

# Environmentally Conscious Products

## Meeting Standards for Environmentally Conscious Products in 2006 (new models)

	Law Promoting Green Purchasing (Japan)	Eco Mark (Japan)	International ENERGY STAR® Program
Copying Machines/MFDs	20/22 (91%)	18/22 (82%)	20/22 (91%)
Facsimile Machines	2/2 (100%)	-	2/2 (100%)
Laser Beam Printers (LBPs)	6/7 (86%)	6/7 (86%)	6/7 (86%)
Inkjet Printers	16/16 (100%)	15/16 (94%)	18/18 (100%)
Large-Format Printers	6/6 (100%)	0/6 (0%)	6/6 (100%)
Image Scanners	4/4 (100%)	-	2/2 (100%)
<b>Total</b>	<b>54/57 (95%)</b>	<b>39/51 (77%)</b>	<b>54/57 (95%)</b>

Notes:  
 1. Values show the number of on-spec. models out of the number of models on sale, with the conformance ratio in brackets.  
 2. Facsimile machines and image scanners are outside the scope of Eco Mark specification.

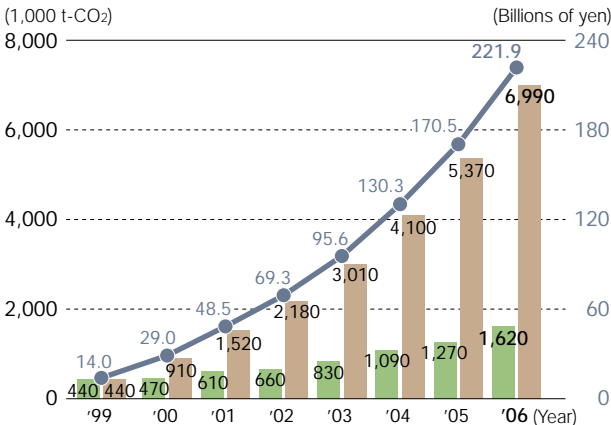
## Total Amount of Raw Materials Used (t)

	2000	2004	2005	2006
Steel	244,127	265,724	286,521	348,037
Non-Ferrous Metal	30,451	35,566	39,747	45,012
Plastics	243,087	265,971	264,733	369,164
Electronic Parts	7,284	8,967	7,016	7,768
Glass	4,906	4,371	5,993	7,888
Paper	289,239	243,608	212,539	226,624
Indirect Materials (Chemical Substances)	6,878	10,672	12,689	15,762

Notes:  
 1. Calculated based on weight of raw materials used for each product multiplied by the total number of products shipped.  
 2. Indirect materials calculated based on the amount of purchases of substances Canon designates as controlled substances (about 2,000 substances).

## Benefits from Canon's Proprietary Energy-Efficient Technologies Used in Office Machines

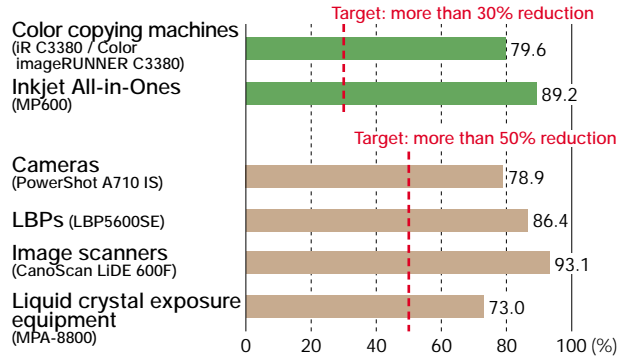
■ CO<sub>2</sub> reduction  
 ■ Cumulative CO<sub>2</sub> reduction  
 ● Cumulative economic benefits (Amount of money)



Note: The CO<sub>2</sub> reduction amount is calculated per unit, based on the number of units sold. This calculation assumes that previously sold copying machines and laser beam printers are used for eight years.

