

Environmental Report

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Toppan's Environmental Activities

Toppan reinforces its Group-wide approach to preserve the global environment based on The Toppan Group Declaration on the Global Environment, a new philosophy revised from Toppan's Declaration on the Global Environment.

■ The Toppan Group Declaration on the Global Environment

With the growing awareness of environmental conservation throughout the world in the 1990s, the scope of environmental issues to be tackled by companies grew significantly. Toppan reorganized its previous structure for environmental conservation by establishing the Ecology Center in 1991 and promulgating Toppan's Declaration on the Global Environment, a basic philosophy for environmental conservation activities, in 1992. The Company has promoted environmental conservation initiatives ever since.

In April 2009, Toppan took an important step to help realize a sustainable world in which every form of life can coexist into the future by revising Toppan's Declaration on the Global Environment into The Toppan Group Declaration on the Global Environment, a new basic philosophy for environmental activities for the entire Group. The revised declaration reflects Toppan's more assertive approach to the preservation of the global environment.

The Toppan Group Declaration on the Global Environment

As responsible members of international society, we who work within the Toppan Group strive to realize a sustainable society through forward looking corporate activities with consideration for the conservation of the global environment.

Basic Principles

1. We observe all laws, regulations and in-company rules relating to the environment.
2. For the future of the Earth, we strive for the effective utilization of limited resources and the reduction of all types of environmental burden.
3. With foresight, we promote the development and widespread use of products that show consideration for the environment, and contribute to the environmental activities of customers.
4. We engage in communication related to the environment with a wide range of peoples both inside and outside the company, and strive for mutual understanding.
5. We also take a proactive approach to environmental conservation in corporate activities in international society.

Established in April 1992
Revised in April 2009

■ Overview of Environmental Activities

Toppan's environmental activities are divided into four main areas, all centered around The Toppan Group Declaration on the Global Environment, Toppan's basic environmental philosophy.

First are the environmental management activities for systematically managing environmental initiatives such as the construction of the environmental management system (EMS). Second are the Eco-protection Activities to reduce the environmental burden associated with corporate activities as much as possible. Third are the Eco-creativity Activities to proactively promote the development, assessment, and sales of environmentally friendly products and technical services. Fourth are the environmental communication activities for sharing awareness of environmental conservation with stakeholders through dialogue with local communities and educational programs inside and outside the Group.

■ Environmental Burden and Environmental Impact

The first step in reducing environmental burden is to ascertain the environmental impact of the Company's overall business activities. Toppan aggregates data on the balance of materials at each production site based on INPUT (materials and energy used)/OUTPUT (materials discharged as a result of production) and then assesses the impacts of sites from various environmental standpoints. The Company establishes environmental targets based on the results of these assessments to clarify the priorities and verify the results of its environmental activities.

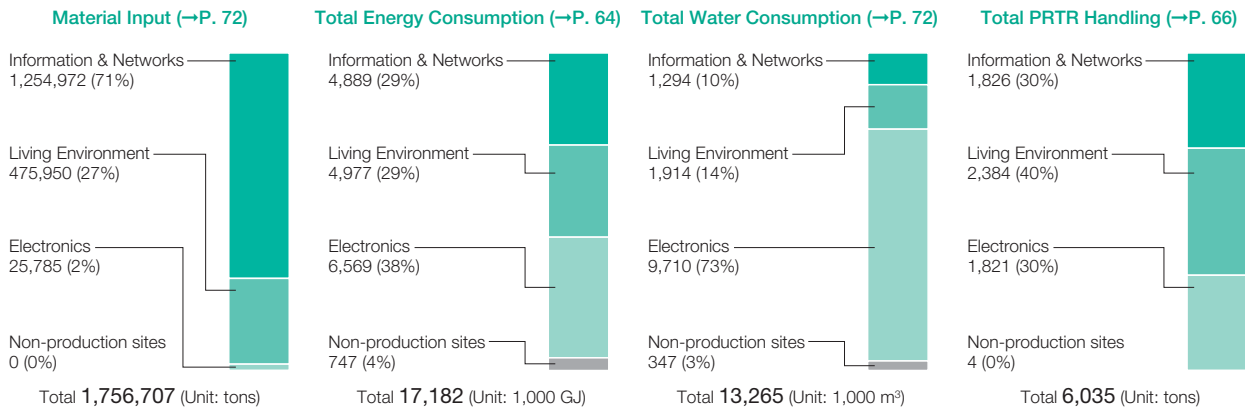
As a company engaged in diverse business fields, Toppan imposes environmental impacts in various forms. To evaluate the extent and variation of its environmental burden rationally, the Company aggregates and ascertains its environmental data independently in its three main business fields: Information & Networks, Living Environment, and Electronics (→P. 53).

Boundaries of Environmental Performance Data and Environmental Accounting

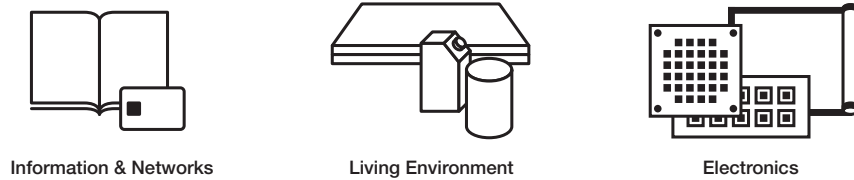
- First, Toppan selected subsidiaries that share important roles in the environmental conservation activities of Toppan Printing Co., Ltd. and the Toppan Group, from among the Group entities consolidated for accounting purposes. Next, the Company decided which of the subsidiaries selected were to be included within the boundary, based on the autonomy and independency of their environmental activities. Toppan Forms Co., Ltd., Toppan TDK Label Co., Ltd., Toppan Logistics Co., Ltd., Tamapoly Co., Ltd., Tokyo Metropolitan Government (T.M.G.) Prepress Toppan Co., Ltd., Tokyo Shoseki Co., Ltd., Tosho Printing Co., Ltd., Hino Offset Printing Co., Ltd., and overseas subsidiaries are not included, in principle. The entities covered differ, however, for the following types of data.
- P. 57 Capital Investment for Environmental Conservation, Environmental Conservation Benefit → Entities covered: All domestic and overseas subsidiaries with important roles in the environmental conservation activities of the Toppan Group
- P. 67 Approach to Logistics → Entity covered: Toppan Logistics Co., Ltd.
- P. 69 Entities covered: Toppan Printing Co., Ltd., Toppan Forms Co., Ltd., Toppan TDK Label Co., Ltd., Tamapoly Co., Ltd., Tokyo Shoseki Co., Ltd., Tosho Printing Co., Ltd., Toppan Cosmo, Inc., and froebelkan co., ltd.
- P. 72 Environmental INPUT/OUTPUT Data by Business Field → Entities covered (other than material data): All domestic and overseas Group companies with important roles in the environmental conservation activities of the Toppan Group

Major Environmental Burdens in the Business Fields (INPUT/OUTPUT data)

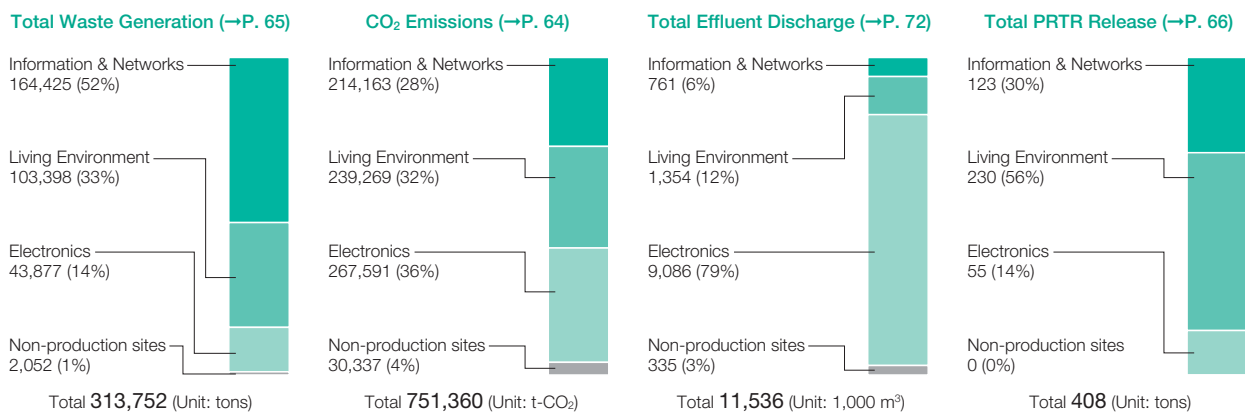
INPUT



TOPPAN



OUTPUT



- Papers used in Information & Networks and Living Environment account for 86% of material input and 73% of total waste generation, while water consumption and effluent discharge in Electronics account for 73% and 79%, respectively.
- Two types of waste are covered in this report: industrial waste of no value, and materials of value sold or transferred as resources. Both types are generated by or connected with business activities.
- Total waste generation in Electronics exceeds material input due to the inclusion of waste liquid (waste acid and alkali).
- Total energy consumption, i.e., the quantity of electricity and fuels consumed, is about the same in each business field.

Note: The calorific value of the primary energy input associated with electricity consumption is calculated uniformly as 0.00983 GJ/kWh. Some of the material inputs are calculated from estimated values based on production values.

Environmental Targets and Results for Fiscal 2008

Toppan establishes Medium- and Long-term Environmental Targets and various concrete targets for every current fiscal year in order to promote environmental activities in which every employee participates towards the realization of the goals of the Declaration on the Global Environment.

Setting Environmental Targets

Toppan specifies environmental objectives for the realization of the goals of the Declaration on the Global Environment, the basic philosophy governing Toppan's overall environmental activities in every business field. The Medium- and Long-term Environmental Targets and concrete targets for every current fiscal year are set under the individual environmental objectives to clarify the activities to be taken and the criteria for assessing achievements. Based on the

objectives and targets, Toppan promotes environmental activities with participation from every employee.

The Company reviews its environmental activities once every fiscal year (ending March 31). Based on the evaluation of achievements towards the environmental targets for the current fiscal year, the Medium- and Long-term Environmental Targets are reviewed and the targets for the following fiscal year are set.

Evaluating Progress towards the Environmental Targets

In fiscal 2008, Toppan undertook various activities to achieve the 16 environmental targets set for the year. Eleven of the targets were reached and five were not.

The Company has succeeded in achieving its annual targets for an improved material recycling rate, an expanded number of certified zero-emission sites, and reduced handling of chemical substances designated under the PRTR law.

Environmental Targets and Results for Fiscal 2008

Environmental Objectives	Medium- and Long-term Environmental Targets
1. Mitigation of global warming through the development of energy-saving measures	Reduce CO ₂ emissions per unit of sales by 10% by fiscal 2010 (compared to the fiscal 2000 level)
2. Promotion of waste reduction and recycling	Reduce waste generation per unit of production value by 25% by fiscal 2010 (compared to the fiscal 2000 level)
	Expand the material recycling of waste
	Reduce final landfill waste disposal*1 by 95% by fiscal 2010 (compared to the fiscal 2000 level)
3. Prevention of atmospheric pollution via VOC emission restraints	Efficiently use the industrial waste materials generated in the manufacturing stage and have all domestic sites certified as zero-emission sites*2 by fiscal 2010
	Reduce VOC emissions into the atmosphere by 70%*3 by fiscal 2010 (compared to the fiscal 2000 level)
4. Control of risks from chemicals	Reduce the handling of chemical substances designated under the PRTR law
5. Environmental contribution via the development and marketing of eco products	Promote the sales of environmentally friendly products
	Reinforce efforts to develop, manufacture, and assess environmentally friendly products
6. Promotion of environmental communication	—
7. Avoidance of environmental risk	Establish and observe appropriate in-house management guidelines that embrace regulatory controls
	Reduce the risk of soil contamination
	Maintain adequate communication with stakeholders
8. Enhancement of environmental education and the environmental awareness of all employees	—
9. Upgrading of environmental management systems at our overseas production sites	—

*1 Final landfill waste disposal: Direct landfill disposal + landfill disposal of residues from intermediate treatment

*2 Zero-emission site: Operational site with a recycling rate of 98% or over (subject to approval by the Ecology Center)

*3 Target in the industry: 41% reduction by fiscal 2010 (compared to the fiscal 2000 level)

*4 The material recycling was redefined in fiscal 2008. Accordingly, the target rate has been changed from 85% to 92%.

*5 The target number is revised in accordance with the consolidation of operational sites through site reorganization.

However, Toppan fell short of achieving its targeted reductions of CO₂ emissions per unit of sales, waste generation per unit of production value, final landfill waste disposal, and VOC emissions into the atmosphere. Among the obstacles to target achievement, the most significant was Toppan's decreased production volume in the second-half of the fiscal year.

