronic Component Division	Electronics Equipment Division	Total	0.98	15.77	3.40	0.91	12.79	2.90
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\*Sales: Total sales of nine domestic companies (see page 1) excluding those obtained by selling to other Casio Group companies

## Results for Fiscal 2002

The following table shows the results for fiscal 2002. To reflect the change in the scope of accounting targets, the results for fiscal 2001 were also appropriately revised (see page 1).

For environment-related capital investments, we spent ¥71 million to purchase devices such as LCD cleaning system and a device required for conducting research on lead-free solder. Compared with fiscal 2001, in which approximately ¥1.2 billion was spent for environmental measures required following the additional construction of the third factory at Kochi Casio, the amount of environment-related investments decreased significantly. In environment-related costs, there was a slight increase for the Electronic Component Division and a small decrease for the Electronics Equipment Division. As a whole, compared with fiscal 2001, there were no outstanding changes in the amount of environment-related costs.

As "Other costs," a total of ¥4 million was posted, which is a temporary cost required to implement measures related with environmental laws and regulations enforced in North America. For economic effects derived from environmental conservation measures, there was an increase in the energy conservation effects, which had recorded a remarkable decrease in fiscal 2001, while there was a decrease in the effects obtained from recycling, such as waste cost reduction. On the whole, we achieved slightly an increase in economic effects.

## Examples of Projects Achieving Results from Environmental Investments

Each companies and production site in the Casio Group promotes environmental impact reducing activities by implementing various projects.

The projects shown at the right are some examples of such activities. In addition to these activities, efforts are being made to reduce landfill waste and waste generation without making further investment or spending extra money, through the selection of recycling companies and severe internal controls.

Kofu Casio reduced the amount of waste by 8.4 tons by reusing materials including stick LSIs and trays for supplying parts.

Domestically, the Casio Group reuses and recycles 3,150 tons of waste (excluding heat recovery incineration), which volume for approximately 50% of the waste generated by the Group.

Project details	Formula for calculating cost effectiveness	Economic effectiveness
Installation of equipment for recovering and reusing wastewater	$\frac{¥20,200,000 \text{ (monetary effects)}}{¥19,000,000 \text{ (investment amount)}}$	= 1.06
The introduction of this system produced remarkable economic effects. The system made it possible to recover water used for cleaning and reuse it the basis for producing pure water. As a result, the amount of underground water pumped for use, wastewater discharged as sewage, and chemicals used for processing were reduced. Related costs were also reduced. The cost for purchasing the system was recovered within one year and the depreciation period for the system was set at 15 years. (The use of water resources was reduced by approximately 40,000 m <sup>3</sup> on an annual basis for this system, thereby reducing the wastewater discharged as sewage.)		
Replacement of lighting equipment with a more efficient type (Hf-type)	$\frac{¥65,000 \text{ (monetary effects)}}{¥550,000 \text{ (investment amount)}}$	= 0.12
A detailed survey and a review were conducted on the lighting intensity required for some of our production processes. Also, more efficient Hf-type fluorescent lamps were introduced to reduce the consumption of electricity. Although the economic effectiveness is only 0.12 because the project was conducted on a small scale, the investment cost may be recovered within the ten-year depreciation period.		
Updating to highly efficient transformers	$\frac{¥522,000 \text{ (monetary effects)}}{¥7,000,000 \text{ (investment amount)}}$	= 0.075
The transformers for electricity supplied to factories were replaced with highly efficient ones for more efficient transformation of electricity and for energy conservation. Although the economic effectiveness is as small as 0.075, the investment cost may be recovered within the 15-year depreciation period.		

\* We calculate the effects of environment improvement activities by company/site and by project by dividing the annual monetary effects of energy conservation by the investment amount. It would be ideal if the calculation result is 1 or more, but we think it acceptable for environmental management if the value obtained by multiplying the result by the number of years comprising the depreciation period is not less than 1.  
\*\* The investment amounts were calculated based on the actual results for fiscal 2001 and the effects based on the actual results for fiscal 2002.  
The monetary effects shown below are actual results by project and do not include future effects calculated based on hypothetical estimations.

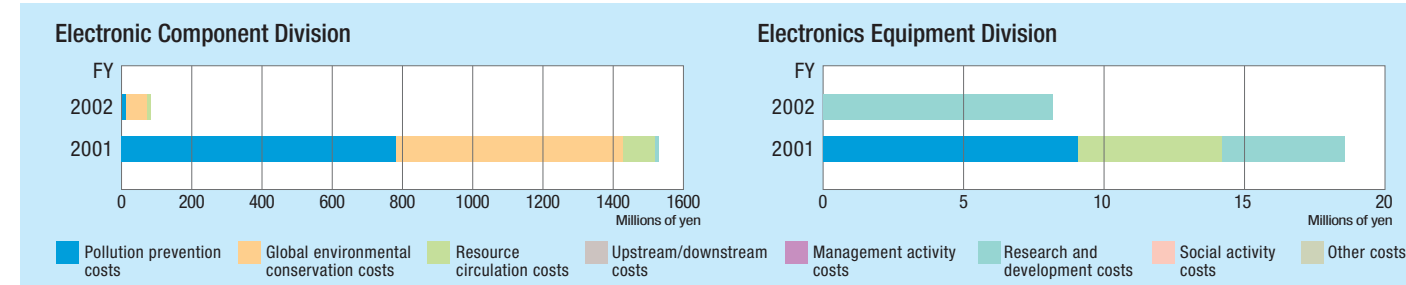
## Results for FY 2002 (April 2002 to March 2003)

Item	Environmental conservation costs															Economic effects of environmental conservation measures									Environmental impact		Environmental conservation effects (compared to previous fiscal year)							
	Capital investment amount									Environment-related costs						Electronic Component Division			Electronics Equipment Division			Electronic Component Division		Electronics Equipment Division										
	Electronic Component Division			Electronics Equipment Division			Total			Electronic Component Division			Electronics Equipment Division			Total			Electronic Component Division	Electronics Equipment Division	Electronic Component Division		Electronics Equipment Division											
	FY 2002 result	FY 2001 result	Change	FY 2002 result	FY 2001 result	Change	FY 2002 result	FY 2001 result	Change	FY 2002 result	FY 2001 result	Change	FY 2002 result	FY 2001 result	Change	FY 2002 result	FY 2001 result	Change	FY 2002 result	FY 2001 result	Change	FY 2002 result	FY 2001 result	Change	FY 2002 result	FY 2001 result	Change							
Business area costs	63	1,543	-1,480	0	14	-14	63	1,557	-1,494																									
Breakdown	Major details															Major details																		
	Pollution prevention costs			Global environment conservation costs			Resource circulation costs			Upstream/downstream costs			Management activity costs			Research and development costs			Social activity costs			Other costs												
Total	63	1,545	-1,482	8	18	-10	71	1,563	-1,492	405	384	21	534	548	-14	939	932	7	30	-34	64	285	312	-27	315	278	37							

Unit: millions of yen

\*Environment-related costs do not include depreciation costs for fixed assets.  
\*Personnel expenses are calculated using average unit figures.

## Capital investment



## Environment-related costs