## Power Consumption Reduction Rates in Energy Consumption for Major Products

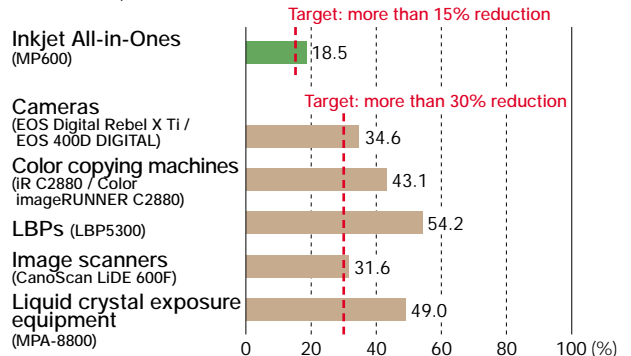
■ Compared with previous / conventional models  
 ■ Compared with 2000 model



Note: Canon calculates reduced rates of energy consumption for major products by setting conditions for the measurement of each product.

## Rate of Size and Weight Reduction for Main Products

■ Compared with previous / conventional models  
 ■ Compared with 2000 model

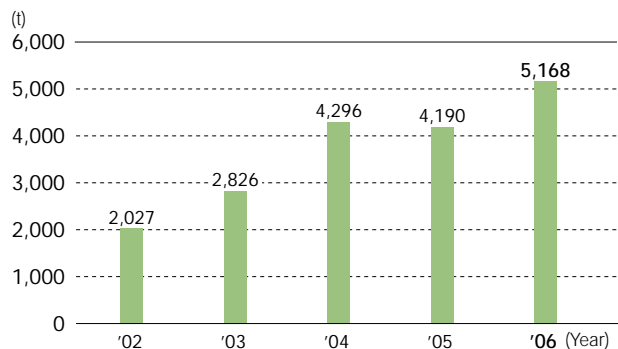


## Product Collection Results and Recovery Ratio

	2001	2002	2003	2004	2005	2006 (Recovery Rate)
Copying machines (1,000 units)	112	144	137	142	122	138 (95.2%)
Toner cartridges (t)	14,441	15,554	15,773	16,760	18,179	21,051 (100%)
Ink cartridges (t)	26	51	70	75	76	95 (100%)

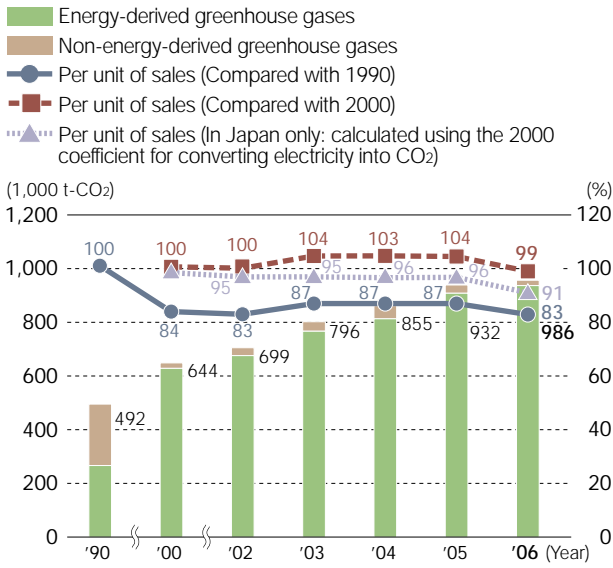
Note: Recovery ratio includes thermal recycling.

