

CSR Report 2011: Detailed Data

■ Editorial Policy on this CSR Report 2011: Detailed Data

This PDF discloses detailed data not presented in the *Toppan CSR Report 2011*.

The CSR report is edited in line with the seven core subjects set under ISO 26000, a guidance standard on social responsibility. In this *Detailed Data*, Toppan also uses the core subjects as its main titles.

■ Scope of this PDF

The data on Labor Practices covers Toppan Printing Co., Ltd. only. The scope of the environmental performance data is presented in the below table, which shows indicators assured by an independent assurance provider.

■ Reliability

KPMG AZSA Sustainability Co., Ltd. provides independent assurance for this PDF, along with the *Toppan CSR Report 2011*. The following presents the environmental performance indicators in this *Detailed Data* assured by the independent assurance provider.

Environmental Performance Indicators Assured by an Independent Assurance Provider and Scope of the Environmental Performance Data

① Toppan Printing Co., Ltd. ("the Company")

② 20 domestic manufacturing subsidiaries within the scope of the Company's environmental targets

③ 19 domestic subsidiaries outside the scope of the Company's environmental targets

④ 29 overseas subsidiaries

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*1 Covers operational site data that make up significant portions of the totals.

Contact Information

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Labor Practices

Results in Human Asset Development

	Funds Spent on Training per Employee	Usage Rate of Toppan Training Center*1
Fiscal 2008	35,325 yen	59.2%
Fiscal 2009	41,789 yen	68.8%
Fiscal 2010	35,471 yen	78.4%

*1 The usage rate is calculated by dividing the number of days the facility was actually used (including use by subsidiaries and affiliated companies) by the number of days it was available.

Retention Rate for Recruits

(Percentage of fiscal 2008 hires still working at Toppan)

	Male	Female
Hired on April 1, 2008	430	127
Still with Toppan as of April 1, 2011	380	114
Retention rate	88%	90%
Average total for males and females	89%	
Percentage who leave the Company before working three years	11%	

Environment

Toppan's Environmental Burden*2

INPUT/OUTPUT Data by Business Field for the Domestic Sites (within the scope of the environmental targets)

Category	Chief Component	Information & Networks	Living Environment	Electronics	Non-production Sites	Total	
INPUT	Material	Total input (tons)	853,977	551,988	44,467	—	1,450,432
		Papers (tons)	833,332	343,269	405	—	1,177,006
		Plastic (tons)	2,456	141,297	3,406	—	147,159
		Glass (tons)	1	1	12,131	—	12,133
		Ink, solvent (tons)	16,045	59,753	3,122	—	78,920
	Other (tons)	2,143	7,668	25,403	—	35,214	
	Energy	Total energy consumption (1,000 GJ)	4,285	5,371	6,241	692	16,589
		Primary energy [fuel] (1,000 GJ)	1,514	1,508	847	102	3,971
		Secondary energy [electricity, steam] (1,000 GJ)	2,771	3,863	5,394	590	12,618
	Water	Water consumption (1,000 m ³)	1,122	1,876	10,479	347	13,824
		Industrial water (1,000 m ³)	439	508	244	0	1,191
		Municipal water (1,000 m ³)	459	551	56	335	1,401
		Groundwater (1,000 m ³)	221	817	10,179	0	11,217
		Rainwater (1,000 m ³)	3	0	0	12	15
	Use of water circulated on premises (1,000 m ³)	0	13	4,814	0	4,827	
Chemical substances	Handling of chemical substances designated under the PRTR law (tons)	1,289	2,680	4,709	3	8,681	
Atmosphere	CO ₂ emission (t-CO ₂)	184,556	255,675	254,010	27,949	722,190	
	Emission of ozone-depleting substances (ODP-kg)	12	67	0	0	79	
	NOx emission (kg)	42,019	77,248	21,797	2,321	143,385	
	SOx emission (kg)	19	17,592	13,115	0	30,726	
	Emission of dioxins (mg-TEQ)	4	76	0	0	80	
Release of chemical substances designated under the PRTR law (tons)	64	321	12	1	398		
OUTPUT	Water and soil environments	Total effluent discharge (1,000 m ³)	718	1,342	9,986	279	12,325
		Public water system (1,000 m ³)	9	849	9,386	0	10,244
		Sewage system (1,000 m ³)	706	484	600	279	2,069
		Underground penetration (1,000 m ³)	3	9	0	0	12
		Onsite evaporation (1,000 m ³)	396	407	363	45	1,211
		BOD (kg)	30	2,979	48,013	0	51,022
		COD (kg)	0	1,761	14,157	0	15,918
		Nitrogen discharge (kg)	0	10,492	17,852	0	28,344
		Phosphorous discharge (kg)	0	1,339	736	0	2,075
		Release of chemical substances designated under the PRTR law (kg)	0	51	503	0	554
Waste	Total discharge (tons)	143,386	100,156	32,475	1,828	277,845	
	Recycled (tons)	142,909	99,197	32,209	1,518	275,833	
	Final landfill waste disposal (tons)	60	534	28	21	643	

*2 Energy consumption associated with fuel consumption is calculated using the conversion factor specified in the year 2000 amendment of the Act on the Rational Use of Energy of Japan. Energy consumption associated with electricity consumption is calculated uniformly as 0.00983 GJ/kWh. CO₂ emissions are calculated by the method specified in the Guidelines for Calculating Greenhouse Gas Emissions from Businesses (2003) from the Ministry of the Environment of Japan. CO₂ emissions associated with electricity consumption are calculated uniformly as 0.378 t-CO₂/MWh. CO₂ emissions associated with electricity consumption at overseas sites, however, are calculated based on the CO₂ emission conversion factors (applied to specific countries for 2000) published by the Greenhouse Gas Protocol (GHG Protocol) Initiative.