■ Reviewing Environmental Targets

Toppan established environmental targets for fiscal 2009 based on evaluations of the progress towards the achievement of the targets set for fiscal 2008 (→P. 56). In fiscal 2009, the Company is planning out environmental activities towards the same number of targets in fiscal 2008: 15 medium- and long-term targets and 16 targets for the current fiscal year.

The Company intends to continue to help mitigate global warming through the

development of energy-saving measures, to further reduce its environmental burden through the promotion of waste reduction and recycling, and to control risks from chemicals through the prevention of atmospheric pollution via VOC emission restraints and the reduced handling of chemical substances designated under the PRTR law.

Toppan will carefully consider setting new targets beyond fiscal 2011 in tune with the environmental trends in industry.

Environmental Targets for Fiscal 2008	Results and Status for Fiscal 2008	Evaluation	For Details
CO ₂ emissions per unit of sales: Reduce by 5% compared to the fiscal 2007 level	CO ₂ emissions per unit of sales: Reduced by 0.9% compared to the fiscal 2007 level	B	P. 64
Waste generation per unit of production value: Reduce by 5% compared to the fiscal 2007 level	Waste generation per unit of production value: Increased by 3.2% compared to the fiscal 2007 level	B	P. 65
Material recycling rate: 92%*4	Material recycling rate: 93%*4	A	
Final landfill waste disposal: Reduce by 15% compared to the fiscal 2007 level	Final landfill waste disposal: Reduced by 14.2% compared to the fiscal 2007 level	B	
Expand the number of certified zero-emission sites: To 40 sites (out of 58 domestic sites in total)	Expand the number of certified zero-emission sites: Increased to 43 sites (out of 58 domestic sites in total)	A	
VOC emissions into the atmosphere: Reduce by 10% compared to the fiscal 2007 level	VOC emissions into the atmosphere: Reduced by 6.7% compared to the fiscal 2007 level	B	P. 66
Handling of chemical substances designated under the PRTR law: Reduce by 5% compared to the fiscal 2007 level	Handling of chemical substances designated under the PRTR law: Reduced by 12.4% compared to the fiscal 2007 level	S	
<ul style="list-style-type: none"> •Review the criteria for environmentally friendly products •Maintain sales at the fiscal 2007 level 	<ul style="list-style-type: none"> •Reviewed to revise Toppan's 14 Environmental Points and reset the life cycle stages •Increased sales in environment-related business year over year 	A	P. 68
<ul style="list-style-type: none"> •Promote FSC certification •Apply LCI in conjunction with the Packaging Division 	<ul style="list-style-type: none"> •Examined the management system for production processes at the Hokkaido Division to prepare for FSC certification at the site •Carried out LC-CO₂ assessment on the Cartocan 	B	
Provide information through exhibitions, lectures, and other presentations	Exhibited at Eco-Products 2008 (held on December 11–13, 2008)	A	PP. 62–63
Observe in-house management guidelines at all operational sites and review them as necessary	Assessed the observance of in-house management guidelines at 58 domestic sites through internal environmental audits	A	P. 60
Monitor the operational sites, including the vacant lots of reconditioned sites	Monitored the sites on an ongoing basis	A	P. 61
Expand the number of operational sites that issue <i>Site Eco Reports</i> : To 33 domestic sites (25 reports in total)*5	Expand the number of operational sites that issue <i>Site Eco Reports</i> : Increased to 33 domestic sites (25 reports in total)	A	P. 63
<ul style="list-style-type: none"> •Conduct new employee education •Review environmental education materials 	<ul style="list-style-type: none"> •Conducted environmental education via Company-wide training •Reviewed and revised the content of e-learning-based programs 	A	P. 61
Conduct internal environmental audits at overseas production sites: Eastern Asia	•Conducted audits at eight sites in Eastern Asia in February, July, November, and December	A	P. 62
Collect monthly records on conformance with local regulatory standards and environment-related data	Periodically reported data on environment-related issues via monthly overseas site reports	A	

Evaluation criteria: S, Results achieved far surpass targets; A, Targets achieved; B, Activities fully carried out, but targets unachieved; C, Activities insufficient

Environmental Targets for Fiscal 2009

Environmental Objectives and Medium- and Long-term Environmental Targets	Environmental Targets for Fiscal 2009	Details on Specific Measures
1. Mitigation of global warming through the development of energy-saving measures		
Reduce CO ₂ emissions per unit of sales by 10% by fiscal 2010 (compared to the fiscal 2000 level)	CO ₂ emissions per unit of sales: Reduce by 5% compared to the fiscal 2008 level	<ul style="list-style-type: none"> Promote energy-saving measures through the reinforced activities of the Energy Subcommittees (energy-saving reviews, etc.) Apply measures across the Company via shared information on energy saving (meetings of personnel in charge of energy saving, etc.) Implement energy-loss control measures for older equipment (load measurements, etc.) Promote large-scale energy-saving measures (fuel switchover, reduced loads for air-conditioning control in clean rooms)
2. Promotion of waste reduction and recycling		
<ul style="list-style-type: none"> Reduce waste generation per unit of production value by 25% by fiscal 2010 (compared to the fiscal 2000 level) 	Waste generation per unit of production value: Reduce by 5% compared to the fiscal 2008 level	<ul style="list-style-type: none"> Reduce material input and improve yield rates
Expand the material recycling of waste	Material recycling rate: 94%	<ul style="list-style-type: none"> Share information within the Toppan Group to seek external recycling partners Monitor recycling processes through onsite inspections for contractors
Reduce final landfill waste disposal*1 by 95% by fiscal 2010 (compared to the fiscal 2000 level)	Final landfill waste disposal: Reduce by 15% compared to the fiscal 2008 level	<ul style="list-style-type: none"> Examine recycling processing technologies and processing contractors
Efficiently use the industrial waste materials generated in the manufacturing stage and have all domestic sites certified as zero-emission sites*2 by fiscal 2010	Expand the number of certified zero-emission sites: To 45 sites (out of 56 domestic sites in total)	<ul style="list-style-type: none"> Encourage the operational sites to separate wastes for conditioning as valuable resources and provide the sites with waste management guidance
3. Prevention of atmospheric pollution via VOC emission restraints		
Reduce VOC emissions into the atmosphere by 70%*3 by fiscal 2010 (compared to the fiscal 2000 level)	VOC emissions into the atmosphere: Reduce by 10% compared to the fiscal 2008 level	<ul style="list-style-type: none"> Introduce equipment for recovering solvents (installation, verification, test-base operation) Take measures to cope with the expiration of the grace period stipulated under the Air Pollution Control Law of Japan (equipment installation at seven plants subject to the expiration of the grace period)
4. Control of risks from chemicals		
Reduce the handling of chemical substances designated under the PRTR law	Handling of chemical substances designated under the PRTR law: Reduce by 5% compared to the fiscal 2008 level	<ul style="list-style-type: none"> Reduce the handling of materials containing designated chemical substances and shift to alternative materials with low content of the same substances Comply with the revisions of the Law Concerning the Examination and Regulation of Manufacture of Chemical Substances Control and the Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemicals and Promoting Improvements in their Management of Japan (compliance with the revised MSDS)
5. Environmental contribution via the development and marketing of eco products		
Promote the sales of environmentally friendly products	<ul style="list-style-type: none"> Review the criteria for environmentally friendly products Examine designs for an LCIA method 	<ul style="list-style-type: none"> Examine, issue, and implement the revised criteria Design a method via a development project (result checks, judgment for next steps)
Reinforce efforts to develop, manufacture, and assess environmentally friendly products	<ul style="list-style-type: none"> Establish an in-house structure to calculate and label Toppan's "carbon footprint" Comply with the guidelines developed under the Convention on Biological Diversity 	<ul style="list-style-type: none"> Organize structure in each division, launch the "carbon footprint" system, and support actual operations for the divisions Examine and establish in-house guidelines in response to the governmental guidelines issued
6. Promotion of environmental communication		
	Provide information through exhibitions, lectures, and other presentations	<ul style="list-style-type: none"> Exhibit at Eco-Products 2009 and take part in environmental forums, etc.
7. Avoidance of environmental risk		
Establish and observe appropriate in-house management guidelines that embrace regulatory controls	Observe in-house management guidelines at all operational sites and review them as necessary	<ul style="list-style-type: none"> Conduct internal environmental audits at 58 domestic sites to confirm the validity and observance of the reference values established under the in-house management guidelines
Reduce the risk of soil contamination	Monitor the operational sites, including the vacant lots of reconditioned sites	<ul style="list-style-type: none"> Regularly monitor groundwater and VOCs and report the results to governmental organizations
Maintain adequate communication with stakeholders	Publish a <i>CSR Report</i> in July (in Japanese); expand the number of operational sites that issue <i>Site Eco Reports</i> : To 36 domestic sites (27 reports in total)	<ul style="list-style-type: none"> Issue a <i>CSR Report</i> and <i>Site Eco Reports</i>
8. Enhancement of environmental education and the environmental awareness of all employees		
	<ul style="list-style-type: none"> Conduct new employee education Conduct environmental education via e-learning 	<ul style="list-style-type: none"> Conduct environmental education via Company-wide training Conduct environmental education after revising the content of the e-learning-based programs
9. Upgrading of environmental management systems at our overseas production sites		
	Conduct internal environmental audits at overseas production sites: Southeast Asia and the U.S.A.	<ul style="list-style-type: none"> Conduct audits at two sites in Southeast Asia and two sites the U.S.A.
	Collect monthly records on conformance with local regulatory standards and environment-related data	<ul style="list-style-type: none"> Periodically report data on environment-related issues via monthly overseas site reports

*1 Final landfill waste disposal: Direct landfill disposal + landfill disposal of residues from intermediate treatment

*2 Zero-emission site: Operational site with a recycling rate of 98% or over (subject to approval by the Ecology Center)

*3 Target in the industry: 41% reduction by fiscal 2010 (compared to the fiscal 2000 level)

Environmental Investment and Conservation Benefit

Toppan promotes more effective environmental conservation activities by fully monitoring its capital investment for environmental conservation and the environmental conservation benefits obtained.

Capital Investment for Environmental Conservation

Toppan has been keeping an environmental account since fiscal 1998 as a tool to calculate the cost effectiveness of its investment in environmental conservation. Since fiscal 2005, the Company has focused solely on capital investment for environmental conservation and the environmental conservation benefits obtained. This is expected to improve the accuracy of assessments and verifications of cost effectiveness by excluding reliance on estimates insofar as possible.

Toppan invested 1,354 million yen in environmental conservation in fiscal 2008, 57% less than it invested the year before. This reduction is the result of considerable investments in fiscal 2007 to install equipment to recycle waste, take measures to conserve water used in wastewater treatment equipment, and undertake improvement work to mitigate odor from printing machines.

The major capital investments for fiscal 2008 have been used to pay for the installation of effluent gas treatment equipment for organic solvent gases and waste treatment equipment for improved

efficiency in waste paper treatment at production sites in the Living Environment field, and the replacement of compressors for saving energy at production sites in the Information & Networks field.

Other capital investments have been expended to fund energy-saving improvements by installing inverters onto air conditioning machines, adopting highly efficient chillers and LED lights, and switching over to brighter lights without increasing energy consumption. Toppan has also invested resources to create green spaces for beautification.

Capital investment for environmental conservation includes investments in equipment improvement work for noise reduction and deodorization in response to administrative guidance and complaints and inquiries from neighboring residents.



Effluent gas treatment equipment (Fukuoka Plant)



Waste treatment equipment (Miyagi Plant, Toppan Containers Co., Ltd.)



Compressor (Toppan Graphic Co., Ltd.)

Capital Investment for Environmental Conservation (Million yen)

Item	Major Contents	Fiscal 2008	Increase/Decrease from Fiscal 2007	Total Sum for the Last Five Years
1. Investment in equipment to prevent pollution	Investment in equipment to prevent atmospheric and other forms of pollution	840	33	10,958
2. Investment in equipment to conserve the global environment	Investment in equipment to conserve the global environment such as by mitigating global warming	326	137	1,414
3. Investment in equipment to circulate resources	Investment in equipment for the adequate treatment and recycling of waste materials	164	-1,997	5,316
4. Investment in equipment for management activities	Investment in equipment to monitor and measure environmental burdens and plant trees at operational sites	24	15	166
Total		1,354	-1,812	17,854

Environmental Conservation Benefit

Item	Major Contents	Increase/Decrease	Fiscal 2008
Energy	Total energy consumption (1,000 GJ)	2,194	26,020
Water	Water consumption (1,000 m ³)	-295	17,609
Atmosphere	CO ₂ emission (1,000 t-CO ₂)	123	1,228
	Emission of ozone-depleting substances (ODP-t)	0.3	1.0
	NO _x emission (tons)	-10	221
	SO _x emission (tons)	-19	37
	Emission of dioxins (mg-TEQ)	-106	9
Water and soil environments	Total effluent discharge (1,000 m ³)	-31	15,371
	Underground penetration (1,000 m ³)	17	55
	Onsite evaporation (1,000 m ³)	-45	1,989
	BOD (tons)	-7	56
	COD (tons)	-1	25
Waste	Total generation (1,000 tons)	7	448

Notes: Period covered: Last fiscal year for each company or subsidiary
See P. 66 for details on the conservation benefit gained from the reduction in PRTR release.

