

Environmental Accounting

We analyze the cost effectiveness of our environmental activities in course of business and tabulated relevant accounting data for fiscal 2003 based on the Ministry of the Environment's Environmental Accounting

Results for Fiscal 2003

In fiscal 2003, there was no change in our environmental accounting policies. The scope of accounting targets also remained unchanged.

For environment-related capital investments, the total amount increased by ¥372 million compared to fiscal 2002, which is mainly attributable to ¥278 million spent by Casio Micronics to introduce exhaust air ducts, wastewater treatment facilities and an Econo-Pilot system for environmental conservation and ¥89 million spent by Hachioji Research & Development Center to introduce state-of-the-art energy saving technologies in the Electronic Component Division.

Environment-related costs of the Electronic Component Division and the Electronics Equipment Division increased by ¥28 million and ¥53 million, respectively. In addition, ¥23 million was posted for restoring soil quality when soil pollution was detected during the work to rebuild the Hachioji Research & Development Center. [p.14](#)

For the Electronics Equipment Division, the composition ratios for upstream/downstream costs and management activity costs both increased due to the promotion of product recovery and recycling as well as the environmental management efforts.

While the economic effect remained at ¥129 million as a result of increased consumption of materials in line with the business expansion, environmental conservation effects were improved as shown by CO₂ reduction of 975 tons and landfill reduction of 52 tons.

$$(1) \text{ Economic effectiveness} = \frac{\text{Total economic effects}}{\text{Total environmental cost}}$$

Economic effectiveness represents the economic rationality of total cost spent on environmental activities.

FY 2003			FY 2002		
Electronic Component Division	Electronics Equipment Division	Total	Electronic Component Division	Electronics Equipment Division	Total
0.01	0.21	0.13	0.07	0.53	0.34

$$(2) \text{ Environmental efficiency (CO}_2\text{)} = \frac{\text{Sales (in ¥1 million)}}{\text{Environmental impact (in CO}_2\text{ emissions: ton-CO}_2\text{)}}$$

Environmental efficiency represents the sales per 1 ton of CO₂ emissions.

FY 2003			FY 2002		
Electronic Component Division	Electronics Equipment Division	Total	Electronic Component Division	Electronics Equipment Division	Total
1.37	18.17	4.10	0.98	15.77	3.40

Future measures

We will continue to improve our environmental accounting through effective management of environmental capital investment and analysis of the data accumulated up to the present and use it as a tool to assess environmental management, so that environmental impact can be further reduced.

We will also strive to enrich the content of material on environmental accounting to be publicly released.

Examples of Projects Achieving Results from Environmental Investments

In addition to the group-wide efforts, each company and production site in the Casio Group promotes environmental impact reducing activities by implementing various projects unique to each company or site.

The projects shown below are examples of achieving results from environmental investments. Each site grasped the facility status in detail and made efforts through effective facility operation with the aim of energy saving.

Project details	Formula for calculating cost effectiveness (Units: ¥1 thousand)	Economic effectiveness	
Co-generation system	$\frac{49,900 \text{ (Benefit of using co-generation system) (cost reduction per year)}}{277,200 \text{ (total amount paid for leasing: 10 years)}}$	0.180	Energy costs are reduced by approximately 20% and the costs for leasing will be recovered within six years.
Inverter control of pump and fans for air conditioning	$\frac{1,642 \text{ (reduction of yearly expense for electricity)}}{7,853 \text{ (investment amount)}}$	0.209	Control a water supply pump and eight fans for air conditioning by using an inverter to optimize the air conditioning effect and save energy. The investment will be recovered within five years.
Control of water heating/cooling system for air conditioning	$\frac{11,779 \text{ (reduction of energy per year)}}{54,800 \text{ (investment amount)}}$	0.215	To save energy, a system is introduced to control heat source units to allow only necessary units work. The investment will be recovered within five years.
Controlling heat storage tank and air conditioning systems with less energy	$\frac{8,487 \text{ (reduction of energy per year)}}{56,330 \text{ (investment amount)}}$	0.151	A heat storage tank will be introduced to store cold water using nighttime electricity to be used for air conditioning during daytime. Various kinds of energy saving equipment are attached to peripherals of the air conditioning unit to save the use of electricity. The investment will be recovered within seven years.