INPUT/OUTPUT Data by Business Field for the Domestic Sites (outside the scope of the environmental targets)

Category	Chief Component	Information & Networks	Living Environment	Electronics	Non-production Sites	Total	
INPUT	Energy	Total energy consumption (1,000 GJ)	2,417	763	533	22	3,735
		Primary energy [fuel] (1,000 GJ)	246	93	76	0	415
		Secondary energy [electricity, steam] (1,000 GJ)	2,171	670	457	22	3,320
	Water	Water consumption (1,000 m ³)	1,516	92	1,032	4	2,644
		Industrial water (1,000 m ³)	37	0	0	0	37
		Municipal water (1,000 m ³)	287	92	23	4	406
		Groundwater (1,000 m ³)	1,178	0	1,009	0	2,187
Rainwater (1,000 m ³)		14	0	0	0	14	
Use of water circulated on premises (1,000 m ³)		0	0	24	0	24	
Chemical substances	Handling of chemical substances designated under the PRTR law (tons)	7	76	131	0	214	
OUTPUT	Atmosphere	CO ₂ emission (t-CO ₂)	97,146	30,593	22,769	865	151,373
		Emission of ozone-depleting substances (ODP-kg)	0	5	0	0	5
		NOx emission (kg)	13,138	3,864	3,171	8	20,181
		SOx emission (kg)	10	1	2,549	0	2,560
		Emission of dioxins (mg-TEQ)	0	0	0	0	0
		Release of chemical substances designated under the PRTR law (tons)	0	6	0	0	6
Water and soil environments	Total effluent discharge (1,000 m ³)	1,403	56	865	4	2,328	
	Public water system (1,000 m ³)	1,178	36	853	0	2,067	
	Sewage system (1,000 m ³)	222	20	12	4	258	
	Underground penetration (1,000 m ³)	3	0	0	0	3	
	Onsite evaporation (1,000 m ³)	103	36	167	0	306	
	BOD (kg)	803	167	4,775	0	5,745	
	COD (kg)	3,081	0	0	0	3,081	
	Nitrogen discharge (kg)	379	0	0	0	379	
	Phosphorous discharge (kg)	50	0	0	0	50	
	Release of chemical substances designated under the PRTR law (kg)	0	0	1,766	0	1,766	
Waste	Total discharge (tons)	66,154	11,112	7,215	245	84,726	
	Recycled (tons)	63,870	10,940	1,704	245	76,759	
	Final landfill waste disposal (tons)	75	15	0	0	90	

INPUT/OUTPUT Data by Business Field for the Overseas Sites (outside the scope of the environmental targets)

Category	Chief Component	Information & Networks	Living Environment	Electronics	Non-production Sites	Total	
INPUT	Energy	Total energy consumption (1,000 GJ)	1,400	688	4,086	—	6,174
		Primary energy [fuel] (1,000 GJ)	197	278	114	—	589
		Secondary energy [electricity, steam] (1,000 GJ)	1,203	410	3,972	—	5,585
Water	Water consumption (1,000 m ³)	1,357	134	2,120	—	3,611	
	Industrial water (1,000 m ³)	—	—	—	—	0	
	Municipal water (1,000 m ³)	1,220	85	2,050	—	3,355	
	Groundwater (1,000 m ³)	137	49	70	—	256	
	Rainwater (1,000 m ³)	0	0	0	—	0	
	Use of water circulated on premises (1,000 m ³)	0	0	0	—	0	
Chemical substances	Handling of chemical substances designated under the PRTR law (tons)	—	—	—	—	—	
OUTPUT	Atmosphere	CO ₂ emission (t-CO ₂)	101,516	41,681	269,051	—	412,248
		Emission of ozone-depleting substances (ODP-kg)	23	0	50	—	73
		NOx emission (kg)	6,644	9,728	1,915	—	18,287
		SOx emission (kg)	120	315	29	—	464
		Emission of dioxins (mg-TEQ)	0	0	0	—	0
		Release of chemical substances designated under the PRTR law (tons)	—	—	—	—	—
Water and soil environments	Total effluent discharge (1,000 m ³)	1,229	111	1,808	—	3,148	
	Public water system (1,000 m ³)	25	2	150	—	177	
	Sewage system (1,000 m ³)	1,204	64	1,658	—	2,926	
	Underground penetration (1,000 m ³)	0	45	0	—	45	
	Onsite evaporation (1,000 m ³)	70	17	311	—	398	
	BOD (kg)	186	0	250	—	436	
	COD (kg)	649	0	1,202	—	1,851	
	Nitrogen discharge (kg)	156	0	0	—	156	
	Phosphorous discharge (kg)	0	0	0	—	0	
Release of chemical substances designated under the PRTR law (kg)	—	—	—	—	—		
Waste	Total discharge (tons)	59,206	11,679	7,570	—	78,455	
	Recycled (tons)	57,277	9,041	6,398	—	72,716	
	Final landfill waste disposal (tons)	1,867	2,396	399	—	4,662	

Environmental Management Activities

ISO 14001 Certification (78 systems at 114 operational sites, as of March 31, 2011)

■ ISO 14001 Certificates Obtained at Toppan Printing Co., Ltd. and Manufacturing Subsidiaries (within the scope of the environmental targets)