Environmental Management Structure

Toppan has established an environmental management system based on its PDCA cycle in order to promote two types of activities: Eco-protection Activities to reduce the environmental burden associated with corporate activities, and Eco-creativity Activities to develop, assess, and market environmentally friendly products and technical services.

Environmental Management

Toppan's environmental management relies on the operation of an established environmental management system (EMS) based on the Company's environmental management rules. The PDCA cycle is a core part of the EMS and vital for the continuous improvement of the efficiency of the system. To ensure the effectiveness of the PDCA cycle, top management conducts ongoing environmental management reviews. The environmental performance data are regularly collected by the Ecology Center, and the Director in charge of the Center verifies and evaluates the data and reports evaluation results to the Board of Directors and other management bodies. Improvements to the EMS are proposed and implemented throughout the entire Company.

Features of Toppan's Environmental Management System

Toppan's EMS is uniquely managed. The PDCA cycle is put into practice at every operational site, irrespective of the ISO 14001 certification. Fifty-six domestic production sites and two research facilities have been pressing ahead with their environmental activities to achieve the targets set under the Eco-protection Activity Plan.

Every month, the Eco-protection Promotion Committees check the progress of the activities to ensure that any newly arising problems are resolved as quickly as possible. Every operational site sends the Ecology Center reports on major environmental performance data, such as results on energy and waste, either monthly or every half-year. Toppan prepares an effective system for evaluating progress towards its environmental targets and reviewing the targets whenever necessary.

ISO 14001 Certification

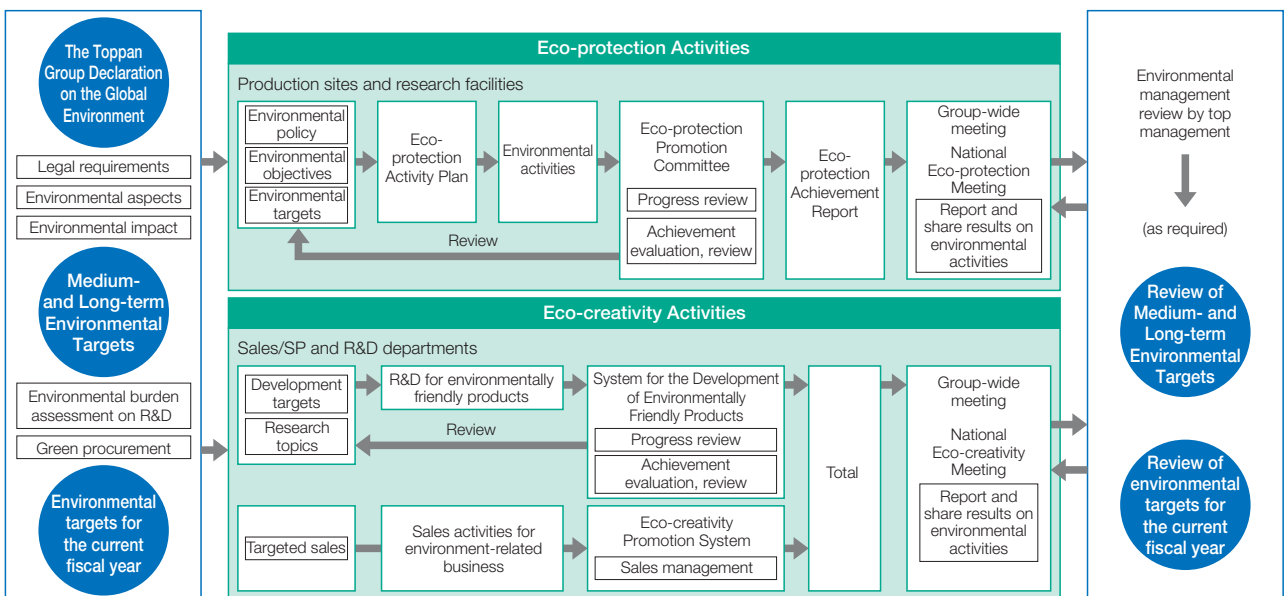
Eighty-four sites (65 systems) in the Toppan Group were ISO 14001 certified as of the end of March 2009. Four systems acquired the certification in fiscal 2008: Fukuoka Plant Manufacturing Department 1, Toppan Techno Co., Ltd., SNP Leefung Printers Ltd., and SNP Leefung Packaging & Printing Co., Ltd.

Two domestic sites are establishing systems to prepare for the certification. Toppan is working towards the certification of the remaining five major sites by fiscal 2012.

Promotion Structure for Environmental Activities

The Board of Directors is positioned as the highest decision-making body in Toppan's promotion structure for environmental activities. The Ecology Center supervises environmental activities undertaken at the divisions and Group companies under its Director, the officer responsible for the Company's environment-related matters. Every division and

Overview of Environmental Management



Group company has its own Environmental Management Officers in relevant departments. These officers head the environmental activities carried out at their departments in collaboration with the Eco-protection Promotion Committees, the bodies responsible for the actual implementation of the activities.

Toppan has established two in-house systems to promote the Eco-protection and Eco-creativity Activities: the Eco-protection Promotion System and the Eco-creativity Promotion System. Under these systems, the Company advances various environmental measures with guidance from the Ecology Center.

Operational sites convene their own Eco-protection Promotion Committees,

and subcommittees set up under the committees plan out activities to address specific environmental issues. The Energy Subcommittees in these sites have continued to pursue energy-saving activities.

With regard to Toppan's Eco-creativity Activities, all of the divisions have their own Eco-creativity Officers to develop environmentally friendly products and environmental support businesses.

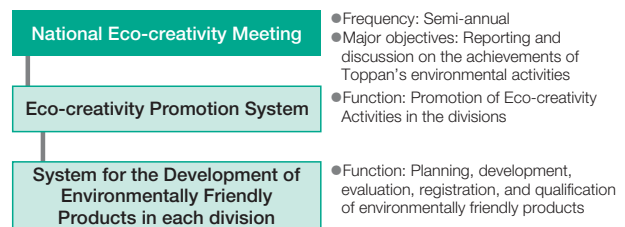
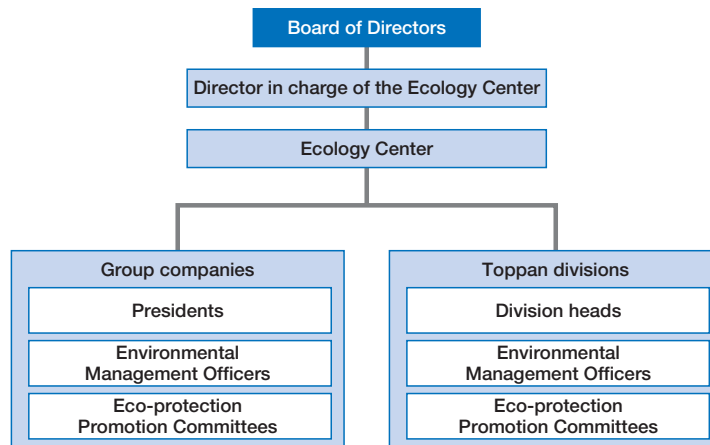
Reinforcing the Integrated Strength of the Group

As a Group-wide environmental management initiative, Toppan organizes a semi-annual Toppan Group Environmental Meeting under the auspices of the Meetings with the Heads of Related

Companies. Based on shared information on environmental issues and the progress towards the environmental targets of each company, Toppan reinforces its environmental risk management and spreads measures supported by the integrated strength of the Group throughout the workplaces in the Group companies.

The Company intends to further improve the level of environmental management through internal environmental audits in the years to come.

Environmental Management Structure



Environmental Management Activities

Toppan fully implements the PDCA cycle through internal environmental audits and environmental management systems established at its operational sites. The Company also works towards total environmental compliance, that is, the upholding of all environmental laws and regulations.

Internal Environmental Audit System

Toppan's internal environmental audit system follows a two-stage screening process: a document audit and an onsite audit. The internal environmental audit team consists of assistant auditors to oversee the environmental management system (EMS), in addition to the internally certified environmental auditors. The team begins by inspecting and evaluating the status of the EMSs and compliance with environment-related laws, regulations, and in-house standards at all of the operational sites audited. To correct the deficiencies associated with the "issues in need of improvement" pointed out during the audits, the team requires each site to submit a Plan for the Improvement of Specified Issues (Improvement Plan). Later, the team conducts a Review of the Internal Environmental Audit to assess the progress towards the required improvements.

Results of the Fiscal 2008 Audit

The internal environmental audit team

identified 594 issues in need of improvement at 58 domestic sites in fiscal 2008. To correct the deficiencies pointed out, each operational site follows an Improvement Plan with a detailed list of required improvements and deadlines for completion. Toppan has confirmed the progress of improvement measures on 72 issues at nine operational sites through internal environmental audit reviews. The progress and results of the remaining 522 specified issues are to be reviewed during the internal environmental audits for fiscal 2009.

Onsite hearings and inspections are carried out every other year, in principle, at overseas production sites. Eight sites in Eastern Asia were inspected for local environmental audits in fiscal 2008. The inspections identified 103 issues in need of improvement. The priorities in the inspections were the implementation and operation of the EMSs and compliance with local environment-related laws, regulations, and ordinances. Other points included the environmental impacts on water and the atmosphere, and the regular control of energy and

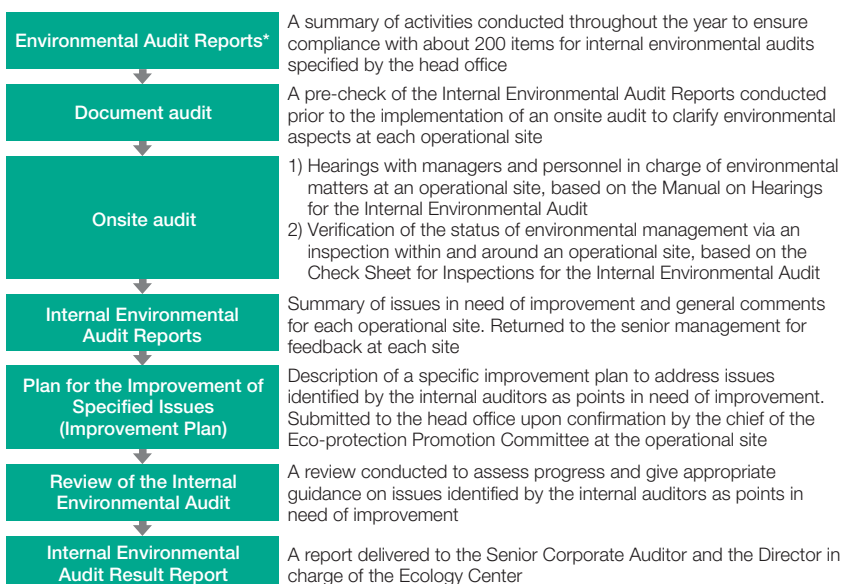
waste. The overseas sites have followed the example of the domestic sites by taking necessary procedures to achieve better operational conditions under the Improvement Plan.

Approach to Environmental Compliance

Toppan's production sites endeavor to prevent environmental pollution by complying with established standards for in-house control, standards that generally tend to be stricter than the national and local regulatory standards. Through this approach, the production sites seek to eliminate all failures in complying with the environmental laws, regulations, ordinances, and agreements set by the national and local governments where the sites operate.

The compliance status at every domestic site is reported to the head office via the Eco-protection Achievement Reports every April. Overseas sites, meanwhile, submit monthly overseas site reports. The reports from both domestic and overseas sites are to be assessed by internal environmental audits.

Internal Environmental Audit System



*The operational sites that have already acquired the ISO 14001 certification report their activities in the management review document.



Internal environmental audit hearing



Internal environmental audit inspection

Compliance in Fiscal 2008

Two production sites in Japan recorded levels of odor exceeding the regulatory standards set under the Offensive Odor Control Law. Five production sites, meanwhile, recorded levels of BOD, COD, and normal hexane exceeding the regulatory standards set for water contaminants under the Water Pollution Control Law and Sewerage Law. The Company immediately took corrective measures for every case, including steps to revise the control methods for equipment. It strives to reliably prevent recurrence by reviewing control procedures as well.

Toppan also received complaints of foul odor, a problem caused by insufficient control of effluent gas treatment equipment at several sites. The problem was resolved by immediate corrective measures at each site, and full reports on the incidents were presented to the relevant authorities.

Regarding the pollution of soil and groundwater environments, the Company has taken soil remediation measures (shown below) and continues to

monitor groundwater. The case involving soil and groundwater pollution with hexavalent chromium at the Itabashi Plant in Itabashi Ward, Tokyo was arbitrated by the Pollution Examination Commissioner of Tokyo Metropolitan Government in April 2009.

