



***Environmental Report***

**2002**

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## TAKE OFF 2007

In 2007, TOYO INK MFG. CO., LTD., will celebrate the 100th anniversary of its establishment.

In December 1992, Toyo Ink established Take Off 2007—a long-term business plan encompassing the Company's future goals—and from April 1993 it has been implementing medium-term and fiscal-year management plans based on this business plan.

The Take Off 2007 business plan is based on the following:

**CORPORATE PHILOSOPHY:** People-oriented management

### CORPORATE POLICY:

We, the Toyo Ink Group, would like to be a company creating new values for human culture throughout the world.

- Contribute to people's wealth and culture worldwide
- Create new values for life in the next generation
- Provide superior technology and quality

### GUIDING PRINCIPLES:

1. Provide our knowledge to enhance customer satisfaction
2. Respect the realization of all employees' dreams
3. Act as a responsible citizen coexisting with society and the Earth

## WHAT THIS ENVIRONMENTAL REPORT COVERS

### ■ Period Covered

The data in this environmental report mainly comprises results for fiscal 2001 (April 1, 2001 to March 31, 2002). However, data from January 1, 2001 to December 31, 2001 was used to calculate the environmental impact of overseas affiliates. In addition, since the Japanese-language version was published in September 2002, information regarding significant accomplishments made through June 2002 was included in this report.

### ■ Operations Covered

This environmental report covers TOYO INK MFG. CO., LTD., and all its domestic and overseas affiliates. However, data from Toyo Ink's four manufacturing facilities and four plants, its five domestic production-related affiliates, and the five plants of four overseas production-related affiliates that have obtained ISO 14001 certification was used to calculate environmental impact.

### ■ Areas Covered

In this environmental report, "environment" refers to the environment surrounding operations at Toyo Ink as well as its domestic and overseas affiliates. This does not include items related to occupational safety and health or accident and fire prevention.

# Introduction



Thank you for taking the time to read TOYO INK MFG. CO., LTD.'s *Environmental Report 2002*.

In fiscal 2001, ended March 31, 2002, Toyo Ink concentrated on activities in line with its management policy to "Increase environmental awareness and create new environmentally conscious products and businesses through the implementation of environmental management." These activities included the establishment of an original registry system for environmentally conscious products (ECPs) and the introduction of an environmental labeling system to bolster our environment-related operations. Consequently, sales of ECPs soared to ¥37.0 billion, up 190% from the previous fiscal year. The environmental effects of ECPs are described in detail in the environmental accounting section of this report.

Furthermore, the Company regards environmental management as essential not only to Toyo Ink but also to all of its Group companies. Therefore, data for domestic production-related affiliates was included in the Company's *Environmental Report 2001*, and coverage has been expanded in this environmental report to include data for overseas production-related affiliates that have been awarded ISO 14001 certification.

Meanwhile, Toyo Ink established the Take Off 2007 business plan as the Company approaches 2007, the 100th anniversary of its establishment, and it is working to realize the goals set out in this vision. The Company is also revising its environmental goals and targets as it sets out to define where Toyo Ink should be in 2007.

The Company revised previous energy consumption targets, setting a new goal of reducing carbon dioxide emissions at Toyo Ink manufacturing facilities and plants to fiscal 1990 levels by 2007. The year 2007 also marks a turning point in global warming prevention measures. Toyo Ink aims to achieve the targets outlined in the Japan Business Federation's Voluntary Action Plan on the Environment ahead of schedule—by 2007. The Company's flagship Fuji Plant is already pressing forward with efforts to achieve its targets, including the introduction of a cogeneration system that uses natural gas.

The Company is not waiting until 2007 to work toward achieving zero waste at all its domestic production facilities. It has already disposed of the large incinerator at the Kawagoe Plant. Moreover, the Company aims to earn ISO 14001 certification at all of its domestic and overseas production-related affiliates by 2007.

Take Off 2007 is a society-oriented vision establishing concrete principles to guide our actions as a responsible corporate citizen in tune with the needs of the environment and society. At Toyo Ink, we aim to live up to our responsibility as a corporate citizen through achieving the aforementioned targets. To accomplish our goals, we will continue to make constant, conscientious, and concrete efforts to reduce our burden on the environment.

We ask readers of this report for their support and understanding in the current fiscal year.

September 2002

Kunio Sakuma

President

TOYO INK MFG., CO., LTD.

A handwritten signature in black ink that reads "Kunio Sakuma". The signature is written in a cursive, flowing style.

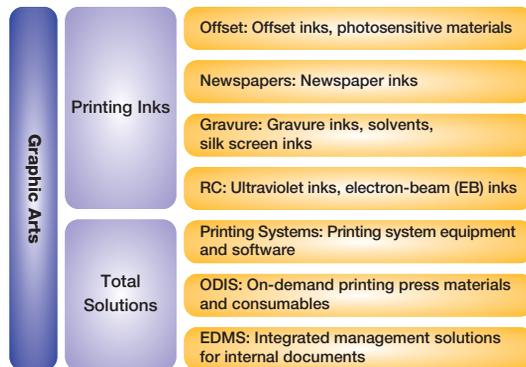
# Toyo Ink Operations and the Environment

## Business Operations

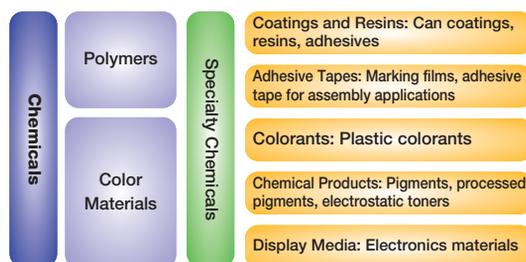
Toyo Ink's core businesses are color and color technology, polymer technology, and optical device technology. The Company's operations focus on development in two major areas—graphic arts and chemicals.

In graphic arts, Toyo Ink offers a variety of environment-friendly products centered around its printing inks and total solutions based on digital technologies. The Company also leverages these products and technologies to create printing workflow solutions.

In chemicals, Toyo Ink offers a wide range of products, including pigments, coatings and resins, adhesives, and high-performance materials.



RC: Radiation Cure  
 ODIS: On-Demand Imaging System  
 EDMS: Enterprise Document Management System



## Environmental Burden Flowchart



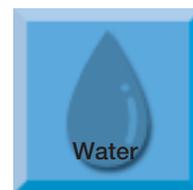
- Electrical Power: 97.17 million kW
- Crude Oil: 12,039 kl
- LPG: 1,740 tons
- City Gas: 1,008 tons



- Solvents: 51,177 tons
- Resins: 58,143 tons
- Pigments: 24,411 tons
- Other: 63,110 tons
- Total: 196,841 tons

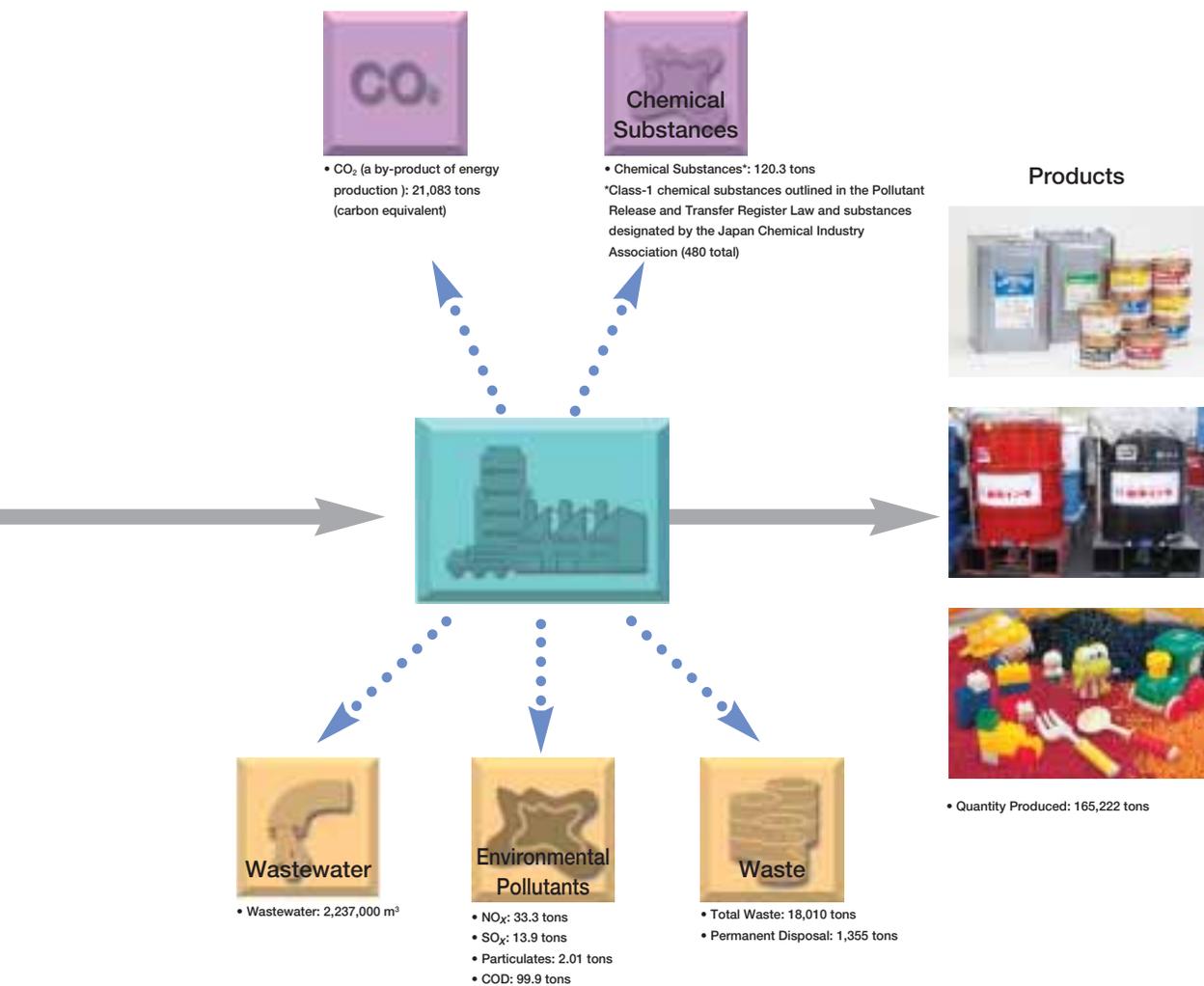


- Drum Cans: 4,677 tons
- 5-Gallon Drums: 2,786 tons
- Other Metal Drums, etc.: 1,836 tons
- Total: 9,299 tons