Operational Site (Division or Manufacturing Subsidiary)	Registrar	Registration Date
Shiga Plant (Toppan Electronics Products Co., Ltd.)	JQA	Jul. 1998
Kumamoto Plant (Toppan Electronics Products Co., Ltd.)	JQA	Nov. 1998
Toppan Cosmo, Inc. [Kashiwa Plant and Satte Plant of Toppan Decor Products Inc.]	JQA	Mar. 2000
Niigata Plant (Toppan Electronics Products Co., Ltd.), Niigata Plant (NEC Toppan Circuit Solutions, Inc.)	JQA	Apr. 2000
Toyama Plant [including the Manufacturing Department 3 and Inspection Department] (NEC Toppan Circuit Solutions, Inc.)	JQA	Aug. 2000
Sakado Site	JQA	Oct. 2000
Ranzan Plant (Toppan Communication Products Co., Ltd.)	JQA	Nov. 2000
Akihabara Office (Living Environment Division)	JQA	Mar. 2001
Itabashi Site (Information and Communication Division) [including Toppan Joho Kako Co., Ltd.]	JQA	Feb. 2002
Fukusaki Plant (Toppan Packaging Products Co., Ltd.) [including Toppan Packs Co., Ltd. and the Wakayama Plant of Toppan Plastic Co., Ltd.]	JQA	Jul. 2002
Toppan Group Kawaguchi Site	JQA	Aug. 2002
Takino Plants (Information and Communication Division, Living Environment Division)	JQA	Oct. 2002
Gunma Plant (Toppan Packaging Products Co., Ltd.)	JQA	Jul. 2003
Asaka Plant (Toppan Printing Co., Ltd.)	JQA	Dec. 2003
Mito Plant (Toppan Proprint Co., Ltd.)	JSA	Jan. 2004
Saitama Plant, Miyagi Plant, Sano Plant (Toppan Containers Co., Ltd.)	JQA	Apr. 2004
Toppan Electronics Fuji Co., Ltd.	JQA	Jun. 2004
Hiroshima Office (Chugoku & Shikoku Subdivision), Fukuyama Plant (Toppan Joho Kako Co., Ltd.)	SAI GLOBAL	Oct. 2004
Kansai Division	JQA	Nov. 2004
Higashinohon Division	JQA	Mar. 2005
Koto Plant (Toppan Proprint Co., Ltd.)	JQA	Mar. 2005
Technical Research Institute	JQA	May 2005
Sapporo Plant, Chitose Plant (Hokkaido Division)	JSA	Jun. 2005
Mie Site (Electronics Division)	JQA	Jan. 2006
Koshigaya Plant, Kawaguchi Plant, Sagamiara Plant (Toppan Plastic Co., Ltd.)	SAI GLOBAL	Dec. 2006
Ranzan Plant, Kyushu Plant (Toppan Packaging Service Co., Ltd.)	JQA	Feb. 2007
Sagamiara Plant (Toppan Packaging Products Co., Ltd.)	SAI GLOBAL	Mar. 2007
Saga Plant (Toppan Plastic Co., Ltd.)	SAI GLOBAL	Nov. 2007
Fukuoka Plant (Toppan Packaging Products Co., Ltd.)	SAI GLOBAL	Oct. 2008
Head office, Kansai branch, Atsugi site (Toppan Techno Co., Ltd.)	SAI GLOBAL	Mar. 2009
Sodegaura Beverage Plant (Toppan Packaging Service Co., Ltd.)	SAI GLOBAL	Apr. 2009
Fukuoka Plant (Toppan Communication Products Co., Ltd.)	SAI GLOBAL	Oct. 2009
Fukaya Plant [including the Satte Site] (High Performance Component Subdivision of the Living Environment Division)	JQA	Mar. 2010
Nagoya Plant (Chubu Division of Toppan Printing Co., Ltd.)	JQA	Dec. 2010
Mikkabi Plant (Toppan Packs Co., Ltd.)	SAI GLOBAL	Nov. 2010
Toppan Printing Co., Ltd. (Green Front Sakai)	BUREAU VERITAS	Mar. 2011

■ ISO 14001 Certificates Obtained at Domestic Subsidiaries (outside the scope of the environmental targets)

Operational Site (Group Company)	Registrar	Registration Date
Ortus Technology Co., Ltd.	JQA	Oct. 2000
Total Media Development Institute Co., Ltd.	JSA	Mar. 2001
Hino Plant (Toppan Forms Co., Ltd.)	JQA	Jun. 2001
Head office and head office plant, Saitama Plant (Livrectech Co., Ltd.)	JCQA	Jul. 2001
Fukushima Plant, Takino Plant (Toppan TDK Label Co., Ltd.)	JQA	Nov. 2001
Nishigaoka Site [including the Kawaguchi transport department] (Toppan Logistics Co., Ltd.)	JQA	Oct. 2002
Tosho Printing Co., Ltd. [including Creative Center Co., Ltd., Tosho Bindery Co., Ltd., and Tosho Bookbinding Co., Ltd.]	JQA	May 2003
Fussa Plant (Toppan Forms Co., Ltd.)	JQA	Feb. 2004
R&D Center (Toppan Forms Co., Ltd.)	JQA	Mar. 2004
Hamamatsu Plant, Media Plant, Shizuoka Plant, Nagoya Plant (Toppan Forms Tokai Co., Ltd.)	JQA	Aug. 2004
Kyushu Plant (Toppan Forms Nishinohon Co., Ltd.)	JQA	Jan. 2005
Sagamiara Plant, Kita Plant, Nishi Plant, Nishi Warehouse (Toppan TDK Label Co., Ltd.)	JCQA	Jan. 2005
Head office, Plate-making Center, Kobe Plant, Kyoto Plant (Kansai Tosho Printing Co., Ltd.)	JQA	Jun. 2005
Hino Plant (Toppan Media Printec Tokyo Co., Ltd.)	JSA	Nov. 2005
Kawamoto Plant (Toppan Forms Co., Ltd.)	JQA	Aug. 2006
Esaka Center, Osaka Plant, Settsu Plant, Kobe Plant, Ibaraki Logistics Center, KCF Co., Ltd. operational site (Toppan Forms Kansai Co., Ltd.)	JQA	Apr. 2007
Ortus Technology Kochi Co., Ltd.	JQA	Feb. 2008
Zama Plant (Toppan Media Printec Tokyo Co., Ltd.)	JACO	Sep. 2009
Toppan Forms (Sanyo) Co., Ltd. [including the Sanin Center]	JQA	Oct. 2009
Gunma Plant (Tamapoly Co., Ltd.)	JQA	Feb. 2011