Emergency Responses

At every production site, chemical solvents are conveyed to the sites in tank trucks and transferred to storage tanks on the premises on a daily basis. Leakage accidents during the operations pose the risk of soil and water pollution.

Toppan has therefore prepared oil absorbents, sandbags, and other necessary safeguards to prevent the outflow of solvents in the event of an emergency or accident during production operations. Emergency-preparedness drills have also been held regularly. The Company formulates procedures to prevent and mitigate environmental pollution during emergencies. The effectiveness of the procedures is verified and defective points are corrected during the drills.

Environmental Education

Toppan provides environmental education through comprehensive e-learning-based programs for all employees. It also organizes specialized training sessions for employees of every rank, including new employees and newly appointed managers.

Optional training courses at the Toppan Business School include seminars on ISO 14001 and sessions to foster internal environmental auditors and enhance their skills. Personnel from the Ecology Center lecture trainees in seminars and sessions held regularly throughout the year.

Toppan uses this education as an opportunity to raise the environmental awareness of employees and maintain and improve the level of the Company's environmental activities on a continuous basis (→P. 74).

Purification of Soil and Underground Water Pollution Monitored by Voluntary Investigation

Operational Site	Location	Detail	Progress in Fiscal 2008
Nagoya Plant	Nishi Ward, Nagoya City, Aichi	Soil pollution by hexavalent chromium (Detected by a voluntary investigation during disposal into underground pits)	Remediation work is completed; groundwater is being continuously monitored
Shiga Plant	Higashi-omi City, Shiga	Soil pollution by hexavalent chromium (Detected by a voluntary investigation of areas where substances of concern were formerly used)	Remediation work is completed; groundwater is being continuously monitored
Asaka Plant	Niiza City, Saitama	Groundwater pollution by VOCs (Detected by a voluntary investigation of well water on the plant premises)	Groundwater is being continuously monitored
Toppan Electronics, Inc. (TEI) Miramar Plant	San Diego County, California, USA	Soil pollution by heavy metals (lead, etc.) and VOCs	Remediation work is completed; VOC concentrations are now being monitored
Itabashi Plant	Itabashi Ward, Tokyo	Groundwater pollution by hexavalent chromium (Detected by a voluntary investigation of well water on the plant premises)	Deliberated for arbitration by the Pollution Examination Commissioner of Tokyo Metropolitan Government (arbitrated in April 2009)



Internal environmental auditor training by Toppan personnel



Emergency-preparedness drill to cope with a solvent leakage

Environmental Communication Activities

Toppan strives to share environmental conservation awareness with stakeholders through activities to harmonize with local communities and enhance knowledge on environmental issues inside and outside the Group.

Major In-house Communication Activities

Environmental Meeting

Toppan has held a National Eco-protection Meeting in Japan to report and discuss environmental activities twice a year since 1992. Meeting participants report environmental performance data across the Company and by business field, while describing the actual measures taken at the operational sites to promote similar actions throughout the Company. Every operational site convenes an Eco-protection Promotion Committee every month, in principle, in accordance with its environmental management system to share the information on daily activities to reduce environmental burden at the site. These are part of a multiple-layer meeting regime throughout Toppan to maximize the sharing and dissemination of environmental awareness and information on environmental issues and solutions.

Environment Month

The Ministry of the Environment of Japan advocates "Environment Month" in June to promulgate environmental actions in Japan. Toppan undertakes a number of

activities each June as an opportunity to deepen employee awareness of the environment, create comfortable and environmentally friendly workplaces, and maintain and enhance positive relationships with local communities.

An environmental slogan coined by a Toppan employee is posted at each operational site in Environment Month to improve environmental awareness among employees. In fiscal 2008, Toppan joined in the GPN 5 Million Mass-action Project, a campaign by the Green Purchasing Network (GPN) of Japan to promote mass action for green purchasing.

Energy-Saving Month

To bolster energy-saving endeavors, Toppan continues to take part in activities for Energy-Saving Month, an event advocated by the Ministry of Economy, Trade and Industry of Japan, in summer and winter. The Company also joins in Japan's national initiative Team Minus 6%* and encourages its employees to wear light clothing in the summer (known in Japan as "Cool Biz") and heavy clothing in the winter ("Warm Biz").

*The name "Team Minus 6%" refers to Japan's greenhouse-gas-emission reduction target of 6% under the Kyoto Protocol.

Environmental Slogan

Every June, in Environment Month, Toppan solicits environmental slogans from employees, selects the most outstanding of all the entries submitted, and posts it at every operational site. From among the 6,600 entries submitted in fiscal 2008, the Company selected one as the most outstanding, two as outstanding, and five as notable.

The Toppan Group's environmental slogan for fiscal 2008 was "Eco-activities Start Simply: The Small Step from Thinking to Action."



President's Ecology Awards

Toppan has incorporated Ecology Awards in its biannual lineup of President's Awards to encourage the environmental efforts of employees by commending excellent environmental activities. Employees who have achieved or contributed in the following ways are nominated as candidates to receive the award: those who significantly contribute to in-house environmental conservation activities; those who serve as role models through their successes in promoting ingenious innovations for improvement; those who contribute substantially to the development of environmentally friendly technologies or products that win patents or utility model rights. A project team received an Ecology Award in fiscal 2008 for its work in developing and commencing the manufacture of paper composite containers.

The paper composite container, a combination of a paper cup and plastic rim, can be used as a paper-based alternative to a plastic container. The team developed the paper composite container by successfully applying the same proprietary technique Toppan uses for

Chewing Gum Container Made Mostly from Paper in Combination with a Plastic Rim

A container developed based on the same proprietary technique used to manufacture Toppan's Cartocan paper-based beverage container. The raw material for the paper component is lumber chip harvested from forest thinning, a process crucial for sound forest management and forests with improved CO₂ absorption efficiency. This is an environmentally friendly container designed to help mitigate global warming.



National Eco-protection Meeting held in Japan



Eco-protection Promotion Committee

the formulation of Cartocan. Team members from the sales, production, and development departments were also highly rated for their coordinated efforts to swiftly launch the manufacture of this new product.

■ Disclosing Environmental Information

Communicating with Local Communities

The communities around Toppan's plants filed 29 complaints and inquiries (five of them new) at 14 domestic sites in fiscal 2008, indicating that many stakeholders were inconvenienced. The complaints dealt mainly with noise and odors. While most of the problems were promptly solved, the Company has been implementing intensive measures for the remediation of odor-related problems at two operational sites.

To mitigate noise, Toppan has taken sound-insulating measures such as the installation of soundproof walls. To mitigate odors, the Company has revised methods for the operation and control of effluent gas treatment equipment and deodorizing equipment in order to properly manage routine operations. Through

routine inspections, the Company has stepped up its measures to prevent the recurrence of odor- and noise-related problems.

Toppan will continue to engage in environmental management through more detailed and comprehensive communications with residents in surrounding communities.

Issuing Site Eco Reports

Toppan's ISO 14001-certified sites have been issuing *Site Eco Reports* on their environmental activities since fiscal 2000. As periodic communications directed towards local municipalities and residents in surrounding communities, 25 reports were issued at 33 domestic sites in fiscal 2008.

When issuing reports, operational sites fully consider the understandability and readability based on Toppan's in-house Guidelines for Creating Environmental Reports for Operational Sites.

Organizing and Participating in Seminars and Environment-related Exhibitions

Toppan wants the public outside the Company to understand its environmental efforts. The Company dispatches lecturers to seminars held by various organizations, participates in environment-related exhibitions, and organizes environment-related programs of its own. Toppan's environmentally friendly products are on permanent display at PLAZA21 in the Toppan Koishikawa Building in Tokyo, a communication venue set up to present case examples of the integrated strength of the Group.

Major Environmental Events in Japan in Fiscal 2008

2008	
June	2008 Integrated Exhibition of the Environment in celebration of the Hokkaido Toyako Summit
August	Surprise! 100 Eco Ideas
September	Environmental communication seminar at PLAZA21
October	TOKYO PACK 2008
December	Eco-Products 2008
2009	
March	Eco Workshops opened at PLAZA21 in a tie-up with the P&P Gallery



Site tour

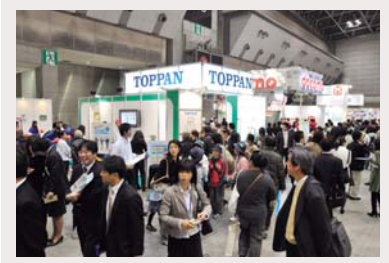
2008 Integrated Exhibition of the Environment in celebration of the Hokkaido Toyako Summit

Toppan displayed Cartocans and other environmentally friendly products and services at the 2008 Integrated Exhibition of the Environment to celebrate the Hokkaido Toyako Summit held in Japan in June 2008. The Company also supported the Hokkaido Toyako Summit Preparation Council by providing a special series of 10,000 Cartocans designed exclusively for the Summit. Cartocan is a paper-based beverage container designed to help foster sound forests.



Eco-Products 2008

Toppan exhibited total environmental solutions from the Toppan Group in cooperation with six Group companies (Tokyo Shoseki Co., Ltd., Tosho Printing Co., Ltd., Toppan Forms Co., Ltd., Toppan Cosmo, Inc., Toppan TDK Label Co., Ltd., and froebelkan co., ltd.) at the Eco-Products 2008 held in Japan in December 2008. Toppan's catchphrase for the event was: "Connecting, delivering, spreading, and communicating."



Site Eco Reports (in Japanese)

Mitigating Global Warming and Saving Energy

Toppan is pushing ahead with efforts to mitigate global warming, one of the most pressing environmental issues facing the planet, mainly through energy-saving measures to reduce carbon dioxide emissions.

Energy-saving Activities

Toppan engages in energy-saving activities to reduce the emissions of carbon dioxide (CO₂) and other greenhouse gasses. To work towards the Kyoto Protocol targets for reduced greenhouse gas emissions, Toppan has established a Medium- and Long-term Environmental Target: to reduce CO₂ emissions per unit of sales by 10% by fiscal 2010, compared to the fiscal 2000 level. The Company also sets a yearly target to accomplish the medium- and long-term target. To meet the Company's target for the year, every production site sets individual targets for emissions per unit of production value and emissions per unit of production volume by product type.

CO₂ emissions per unit of sales in fiscal 2008 were reduced by only 0.9% compared to fiscal 2007, falling short of the targeted reduction of 5%. Though extensive energy-saving measures were taken, a substantial decrease in orders received in the second-half of the fiscal year prevented Toppan from reaching the targeted reduction. Compared to the fiscal 2000 level, CO₂ emissions per unit

of sales in fiscal 2008 resulted in a 6.3% increase. Toppan will take more intensive energy-saving initiatives, mainly through operational enhancements of equipment and devices.

Details of the Company's Efforts

Towards reduced energy consumption, Toppan made a focused effort to prevent leaks of compressed air from production equipment in fiscal 2008. Leak countermeasures were strengthened via two approaches: conducting energy-saving reviews to check actual conditions and clarify points to be improved, and duplicating effective measures already deployed at certain sites for application elsewhere in the Company. Toppan developed other energy-saving initiatives through seminars held with outside experts, air leak checks with detectors, and ongoing fuel-switchover promotion.

The Company has also been gradually adopting LED lighting for indoor use and installing solar panels as a green-energy solution for outdoor lighting. In summer months, operational sites across Japan install "green curtains" over build-

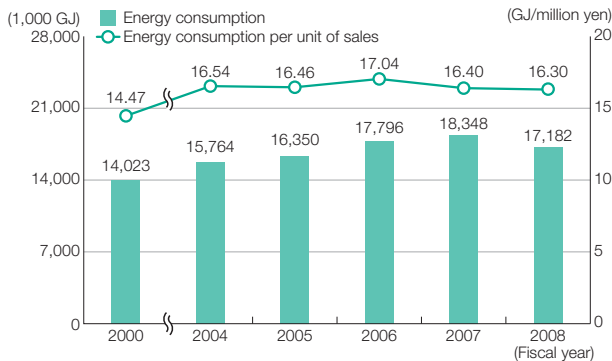
ings, a natural source of shade to help limit the rises in indoor temperatures.

In recognition of these unflagging energy-saving efforts, two Toppan sites were conferred awards from governmental organizations in fiscal 2008 (→P. 13).