- Municipal Water: 228,000 m<sup>3</sup>
- Industrial Water: 203,000 m<sup>3</sup>
- Groundwater: 2,783,000 m<sup>3</sup>
- Total: 3,214,000 m<sup>3</sup>

Note: The figures above are Toyo Ink's estimates for fiscal 2001.



**Safe and Environmentally Responsible Distribution**

Logi Co-Net Co., Ltd., is in charge of Toyo Ink and Sakata INX's distribution management. Toyo Ink's products are transported along with other companies' products, which makes it difficult to accurately assess the environmental impact of distribution activities. However, Logi Co-Net is working to reduce its impact on the environment through such activities as using TOTE tanks for offset and newspaper inks to reduce container waste.

Many of the products we transport are hazardous materials. Therefore, we consider an accident involving the possible leakage of these materials to pose the greatest threat of environmental impact that could arise from our activities. Consequently, by promoting safety we are protecting the environment, and we regard the prevention of accidents during transport to be our top priority. Our crew undergoes training along with transport company employees, and we held workshops for this purpose for a total of 100 employees at each of our bases six times in fiscal 2001.



Logi Co-Net  
East Japan  
Headquarters

**Yukio  
Okamoto**

CLOSE UP





# Environmental Management System

## 1 Responsible Care and ISO 14001

Toyo Ink's Environmental Charter and Action Policies includes goals to be achieved through Responsible Care activities in addition to environmental conservation measures. Toyo Ink endeavors to put its Environmental Charter and Action Policies into practice by promoting Responsible Care activities. The Company is also using the ISO 14001 system as a tool to bolster environmental conservation efforts. Toyo Ink is working toward ongoing improvement in this area through Responsible Care and ISO 14001 activities.

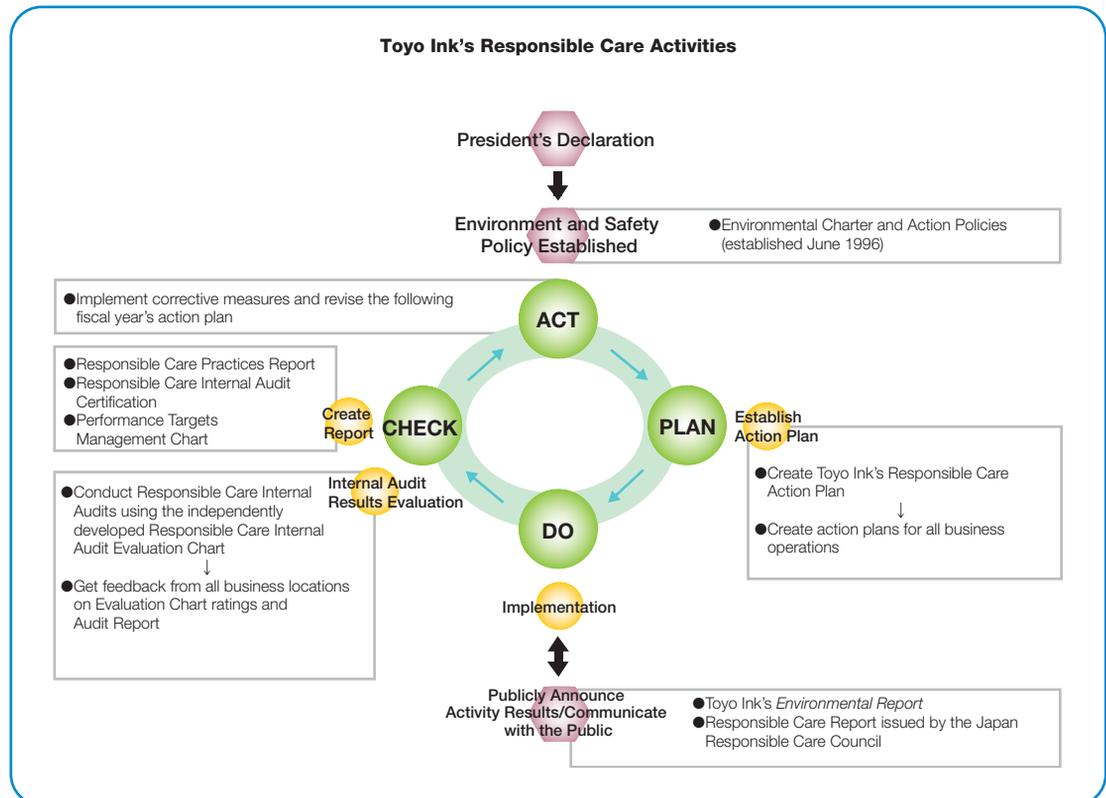
The environment has been an official part of Group operating policy since fiscal 2000, and Toyo Ink is making progress in its efforts to reduce its impact on the environment, avoid risks, and create environment-friendly businesses through environmental management.

The Company must make ongoing progress every year in advancing environmental management if it is to achieve

the goals set out in Take Off 2007 by the target year, 2007. Toyo Ink's Responsible Care activities began in 1995 as part of efforts to promote environmental management, and the Company regards Responsible Care as a key component of an environmental management system.

At its manufacturing facilities and plants as well as its domestic production-related affiliates, Toyo Ink is making continuous progress in five areas of Responsible Care—environmental protection, safety and accident prevention, employee health and safety, chemical and product safety, and communication with the public. Toyo Ink regards Responsible Care activities as voluntary practices to be undertaken by chemical corporations and intends to develop its Responsible Care policy in areas not mentioned above while expanding its activities in designated businesses.

In addition, most of Toyo Ink's business establishments, including those overseas, are carrying out ISO



## What Are Responsible Care Activities?

Chemicals are an essential part of our lives, but if they are not handled properly they may be harmful, endangering humans and the environment. Concern regarding environment, safety, and health-related issues is on the rise, spurred by such factors as the expansion of industrialized regions and technological advances, and it has become difficult to deal with these issues through chemical regulations alone. It is now more important than ever for corporations that handle chemical products to act responsibly of their own accord.



Against this background, chemical corporations around the world have begun voluntary management activities as part of efforts to improve the situation. They pledge to protect the environment and people's health as well as promote safety throughout chemicals' life cycles—from development to disposal—and incorporate this pledge into their management policies while implementing policies on the environment, safety, and health. These activities are called Responsible Care.

In 1995, the Japan Responsible Care Council was established with the aim of promoting Responsible Care and making it more objective. As of October 2001, 109 companies, including Toyo Ink, were members of this council and practicing Responsible Care.

Responsible Care activities comprise the following five areas.

1. Environmental protection: Implement such environmentally conscious activities as energy conservation and environmental pollutant emission reduction.
2. Safety and accident prevention: Ensure the safe operation of businesses and prevent accidents.
3. Employee health and safety: Protect employees' safety and health.
4. Chemical and product safety: Manufacture safe products and provide such information as instructions for product use.
5. Communication with the public: Announce developments and increase mutual understanding through communication with the public.

14001-based activities. ISO 14001 is the international set of standards for environmental management systems, and it differs from Responsible Care in that certification and registration are obtained after an audit conducted by a third party. Furthermore, Responsible Care covers five areas, including environmental protection and safety and accident prevention, while ISO 14001 only covers environmental protection. Nevertheless, both ISO 14001 and the plan-do-check-act (PDCA) cycle aim to prevent pollution and ensure ongoing improvement, and in that sense they are similar to Responsible Care.

ISO 14001 is the universal standard in environmental management, and its requirement of a third-party audit for certification ensures a high level of objectivity and transparency. Thus, Toyo Ink will continue to actively

pursue ISO 14001 certification at all of its business establishments, including those overseas.

Toyo Ink regards ISO 14001 as an important management tool. Specifically, the Company expects that measures required to build an ISO 14001-compliant system, including environmental impact evaluations, the identification of environmental areas of concern as well as the establishment of goals and targets for these areas, and management-conducted reviews will contribute to continuous improvement in Responsible Care areas outside of environmental protection. Therefore, the Company intends to expand its ISO 14001-based practices.

## 2 Environmental Policy

In June 1996, as a member of the Japan Responsible Care Council and in accordance with the commencement of Responsible Care activities, Toyo Ink established its Environmental Charter and Action Policies to outline its fundamental management policy based on a philosophy of sustainable development.