■ ISO 14001 Certificates Obtained at Overseas Subsidiaries

Group Company	Registrar	Registration Date	
Toppan Photomasks France SAS	LRQA	Oct. 2000	
Toppan Photomasks, Inc. (Santa Clara, Round Rock)	LRQA	Nov. 2001	
Siam Toppan Packaging Co., Ltd.	MASCI	Apr. 2002	
Toppan Printing Co., (H.K.) Ltd.	DNV	May 2002	
Toppan Printing Co. (America), Inc.	DNV	Dec. 2002	
Toppan Chunghwa Electronics Co., Ltd.	SGS	Oct. 2003	
Toppan Printing Co., (Shenzhen) Ltd.	SSCC	Dec. 2003	
Toppan Photomasks Germany GmbH	LRQA	Oct. 2004	
Toppan CFI (Taiwan) Co., Ltd.	SGS	Nov. 2004	
P.T. Toppan Printing Indonesia	LRQA	Nov. 2004	
Toppan Photomasks Co., Ltd. Shanghai	LRQA	Feb. 2005	
Toppan Photomasks Korea Limited	LRQA	Feb. 2005	
Toppan Printing Co., (Shanghai) Ltd.	CEC	Feb. 2006	
Toppan SMIC Electronics (Shanghai) Co., Ltd.	BSI	Feb. 2007	
Toppan Leefung Printing (Shanghai) Co., Ltd.	CCCI	Apr. 2007	
Toppan Yau Yue Paper Products (Shenzhen) Co., Ltd.	SGS	Nov. 2007	
Shanghai Toppan Printing Co., Ltd.	NQA	Jul. 2008	
Toppan Yau Yue Paper Products (Dongguan) Co., Ltd.	MIC	Jan. 2009	
Toppan Leefung Printing Limited	Toppan Leefung Packaging & Printing (Dongguan) Co., Ltd.	CNAS	Mar. 2009
Toppan Excel Printing (Guangzhou) Co., Ltd.	CTC	May 2009	
Beijing Nippo Printing Co., Ltd.	SGS	Sep. 2009	
Toppan Leefung Changcheng Printing (Beijing) Co., Ltd.	ZDHY	Nov. 2009	
Toppan Security Printing Pte. Ltd.	TUV	Aug. 2010	

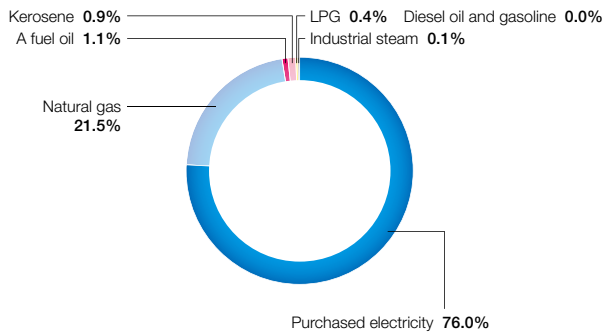
Note: The company names accord with those mentioned in the registration certificate.

Mitigating Global Warming

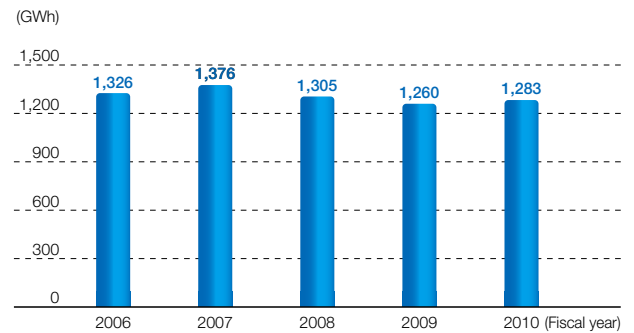
Mitigation of Global Warming through the Development of Energy-saving Measures

	Main Measure in Fiscal 2010	Reduction Result (t-CO ₂ /year)	Main Plan for Fiscal 2011	Reduction Target (t-CO ₂ /year)
Information & Networks	Kawaguchi: Replaced once-through boilers Kansai: Optimized the capacities of boilers	-1,280	Itabashi: Apply inverter control for pumps Takino Securities Printing: Switch fuels through the replacement of boilers	-1,450
Living Environment	Gunma: Replaced refrigerating machines Satte: Replaced compressors	-2,324	Gunma: Repair air leakage points in compressors Satte: Introduce operation control systems for air-conditioning equipment	-1,961
Electronics	Kumamoto: Replaced refrigerating machines TNCSI Toyama: Regularly maintained and checked compressors	-7,061	Niigata: Manage operation by controlling the number of pumps Sakai: Reduce the load of air conditioners for outside air processing (OAC-101) installed in clean rooms	-5,136
Non-production sites	Technical Research Institute: Replaced turbo-refrigerating machines	-75	Technical Research Institute: Operate air fans at a low-air-volume setting during non-running hours in clean rooms	-58
Total	—	-10,740	—	-8,605

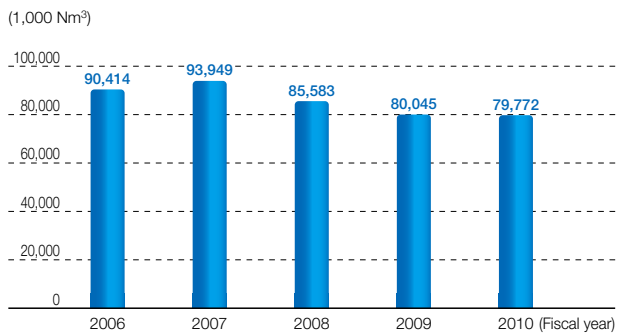
Ratio by Energy Type (in terms of caloric value)