## Amount of Reused and Recycled Plastic (t)

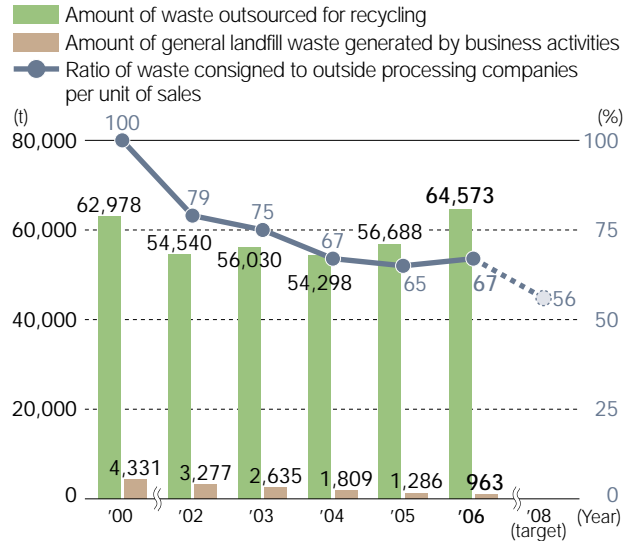


# Environmental Activities at Operational Sites (1)

## Total Amount of Greenhouse Gas Emissions



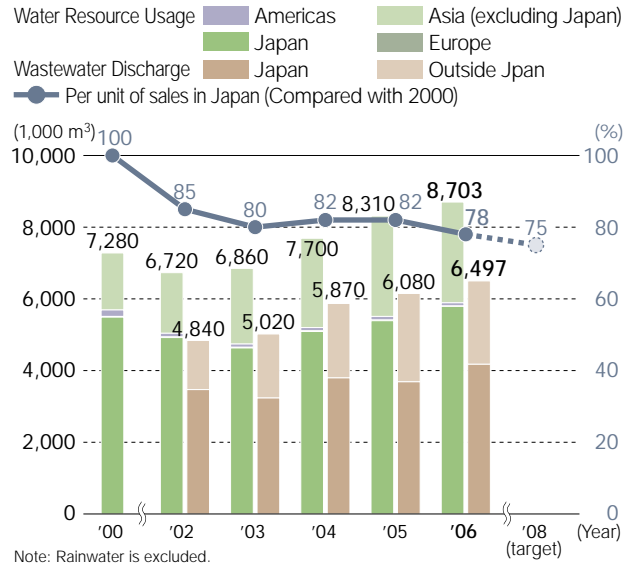
## Amounts of Waste Outsourced for Recycling and General Landfill Waste Generated by Business Activities



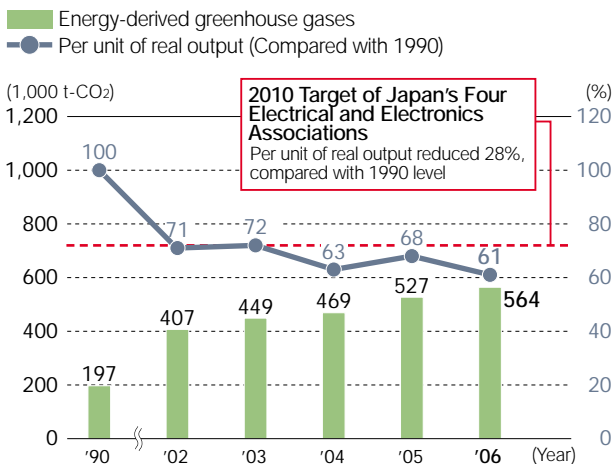
## Energy Consumption by Region in 2006

	Electricity	Gas	Oil	Other (Steam, wide-area heating and air conditioning)
	MWh	km <sup>3</sup>	kL	MJ
Japan	1,301,949	36,326	26,384	52,395,810
Americas	46,052	18	0	0
Europe	14,271	8,256	0	695,060
Asia (excluding Japan)	302,190	2,355	1,997	44,047,033
Total	1,664,462	46,955	28,381	97,137,903

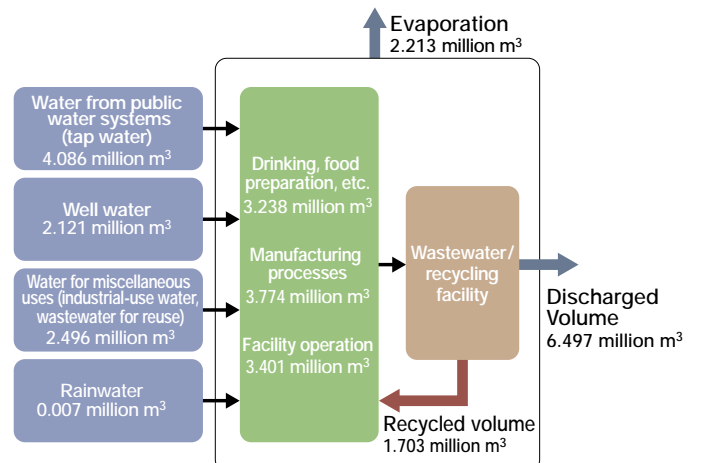
## Use of Water Resources and Discharge of Wastewater