When Toyo Ink launched its new environmental management system in April 2000, the Company positioned the goals of its Environmental Charter and Action Policies as its environmental policy, which is required for ISO 14001 certification. The Company is working to enhance employee awareness as well as to set objectives and targets for the Environmental Charter and Action Policies and realize these goals.

At the Second Environmental Conference—a Company-wide environmental conference—held in February 2002, adjustments were made to the environmental targets in line with the goal to revise those targets by 2007, the 100th anniversary of the Company’s establishment.

### CLOSE UP



#### Changes in Environmental Targets

To commemorate the 100th anniversary of its founding in January 2007, Toyo Ink adopted new environmental targets under a five-year medium-term business plan ending fiscal 2007. The following three points have been revised.

1. Regarding ISO 14001, an important tool for the creation of environmental management systems, all Toyo Ink plants as well as domestic and overseas production-related affiliates have designated fiscal 2006 as the target deadline for obtaining ISO 14001 certification.
2. The Company aims to create an environmental business that emphasizes both environmental concerns and profitability, with the goals of having environment-friendly products account for more than 40% of net product sales by fiscal 2006.
3. The Company aims to reduce carbon dioxide emissions at Toyo Ink factories and plants to fiscal 1990 levels by fiscal 2006.

#### Environmental Charter and Action Policies

##### Environmental Charter

Since its establishment, the Toyo Ink Group has strived to contribute to the enrichment of people’s daily lives through the development of colors. In carrying out its business activities, the Toyo Ink Group has continually aimed to maintain harmony with local communities, conduct safe operations, eliminate pollution, and offer safe products while helping to preserve people’s health. In the future, based on the international principle of “sustainable development,” the Toyo Ink Group will adhere strictly to various environment-related laws in Japan and overseas and endeavor to enhance energy and resource conservation by improving its operations and stepping up efforts to fulfill its responsibilities to society. In pursuing these endeavors, the Toyo Ink Group will be guided by the policies set out in its Environmental Charter.

##### Action Policies

1. As members of society, individual employees of the Toyo Ink Group will conduct their activities with an awareness of various environmental issues.
2. The Toyo Ink Group will develop and provide products, taking into consideration these products’ effect on people’s health and the environment during their entire life cycles.
3. The Toyo Ink Group will make strenuous efforts to ensure environmentally sound operations, conserve resources and energy, and reduce the environmental burden during production.
4. The Toyo Ink Group will provide information about its products, the environment, and safety and will cooperate with customers, local communities, and citizens, assisting them in improving their operations in all areas related to the environment, safety, and people’s health.
5. The Toyo Ink Group will adhere strictly to laws and regulations and cooperate in accordance with various administrative policies while promoting harmonious international efforts in response to global environmental issues.

Environmental Objectives (Targets for Achievement: Fiscal 2006)	Environmental Targets for Fiscal 2002
<p><b>Management System</b></p> <ul style="list-style-type: none"> <li>• Obtain ISO 14001 certification at all of Toyo Ink's business establishments by fiscal 2006 and promote ongoing improvement.                             <ol style="list-style-type: none"> <li>1) Obtain ISO 14001 certification at Toyo Ink's domestic and overseas production-related affiliates by fiscal 2006 and promote ongoing improvement.</li> <li>2) Implement ISO 14001-based environment management systems at Toyo Ink's domestic and overseas non-production-related affiliates and promote ongoing improvement.</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Expand ISO 14001 coverage to establish an operating system at Toyo Ink's manufacturing facilities that also applies to plants.</li> <li>• Prepare Toyo Ink's non-production-related business units for ISO 14001 certification.</li> <li>• Prepare domestic and overseas production-related companies that have not yet obtained ISO 14001 certification for certification.</li> <li>• Create a system that incorporates environmental accounting in operations.</li> </ul>
<p><b>Education and Social Contributions</b></p> <ul style="list-style-type: none"> <li>• Establish an education system based on Responsible Care to heighten employees' environmental awareness and promote unified Companywide environmental protection activities.</li> <li>• Actively communicate with local communities to promote harmonious coexistence.</li> </ul>	<ul style="list-style-type: none"> <li>• Implement Responsible Care-based education for leaders in production, technology, and sales positions.</li> <li>• Have all of Toyo Ink's manufacturing facilities and plants as well as its domestic production-related affiliates publish site reports on the environment, safety, and health, as part of efforts to educate employees and communicate with local communities.</li> </ul>
<p><b>Environmental Business Activities</b></p> <ul style="list-style-type: none"> <li>• Increase sales of ECPs to account for over 40% of net product sales by fiscal 2006. This will contribute to improving the profit structure and making Toyo Ink a top brand.</li> <li>• Reduce product risks.</li> </ul>	<ul style="list-style-type: none"> <li>• Raise fiscal 2002 net sales of ECPs 10% from fiscal 2001.</li> <li>• Leverage registration systems and environmental labels for ECPs as a tool to expand sales.</li> <li>• Create a product risk management system.</li> </ul>
<p><b>Manufacturing Facility and Plant Activities</b></p> <ul style="list-style-type: none"> <li>• Reduce CO<sub>2</sub> emissions at Toyo Ink manufacturing facilities and plants to fiscal 1990 levels by fiscal 2006.</li> <li>• Reduce the amount of waste created and promote recycling. Achieve zero waste at Toyo Ink's manufacturing facilities and plants as well as domestic production-related affiliates by fiscal 2005.</li> <li>• Dispose of all incinerators, including the large incinerator at the Kawagoe Plant, at Toyo Ink's manufacturing facilities and plants as well as its domestic production-related affiliates.</li> <li>• Establish a system to prevent environmental pollution and strive to eradicate accidental spills.</li> <li>• Establish a system to ensure occupational safety and prevent accidents as a part of efforts to eradicate major fires and workplace accidents.</li> </ul>	<ul style="list-style-type: none"> <li>• Introduce cogeneration facilities at the Fuji Plant and create a detailed CO<sub>2</sub> emissions reduction plan by fiscal 2006.</li> <li>• Reduce CO<sub>2</sub> emissions at all of Toyo Ink's manufacturing facilities and plants 0.5% from fiscal 2001 levels.</li> <li>• Establish energy-saving facilities and define operational standards for them.</li> <li>• Reduce the amount of waste for final disposal at all of Toyo Ink's manufacturing facilities and plants as well as production-related affiliates 20% from fiscal 2001 levels.</li> <li>• Promote waste-management education and audits at plants and companies that the Company outsources to.</li> <li>• Create an environmental technology team at the production technology laboratory to work toward recycling and developing disposal technologies for waste and wastewater.</li> <li>• Revise the Environmental Impact Assessment.</li> <li>• Implement risk assessment for accident prevention and occupational safety.</li> </ul>
<p><b>Communicating Risks and Preventing Chemical-Associated Health Damage</b></p> <ul style="list-style-type: none"> <li>• Ensure adequate communication of environment-, safety-, and health-related risks.</li> <li>• Promote the proper management of chemicals.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to publish the <i>Environmental Report</i>.</li> <li>• Strictly adhere to the pollutant release and transfer register (PRTR) system.</li> <li>• Complete the material safety data sheet (MSDS) system.</li> <li>• Carry out the risk management of chemicals.</li> </ul>
<p><b>Observing Laws and International Cooperation</b></p> <ul style="list-style-type: none"> <li>• Ensure that laws are observed.</li> <li>• Introduce environmental management systems at overseas affiliates.</li> </ul>	<ul style="list-style-type: none"> <li>• Consider saving information required by law in an electronic form.</li> <li>• Urge overseas affiliates to obtain ISO 14001 certification and start collecting performance data.</li> </ul>

### 3 Environmental Management System Organization

Toyo Ink has taken organizational action in response to environmental issues, starting with the establishment of its Environmental Improvement Center in 1973. Toyo Ink's efforts to create a robust environmental management system include establishing environmental safety regulations in 1990, attaining membership in the Japan Responsible Care Council in 1995, and establishing the Environmental Charter and Action Policies in 1996.

In April 1999, the Ecology Center was established as part of Toyo Ink's headquarters. With the Ecology Center as its focal point, Toyo Ink revised its previous environmental management system to bolster environmental activities throughout the entire Toyo Ink Group via the establishment of an enterprise-wide organization, and the new Environmental Management System was launched in April 2000.