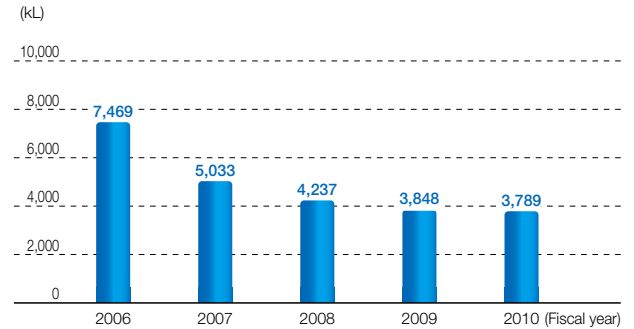
Electricity Consumption



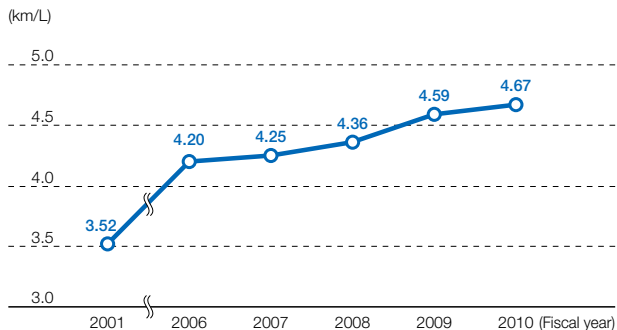
Natural Gas Consumption



Kerosene Consumption



Fuel Efficiency of Company-owned Vehicles



Building a Recycling-oriented Society

Promotion of Waste Reduction and Recycling

	Main Measure in Fiscal 2010	Reduction Result (tons/year)	Main Plan for Fiscal 2011	Reduction Target (tons/year)
Information & Networks	Sendai: Reviewed the management methods for cleaning wastewater treatment tanks Kawaguchi: Reduced the volume of water for washing developing machines	-602	Kawaguchi: Reduce the generation of waste ink Sakado: Treat waste oil and wastewater with oil-water separators	-20
Living Environment	Gunma: Reduced the generation of incinerated ash and waste oil Chitose: Reduced the volume of waste oil	-561	Gunma: Reduce the volume of ash through improvements in the incineration efficiency of incinerators Toppan Containers Saitama: Reduce the generation of waste pallets and waste ink cans	-650
Electronics	Shiga: Internally treated waste liquids Mie: Upgraded effluent treatment processes	-2,173	Shiga: Internally treat waste liquids Kumamoto: Reduce the generation of dewatered sludge derived from effluent treatment	-640
Non-production sites	Reduced the generation of non-industrial waste	-100	Reduce the generation of non-industrial waste	-100
Total	—	-3,436	—	-1,410

Note: Includes measures to reduce waste discharge per unit of production value, improve the material recycling rate, reduce final landfill waste disposal, and expand the number of certified zero-emission sites.

Zero-emission Sites (TZERO-10) (51 plants certified in August 2010)

Operational Site	Waste discharged (tons)	Recycled (tons)	Recycling Rate (%)
Technical Research Institute (Toppan Printing Co., Ltd.)	341.3	341.3	100.00%
Asaka Securities Printing Plant (Toppan Communication Products Co., Ltd.)	4,115.4	4,115.4	100.00%
Ranzan Plant (Toppan Communication Products Co., Ltd.)	749.6	749.3	99.96%
Asaka Plant (Toppan Electronics Products Co., Ltd.)	399.5	399.5	100.00%
Niigata Plant (Toppan Electronics Products Co., Ltd.)			
Niigata Plant (NEC Toppan Circuit Solutions, Inc.)	11,067.4	11,066.9	100.00%
Mie Plant [Kameyama] (Toppan Electronics Products Co., Ltd.)	1,727.0	1,726.4	99.97%
Mie Plant [Tsu] (Toppan Electronics Products Co., Ltd.)	4,329.2	4,329.2	100.00%
Kumamoto Plant (Toppan Electronics Products Co., Ltd.)	4,747.2	4,746.5	99.99%
Toppan Electronics Fuji Co., Ltd.	227.0	223.2	98.33%
Toyama Plant (NEC Toppan Circuit Solutions, Inc.)	2,947.3	2,945.7	99.94%
Satte Site (Fukaya Plant of Toppan Printing Co., Ltd.)	574.8	574.8	100.00%
Itabashi Site	9,138.4	9,088.4	99.45%
Asaka Site [Commercial Printing Subdivision, Publications Subdivision] (Toppan Communication Products Co., Ltd.)	8,552.2	8,546.1	99.93%
Asaka Site (Toppan Joho Kako Co., Ltd.)			
Sakado Site	25,833.7	25,833.7	100.00%
Kawaguchi Site	40,223.4	40,223.4	100.00%
Itabashi Plant (Toppan Joho Kako Co., Ltd.)	22,437.7	22,419.9	99.92%
Sagamihara Plant (Toppan Packaging Products Co., Ltd.)			
Sagamihara Plant (Toppan Packs Co., Ltd.)	19,010.6	19,010.6	100.00%
Saitama Plant (Toppan Containers Co., Ltd.)	9,164.3	9,079.0	99.07%
Sano Plant (Toppan Containers Co., Ltd.)	4,381.7	4,330.2	98.82%
Miyagi Plant (Toppan Containers Co., Ltd.)	3,735.6	3,717.6	99.52%
Kumagaya Site (Toppan Containers Co., Ltd.)	248.9	248.8	99.96%
Koshigaya Plant (Toppan Plastic Co., Ltd.)	372.2	369.1	99.15%
Sagamihara Plant (Toppan Plastic Co., Ltd.)	87.2	87.2	100.00%
Wakayama Manufacturing Department (Fukusaki Plant of Toppan Plastic Co., Ltd.)	150.0	150.0	100.00%
Ranzan Plant (Toppan Packaging Service Co., Ltd.)	294.2	294.1	99.99%
Sodegaura Beverage Plant (Toppan Packaging Service Co., Ltd.)	633.4	623.3	98.41%
Kyushu Plant (Toppan Packaging Service Co., Ltd.)	176.8	176.8	100.00%
Kashiwa Plant (Toppan Decor Products Inc.)	246.5	246.5	100.00%
Satte Plant (Toppan Decor Products Inc.)	6,151.7	6,151.7	100.00%
Itami Plant (Toppan Packaging Products Co., Ltd.)	9,335.6	9,288.0	99.49%
Toppan Harima Products Co., Ltd.	574.7	574.7	100.00%
Takino Plant (Toppan Communication Products Co., Ltd.)	11,892.2	11,801.9	99.24%
Takino Plant (Toppan Packaging Products Co., Ltd.)	5,104.2	5,100.9	99.94%
Takino Securities Printing Plant (Toppan Communication Products Co., Ltd.)	1,127.3	1,127.1	99.98%
Nagoya Plant (Chubu Division)	5,254.9	5,252.1	99.95%
Matsuzaka Plant (Toppan Packaging Products Co., Ltd.)	2,586.6	2,564.3	99.14%
Mikkabi Plant (Toppan Chubu Insatsu Kako Co., Ltd.)	3,616.3	3,585.1	99.14%
Fukuoka Plant (Toppan Packaging Products Co., Ltd.)	5,348.6	5,346.8	99.97%
Fukuoka Plant (Toppan Communication Products Co., Ltd.)	5,671.8	5,671.8	100.00%
Saga Plant (Toppan Plastic Co., Ltd.)	214.5	213.9	99.71%
Tamana Plant (Nishinon Site of Toppan Packs Co., Ltd.)	5,286.6	5,286.6	100.00%
Fukuyama Plant (Toppan Joho Kako Co., Ltd.)	4,248.8	4,218.9	99.30%
Sendai Plant (Higashinon Division)	4,912.5	4,814.8	98.01%
Sapporo Plant (Hokkaido Division)	2,522.7	2,522.3	99.98%
Chitose Plant (Hokkaido Division)	5,070.9	5,043.2	99.45%
Mito Plant (Toppan Proprint Co., Ltd.)	4,585.1	4,582.5	99.94%
Koto Plant (Toppan Proprint Co., Ltd.)	1,686.9	1,684.9	99.88%
Sansei Printing Ltd.	42.0	42.0	100.00%
Toppan office inside Fukuren Co., Ltd.	71.5	71.5	100.00%
Fukaya Plant (High Performance Component Subdivision of the Living Environment Division of Toppan Printing Co., Ltd.)	315.5	315.5	100.00%
Sakai Plant (Toppan Electronics Products Co., Ltd.)	241.9	240.7	99.51%