## Total Greenhouse Gas Emissions by the Canon Group's Production Sites in Japan (Progress toward Achieving the Voluntary Targets of Japan's Four Electrical and Electronics Associations)



## Details of Water Resource Usage in 2006



## Environmental Activities at Operational Sites (2)

### Substances Canon No Longer Uses

Name of Substance Eliminated		Date Eliminated
Ozone-Depleting Substances	CFCs (chlorofluorocarbons) 15 types	December 1992
	1,1,1-Trichloroethane	October 1993
	HCFCs (hydrochlorofluorocarbons) 34 types	October 1995
Greenhouse Gases*	PFCs (perfluorocarbons)	December 1999
	HFCs (hydrofluorocarbons)	December 1999
Soil Contaminants	trichloroethylene	December 1996
	tetrachloro ethylene	December 1996
	dichloro methane (for cleaning)	December 1997
	dichloro methane (for thin film coating)	October 2003

Note: Excludes use in semiconductor production.

### Amount of PRTR\* Substances Discharged <sup>(t)</sup>

	2000	2002	2003	2004	2005	2006
Japan	166	71	63	65	66	57
Outside Japan	214	42	38	32	23	27
<b>Total</b>	<b>380</b>	<b>113</b>	<b>101</b>	<b>97</b>	<b>89</b>	<b>84</b>

\* PTPR: Pollutant Release and Transfer Register

### PRTR Substance Management Results in 2006 (Japan and Outside Japan) <sup>(t)</sup>

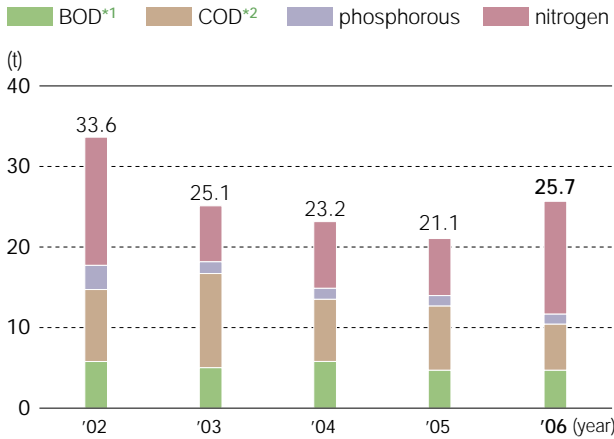
No.	Substance No.	Chemical Substance	Amount of Discharges		Amount of Transfers		
			Atmosphere	Hydrosphere	Sewage Systems	Waste	Recycled Materials
1	1	zinc compounds (water-soluble)	0.00	0.00	0.00	0.00	0.51
2	16	2-aminoethanol	0.01	0.00	0.01	0.40	19.80
3	25	antimony and its compounds	0.00	0.00	3.40	0.00	1.20
4	30	bisphenol A type epoxy resin (liquid)	0.03	0.02	0.00	0.02	0.50
5	40	ethylbenzene	0.58	0.00	0.00	0.19	10.83
6	43	ethylene glycol	0.01	0.00	0.00	0.09	3.79
7	44	ethylene glycol monoethyl ether	0.01	0.00	0.00	0.00	0.05
8	45	ethylene glycol monomethyl ether	0.00	0.00	0.00	0.00	0.00
9	46	ethylenediamine	0.00	0.00	0.00	0.00	2.40
10	63	xylene	4.25	0.00	0.00	2.10	48.58
11	64	silver and its water-soluble compounds	0.02	0.01	0.00	0.16	0.19
12	68	chromium and chromium (III) compounds	0.00	0.00	0.00	0.00	0.01
13	93	chlorobenzene	31.01	0.00	0.00	3.12	410.93
14	96	chloromethane; methyl chloride	0.00	0.00	0.00	0.00	3.05
15	100	cobalt and its compounds	0.00	0.00	0.00	0.00	0.04
16	101	ethylene glycol monoethyl ether acetate	0.01	0.00	0.00	0.00	0.96
17	113	1,4-dioxane	0.02	0.00	0.00	0.00	2.31
18	139	o-dichlorobenzene	0.04	0.00	0.00	0.00	2.88
19	172	N,N-dimethylformamide	1.23	0.00	0.00	0.00	120.48
20	177	styrene	1.46	0.00	0.00	0.00	64.84
21	181	thiourea	0.00	0.00	0.00	0.00	1.08
22	207	copper salts (water-soluble, except complex salts)	0.00	0.00	0.00	0.00	0.02
23	224	1,3,5-trimethylbenzene	1.08	0.00	0.00	0.03	2.86
24	227	toluene	43.64	0.00	0.00	27.54	54.85
25	230	lead and its compounds	0.00	0.00	0.00	0.09	0.82
26	231	nickel	0.00	0.00	0.30	0.00	0.28
27	232	nickel compounds	0.00	0.00	0.04	0.00	6.51
28	260	pyrocatechol	0.02	0.00	0.00	0.00	2.33
29	266	phenol	0.03	0.00	0.00	0.00	0.48
30	283	hydrogen fluoride and its water-soluble salts	0.11	0.11	1.51	0.13	1.60
31	304	boron and its compounds	0.00	0.00	0.00	0.00	0.62
32	308	poly(oxyethylene) octylphenyl ether	0.03	0.00	0.00	0.00	2.02
33	311	manganese and its compounds	0.00	0.00	0.00	0.00	0.52
34	338	m-tolylene diisocyanate	0.00	0.00	0.00	0.00	1.06
Total			83.59	0.14	5.26	33.87	768.40