#### CLOSE UP

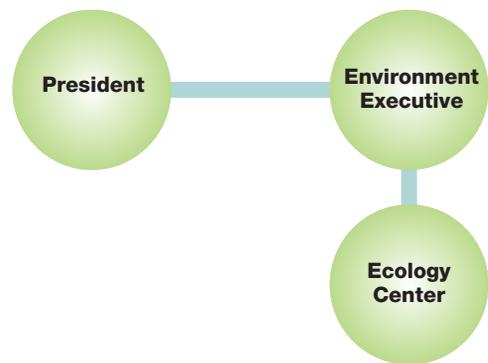


#### Fiscal 2001 Environmental Conference

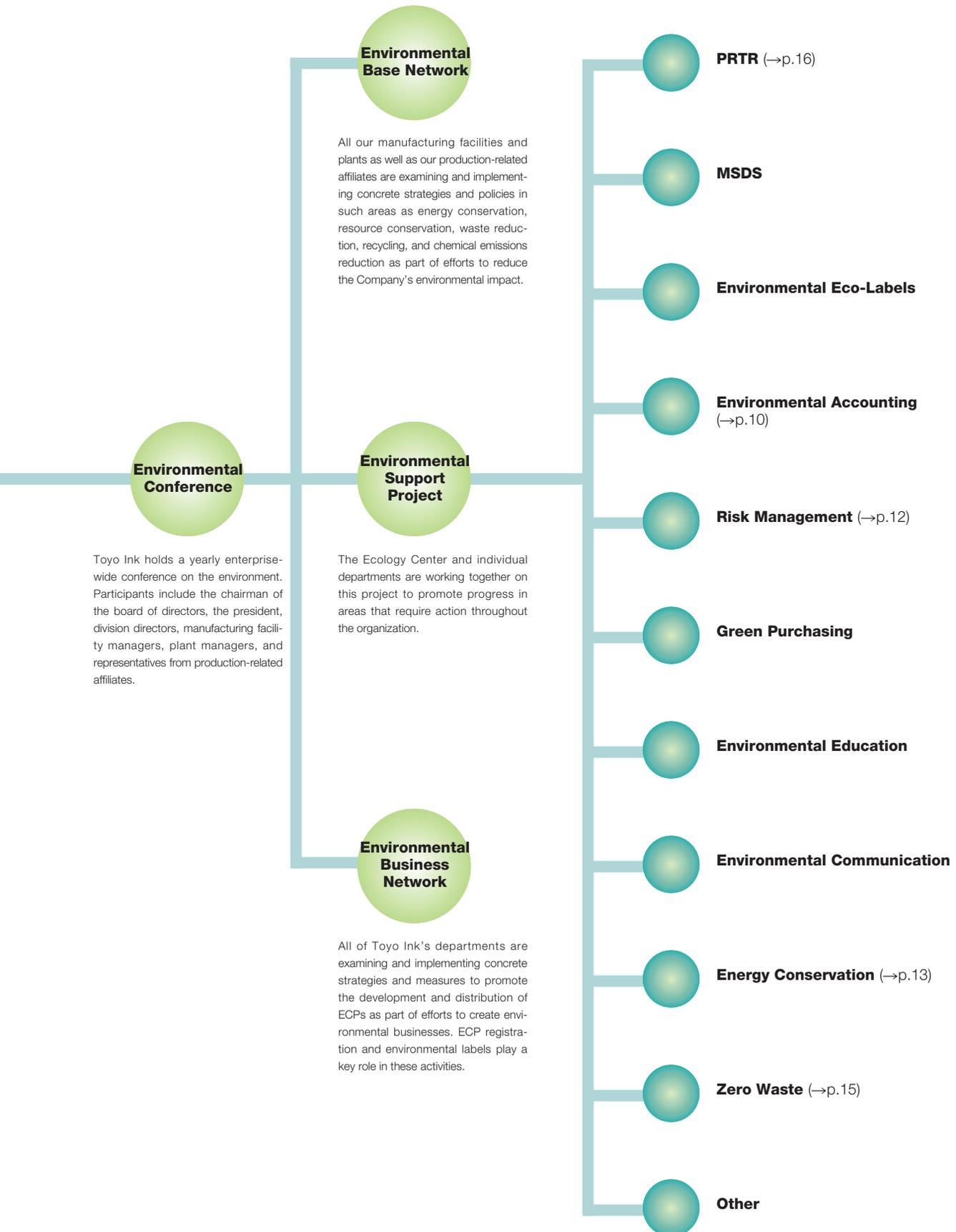
Toyo Ink held its second Environmental Conference on February 2, 2002. At the conference's outset, President Kunio Sakuma stated, "I would like to see environmental management lead to the reform of the corporate culture." Following explanations regarding the Ecology Center's fiscal 2001 activity report and fiscal 2002 goals and targets, there were reports from relevant departments on such areas as the Company's strategy to develop and expand sales of ECPs as well as Responsible Care activities at manufacturing facilities. The conference concluded by reinforcing the point that work was critical in three areas—finding a balance between reducing environmental impact and increasing profits, bolstering Responsible Care activities, and responding to global warming.



#### Organizational Diagram



Environmental Management System operation organization



## Environmental Accounting

Toyo Ink introduced environmental accounting in fiscal 1999, and the Company has included environmental accounting information in its environmental reports since 2000. Methods similar to those used in fiscal 2000 were used to compute environmental costs for fiscal 2001. However, the Company endeavored to increase the accuracy of environmental effects calculations—especially environmental business calculations—which it started computing in fiscal 2000.

### Environmental Accounting Analysis

Investments that included those related to boosting the Fuji Plant's wastewater disposal capacity, raising the Kawagoe Plant's capacity to process incinerator emissions, and establishing water coolant facilities for the new manufacturing plant led to a ¥35 million rise in environment-related capital investment from the previous fiscal year.

Costs directly related to environmental measures fell ¥24 million, owing to such factors as the completion of emergency measures regarding dioxins at the Fuji Plant. Indirect costs related to environmental measures

dropped ¥48 million, due mainly to the completion of the first stage of creating a PRTR management system, which was a focal point of fiscal 2000.

In fiscal 2001, the entire Company worked actively to develop ECPs, resulting in a ¥74 million total increase in R&D costs. A substantial rise in R&D costs was seen in three businesses—gravure inks, adhesives, and plastic colorants.

The value of total environmental effects decreased ¥65 million compared with fiscal 2000. Energy conservation effects rose ¥15 million, owing to such factors as decreased electrical costs due to production schedule revisions. Meanwhile, the accuracy of environmental effect calculations was noticeably improved, thanks to the introduction of a registration system for ECPs, which established selection criteria for designated products and a system for calculating sales proceeds from these products. Sales proceeds from ECPs for fiscal 2001 were up 191% compared with fiscal 2000. However, Toyo Ink's operating profit ratio fell from 2.9% to 1.3%, reflecting an ¥80 million reduction in environmental business effects.

### Environmental Accounting Results (Non-consolidated)

#### I. Environment-Related Capital Investment

(¥ million)

Category	Fiscal 2001	Fiscal 2000	Definition of Expenses Included in Calculations and General Description
Environment-Related Capital Investment	511	476	Investment in pollution prevention as defined by the Ministry of Economy, Trade and Industry and investment in energy conservation

#### II. Environmental Costs

(¥ million)

Category	Fiscal 2001	Fiscal 2000	Definition of Expenses Included in Calculations and General Description
1. Direct Costs (Environmental Measures)	Operation, maintenance, and management costs related to such environmental measures as pollution prevention		
① Pollution Prevention	605	610	Expenses to maintain and improve air, water, and soil pollution prevention activities
② Global Environmental Protection	26	23	Expenses to maintain and manage facilities related to global warming prevention and energy conservation
③ Resource-Related Measures	720	742	Expenses incurred through resource conservation, waste disposal, volume reduction, and recycling
<i>Subtotal</i>	1,351	1,375	
2. Indirect Costs (Environmental Measures)	Expenses for environmental management, employee education, consulting, and obtaining and maintaining ISO certification		
① Environmental Management	467	520	Personnel costs and other expenses related to Environmental Management departments at Toyo Ink's business establishments
② Other	12	7	Costs incurred at business establishments not referred to in ①
<i>Subtotal</i>	479	527	
3. Research and Development	Personnel costs and expenses related to environment-oriented pursuits at the Company's research facilities and divisions		
① Product Development	1,113	1,042	Total costs incurred working to develop ECPs
② Technology Development	180	177	Total costs incurred working to develop ECP technologies
<i>Subtotal</i>	1,293	1,219	
4. Other	Costs associated with recycling industrial waste, reusing containers, cleaning up soil pollution, etc.		
<i>Subtotal</i>	137	138	
<b>Total Environmental Costs</b>	<b>3,260</b>	<b>3,259</b>	

#### III. Environmental Effects

(¥ million)

Category	Fiscal 2001	Fiscal 2000	Definition of Expenses Included in Calculations and General Description
1. Energy Conservation	69	54	The total effect of energy conservation activities at Toyo Ink's business establishments was calculated as a monetary amount.
2. Environmental Business	486	566	Total profits from registered ECPs
<b>Total Environmental Effects</b>	<b>555</b>	<b>620</b>	

Notes: 1. The operating profit ratio was accounted for when calculating net sales of ECPs.

2. Tabulation of figures for Toyo Ink from April 1, 2001, to March 31, 2002.

## 5 ISO 14001 Certification

Toyo Ink is promoting activities to improve the environment, safety, and health through Responsible Care but also regards ISO 14001 as an important tool.

One of Toyo Ink's environmental targets is to earn ISO 14001 certification at all of its business facilities as well as domestic and overseas production-related affiliates by

fiscal 2006, and the Company is currently laying the groundwork to achieve this goal. As of April 30, 2002, all four of Toyo Ink's manufacturing facilities and seven offices of its domestic and overseas production-related affiliates had obtained certification.