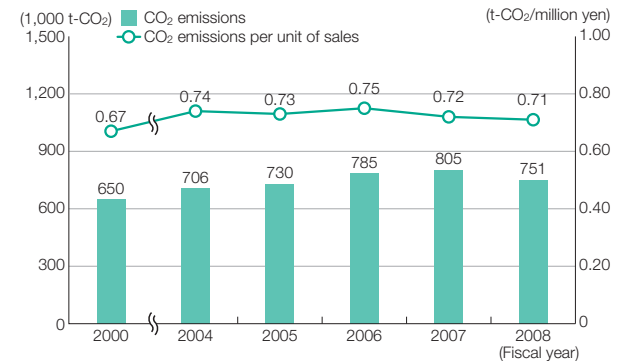


A "green curtain" composed of bitter melons

Energy Consumption



CO₂ Emissions



Note: 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 (MOE) of Japan. When calculated by another MOE method specified in the Manual on Calculating and Reporting Greenhouse Gas Emissions (2007), CO₂ emissions in fiscal 2008 amounted to 819,391 t-CO₂. The calorific value of the primary energy input associated with electricity consumption is calculated uniformly as 0.00983 GJ/kWh. The Company does not use the fiscal 1990 CO₂ emissions as the base year value, as problems with the measurement accuracy and expansions and revisions in the boundary of data would make a retroactive calculation highly contingent on elaborate estimates. The energy type ratio and other detailed data are shown on P. 75.

Resource Circulation

Toppan controls waste generation and recycles waste materials in aiming to achieve zero emissions at all domestic sites.

Waste Reduction Activity

Waste paper derived primarily from operational sites in the Information & Networks and Living Environment fields comprises 73% of the total waste generated at the Toppan sites. Waste plastics from plants in the Living Environment field and waste acids such as waste etchant from plants in the Electronics field also make up substantial portions of the total waste generated.

Toppan has established a medium- and long-term target of reducing final landfill waste disposal by 95% by fiscal 2010, compared to the fiscal 2000 level. In fiscal 2008, Toppan reduced final landfill waste disposal by 14.2% relative to the fiscal 2007 level. While this fell slightly short of the 15% target set for the year, final landfill waste disposal has been reduced by 93.4% from the fiscal 2000 level. The Company will remain active in recycling waste to attain the medium- and long-term target.

The waste generation per unit of production value in fiscal 2008 increased by 3.2% relative to the fiscal 2007 level, falling behind the targeted reduction of 5% year-on-year. This result was mainly

attributable to the substantial decline in orders received in the second-half of the fiscal year. As of the end of fiscal 2008, the medium- and long-term reduction stood at 18.2%, compared to the fiscal 2000 level. The reduction targeted by fiscal 2010 is 25%, so efforts to accomplish the medium- and long-term targets will clearly have to be reinforced.

The Company will accelerate its efforts for the control of waste generation and the recycling of waste in the years to come.

Targeting Zero Emissions and Recycling Waste

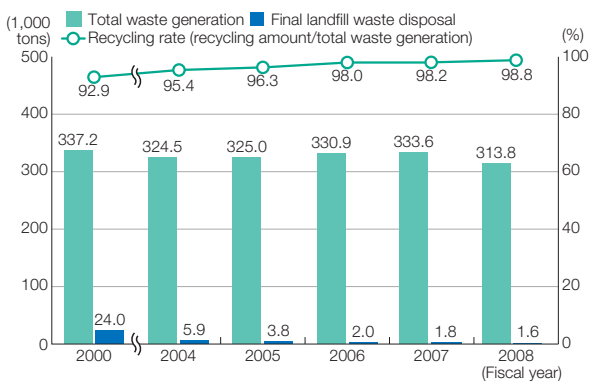
Toppan began certifying “zero-emission sites” in fiscal 2001. The recycling rate has great influence on the degree to which the Company can expect to achieve its zero-emission targets. Toppan, therefore, defines zero-emission sites as operational sites with recycling rates of 98% or over and zero-emission approval by the Ecology Center in the head office. The center certified and registered 43 sites out of the total of 58 domestic sites in fiscal 2008 (→P. 75).

Toppan recorded a 93% material

recycling rate* in fiscal 2008, meeting the 92% target set. Two important tasks towards the further improvement of the material recycling rate will be to use waste more effectively at operational sites and to discuss material recycling with industrial waste treatment companies. Toppan pursues the maximum reuse of the waste generated from every process throughout business operations, with the target of having all domestic sites certified as zero-emission sites by fiscal 2010.

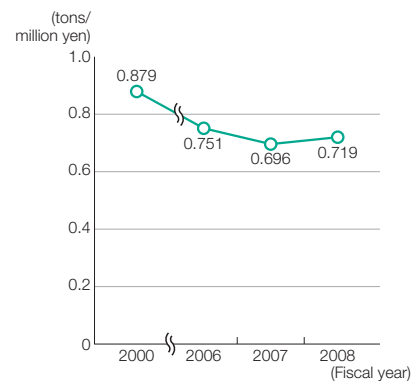
*Material recycling was redefined in fiscal 2008. Accordingly, the target rate has been changed from 85% to 92%.

Total Waste Generation, Final Landfill Waste Disposal, and Recycling Rate



Note: Final landfill waste disposal is direct landfill disposal plus landfill disposal of residues from intermediate treatment. It includes the residues discharged from recycling processes.

Waste Generation Per Unit of Production Value



Pollution Prevention and Chemical Substance Management and Reduction

Toppan is working to reduce its environmental burden and prevent pollution by complying with in-house control standards even more stringent than the legal requirements. The Company continued its efforts to reduce the handling of chemical substances, especially the handling of toluene, in fiscal 2008.

Preventing Pollution

Every production site gleans an accurate picture of the handling of chemical substances and identifies its own environmental burden. Based on the results, the Eco-protection Promotion Committee at every site sets in-house control standards even more stringent than the legal requirements. By complying with these standards, Toppan production sites work vigorously to reduce their environmental burdens and prevent pollution.

Preventing Atmospheric Pollution and Protecting the Ozone Layer

To prevent atmospheric pollution, Toppan controls boilers and other sources of smoke and soot by switching fuels and managing operations under appropriate combustion conditions. The Company has also introduced VOC effluent gas treatment equipment for the thorough control of atmospheric pollutants. VOC emissions into the atmosphere in fiscal 2008 were reduced by 6.7% compared to fiscal 2007, falling short of the 10% target set for the year. Efforts to reduce emissions were hindered by increases in the handling of cleaning solvents and in malfunctions of

VOC effluent gas treatment equipment.

For ozone-layer protection, all equipment that uses designated chlorofluorocarbons at Toppan plants is controlled in conformance with the relevant laws and regulations. The step-by-step replacement of this equipment is now being considered.

Preventing Water and Soil Pollution

To prevent pollution in the water environment, Toppan manages wastewater at its plants by installing wastewater treatment facilities designed to ameliorate specific production processes. Wastewater recycling systems are installed at production sites with intensive water consumption in the Electronics field. These systems enable the sites to recover and reuse wastewater and reduce the levels of water consumption and effluent discharge.

The Company's principal concern in managing its chemical solution storage tanks is to prevent the leakage of fluids. Walls have been constructed around the storage tanks and Toppan personnel regularly inspect the tanks and piping to detect flaws before soil pollution occurs.

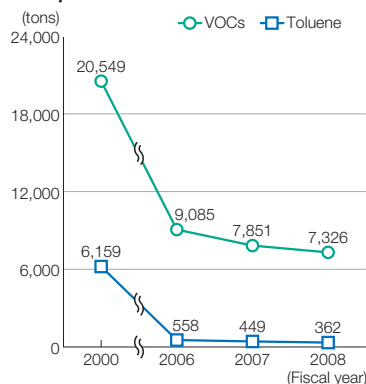
Managing Chemical Substances

Toppan works to reduce the handling of chemical substances designated under the PRTR law.

The handling of these substances was reduced by 12.4% in fiscal 2008, surpassing the targeted reduction of 5% year over year. The total release and total transfer were also decreased by 22.3% and 6.6%, respectively, compared to the fiscal 2007 levels. Toppan's switchover to toluene-free or low-toluene-content inks and cleaning solvents was the largest contributor to these results by far, accounting for 50.0% of the reduction in handling, 90.9% of the reduction in total release, and 88.2% of the reduction in total transfer.

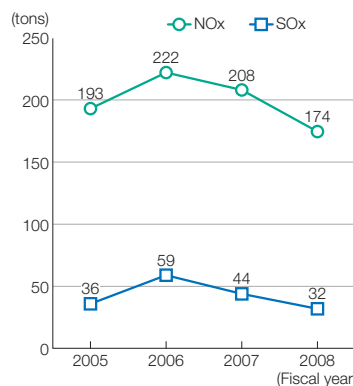
Toppan will press forward in material switchover to further reduce the handling of chemical substances designated under the PRTR law (→P. 76).

VOC and Toluene Emissions into the Atmosphere



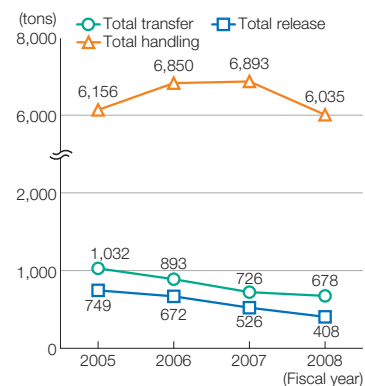
Note: Emissions into the atmosphere are calculated in conformance with the standards established by the Japan Federation of Printing Industries (JFPI) and the Japan Electronics and Information Technology Industries Association (JEITA). The data for fiscal 2007 and earlier have been restated based on the revised methods for calculation.

NOx and SOx Emissions



Note: Calculated based on the Environmental Reporting Guidelines (fiscal 2007 version) and the Environmental Activities Evaluation Program (April 2002) issued by the Ministry of the Environment of Japan.

Chemical Substances Designated under the PRTR Law



Note: Calculated based on data on the handling, release, and transfer of chemical substances designated under the PRTR law at each operational site. Dioxins are excluded due to a difference in the counting unit.

Approach to Logistics

Toppan Logistics Co., Ltd., the logistics specialist for the Toppan Group, secures safe transportation and organizes environmental conservation activities to reduce CO₂ emissions in transportation and stimulate waste reduction and recycling.

Reducing CO₂ Emissions in Transportation

Complying with the Revised Energy Saving Law of Japan

Under the revised Energy Saving Law of Japan, Toppan is classified as a “designated shipper” and required to reduce energy consumption per unit of transport volume by an average of 1% a year. Toppan Logistics Co., Ltd. is conducting energy-saving activities together with Toppan to meet this mandatory target. Measures to conserve energy consumption at Toppan Logistics during fiscal 2008 included an upsizing of company-owned trucks via a switchover to vehicles with maximum load capacities of 8 tons or more, an increase in the load efficiency of trucks via the adoption of mixed cargo containers, and the promotion of a modal shift to rail transport for applicable products. As a result of these measures, Toppan Logistics reduced energy consumption per unit of transport volume by 4.3% compared with fiscal 2007, surpassing the targeted reduction of 3% for the year.

In fiscal 2009, Toppan Logistics will continue to pursue reductions of CO₂ emissions by rationalizing transport

methods and introducing measures for improved transport efficiency.

Promoting the Green Management-certified Initiatives

Toppan Logistics proactively implements eco-driving and inspects and maintains vehicles according to in-house standards as it works to promote the Green Management-certified initiatives applicable mainly to company-owned vehicles.

In pursuit of enhanced eco-driving effects, Toppan Logistics sets new checkpoints to control driving practices harmful to the environment, such as warming-up-in-idle, quick braking, jack-rabbit starting, driving at inappropriate speeds, and idling during extended stops. A system to keep track of actual driving conditions supports the efforts of Toppan Logistics to improve vehicle mileage on an ongoing basis.

Reinforcing Environmental Management

Toppan Logistics operates an ISO 14001-certified environmental management system (EMS) mainly at the Kawaguchi site, its major logistics base, to effectively promote environmental

conservation activities. The boundary of the EMS has been extended to cover other sites, including the Niiza site in fiscal 2008.

Ongoing reinforcements in environmental management will allow Toppan Logistics to continue reducing and recycling wastes while strictly complying with environment-related laws and regulations such as the Waste Disposal and Public Cleaning Law and the Law Concerning Special Measures for Total Emission Reduction of Nitrogen Oxides from Automobiles in Specified Areas of Japan.

Securing Safe Transportation

Toppan Logistics operates a safety management system to improve the safety of company-owned-vehicle transport operations according to the requirements under the comprehensive law on driving transport safety enforced in Japan from 2006.

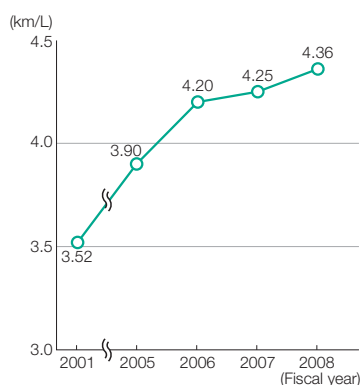
In fiscal 2008, Toppan Logistics implemented safe transportation measures at the Numazu and Niiza sites on a top-priority basis. These two sites were newly included in the consolidation boundaries of Toppan Logistics Co., Ltd. for the year.