Note: Two criteria were set for certifying operational sites as zero-emission sites in August 2010. 1) For first-time certification, a site is required to have attained a recycling rate of 98% or over in fiscal 2009. 2) For ongoing certification, a site is required to have attained an average recycling rate of 98% or over for fiscal 2008 and fiscal 2009.

Preventing Pollution / Controlling Chemical Substances

PRTR Results for Fiscal 2010

(Unit: kg/year)

PRTR No.	Former No.	Chemical Substance	Handle	Release	Release			Total Transfer
					1. Atmosphere	2. Water	3. Soil	
20	16	2-aminoethanol	59,096	0	0	0	0	24,597
30	24	Linear alkylbenzenesulfonate and chlorides	2,828	0	0	0	0	1,036
44	—	Indium and its compounds	10,911	0	0	0	0	1,899
53	40	Ethylbenzene	26,805	5,717	5,717	0	0	239
58	45	Ethylene glycol monomethyl ether	5,817	291	291	0	0	913
59	46	Ethylenediamine	8,210	0	0	0	0	8,098
71	—	Ferric chloride	2,688,598	7	0	7	0	2,357,026
76	61	ε-caprolactam	3,972	0	0	0	0	498
80	63	Xylene	65,077	6,466	6,466	0	0	297
82	64	Silver and its water-soluble compounds	1,030	0	0	0	0	0
87	68	Chromium and trivalent chromium compounds	28,194	6	0	6	0	7,836
88	69	Hexavalent chromium compounds	18,515	0	0	0	0	892
144	108	Inorganic cyanide compounds	2,067	0	0	0	0	106
151	—	1,3-dioxolane	16,558	539	539	0	0	7,622
243	179	Dioxins (mg-TEQ)	818	76	76	0	0	742
272	207	Copper salts (water-soluble, except complex salts)	1,293,976	421	0	420	0	257,292
275	—	Sodium dodecyl sulfate	1,051	0	0	0	0	0
291	218	1,3,5-tris(2,3-epoxypropyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	2,152	0	0	0	0	387
296	—	1,2,4-trimethylbenzene	54,916	2,643	2,643	0	0	1,142
297	224	1,3,5-trimethylbenzene	6,528	1,057	1,057	0	0	5,471
300	227	Toluene	3,810,999	380,699	380,699	0	0	411,998
308	231	Nickel	56,302	0	0	0	0	1,584
309	232	Nickel compounds	25,637	82	0	82	0	21,730
395	—	Water-soluble salts of peroxodisulfuric acid	285,321	0	0	0	0	0
405	304	Boron and its compounds	1,702	24	0	24	0	2
411	310	Formaldehyde	45,393	32	32	0	0	106
412	311	Manganese and its compounds	7,848	15	0	15	0	3,420
420	320	Methyl methacrylate	6,542	417	417	0	0	1,028
438	—	Methylnaphthalene	87,426	408	408	0	0	0
448	II-78	Methylenebis(4,1-phenylene) diisocyanate	57,498	0	0	0	0	3,934
Total of currently designated substances			8,680,970	398,823	398,270	554	0	3,119,151
Total of formerly designated substances			5,478,691	395,226	394,680	547	0	747,528

Notes: •Period covered: April 1, 2010–March 31, 2011

- Substances designated: The 30 substances shown above; both former and current PRTR numbers under the “Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof” of Japan are shown to the left of the name of each substance.
- Operational sites covered: Sites that handle more than 1.0 ton of Class I designated chemical substances per year. (Or specified Class I designated chemical substances in excess of 0.5 tons per year.)
- The total transfer is the sum of transfers into waste and sewage systems.