### ●ISO 14001 Certification at Toyo Ink

Plant Name	Certification Date	Registered Examining Organization
Kawagoe Plant	February 21, 1997	Japan Electrical Safety & Environment Technology Laboratories
Fuji Plant	April 21, 1997	Japan Quality Assurance Organization
Saitama Plant	May 24, 2001	JIC Quality Assurance
Moriyama Plant	April 25, 2002	JIC Quality Assurance
	Expanded Certification Date	Registered Examining Organization
Kawagoe Plant (Expansion of pigment production)	April 1, 2001	Japan Electrical Safety & Environment Technology Laboratories
Fuji Plant (Expansion of the former Tenmon Plant)	June 7, 2002	Japan Quality Assurance Organization

### ●ISO Certification at Production-Related Affiliates

Company Name	Certification Date	Registered Examining Organization
<b>(Domestic)</b>		
Toyo Petrolite Co., Ltd.	January 30, 2001	JIC Quality Assurance
Toyo Morton Ltd.	April 26, 2001	JIC Quality Assurance
<b>(Overseas)</b>		
Francolor Pigments S.A. VSP Factory (France)	July 8, 1997	AFAQ
Francolor Pigments S.A. Oissel Factory (France)	April 28, 1998	AFAQ
Toyochem Ink Pte. Ltd. (Singapore)	December 1, 1999	SGS
Tianjin Toyo Ink Co., Ltd. (China)	December 7, 1999	China's National Environmental Protection Agency (Huaxia EMS Auditing Center)
Liochem Incorporated	March 23, 2000	Deloitte & Touche

ISO 14001 awareness has led to such trends as major corporations asking that suppliers obtain ISO 14001 certification and municipalities including ISO certification among preferential status conditions for public bidding. In addition, in 2001 Eco Mark accreditation standards for printed paper materials were established, and the Japan

Federation of Printing Industries and the Green Purchasing Network issued guidelines for printing services. ISO 14001 certification of the printing company is one criterion of judgement listed among these guidelines.

Against this backdrop, Toyo Ink is supporting users' efforts to obtain ISO 14001 certification.

#### TOYO INK TOHOKU Kicks Off ISO 14001 Certification Activities

TOYO INK TOHOKU CO., LTD., was spun off as a separate company in October 1999 to serve as a sales and service base for the Tohoku district. The company's main office has 34 employees and is located in Sendai. On April 1, 2002, TOYO INK TOHOKU launched ISO 14001 certification activities and hopes to obtain certification by March 2003. However, this is the first attempt by a non-production-related Toyo Ink Group company to obtain ISO 14001 certification. When TOYO INK TOHOKU obtains certification at its main office and other business facilities, Toyo Ink aims to leverage this challenge as an example for other Group companies.



## Environmental Accidents and Risk Management

### 1. Risk Management Committee

Toyo Ink first addressed corporate risk in 2001 with the designation of executives to oversee risk management and the formation of the Risk Management Committee (RM Committee). The RM Committee divided corporate risk into five categories that have the potential to affect the entire Company—environmental, safety, and product risks; the risk of a major earthquake; legal risks; information risks; and overseas risks—and then examined risk management systems to address these risks. Responsible Care activities were introduced to cover the environmental and safety risks, and strategic projects were formulated to address the risk of a major earthquake. In April 2002, the Company implemented organizational activities addressing the remaining risk areas in the following order of priority: legal risks, information risks, and overseas risks.

### 2. Environmental Accidents—Examples and Responses

In fiscal 2001, there were two Group-related accidents that affected the environment. There was also an incident involving illegal dumping by an industrial waste disposal business.

#### ●Vehicle Fire on the Tomei Highway

In May 2001, a sub-subcontractor's vehicle carrying Toyo Ink pigments caught on fire while traveling in the vicinity of the Tomei Highway's Atsugi Interchange, and the vehicle as well as its contents burned up. As the fire was being extinguished, some of the pigments leaked and were sent flying into the ditch and onto the road. A relevant self-governing body concluded that this accident did not involve leakage into the river.

#### ●Leakage of Aqueous Material into a River at the Saitama Plant

In November 2001, an accident at the Saitama Plant occurred when a mistake was made with a valve during the transfer of aqueous material to a holding tank via a pump, and material from the drain of the pump's clean line spilled out onto the road on the premises. The material then passed through a storm drain into the wastewater cistern and, eventually, into the river.

The Saitama Plant immediately moved its material transfer activities to areas equipped with oil-retaining walls and installed a holding container designed to ensure that even if materials leak they will not flow into a storm drain. Moreover, the facilities were improved so that material transfer is only possible when the pump cleaning valve is closed, and a pump operation checklist was clearly posted on the pump's operating panel. This accident at the Saitama Plant provided the perfect opportunity to establish fundamental measures to reform the way wastewater from the entire facility is dealt with, and the Environmental Protection Project was launched.

#### ●Illegal Dumping in the Industrial Waste Disposal Business

There were incidents involving the illegal dumping of waste in September and November 2001 by a company that produces solvents and labels for Toyo Ink. These incidents spurred Toyo Ink to conduct audits of industrial waste management conditions at companies it outsources to, and the Company is urging these companies to strictly comply with laws and regulations concerning waste disposal.

### 3. Horizontal Development

After the aforementioned incidents occurred, Toyo Ink included such information as conditions surrounding the incidents, reform measures, and things to keep in mind in its *Monthly Ecology Center Report*, which is distributed to all Toyo Ink business establishments, as part of efforts to prevent the occurrence of similar accidents. The Responsible Care audits conducted from November 2001 through March 2002 emphasized preventing spillage accidents. The audits covered all of Toyo Ink's facilities and included pointing out areas where there is a danger of leakage, checking to see whether facilities had prepared wastewater route maps and instructions to be followed in case of spillage, and reviewing practice drills for accidents involving leakage.

# Reducing Environmental Impact

Toyo Ink is a chemical manufacturer, and, as such, its business operations influence the environment in various ways. Thus, the Company regards a clear understanding of its impact on the environment and a commitment to reducing that impact to the lowest possible level as one of its most important management issues.

This awareness has led Toyo Ink to do more than just promote energy conservation and reduce waste and environmental pollutants associated with manufacturing. Toyo Ink is undertaking a variety of additional activities, including those directed at reducing emissions of chemicals that are believed to impact the environment, as part of efforts toward realizing environment-friendly business operations.

The *Environmental Report 2002* includes environmental impact information for five plants at four overseas production-related affiliates that have obtained ISO 14001 certification in addition to information from

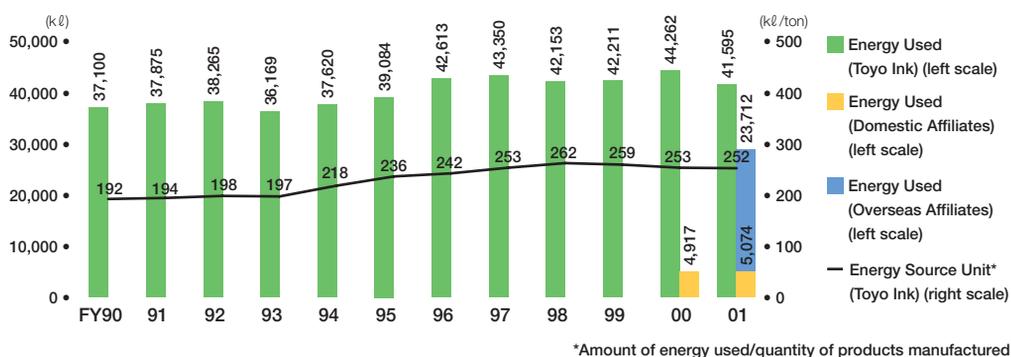
Toyo Ink and five domestic production-related affiliates. Moreover, the entire environmental impact of affiliates was calculated without regard to the ratio of shares Toyo Ink held in the respective companies.

## 1 Reducing CO<sub>2</sub> Emissions and the Amount of Energy Used

Emissions of such greenhouse gases as carbon dioxide (CO<sub>2</sub>), methane, and nitrous oxide (N<sub>2</sub>O) must be reduced as they are causative agents of global warming—which leads to global climate change.

CO<sub>2</sub> has been determined to be the main greenhouse gas responsible for global warming. At Toyo Ink, CO<sub>2</sub> emissions account for almost all the greenhouse gas emissions arising from production activities, and the main sources of these emissions are the energy resources used at manufacturing facilities and plants—electricity, crude oil, and gas.

Energy Use (Crude Oil Equivalent) and Energy Source Unit\* Trends



CO<sub>2</sub> Emission (Carbon Equivalent) Trends



Toyo Ink aims to reduce CO<sub>2</sub> emissions by focusing on reducing the amount of energy used at manufacturing facilities and plants.

In fiscal 2001, Toyo Ink used 41,595 kl of energy (crude oil equivalent), a 6.0% reduction from the previous fiscal year. In addition, the energy source unit (amount of energy used/quantity of products manufactured) was 252 kl/ton, a 0.4% reduction from the previous year.

In fiscal 2001, Toyo Ink's domestic affiliates used 5,074 kl of energy, a 3.2% increase from the previous fiscal year. Overseas production-related affiliates used 23,712 kl of energy.

CO<sub>2</sub> emissions (carbon equivalent) associated with energy use fell along with decreased energy use, and Toyo Ink's fiscal 2001 CO<sub>2</sub> emissions were 21,084 tons, a 5.9% decrease from the previous fiscal year.

Domestic production-related affiliates' fiscal 2001 CO<sub>2</sub> emissions were 2,451 tons, a 3.2% increase from the previous year. Overseas production-related affiliates' CO<sub>2</sub> emissions were 14,573 tons.

Through fiscal 2001, Toyo Ink's environmental goal concerning energy was to "Reduce energy use to 6%

below the fiscal 1990 level by fiscal 2010." However, in fiscal 2002, the goal was changed to, "Reduce CO<sub>2</sub> emissions at Toyo Ink manufacturing facilities and plants to the fiscal 1990 level by fiscal 2006." This new goal incorporates the contents of the Japan Business Federation's Voluntary Action Plan on Global Warming. However, Toyo Ink aims to achieve the goals set out in this Action Plan ahead of schedule.

To achieve its goal for CO<sub>2</sub> emissions, a reduction of more than 5% from the fiscal 2001 level is needed. The Company expects substantial reductions in energy use and CO<sub>2</sub> emissions to be gained from the introduction of a cogeneration system that uses natural gas at its Fuji Plant. The system will start operating in March 2003.