Fiscal 2008 Results

- Promotion of modal shifts
Ton-kilometers of freight: 11% increase compared to the fiscal 2007 level
- Mileage of company-owned vehicles
23.9% improvement compared to the fiscal 2001 level
- Environmental management system (EMS)
Extended the boundary to cover the Niiza site; ISO 14001 renewal completed
- Waste recycling
Recycling rate: 92.9%* (1.8-point increase compared to the fiscal 2007 level)
- Safety management system
Zero serious accidents
- Promotion of eco-driving
Held joint seminars for drivers from the company and its partner companies

*The method for calculating the recycling rate has been changed.

Mileage of Company-owned Vehicles



Eco-driving lecture (discussion during a danger awareness drill)



Eco-driving lecture (vehicle maintenance)

Developing and Assessing Environmentally Friendly Products

Toppan develops environmentally friendly products based on ISO-14021-compliant in-house criteria while applying ISO-14040-compliant LCA methods to quantify the environmental burden of its products.

Basic Thinking on Environmentally Friendly Products

Toppan develops environmentally friendly products in accordance with its own set of criteria established in closer consideration of the social demand for products and services from the divisions and Toppan's 14 Environmental Points based on ISO 14021. The Ecology Center assesses newly developed products in order to certify and register those that meet all of the criteria for "environmentally friendly products." In response to the increased environmental awareness in society, the number of newly registered environmentally friendly products increased to 14 in fiscal 2008, exceeding the number registered in the previous fiscal year. Toppan will review the criteria for its environmentally friendly products by elaborating the Environmental Points in ways conducive to new perspectives.

The Company has developed 94 environmentally friendly products so far (as of the end of August 2009) (→P. 73).



Ultra-thin DM is a direct-mailing brochure made from an ultra-thin paper of a type commonly used for dictionaries and similar publications. The ultra-thin paper reduces paper consumption, and the use of a paste-binding agent as an alternative to stitching wire improves recyclability.



The material for the black matrix (BM) of the color filter for LCD TVs is changed from chrome to resin. The widths between the matrices are reduced to attain the same brightness with less electric power.



Toppan Material Wood is a recycled industrial material made entirely from waste wood and waste plastic. This industrial material can be re-crushed and recycled time and time again, with no change in its original form or function.

Environment-related Business

In fiscal 2008, Toppan worked to boost the sales of its environmentally friendly products, began to review its in-house criteria for registering environmentally friendly products, and began to reinforce its Eco-creativity Promotion System.

The chief objectives of the criteria review for environmentally friendly products were to revise Toppan's Environmental Points and reset the stages of the product life cycle in ways conducive to biological diversity and other new approaches for conserving the environment.

To respond to the growing interest of customers in the environmental efficiency of products, all of the divisions have reinforced the Eco-creativity Promotion System by appointing more Eco-creativity Officers.

Group companies are also considering means to conserve the global environment as they conduct their corporate activities. Each company assertively develops, produces, and markets eco-friendly products in line with its own Eco-product Standards carefully formulated

Toppan's 14 Environmental Points and Environmental Considerations

Life Cycle Stage	ISO 14021 Environmental Labeling Type II	Toppan's 14 Environmental Points for Environmentally Friendly Products	Toppan's Standards
Products and distribution		1. Use of safe materials	Toppan will not use substances banned by industrial organizations or substances that could potentially contaminate products manufactured at the Company with environmental hormones.
	Recycling rate	2. Use of recycled materials	Toppan will not produce products from recycled materials that could potentially contain environmental hormones or substances banned by industrial organizations.
	Resource reduction	3. Resource-saving	The consumption of resources is reduced during the materials production and logistics processes.
		4. Reduced energy consumption in production	The consumption of energy and water is reduced during the production and logistics processes.
	Recovered energy	5. Use of recovered energy	Products are produced with surplus energy or energy recovered from waste materials.
	Reduced solid waste	6. Reduced solid waste	The generation of solid waste is reduced through modifications of the production process, product design, and packaging. (Byproducts reused in processes are not included in this category.)
Use	Energy-saving	7. Energy-saving	Energy consumption is reduced during product operation.
		8. Reduced release of chemical substances	Products release the lowest possible levels of chemical substances.
	Long-life products	9. Long product life	Product lifetimes are extended by improving durability and adopting scalable designs.
After use	Reusable/refillable	10. Reusability	Products can be reused or refilled for uses related to the purposes for which they were originally intended, or for other purposes of the Company. Systems and infrastructures are provided for collection and reuse.
	Recyclable	11. Recyclability	Systems and facilities are provided for product recycling. Recyclable parts are indicated as such.
		12. Suitability for disposal	The materials used discharge the lowest possible levels of harmful gases during incineration. Landfill waste is carefully treated to prevent all forms of soil contamination.
	Easy detachment design	13. Easy separation and disassembly	Product designs enable easy separation and disassembly. The parts and materials used support product recycling.
	Degradability	14. Biodegradability	The biodegradable and photodegradable materials used in the products break down naturally and are assimilated back into the environment.

in consideration of the demands from society and the features of its products and services.

The boundary of sales in the environment-related business was extended from Toppan Printing Co., Ltd. (nonconsolidated) to cover Group companies (consolidated) in fiscal 2008. As a result, total sales of the environment-related business of the entire Group stood at 256.8 billion yen.

In pursuit of improved and uniform environmental efficiency for products and services, the Toppan Group will examine a way to standardize the criteria for environmentally friendly products on a Group-wide basis.

■ Establishing an Evaluation Method Well Suited to Printed Products

Toppan began to develop an original method for evaluating environmentally friendly products in fiscal 2008. Drawing from the LCA concept, this method is especially well suited to items in print.

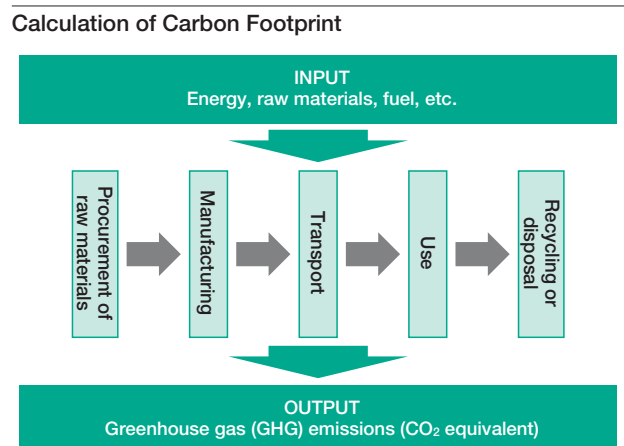
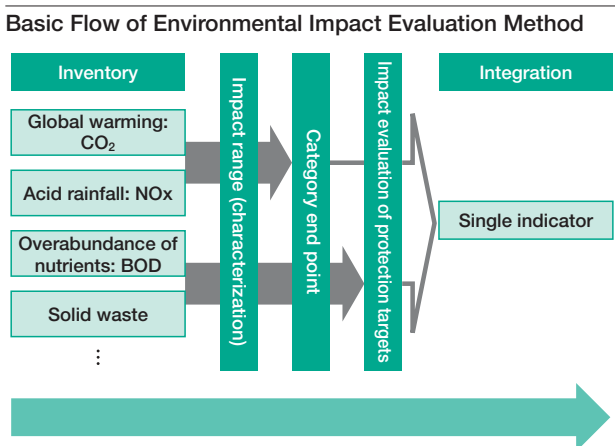
In essence, it is a quantitative evaluation of the environmental friendliness of a product with respect to inventories such as global warming mitigation and biodiversity conservation, based on Toppan's 14 Environmental Points throughout the product life cycle. When the evaluation is complete, the results are to be integrated and disclosed as a single indicator.

Toppan has enlisted the cooperation of Norihiro Itsubo, an Associate Professor from Tokyo City University, to develop a new environmental impact evaluation method suitable for printing products classified as nondurable goods. Through coming development efforts over the next two years, the Company seeks to establish a method for products in the Living Environment field, with plans for full-scale introduction in fiscal 2010.

■ Calculating and labeling Carbon Footprint

To help mitigate global warming, the Ministry of Economy, Trade and Industry (METI) of Japan issued the Guidelines on the Carbon Footprint System (Guidelines) and the Standards for Establishing Product Category Rules (PCRs). The Guidelines specify the basic rules on "carbon footprint" for calculation and labeling on CO₂ emissions derived from products and services. METI will draw up PCRs for each product and begin requiring businesses to label information on the CO₂ emissions on their products.

Toppan is preparing for the establishment of a structure to respond to the calculation and labeling requirements for each of its products under the PCRs. For printed products, CO₂ emissions are derived primarily from raw materials. The Company will therefore develop products that use fewer raw materials, beginning with containers and packaging.



Environmentally Friendly Printing Services

Toppan considers environmental conservation for every stage of printed material production, from raw material selection, design, and plate-making to printing and processing.

GPN Purchasing Guidelines for Offset Printing Services

As a member of the Green Purchasing Network (GPN) of Japan (→P. 37), Toppan tries to minimize the environmental impact of printing and provides printing services based on the Purchasing Guidelines for Offset Printing Services. The Company offers environmentally friendly technologies and materials for every step of the printing process, from the selection of designated inks and papers to surface treatment and binding. Many local governments and companies involved in green purchasing activities have adopted these services.

Production and Plate-making

Toppan saves natural resources and energy by excluding filming and development processes through the full digitalization of every stage, from production of the original manuscript and artwork to plate-making.

Using Environmentally Friendly Inks

The new soybean-oil ink developed by Toppan contains virtually no aromatic hydrocarbon, an organic compound harmful to both the human body and the earth's atmosphere. The Company has also commercialized a recycled vegetable-oil ink made from used soybean oil collected from school cafeterias, restaurants, and other sources.

Toppan is spreading the use of environmentally friendly inks by printing with vegetable oil inks designated by the Japan Printing Ink Makers Association (JPIMA). All products printed with these inks bear the special "VEGETABLE OIL INK" mark from the JPIMA.

Providing Environmentally Friendly Paper

The selection of printing paper contributes greatly to the conservation of forest resources. Toppan's environmentally friendly paper lineup includes tree-free paper, FSC-certified paper, and paper made with pulp from forest-thinning operations.

Waterless Printing System

The waterless printing system repels ink with a layer of silicon instead of a layer of water. This eliminates the use and discharge of dampening water, an industrial chemical with an organic solvent isopropyl alcohol (IPA) component.

Recyclable Methods for Bookbinding and Processing

Fragmentation-resistant hot-melt is an adhesive suitable for use on paper to be recycled. Besides offering strong cohesion, it can be completely removed from printed materials without fragmenting during recycling. Toppan has also developed methods for bookbinding and processing to confer outstanding recyclability. With Eco-binding, for example, printed materials can be bound without the stitching wire used in saddle stitching.

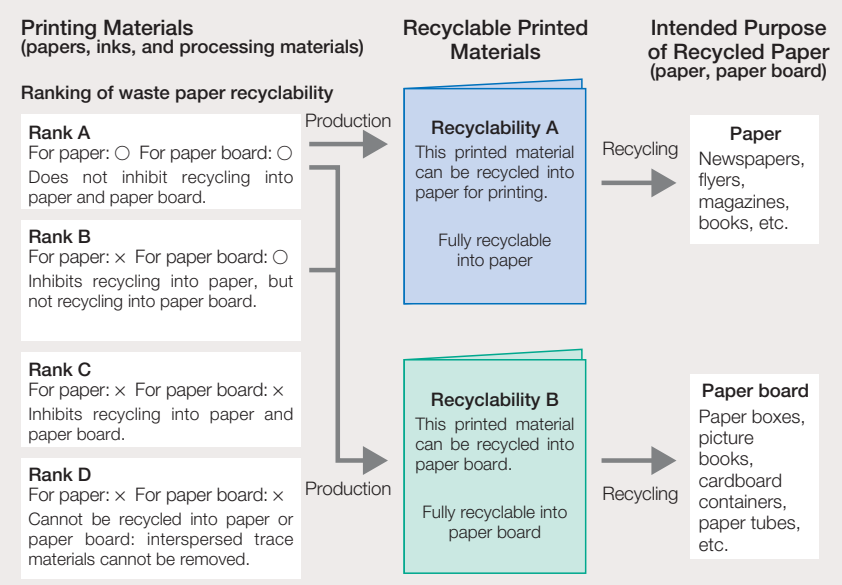
Recyclable Printed Materials

The Japan Federation of Printing Industries (JFPI) issued the "Guidelines for recyclable print productions" in March 2009 to increase the paper-to-paper recycling rate in cooperation with relevant industries. The JFPI classifies papers, inks, and processed materials based on the component properties that inhibit recycling. Once the classification is complete, recyclability of a printed material is clarified by combining the various component properties that inhibit recycling.

The usage rate of waste paper for printed materials for publication and other purposes is currently limited to about 30%. Some printing materials degrade the quality of recycled paper or cause problems in the processes to produce them. To enhance the usage rate, it will be necessary to improve the recyclability of the printed materials themselves.

Toppan will endeavor to generalize recyclable printing in cooperation with client companies and business partners.