Ratio of Greenhouse Gas Emissions by Type (in tons of CO₂ equivalent)

(Unit: ratio: % total: t-CO₂)

Fiscal Year	CO ₂	CH ₄	N ₂ O	Total
2007	99.93	—	0.07	805,109
2008	99.93	—	0.07	751,901
2009	99.92	—	0.08	715,729
2010	99.93	—	0.07	722,724

Ratio of Greenhouse Gas Emissions by Source (in tons of CO₂ equivalent)

(Unit: ratio: % total: t-CO₂)

Fiscal Year	Electricity Use	Fuel Use	Waste Incineration	Total
2007	65	32	4	805,109
2008	66	31	4	751,901
2009	66	30	4	715,729
2010	67	29	4	722,724

Note: Calculated by the method specified in the Guidelines for Calculating Greenhouse Gas Emissions from Businesses (2003) from the Ministry of the Environment of Japan.

Promoting the Conservation of Biodiversity

ECO-GREEN Purchasing

Fiscal Year	2007	2008	2009	2010
Case	2,675	2,753	2,634	2,703

Note: ECO-GREEN is a toilet paper composed of about 50% used Cartocan paper.

Eco-creativity Activities

List of Environmentally Friendly Products

Business Field	Product	Environmental Point
Securities and Cards	Ecothrough card	Suitability for disposal
	Paper IC Card	Use of recycled materials
	Bulky Waste Processing Sticker	Resource-saving (reduced use of materials)
	Card for ETC	Suitability for disposal
	Rewritable Paper	Long product life
	Ultra-thin DM	Resource-saving
	Green Bankbook	Recyclability
	KAMICARD®	Biodegradability, recyclability
Commercial Printing	KAMI-RFID CARD	Easy separation and disassembly, recyclability
	Eco Pack (life-size POP display)	Resource-saving (reduced use of materials)
	Paper Desk Calendar	Use of recycled materials
	Ecology Calendar	Use of recycled materials
	Eco POP	Use of recycled materials, suitability for disposal, energy-saving
	Cerap	Suitability for disposal
	Eco Pack Stand	Resource-saving
	Eco Pack Multipanel	Reusability
	Eco Floor Sticker	Suitability for disposal
	Eco Pack End Panel	Resource-saving
	Eco Pack Stand, Round-type	Resource-saving
	EPOP	Use of safe materials
Publications Printing	Eco Pack Multipanel Mini	Reusability
	Multicube POP	Reusability
	Recycled vegetable-Oil Ink	Use of recycled materials
	Polyurethane Reactive Hot-Melt	Easy separation and disassembly
Electronics	Non-Vinyl Chloride Lenticular Lens	Suitability for disposal
	Disk Tottokun Series	Recyclability
	Halogen-free printed wiring board	Suitability for disposal
	Anti-reflection film	Use of safe materials
	Color filter (resin black matrix [BM])	Use of safe materials
Packaging	Palladium-plated leadframe	Use of safe materials
	Lead-free solder coated printed wiring board	Use of safe materials
	GL Family	Suitability for disposal
	Standing pouch for refill	Resource-saving (reduced use of materials)
	Bottled Pouch	Resource-saving (reduced use of materials)
	Plastic Container Made from Recycled Materials	Use of recycled materials
	Ecogloss (environmentally-friendly gloss finishing)	Resource-saving (reduced use of exhaustible materials), use of recycled materials
	Recording Media Packaging	Resource-saving (reduced use of exhaustible materials)
	TT Paper Can	Easy separation and disassembly
	Neovert	Use of recycled materials
	Ecotainer	Resource-saving (reduced use of exhaustible resources)
	TL-PAK	Resource-saving (reduced use of exhaustible resources)
	EP-PAK (EP-GL)	Resource-saving (reduced energy usage in logistics)
	EP-PAK (A)	Resource-saving (reduced energy usage in logistics)
	Stand-up Laminated Tube	Resource-saving (reduced use of materials)
	Recyclen Cap	Easy separation and disassembly
	AP Cartons	Resource-saving (reduced use of energy in logistics)
	Micro-Flute	Resource-saving (reduced use of energy in logistics)
	TP-Tray	Recyclability
	Corrugated Absorber	Recyclability
	AD-Case	Resource-saving (reduced use of materials)
	Cartocan	Recyclability

Business Field	Product	Environmental Point
Packaging	Paper Cup Made from Recycled Paper	Use of recycled materials
	Cup made from Tree-Free paper	Resource-saving (use of byproducts)
	Biodegradable Package	Biodegradability
	Cylindrical Paper Cartridges	Resource-saving (reduced use of energy in logistics)
	Coated Barrier Film	Suitability for disposal
	GL-C Bottle	Resource-saving
	GX film	Resource-saving
	Jar Plus	Resource-saving
	Tray All	Easy separation and disassembly
	GL Film Lined Paper Cup	Resource-saving
	Double-Wall Barrier Cup	Resource-saving
	Oil-Proof Paper	Use of safe materials
	Functional Coated Paper	Recyclability
	In-Mold Barrier Cup	Resource-saving
	Tamper-Evident Recyclen Cap	Easy separation and disassembly
	Easy peel-off thermo-cap for PET bottles	Easy separation and disassembly
	Ecoband	Resource-saving
	Water-based Cold Seal	Reduced release of chemical substances
	Biodegradable Plant Pot	Biodegradability
	Barrier Cup (NSP Process)	Resource-saving
	Plastic Clip	Recyclability
	Notchless Easy-cut Container (AL type)	Resource-saving (reduced energy expended in manufacturing)
	Recycled PET Clear Case	Recyclability
	ALUGLAS	Suitability for disposal
	Stripping and heat-sensitive label for glass bottles	Easy separation and disassembly
	Food container made from heat-resistant	Resource-saving
	Paper carton with tamper evident closure	Resource-saving
	One-piece occlusion-preventive plug for TL-PAKs	Resource-saving
	Sealed paper tray	Resource-saving
	Flexible packaging material using paper	Resource-saving
	Clear UV-Blocking Film	Suitability for disposal
	Injection-molded articles of biomass-plastics	Resource-saving
	EL-Case	Easy separation and disassembly
	Oil-proof paper for fluorine-free cardboard	Use of safe materials
	Paper cup made from pulp from forest-thinning	Resource-saving
	GL-compliant back sheet for solar cells	Suitability for disposal, long product life
	Paper composite container	Resource-saving, recyclability
	Pouch-type fragrance container	Resource-saving, recyclability
	Resource-saving Cartocan (rectangular type)	Resource-saving, recyclability
	Packaging materials using low-migration type adhesives	Reduced release of chemical substances, use of safe materials
	Delayed-tack label for glass bottles (film type)	Easy separation and disassembly, resource-saving
	Cylindrical paper-complex container	Resource-saving
High Resistance Flexible Pouch	Resource-saving	
Folding Pouch (for refilling)	Easy separation and disassembly	
In-mold Decorated Components	Reduced release of chemical substances	
Aluminum-free Dead-fold Lid Material	Suitability for disposal	
Solar cell back sheet	Energy-saving	
Special Shaped Pouch with Embossing and Laser-cutting	Easy separation and disassembly	
Heat-insulating Paper with Foamed Layer	Reduced energy consumption in production	
Moisture-barrier standing pouch	Resource-saving, suitability for disposal	