Energy use and CO<sub>2</sub> emissions data are based on Responsible Care Performance Data Reporting Guidelines created by the Japan Chemical Industry Association and the Japan Responsible Care Council. Figures represent the total amount of electricity, petroleum, LPG, and city gas used at manufacturing facilities and plants—the amounts are converted to crude oil and CO<sub>2</sub> equivalents. The same conversions were used in calculating figures for overseas production-related affiliates.

C L O S E U P



Chief of Fuji Plant

**Koichi Watanabe**

#### **The Introduction of Cogeneration at the Fuji Plant**

The Fuji Plant, which produces both pigments and printing ink, accounts for half of Toyo Ink's overall energy consumption. To address this issue, the Company is utilizing subsidies from the New Energy and Industrial Technology Development Organization (NEDO) to install a lean-burn natural gas cogeneration system. The use of this system makes it possible to reduce annual energy consumption 2,932 kl (crude oil conversion) and CO<sub>2</sub> emissions 11,985 tons. These amounts are equivalent to 4.5% of Toyo Ink's overall energy consumption and 5.5% of its CO<sub>2</sub> emissions.

Thanks to the 1998 introduction of a new process for producing the blue ink used as offset ink, the unit energy consumption for pigments has already been reduced 20% from the 1998 level. Through the introduction of a new cogeneration system, the Company expects to reduce unit energy consumption an additional 5%, as well as realize substantial cost savings.

We at Toyo Ink will continue to make strenuous Companywide efforts so that our plants will be recognized for their contributions to halting global warming.

## 2 Reducing Volumes of Waste Sent to Landfills

Currently, a number of problems surround the disposal of waste, including rising volumes, the diminishing availability of land for landfills, and increasing illegal dumping and other improper practices. Various legal measures have been taken in response, including the enactment of basic legislation to promote a waste-free society, the improvement of waste-processing legislation, and the passage of laws to encourage recycling. Quantitative targets for reducing industrial waste were included in basic policies promulgated by the Ministry of the Environment of Japan in May 2001 as a framework for the comprehensive and

systematic promotion of the reduction and proper disposal of waste.

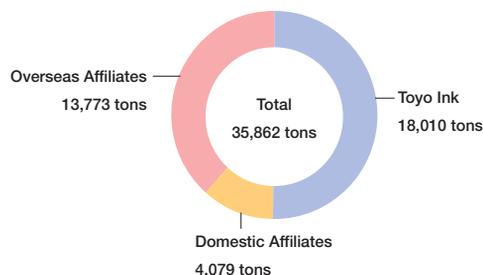
Toyo Ink likewise regards waste as a major source of environmental impact and is actively committed to its reduction. In fiscal 2001, the parent company reduced waste volumes 8.7% compared with the previous fiscal year, to 18,010 tons, and its domestic affiliates cut waste 8.6%, to 4,079 tons.

In fiscal 2001, Toyo Ink increased its volume of recycled waste materials 14.2% year on year, to 8,941 tons. Domestic affiliates recycled 2,895 tons, which was a 1.3% decrease. Overall, Toyo Ink and its domestic affiliates recycled 11,836 tons of waste, or 53.6% of all waste generated.

Toyo Ink sent 1,355 tons of waste for landfill disposal, a 13.7% reduction from the previous fiscal year, and its affiliates in Japan sent 163 tons, a 5.8% drop. The overall volume of landfill-disposed waste generated by Toyo Ink and its domestic affiliates was 1,518 tons, or 6.9% of all waste generated.

Starting in fiscal 1999, numerical targets have been set for the resource recycling of waste and the reduction of use of landfills. At each business location, garbage is thoroughly sorted, and efforts are made to recycle on the premises. At the same time, some waste processing is outsourced to specialist recycling and processing companies. The increase in the volume of waste recycled and the decrease in landfill-disposed waste are both benefits of these initiatives.

**Breakdown of Volumes of Waste Generated at Toyo Ink**



Also included in the total volume of waste generated at Toyo Ink and its domestic affiliates is waste that is later directly recycled and reused in-house or reduced through intermediate and other processing.

Because the concept of measuring waste generation as outlined above is not widely known or systematically applied at overseas affiliates, it was not possible to make the same kind of measurements for them as it was for Toyo Ink and its domestic affiliates. According to overseas measurement systems, however, the total waste generated at five overseas business locations of four overseas affiliates was 13,773 tons.

### Measures to Reduce Waste at the Aoto Plant

Given that the Aoto Plant is an urban-style factory, it is necessary to ensure that the environmental impact on local residents is given adequate consideration. The Aoto Plant is especially aggressive in its implementation of environmental measures because it has the handicap of being Tokyo Ink's oldest factory.

For example, the Aoto Plant has devised and introduced the "Work Site Manifesto" system, which targets all types of waste. The other plants plan to following the Aoto Plant's lead and adopt the new system. The implementation of this system at the Aoto Plant has gotten employees thinking about how to reduce waste. From September 2001, the plant has been undertaking the computerization outlined in the Work Site Manifesto through the installation of a bar code system. In addition, the plant discontinued the use of its incinerators and has turned its former trash site into an Eco Station that acts as a depository for recyclable resources.



Manager of Aoto Plant Management Division

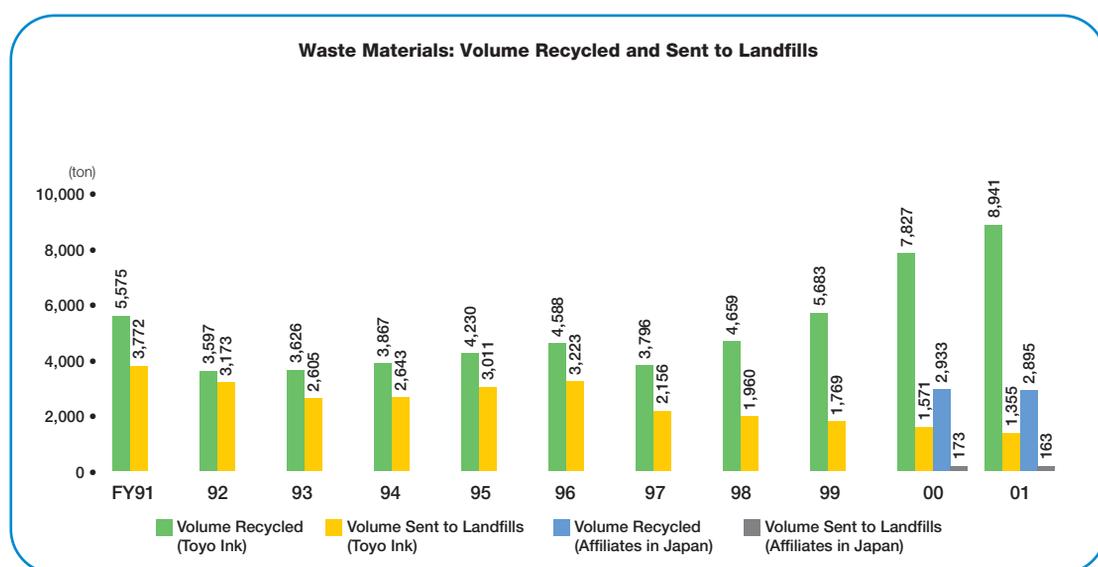
**Takeo Shinohe**

C L O S E U P



In a revision to environmental targets set in the Second Environmental Conference in February 2002, Toyo Ink committed itself to zero waste at all manufacturing and other facilities as well as domestic production affiliates by fiscal 2005. Zero waste was defined as meaning sending less than 1% of waste generated to landfills. Presently, zero waste has been achieved at Toyo Ink's four domestic business locations and one domestic affiliate.

At the same time, the Company set itself the target of closing down the large incinerator at the Kawagoe Plant and all other incinerators used at Toyo Ink facilities and other domestic production affiliates. To achieve this goal, an environmental technology team has been established within the SCM Headquarters Production Technology Laboratory to develop recycling and processing technologies for waste materials and wastewater. This team has already begun work.



Note: Because the methods of measuring volumes recycled and landfill disposal volumes are not widely known or systematically applied at overseas affiliates, only figures for Toyo Ink and its domestic affiliates are shown.

### Reducing Emissions of Chemical Substances

Toyo Ink has followed PRTR requirements voluntarily since before the passage of the PRTR Law. Inspections are made into the use and emission volumes of substances of environmental concern at every manufacturing facility of the parent company, and an annual report regarding these items is sent to the Japan Chemical Industry Association. Currently subject to inspection requirements are 354 substances designated as Class 1 substances under PRTR regulations and 284 substances specified by the Japan Chemical Industry Association. Since some substances appear in both lists, a total of 480 are covered.

In tandem with official reporting under the PRTR Law, similar inspections have been carried out at all business locations of domestic production affiliates. At overseas affiliates, the measurement of emission volumes of chemical substances is undertaken at every facility.