Source: "Guidelines for recyclable print productions" issued by The Japan Federation of Printing Industries and the Paper Recycling Promotion Center in Japan in March 2009



Conserving Biodiversity

In procuring materials and making proposals to customers, Toppan considers biodiversity and the environment of locations in which it procures raw materials.

■ Cartocan

Measures taken for the sound nurturing and maintenance of forest resources help to provide habitats for diverse species. The Forestry Agency of Japan advocates KIZUKAI-UNDOH (Wood Products Utilization Campaign), a campaign to encourage forest maintenance in Japan by promoting the use of domestic lumber, including lumber harvested from forest-thinning operations.

As a supporter of KIZUKAI-UNDOH, Toppan contributes to the sound nurturing and maintenance of the country's forest resources by preferentially adopting domestic lumber for the production of its paper-based beverage container, Cartocan.

To extend the benefits of Cartocan, Toppan established a system for the recycling of empty Cartocans into ECO-GREEN toilet paper in January 2002. ECO-GREEN is made from about 50% used Cartocans. Toppan purchased 2,753 cases (60 rolls per case) of ECO-GREEN in fiscal 2008.

■ Pallets Made with Lumber Harvested from Forest-thinning Operations

Since 2007, the Takino Commercial Printing Plant has participated in the Presents from the Forest—Eco-Friendly Pallet Project operated by FoE Japan, an international environmental NGO.

The purpose of this project is to effectively use logs that are too short or too thin to be processed into products by conventional means. The processing of these logs into a commodity enables forest people and companies in the forest industry to supplement their incomes. Many Toppan sites adopt pallets made with lumber harvested from forest-thinning operations with support from pallet manufacturers and logging and processing companies.

■ FSC CoC Certification

In May 2002, Toppan became the first company to acquire the Forest Stewardship Council (FSC) Chain of Custody (CoC) certification in the field of commercial printing in Japan. The Company

subsequently acquired the CoC certification in the fields of securities printing and publications printing.

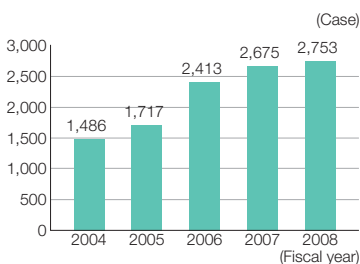
■ Tree-planting Programs

Toppan has been investing and participating in two projects in Australia: the GPFL*1 tree-planting venture to produce hardwood chip, a raw material for paper, in Victoria, and the PPT's*2 hardwood planting program in Tasmania.

To help conserve the environment and biodiversity in these afforested areas, Toppan has acquired a third-party forest management certification together with relevant companies and seeks to establish a system to improve the traceability of wood products. The Company has also been participating in a joint research project to develop methods for monitoring CO₂ absorption in forests.

And since fiscal 1999, Toppan has been collaborating in research on plantation methods as a supporting member of the Japan Overseas Plantation Center for Pulpwood.

ECO-GREEN Purchasing



Using pallets made with lumber harvested from forest-thinning operations



Purchasing FSC certified products helps to promote responsible forest management worldwide.

SA-COC-001196
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The FSC forest management certification system is a framework to approve responsible forest management under the principles and standards established by the Forest Stewardship Council. The FSC Chain of Custody (CoC) certification can only be granted to comprehensive management systems that effectively ensure that products are made of materials from well-managed forests, controlled sources and recycled wood or fiber.



Tree planting by GPFL (upper) and PPT (lower)

*1 Green Triangle Plantation Forest Company of Australia Pty. Ltd.

*2 Plantation Platform of Tasmania Pty. Ltd.

Environmental INPUT/OUTPUT Data by Business Field

■ Combined Results by Business Field

Category	Chief Component	Electronics	Information & Networks	Living Environment	Non-production Sites	Total	
INPUT	Material	Total input (tons)	25,785	1,254,972	475,950	0	1,756,707
		Paper (tons)	38	1,226,404	285,164	0	1,511,606
		Plastic (tons)	2,943	2,690	142,823	0	148,456
		Glass (tons)	7,513	1	2	0	7,516
		Ink, solvent (tons)	12,465	22,623	36,591	0	71,679
		Other (tons)	2,826	3,254	11,370	0	17,450
	Energy	Total energy consumption (1,000 GJ)	10,631	8,327	6,250	812	26,020
		Electricity consumption (1,000 GJ)	9,336	5,946	4,571	663	20,516
		Fuel consumption (1,000 GJ)	1,295	2,381	1,679	149	5,504
	Water	Water consumption (1,000 m ³)	11,544	3,585	2,124	356	17,609
		Industrial water (1,000 m ³)	1,765	976	526	0	3,267
		Municipal water (1,000 m ³)	376	1,284	781	356	2,797
		Groundwater (1,000 m ³)	9,403	1,325	817	0	11,545
		Use of rainwater (1,000 m ³)	2	37	0	16	55
		Use of water circulated on premises (1,000 m ³)	27,247	0	30	0	27,277
Chemical substance	Handling of chemical substances designated under the PRTR law (tons)	1,821	1,831	2,454	4	6,110	
Atmosphere	CO ₂ emission (t-CO ₂)	456,739	403,813	334,338	33,565	1,228,455	
	Emission of ozone-depleting substances (ODP-kg)	0	892	93	0	985	
	NOx emission (kg)	35,144	91,891	90,193	3,640	220,868	
	SOx emission (kg)	16,073	294	20,334	1	36,702	
	Emission of dioxins (mg-TEQ)	0	5	4	0	9	
	Release of chemical substances designated under the PRTR law (tons)	55	126	240	0	421	
Water and soil environments	Total effluent discharge (1,000 m ³)	10,650	2,915	1,462	344	15,371	
	Public water system (1,000 m ³)	8,654	1,176	895	0	10,725	
	Sewage system (1,000 m ³)	1,996	1,739	567	344	4,646	
	Underground penetration (1,000 m ³)	1	10	44	0	55	
	Onsite evaporation (1,000 m ³)	813	625	505	46	1,989	
	BOD (kg)	49,511	1,271	4,796	0	55,578	
	COD (kg)	16,542	5,289	3,243	0	25,074	
	Nitrogen discharge (kg)	16,670	1,331	5,937	0	23,938	
	Phosphorous discharge (kg)	710	159	657	0	1,526	
	Release of chemical substances designated under the PRTR law (kg)	391	0	96	0	487	
Waste	Total generation (tons)	49,468	269,719	124,428	4,260	447,875	
	Recycled (tons)	45,157	265,810	119,560	3,730	434,257	
	Final landfill waste disposal (tons)	1,879	2,210	2,691	30	6,810	

Note: 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. The calorific value of the primary energy input associated with electricity consumption is calculated uniformly as 0.00983 GJ/kWh. The data for overseas sites, however, are calculated based on other definitions.

Green Procurement and Green Purchasing

■ Toppan's Green Procurement Standards (Offset Ink*)

*Not applicable to gold, silver, and pearl ink

	Level 1	Level 2	Fiscal 2006	Fiscal 2007	Fiscal 2008
1. Avoiding the use of materials harmful to the human body	Conforms to the NL restrictions of the Association of Japan Printing Ink Manufacturers		89.1%	86.2%	95.8%
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 (preparing for MSDS)			
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			

■ In-house Green Purchasing Standards and Level of Fulfillment

Product	Purchasing Standard	Fiscal 2006	Fiscal 2007	Fiscal 2008
Copy machines and printers	Configured to automatically revert to low-power mode or off mode when not used for a specific period of time	96.4%	94.5%	100%
PCs	Configured to automatically revert to low-power mode or off mode when not used for a specific period of time, and to maintain low energy consumption when in low-power mode	100%	100%	100%
Stationery and office goods	Products endorsed with environment-friendly qualifications such as the Eco Mark or Green Mark; products listed in the eco-friendly product catalogues of manufacturers	95.8%	99.0%	94.6%

Environmentally Friendly Products

■ List of Environmentally Friendly Products (as of the end of August 2009)

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
Commercial Printing	Ultra-thin DM	Resource-saving
	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
	Eco Pack Multipanel Mini	Reusability
Multicube POP	Reusability	
Publications Printing	Recycled vegetable-Oil Ink	Use of recycled materials
	Polyurethane Reactive Hot-Melt	Easy separation and easy disassembly
	Non-Vinyl Chloride Lenticular Lens	Suitability for disposal
	Disk Tottokun Series	Recyclability
Electronics	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
	Palladium-plated leadframe	Use of safe materials
	Lead-free solder coated printed wiring board	Use of safe materials
Packaging	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 (Al)	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)	

Business Field	Product	Environmental Point
Packaging	Cartocan	Recyclability
	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 paper	Resource-saving
	Paper carton with temper 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	

ISO 14001 Certification (65 systems, 84 operational sites as of April 1, 2009)

■ Toppan Printing Co., Ltd. and Production Subsidiaries

Division/Operational Site	Registrar	Registration Date
Shiga Plants (Electronics Division/Semiconductor Solutions Division)	JQA	Jul. 1998
Electronics Division (Kumamoto Plant)	JQA	Nov. 1998
Toppan Cosmo, Inc. (Kashiwa Plant/Satte Plant, Toppan Decor Products Inc.)	JQA	Mar. 2000
Electronics Division (Niigata Plant) and NEC Toppan Circuit Solutions, Inc. (Niigata Plant)	JQA	Apr. 2000
Sakado Site	JQA	Oct. 2000
Information and Communication Division (Ranzan Plant)	JQA	Nov. 2000
Packaging Division (Akihabara Office)	JQA	Mar. 2001
Itabashi Site (including Toppan Seihon Co., Ltd.)	JQA	Feb. 2002
Fukusaki Site (including Wakayama Plant, Toppan Plastic Co., Ltd.)	JQA	Jul. 2002
Toppan Graphic Co., Ltd.	JQA	Aug. 2002
Takino Plants (Information and Communication Division/Packaging Division)	JQA	Oct. 2002
Gunma Site (including Tatebayashi Plant)	JQA	Jul. 2003
Asaka Plants (Information and Communication Division/Semiconductor Solutions Division)	JQA	Dec. 2003
Toppan Electronics Fuji Co., Ltd.	JQA	Jun. 2004
West Chugoku & Shikoku Subdivision (Hiroshima Office/Kannabe Toppan Co., Ltd.)	JQA	Oct. 2004
Kansai Division (Commercial Printing Subdivision/Securities Printing Subdivision/Packaging Subdivision/East Chugoku & Shikoku Subdivision)	JQA	Nov. 2004
Tohoku Division	JQA	Mar. 2005
Technical Research Institute	JQA	May 2005
Hokkaido Division (Sapporo Plant/Chitose Plant)	JSA	Jun. 2005
Electronics Division (Mie Plant I)	JQA	Jan. 2006
Toppan Plastic Co., Ltd. (Koshigaya Plant/Kawaguchi Plant/Sagamihara Plant)	SAI GLOBAL	Dec. 2006
Toppan Packaging Service Co., Ltd. (Ranzan Plant/Kyushu Plant)	JQA	Feb. 2007
Packaging Division (Sagamihara Plant)	SAI GLOBAL	Mar. 2007
Toppan Saga Yoki Co., Ltd.	SAI GLOBAL	Nov. 2007
Nishinohon Division (Fukuoka Plant Manufacturing Department 1)	SAI GLOBAL	Oct. 2008

Note: The names of divisions and operational sites accord with those mentioned in the review report issued in fiscal 2008 by the registrars.