Notes:

1. Out of the 354 Class I Designated Chemical Substances, the above data indicates the amount of discharges and transfers of substances Canon used in quantities 1 ton or more.
2. There is no discharge into the soil and no landfill at operational sites.

# Environmental Activities at Operational Sites (3) / Logistics

## Environmental Impact on the Hydrosphere



Calculation condition: Calculated as overall water discharges from operational sites in Japan times average annual water quality values. Discharges into sewers are not included.

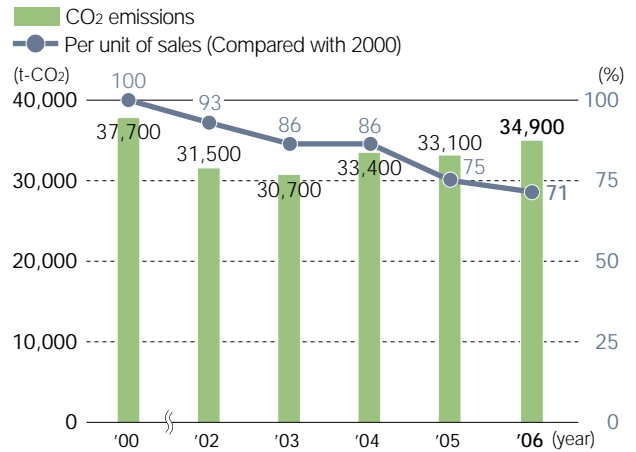
- \*1 BOD (biochemical oxygen demand)  
BOD is the amount of oxygen consumed when microorganisms degrade organic matter in water.
- \*2 COD (chemical oxygen demand)  
COD is the amount of oxygen consumed when oxidizing agents oxidize organic matter in water.

## 2006 Fuel Use and Environmental Burden from Logistics

Fuel (crude oil equivalent) (KL)	326,191	
Environmental Burden	CO <sub>2</sub> (1,000t-CO <sub>2</sub> )	940
	SO <sub>x</sub> (t)	465
	NO <sub>x</sub> (t)	2,865

Calculated environmental burden:  
 - "Transported by truck" computed from figures released by the Plastic Waste Management Institute.  
 - "Transported by sea and air" computed from figures released in the '98 Handbook of Energy & Economic Statistics in Japan.

## Logistics-Related CO<sub>2</sub> Emissions (Japan)



## Logistics-Related CO<sub>2</sub> Emissions (Global) (1,000 t-CO<sub>2</sub>)

		2003	2004	2005	2006
Japan	Procurement and production	15	15	16	17
	Sales	16	18	17	18
	Subtotal	31	33	33	35
Outside Japan	Procurement and production	11	14	18	23
	Sales	38	42	45	49
	Subtotal	49	56	63	72
International Shipping	By air	404	459	408	559
	By sea	208	219	255	274
	Subtotal	612	678	663	833
Total		692	767	759	940

# Environmental Accounting

## Environmental Accounting Results for 2006

Reporting scope: Main subsidiaries and affiliates (expanded from 2004 by adding data for main subsidiaries and affiliates outside Japan to data for subsidiaries and affiliates in Japan).  
Calculations performed in accordance with the Environmental Accounting Guidelines (2005 edition) issued by Japan's Ministry of the Environment.