Emissions of chemical substances at Toyo Ink in fiscal 2001 totaled 120.3 tons, a substantial reduction of 99.8 tons, or 45%, from fiscal 2000. However, at domestic affiliates, emissions totaled 95.8 tons in fiscal 2001, a substantial increase compared with fiscal 2000. The main reasons were the inclusion from fiscal 2001 of the

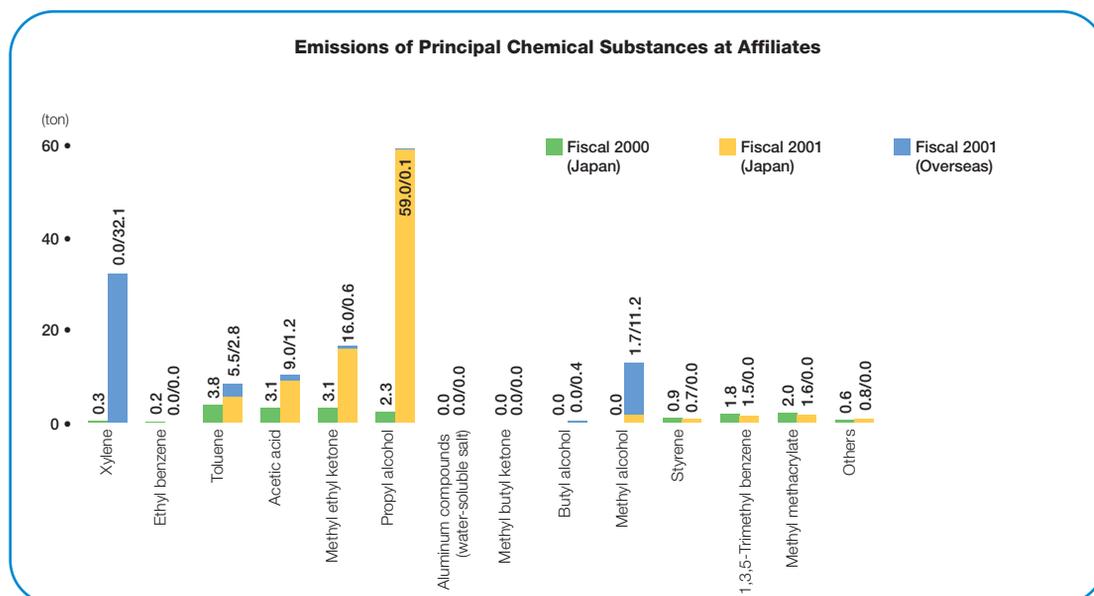
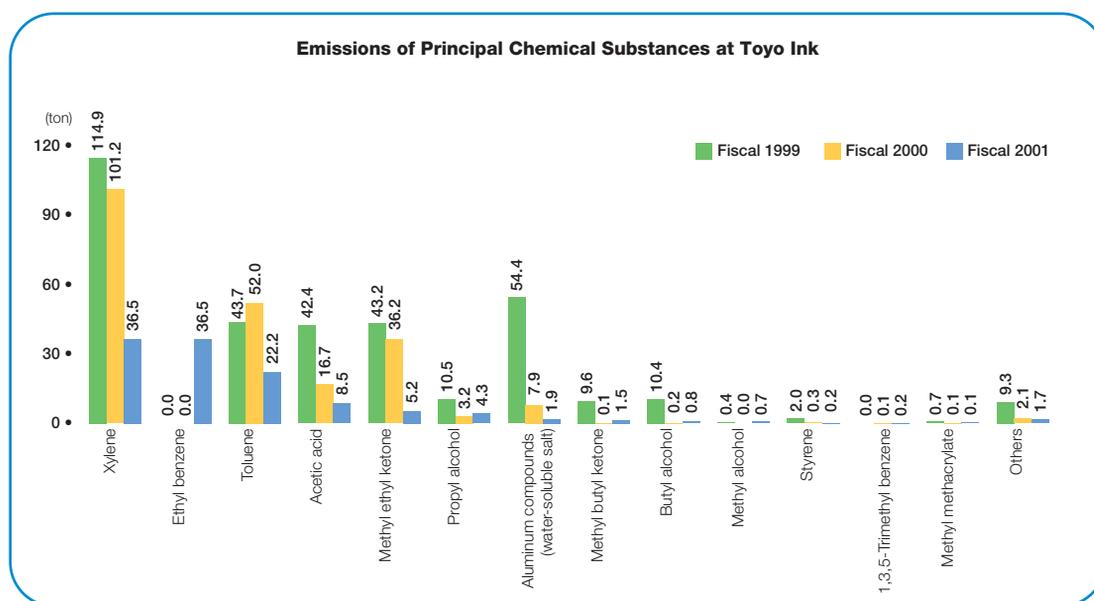
emissions of Toyo Morton Ltd. in the computations as well as solvents and other raw materials that were previously not counted.

Emissions of chemical substances at overseas affiliates in fiscal 2001 totaled 48.4 tons.

Solvents—volatile organic compounds—are the principal chemical substances emitted during production processes at Toyo Ink. Emission volumes have been reduced for nearly all chemical substances at the parent company, thanks mainly to the development of water-based components and the recovery of organic compounds. However,

calculation methods for ethyl benzene emissions, which started being recorded in fiscal 2001, were also a factor. Previously, all ethyl benzene found in xylene was recorded as xylene, but from fiscal 2001 the volume of xylene is being multiplied by 0.5 and the result recorded as ethyl benzene discharges.

The combined emissions of chemical substances by domestic and overseas affiliates exceeded those of Toyo Ink. In the future, greater efforts will be made to reduce emissions by affiliates.



## Reducing Environmental Pollutant Emissions

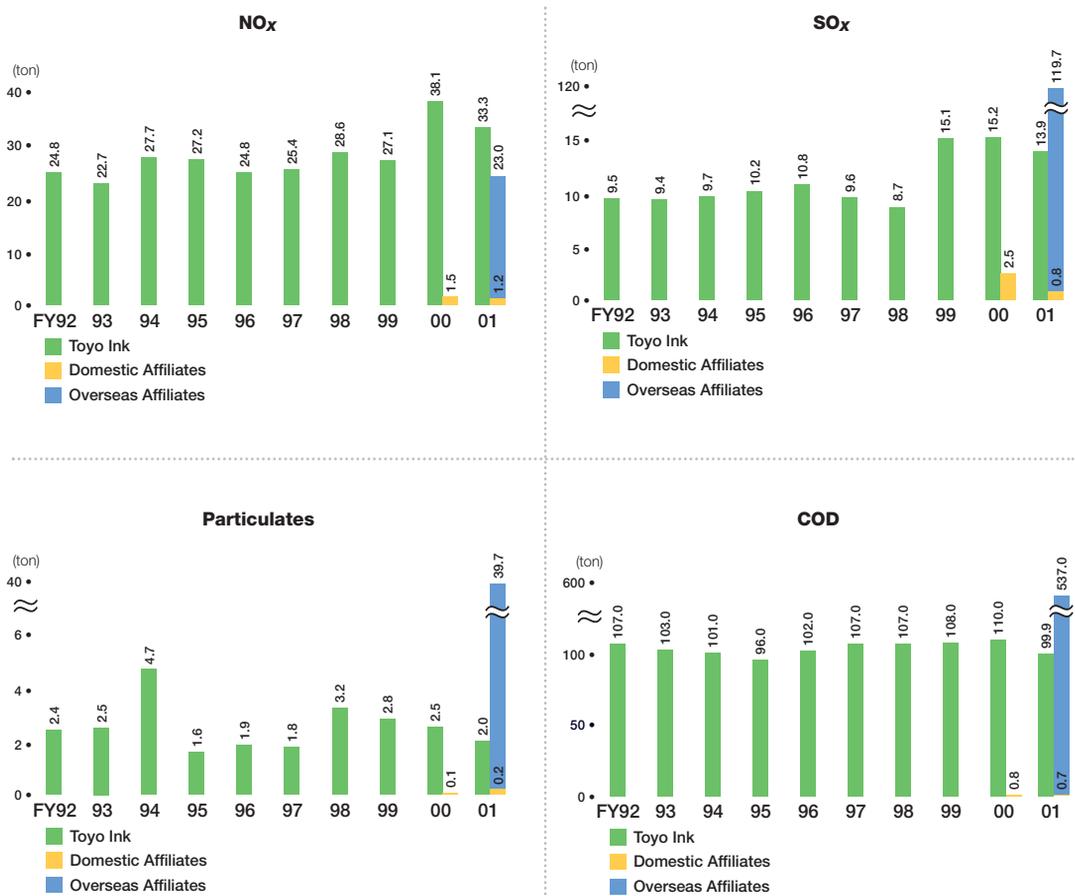
Toyo Ink regards the reduction of energy (and thus CO<sub>2</sub>), waste, and chemicals as important and has set goals and implemented the plan-do-check-act (PDCA) cycle in these areas; however, clear-cut goals for the reduction of chemical oxygen demand (COD) and such environmental pollutants as nitrogen oxides (NO<sub>x</sub>), sulfur oxides (SO<sub>x</sub>), and particulates have not been established. Nevertheless, the Company is working to reach a clear understanding of the volume of such emissions by its operations and has taken such actions to reduce emissions as switching over to crude oil with a low sulfur content, thus reducing SO<sub>x</sub> emissions.

In fiscal 2001, emissions of all of the aforementioned environmental pollutants were reduced at Toyo Ink, and emissions of all of the aforementioned environmental

pollutants, with the exception of particulates, were reduced at domestic production-related companies compared with fiscal 2000.

Environmental pollutant emissions of five plants at four overseas production-related affiliates were calculated for the first time, and total SO<sub>x</sub>, particulate, and COD emissions were substantially higher than they are at Toyo Ink and its domestic affiliates. Furthermore, it was revealed that Tianjin Toyo Ink Co., Ltd., was largely responsible for overall NO<sub>x</sub>, SO<sub>x</sub>, and particulate emissions, and that Francolor Pigments S.A. and Tianjin Toyo Ink played major roles in overall COD emissions. The Company regards reducing environmental pollutant emissions at overseas affiliates as crucial and is bolstering its efforts in this area.