* 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 2002 and the effects based on the actual results for fiscal 2003. The monetary effects shown below are actual results by project and do not include future effects calculated based on hypothetical estimations.

Results for FY 2003

The Electronic Component Division is composed of 4 domestic sites, while the Electronics Equipment Division is composed of 8 domestic sites.

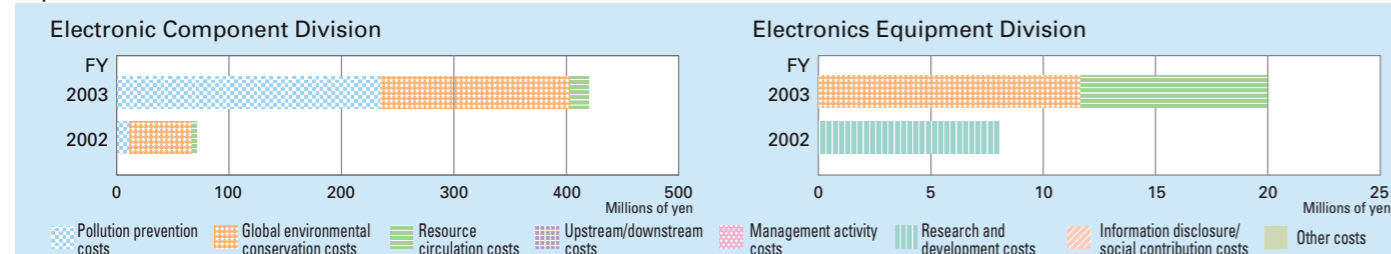
Unit: millions of yen

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									
	Electronic Component Division		Electronics Equipment Division		Total		Electronic Component Division			Electronics Equipment Division			Total			Major details	Electronic Component Division	Electronics Equipment Division	Total	Major details	Change (in quantity)	Change (in percentage)			Change (in quantity)	Change (in percentage)										
	FY 2003 result	FY 2002 result	Change	FY 2003 result	FY 2002 result	Change	FY 2003 result	FY 2002 result	Change	FY 2003 result	FY 2002 result	Change	FY 2003 result	FY 2002 result	Change								FY 2003 result	FY 2002 result			Change	FY 2003 result	FY 2002 result	Change	FY 2003 result	FY 2002 result	Change			
Business area costs	423	63	360	20	0	20	443	63	380	333	344	-11	215	206	9	548	550	-2	-7	25	-32	29	53	-24	22	78	-56									
Breakdown																																				
Pollution prevention costs	238	11	227			0	238	11	227	151	165	-14	3	3	0	154	168	-14	-14	3	-17	39	39	0	25	42	-17									
Global environmental conservation costs	165	50	115	12		12	177	50	127	14	13	1	20		20	34	13	21	8	52	-44	-3	12	-15	5	64	-59									
Resource recycling costs	20	2	18	18		8	28	2	26	168	166	2	192	203	-11	360	369	-9	-1	-30	29	-7	2	-9	-8	-28	20									
Upstream/downstream costs			0			0	0	0	0			0	160	137	23	160	137	23	13	5	8	94	232	-138	107	237	-130									
Management activity costs			0			0	0	0	0	56	48	8	130	108	22	186	156	30																		
Research and development costs			0			-8	0	8	-8			0	63	59	4	63	59	4																		
Information disclosure/social contribution costs			0			0	0	0	0	21	13	8	19	20	-1	40	33	7																		
Other costs			0			0	0	0	0	23		23		4	-4	23	4	19																		
Total	423	63	360	20	8	12	443	71	372	433	405	28	587	534	53	1,020	939	81	6	30	-24	123	285	-162	129	315	-186									

* Depreciation costs for fixed assets are not included in the total for environment-related costs.
* Personal expenses are calculated using average unit figures.

* Economic effects based on theoretical calculation are not included.

Capital investment



Environment-related costs