(Billions of yen)

Environmental Conservation Cost				
Category		Key Activity and the Outcome	Investment	Cost
(1) Business Area Cost			8.34	9.37
Details	1) Pollution Prevention	Air, water and soil pollution prevention, etc.	5.06	5.04
	2) Global Environmental Cost	Energy conservation, efficient logistics, prevention of global warming, etc.	2.76	1.60
	3) Resource Circulation Cost	Efficient resource use, waste reduction, sorting, recycling, etc.	0.52	2.73
(2) Upstream / Downstream Cost		Green procurement initiatives, product recycling <sup>*1</sup> , etc.	0.02	3.20
(3) Administration Cost		Environmental education, environmental management system, tree planting, information disclosure, environmental advertising, personnel, etc.	1.30	3.21
(4) R&D Cost <sup>*2</sup>		R&D for reducing environmental burden	0.24	1.69
(5) Social Activities Cost		Contributions to environmental and other organizations, sponsorships, memberships, etc.	0.03	0.28
(6) Environmental Remediation Cost		Soil remediation	0.00	1.34
Total			9.93	19.09

<sup>\*1</sup> In connection with the recycling of used products, expenses for product collection, storage, sorting, shipment, etc.

<sup>\*2</sup> Expenses for basic research of environmental technologies.

Environmental Conservation Benefit				
Details of Benefit		Environmental Conservation Indices		
		Index	Index Value	Change Compared to Prior Year
Benefit Related to Business Area Cost	Benefit Related to Resources Input into Business Activities	Energy conservation (t-CO <sub>2</sub> )	46,220	-
		Water recycle volume (1,000 m <sup>3</sup> )	1,700	-
		Resources used (t)	187,944	+23%
	Benefit Related to Waste or Environmental Impact Originating from Business Activities	Reduction in atmospheric emissions (t) <sup>*3</sup>	12	+7%
		Reduction in discharges into water (t) <sup>*4</sup>	5	+22%
		Reduction in waste (t)	323	-25%
Benefit Related to Upstream / Downstream Cost	Benefit Related to Goods and Services Produced from Business Activities	Product energy conservation amount (t-CO <sub>2</sub> ) <sup>*5</sup>	1,618,616	-
		Recovery of used products (t) <sup>*6</sup>	32,825	-

<sup>\*3</sup> Total of controlled substances emitted by the atmosphere by Canon (including PRTR substances) and NOx and SOx emissions resulting from consumption of boiler fuel.

<sup>\*4</sup> Total of controlled substances emitted by Canon into the public water system, as well as BOD, COD, nitrogen and phosphorous emitted into the public water system.

<sup>\*5</sup> CO<sub>2</sub> equivalent for forecasted electric energy consumption for the number of machines with on-demand energy-efficient technologies (on-demand fixing technology, IH fixing technology) and inkjet energy-saving technology shipped in 2006.

<sup>\*6</sup> Amount of recovery of copying machines, cartridges, etc. (including outsourced material recycling and energy recovery)

(Billions of yen)

Economic Benefit Associated with Environmental Conservation Activities		
Details of Benefit		Monetary Value
Revenue	Sales revenue from waste recycling	1.78
Cost Reduction	Energy expense reduction from energy conservation	1.76
	Expense reduction from green procurement	0.01
	Waste handling expense reduction from resource conservation and recycling	1.00
Total		4.55

(Billions of yen)

Economic Benefit of Upstream/Downstream Costs		Monetary Value
Lower Electric Energy Expense from Reduced Product Energy Consumption <sup>*7</sup>		52.10
Profits from Used Product Recycling		1.68

<sup>\*7</sup> Calculated as the reduction in annual energy consumption of business machines with on-demand energy-efficient technologies (on-demand fixing technology, IH fixing technology) and inkjet energy-saving technology X 12 yen / kWh (economic effect for the customer).