Environmental Accounting

Capital Investment for Environmental Conservation (Million yen)

Item	Major Content	Fiscal 2010	Increase/Decrease from Fiscal 2009	Total Sum for the Last Five Years
1	Investment in equipment to prevent pollution	1,387	76	7,800
2	Investment in equipment to conserve the global environment	259	-1,265	2,462
3	Investment in equipment to circulate resources	637	311	5,617
4	Investment in equipment for management activities	204	186	311
Total		2,487	-692	16,190

Note: Since fiscal 2005, Toppan has focused solely on capital investment for environmental conservation and the environmental conservation benefit obtained. This is done to improve the accuracy of assessments and verifications of cost effectiveness by excluding reliance on estimates insofar as possible.

Environmental Conservation Benefit

Item	Major Content	Increase/Decrease*1	Fiscal 2010
Energy	Total energy consumption (1,000 GJ)	1,500	26,499
Water	Water consumption (1,000 m ³)	2,919	20,079
Atmosphere	CO ₂ emission (1,000 t-CO ₂)	111	1,286
	Emission of ozone-depleting substances (ODP-t)	0	0
	NOx emission (tons)	-8	182
	SOx emission (tons)	2	34
Water and soil environments	Emission of dioxins (mg-TEQ)	-15	80
	Total effluent discharge (1,000 m ³)	2,780	17,801
	Onsite evaporation (1,000 m ³)	26	1,915
Waste	BOD (tons)	6	57
	COD (tons)	2	21
	Total discharge (1,000 tons)	29	441

*1 Increases and decreases from fiscal 2009

Green Procurement and Green Purchasing

Green Procurement Standards (Paper)

	Level 1	Level 2	Result	
			Fiscal 2009	Fiscal 2010
1. Using recycled paper	100% recycled paper, or more-than-70% recycled paper plus forest-certified paper for the remaining portion	More-than-70% recycled paper, or forest-certified paper, tree-free paper, paper made with pulp from forest-thinning operations	12.1%	12.8%
2. Considering the degree of whiteness	About 70% (±4%) for non-coating paper	About 80% (±4%) for non-coating paper		
3. Considering the volume of coating	Below 12 g/m ² (Maximum of 8 g/m ² per single surface)	Below 30 g/m ² (Maximum of 17 g/m ² per single surface)		
4. Using chlorine-gas-free pulp	100% ECF-bleached pulp (no chlorine gas [Cl ₂] used for bleaching)			
5. Not containing hazardous substances	Non-usage of azo-coloring agent, a substance that could potentially form the amines shown in the attached list	For the amines shown in the attached list, no more than 30 mg per 1 kg of product should be detectable.		
6. Reducing component properties obstructive to waste paper recycling	Non-usage of printing materials with waste paper recyclability rankings of B, C, or D	Non-usage of printing materials with waste paper recyclability rankings of C or D		
7. Procuring from manufacturers proactively engaged in paper recycling	Procurement from manufacturers who proactively use waste paper as raw materials for recycled paper			

Note: Results under the Green Standards for Offset Printing Services (2006 amendment) of the Japan Federation of Printing Industries (JFPI)

Green Procurement Standards (Ink)

	Level 1	Level 2	Result	
			Fiscal 2009	Fiscal 2010
1. Avoiding the use of materials harmful to the human body	Conformance to the NL regulations of the Association of Japan Printing Ink Manufacturers		96.8%	99.2%
2. Avoiding the use of substances known to generate hazardous substances	Non-usage of chloride-based resins			
3. Considering chemical substances designated under the PRTR law	Non-usage of substances designated under the PRTR law	Identification of substances designated under the PRTR law (via MSDSs)		
4. Controlling VOC emissions	VOC content below 1% (non-VOC ink) [excluding ink for web press]	VOC content below 15% (low-VOC ink) or soybean oil ink		
6. Reducing component properties obstructive to waste paper recycling	Non-usage of printing materials with waste paper recyclability rankings of B, C, or D	Non-usage of printing materials with waste paper recyclability rankings of C or D		

Note: Results under the Green Standards for Offset Printing Services (2006 amendment) of the Japan Federation of Printing Industries (JFPI)

In-house Green Purchasing Standards and Level of Fulfillment

Product	Standard	Result for Fiscal 2010
Copy machines and printers	Variously configured to automatically revert to low-power mode or off mode	100%
PCs	Variously configured to automatically revert to low-power mode or off mode	100%
Stationery and office goods	Products listed in the eco-friendly product catalogues of manufacturers	86.7%