Environmental Education

■ Fiscal 2008 Results

Education or Training	Content	Number of Trainees
New employee training	General environmental education (introductory level)	395
Training for newly appointed managers	General environmental education (intermediate level)	200
E-learning	Environmental issues involving corporations and Toppan Group activities	0 (Sum total: 20,123)
Optional training	Introduction to ISO 14001	23
	Introduction to environment-related laws	23
	Seminar to enhance the skills of ISO 14001 internal auditors	39
Challenge School	Six courses related to the environment	19
Internal environmental auditor training	Internal environmental auditor training program	140

■ Domestic Group Companies

Group Company/Operational Site	Registrar	Registration Date
NEC Toppan Circuit Solutions, Inc. (Toyama Plant)	JQA	Jan. 1997
Total Media Development Institute Co., Ltd.	JSA	Mar. 2001
Toppan Forms Co., Ltd. (Hino Plant)	JQA	Jun. 2001
Tokyo Shoseki Co., Ltd. (Head office and plants)	JCQA	Jul. 2001
Toppan TDK Label Co., Ltd. (Fukushima Plant/Takino Plant)	JQA	Nov. 2001
Toppan Logistics Co., Ltd. (Nishigaoka Site, including the Kawaguchi transport department)	JQA	Oct. 2002
Toppan Prosprint Co., Ltd. (Mito Plant)	JSA	Jan. 2004
Toppan Forms Co., Ltd. (Fussa Plant)	JQA	Feb. 2004
Toppan Forms Co., Ltd. (R&D Center)	JQA	Mar. 2004
Toppan Containers Co., Ltd. (Saitama Plant/Miyagi Plant/Sano Plant)	JQA	Apr. 2004
Toppan Forms Tokai Co., Ltd. (Nagoya Plant)	JQA	Aug. 2004
Toppan Forms Kansai Co., Ltd. (Osaka Plant)	JQA	Dec. 2004
Toppan Forms Nishinohon Co., Ltd. (Kyushu Plant)	JQA	Jan. 2005
Toppan TDK Label Co., Ltd. (Sagamihara Plant/Kita Plant/Nishi Plant/Nishi Warehouse)	JCQA	Jan. 2005
Toppan Prosprint Co., Ltd. (Koto Plant)	JQA	Mar. 2005
Hino Offset Printing Co., Ltd.	JSA	Nov. 2005
Toppan Forms Kansai Co., Ltd. (Settsu Plant)	JQA	Mar. 2006
Toppan Forms Co., Ltd. (Kawamoto Plant)	JQA	Aug. 2006
Toppan Forms Kansai Co., Ltd. (Kobe Plant)	JQA	Sep. 2006
Toppan Techno Co., Ltd. (Head office/Kansai branch/Atsugi site)	SAI GLOBAL	Mar. 2009

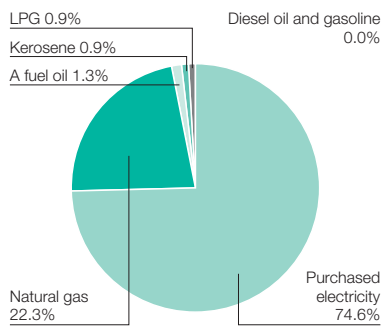
■ Overseas Subsidiaries

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 Singapore Pte. Ltd.	LRQA	Feb. 2005
Toppan Photomasks Korea Ltd.	LRQA	Feb. 2005
Toppan Photomasks Co., Ltd., Shanghai	LRQA	Feb. 2005
Toppan Printing Co., (Shanghai) Ltd.	CEC	Feb. 2006
Toppan SMIC Electronics (Shanghai) Co., Ltd.	BSI	Feb. 2007
SNP Leefung Printers (Shanghai) Co. Ltd.	CCCI	Apr. 2007
SNP Yau Yue (Shenzhen) Paper Products Co., Ltd.	SGS	Nov. 2007
Shanghai Toppan Printing Co., Ltd.	NQA	Jul. 2008
SNP Leefung Packaging & Printing (Dongguan) Co., Ltd. (Packaging Division)	MIC	Jan. 2009
SNP Leefung Printers Ltd. (Export Division—book printing) [SNP Leefung Packaging & Printing (Dongguan) Co., Ltd. (Export Division—book printing)]	CNAS	Mar. 2009

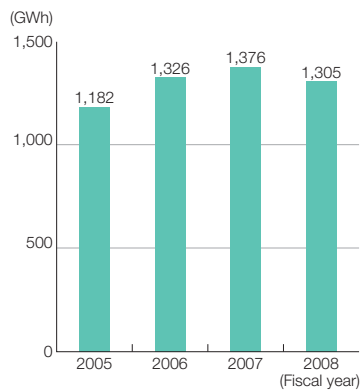
Note: The company names accord with those mentioned in the registration certificate.

Energy Type Ratio and Consumption

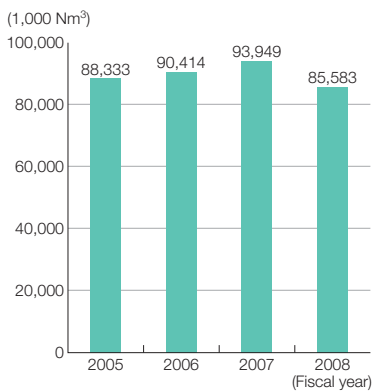
Ratio by Energy Type for Fiscal 2008
(in terms of calorific value)



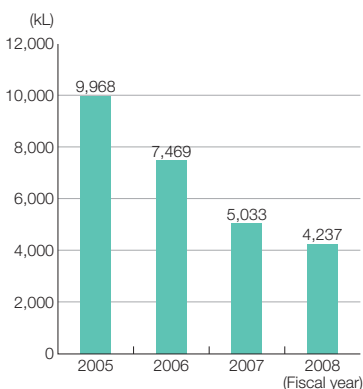
Electricity Consumption



Natural Gas Consumption



Kerosene Consumption



Note: The calorific value of the primary energy input associated with electricity consumption is calculated uniformly as 0.00983 GJ/kWh.

Promotion of Waste Reduction and Recycling (43 plants certified in December 2008)

Zero-emission Sites (TZERO-08)

Operational Site	Generation (tons)	Recycled (tons)	Recycling Rate
Information and Communication Division (Asaka Securities Printing Plant)	4,069.8	4,066.1	99.91%
Information and Communication Division (Ranzan Plant)	1,051.6	1,050.4	99.89%
Semiconductor Solutions Division (Asaka Site)	392.5	383.2	97.63%
Electronics Division (Mie Plant I)	5,638.2	5,637.9	99.99%
Electronics Division (Kumamoto Plant)	11,166.1	11,097.5	99.39%
Toppan Electronics Fuji Co., Ltd.	180.5	179.3	99.34%
NEC Toppan Circuit Solutions, Inc. (Toyama Plant)	4,238.3	4,237.1	99.97%
Electronics Division (Satte Plant)	2,612.8	2,612.8	100.00%
Electronics Division (Shiga Plant)	1,993.4	1,993.4	100.00%
Information and Communication Division (Itabashi Site)	16,514.4	16,446.5	99.59%
Information and Communication Division (Asaka Site)	11,121.0	11,094.6	99.76%
Sakado Site	27,063.3	27,054.2	99.97%
Toppan Graphic Co., Ltd.	44,962.8	44,962.8	100.00%
Toppan Seihon Co., Ltd.	30,901.4	30,721.6	99.42%
Packaging Division (Sagamihara Plant)	21,182.6	21,126.2	99.73%
Toppan Containers Co., Ltd. (Saitama Plant)	8,941.1	8,824.2	98.69%
Toppan Containers Co., Ltd. (Sano Plant)	4,144.8	4,121.3	99.43%
Toppan Containers Co., Ltd. (Miyagi Plant)	3,589.5	3,589.5	100.00%
Toppan Containers Co., Ltd. (Kumagaya Site)	264.6	264.6	100.00%
Toppan Plastic Co., Ltd. (Koshigaya Plant)	499.6	499.1	99.90%
Toppan Plastic Co., Ltd. (Sagamihara Plant)	121.0	121.0	100.00%
Toppan Packaging Service Co., Ltd. (Ranzan Plant)	500.9	498.6	99.54%
Toppan Packaging Service Co., Ltd. (Kyushu Plant)	228.4	228.4	100.00%
Toppan Decor Products Inc. (Kashiwa Plant)	3,571.2	3,571.2	100.00%
Toppan Decor Products Inc. (Satte Plant)	5,012.8	5,012.8	100.00%
Packaging Division (Itami Plant)	10,556.5	10,436.7	98.87%
Toppan Harima Products Co., Ltd.	639.5	636.3	99.50%
Information and Communication Division (Takino Commercial Printing Plant)	11,993.5	11,993.5	100.00%
Packaging Division (Takino Packaging Plant)	4,888.2	4,885.0	99.93%
Information and Communication Division (Takino Securities Printing Plant)	1,200.2	1,200.2	100.00%
Information and Communication Division (Nagoya Plant)	5,290.9	5,269.6	99.60%
Packaging Division (Matsuzaka Plant)	2,485.4	2,465.5	99.20%
Mikkabi Toppan Printing Co., Ltd.	3,244.0	3,236.4	99.77%
Nishinohon Division (Fukuoka Plant Manufacturing Department 1)	5,391.8	5,296.2	98.23%
Nishinohon Division (Fukuoka Plant Manufacturing Department 2)	6,005.5	5,967.5	99.37%
Toppan Saga Yoki Co., Ltd.	229.1	227.7	99.41%
Kumamoto Toppan Co., Ltd.	6,210.3	6,210.3	100.00%
Kannabe Toppan Co., Ltd.	4,099.0	4,018.2	98.03%
Tohoku Division (Sendai Plant)	4,293.9	4,232.1	98.56%
Hokkaido Division (Sapporo Plant)	2,746.3	2,746.1	99.99%
Toppan Prosprint Co., Ltd. (Mito Plant)	3,891.4	3,889.7	99.96%
Toppan Prosprint Co., Ltd. (Koto Plant)	1,713.1	1,710.4	99.84%
Fukuren Co., Ltd.	58.2	58.2	100.00%

Notes: •Two criteria were set for certifying operational sites as zero-emission sites in December 2008. 1) For first-time certification, a site is required to have attained a recycling rate of 98% or over in fiscal 2007. 2) For ongoing certification, a site is required to have attained an average recycling rate of 98% or over during fiscal 2006-2007. •The performance data above are the results for fiscal 2007. Though its recycling rate has been confirmed to fall below 98%, the Asaka Site in the Semiconductor Solutions Division is certified as a zero-emission site. This site retains the designation because it underwent an assessment for ongoing certification and maintained an average recycling rate of over 98% during fiscal 2006-2007.

Pollution Prevention and Chemical Substance Management and Reduction

■ PRTR Results for Fiscal 2008

(Unit: kg/year)

PRTR No.	Chemical Substance	Handle	Release	Release			Total Transfer
				1. Atmosphere	2. Water	3. Soil	
16	2-amino ethanol	52,525	0	0	0	0	13,128
24	Linear alkylbenzenesulfonate and chlorides	2,379	0	0	0	0	809
30	Bisphenol A type epoxy resin (liquid)	1,953	0	0	0	0	586
40	Ethyl benzene	29,069	4,643	4,643	0	0	912
45	Ethylene glycol monomethyl ether	6,056	297	297	0	0	949
46	Ethylene diamine	5,842	0	0	0	0	5,782
61	ε-caprolactam	5,080	0	0	0	0	813
63	Xylene	65,877	6,980	6,980	0	0	970
64	Silver and water-soluble compounds	1,441	0	0	0	0	0
68	Chrome and trivalent chromium compounds	21,477	7	0	6	0	5,965
69	Hexavalent chromium compounds	18,206	0	0	0	0	897
108	Inorganic cyanogens compounds	3,706	0	0	0	0	112
132	1,1-dichloro-1-fluoroethane (HCFC-141b)	1,847	1,847	1,847	0	0	0
179	Dioxins	545 (mg-TEQ)	4 (mg-TEQ)	4 (mg-TEQ)	0	0	541 (mg-TEQ)
207	Copper salts (water-soluble, except complex salts)	1,340,171	411	0	411	0	221,894
218	1,3,5-tris(2, 3-epoxypropyl)-1,3,5-triazine-2,4,6 (1H,3H,5H)-trione	7,290	0	0	0	0	2,174
224	1,3,5-tri-methyl benzene	6,392	1,060	1,060	0	0	5,011
227	Toluene	4,252,337	392,670	392,670	0	0	357,996
231	Nickel	97,020	0	0	0	0	0
232	Nickel compounds	55,922	22	0	22	0	52,666
299	Benzene	8,245	0	0	0	0	0
304	Boron and its compounds	1,781	32	0	32	0	2
309	Poly (oxyethylene) nonylphenyl ether	2,194	439	439	0	0	1,712
310	Formaldehyde	39,278	60	60	0	0	0
311	Manganese and its compounds	8,928	16	0	16	0	6,011
	Total	6,035,016	408,483	407,996	487	0	678,389

Notes: Period covered: April 1, 2008–March 31, 2009

Substances designated: The 25 substances shown above

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.

Atmospheric Emissions

■ 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
2005	99.92	—	0.08	730,356
2006	99.93	—	0.07	785,562
2007	99.93	—	0.07	805,109
2008	99.93	—	0.07	751,901

■ 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
2005	61	35	4	730,356
2006	64	31	4	785,562
2007	65	32	4	805,109
2008	66	31	4	751,901

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.

Waste Generation and Recycling by Type

■ Fiscal 2008 Results

Type of Waste	Generation (tons)	Ratio	Recycling Rate	Primary Reusage
Waste paper	229,264	73.1%	99.8%	Recycled paper
Waste plastic	26,738	8.5%	99.0%	RPF, plastic materials
Waste acid	15,908	5.1%	93.6%	Neutralizer
Waste alkali	13,631	4.3%	95.8%	Neutralizer
Waste oil	9,150	2.9%	97.2%	Recycled oil, fuel
Sludge	9,150	2.9%	94.5%	Roadbed materials
Metal chip	4,804	1.5%	99.5%	Metal materials
Wooden chip	1,931	0.6%	99.0%	Chip, paper materials
Cinder	1,856	0.6%	69.0%	Roadbed materials
Glass chip	554	0.2%	99.3%	Glass materials
Other	766	0.3%	77.5%	—
Total	313,752	100.0%	98.8%	—