Major Environmental Pollutant Emission Trends



# Environmentally Conscious Product R&D

## 1 FD Hybrid Eco Soy Development

### The Advantages and Disadvantages of UV Inks

Ink used in offset rotation printing is applied to paper through the evaporation of solvents, which fix, or dry, the ink. Since this drying process requires the use of a huge oven, exhaust fumes are emitted, not only from the ink solvents but also from the oven. However, ultraviolet (UV) inks do not release solvents into the atmosphere. UV inks do not contain solvents and are not fixed through heating, but through energy from ultraviolet rays, which instantaneously fix the ink. The use of UV inks has been expanded from paper to materials that make the most of their characteristics, including such heat-vulnerable materials as plastics.

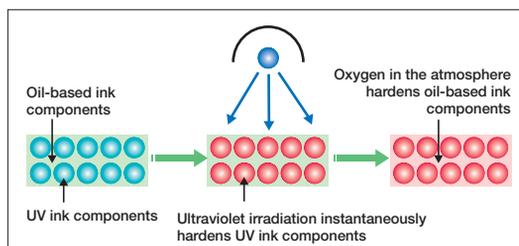
However, conventional UV inks have their drawbacks. UV inks are limited-resource petrochemical products and nonsustainable materials as plant oils cannot be easily incorporated into these inks. It is also difficult to enhance the performance of UV inks by introducing new chemicals. Also, a large amount of energy is required to remove the solid ink membrane that UV inks form, a process that is necessary for the recycling of printed materials. This has prevented UV ink from attaining Eco Mark certification.

### FD Hybrid Eco Soy—the Solution to UV Ink Drawbacks

Toyo Ink's RC (Radiation-Cure) Division developed and launched an ink that preserves UV ink's favorable characteristics and eliminates its drawbacks—FD Hybrid Eco Soy, a hybrid of UV and oil-based inks.

It was not previously possible to attain a blend of UV and oil-based inks with long-term stability, but Toyo Ink's RC Division rose to the occasion and succeeded in creating a stable hybrid material.

### Principal Behind the Drying of FD Hybrid Eco Soy



UV irradiation is used to harden the surface of FD Hybrid Eco Soy immediately after printing, eliminating the need for adhesion-preventing powder. Complete hardening is achieved over the course of one-half to one day through the oxidative polymerization of the oil-based components of the ink. Renewable resources—pine resin and vegetable oil—were used in the oil-based ink components to make the product more environment-friendly. Moreover, in October 2001, the vegetable oil was replaced with soybean oil, and FD Hybrid Eco Soy earned SOY Seal certification.

The hybridization with oil-based ink also led to enhanced printability. Printing companies that have used FD Hybrid Eco Soy say that its performance is remarkably close to that of oil-based ink. Furthermore, the low-solubility mild detergents used with conventional oil-based ink can be used to clean equipment after printing.

This product also solves the ink removal problem encountered with UV inks, as the same process used to remove conventional oil-based ink from printed material can be used with FD Hybrid Eco Soy. Toyo Ink is compiling data prior to applying for Eco Mark certification.

### Growing Interest in Environment-Friendly Ink

FD Hybrid Eco Soy is already being used on the covers of children's magazines, and Toyo Ink's advertising and promotional activities are also targeting environmentally conscious groups, including public agencies and printing companies, as well as the electrical machinery, automotive, finance, insurance, and education industries. Toyo Ink has recorded strong interest in this product.

## 2 Biodegradable Masterbatch Development

### What is Masterbatch?

One of Toyo Ink's colorant businesses involves producing masterbatch, which is used in plastic colorants. Masterbatch is an extremely highly concentrated pigment in the form of plastic pellets that, mixed with resin, can be used to easily color materials. Furthermore, in addition to masterbatch for color applications, Toyo Ink manufactures functional masterbatch, which is used to add such qualities as flame resistance and electrical conductivity to materials.

### Expanded Use of Biodegradable Plastics

Biodegradable plastics have been getting a lot of attention recently as key materials for creating a sustainable society. There is great potential for biodegradable plastics in areas that require the complete decomposition of products in a natural environment after their use—for example, agriculture, forestry, fisheries, civil engineering, construction, and outdoor leisure—as well as for use in difficult to recycle products that require decomposition through composting with garbage—for example, cling-wrap, containers, and sanitary products. Demand for masterbatch for use in biodegradable plastics is growing in line with rising demand for such plastics.

### The Development of Masterbatch for Biodegradable Plastics

As a member of the Biodegradable Plastics Society (BPS)—an organization working to promote the practical application of biodegradable plastics—Toyo Ink started work on the development of biodegradable masterbatch early on and launched a biodegradable masterbatch in 1999. Toyo Ink has paid special attention to this product's applications for the agricultural industry, including mulch film and pots for transplanting seedlings, and is moving forward with development in this area in collaboration with molding manufacturers and agricultural groups. Toyo Ink has already made progress in this area and is working to expand sales of Polybutylene Succinite

Adipate (PBSA) Biodegradable Color Masterbatch, which comes in white, black, and green, and is registered on the BPS Positive List. Furthermore, Toyo Ink is endeavoring to meet the individual needs of manufacturers and users by continuing to develop new products while monitoring market trends.



Mulch film for agricultural use

### What Are Biodegradable Plastics?

Biodegradable plastics can be used in the same way as conventional plastic products, and, after use, microorganisms break the plastics down into water and CO<sub>2</sub>, enabling the plastics to "return to nature." This makes it possible to dispose of biodegradable plastic waste in landfills, and, even if the plastic is incinerated, the amount of heat released is small and such hazardous materials as dioxins are not emitted. In Japan, these plastics have been given the nickname "GreenPla®," and a GreenPla® symbol has been established to promote biodegradable plastics and differentiate them from conventional plastics. Products that meet established standards may display the GreenPla® symbol.



## Corporate Data

Company Name: TOYO INK MFG. CO., LTD.

Headquarters: 3-13, Kyobashi 2-chome, Chuo-ku, Tokyo 104-8377, Japan

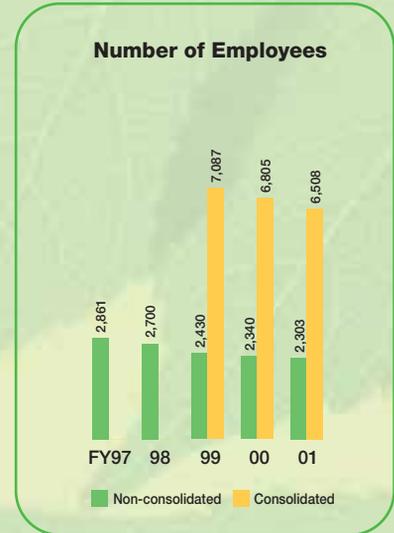
Foundation: September 1896

Establishment: January 1907

Capital: ¥24.61 billion (As of March 31, 2002)

Affiliates: 32 domestic companies and 49 overseas companies (As of March 2002)

### Trends in Net Sales, Operating Profits, and Number of Employees



As of fiscal 1999, the number of employees indicates the number of full-time regular employees.

### Plants and Affiliates Covered in this Environmental Report

#### Plants

Fuji Plant: 400, Tenma, Fuji-shi, Shizuoka 419-0205, Japan

Aoto Plant: 32-1, Aoto 7-chome, Katsushika-ku, Tokyo 125-0062, Japan

Saitama Plant: 1, Oaza-Sakae, Kawagoe-shi, Saitama 350-0803, Japan

Neyagawa Plant: 6-6, Sanranishimachi, Neyagawa-shi, Osaka 572-0818, Japan

Kawagoe Plant: 286, Matsumine, Nakafuku, Kawagoe-shi, Saitama 350-1156, Japan

Seishin Plant: 5-7, Takatsukadai 1-chome, Nishi-ku, Kobe-shi, Hyogo 651-2271, Japan

Moriyama Plant: 436-1, Miyake-cho, Moriyama-shi, Shiga 524-0051, Japan

Okayama Plant: 3701-1, Kinoko-cho, Ibara-shi, Okayama 715-0004, Japan

#### Domestic Affiliates

Matsui Chemical Co., Ltd.:

18, Jibu-cho, Fushimi-ku, Kyoto-shi, Kyoto 612-8374, Japan

Oriental Chemical Co., Ltd.:

1430, Togo, Mobara-shi, Chiba 297-0017, Japan

Toyo Morton Ltd., Saitama Plant:

25-26, Oaza-Miyako, Namekawa-cho, Hiki-gun, Saitama 355-0812, Japan

Toyo Petrolite Co., Ltd., Chiba Plant:

432, Togo Fujimi, Mobara-shi, Chiba 297-0017, Japan

Nihon Polymer Industries Co., Ltd.:

2114, Kohama, Himeji-shi, Hyogo 671-1241, Japan

#### Overseas Affiliates

Franicolor Pigments S.A., HQ and VSP Factory:

Plateforme de Villers-St. Paul, B.P. 25, 60870 Rieux, France

Franicolor Pigments S.A., Oissel Factory:

Plateforme de Oissel, B.P. 4, 76350 Oissel, France

Liochem Incorporated:

2145 East Park Drive, Conyers, GA 30013, U.S.A.

Tianjin Toyo Ink Co., Ltd.:

No. 156 Nan Kai San Ma Road, Nan Kai District, Tianjin, China 300100

Toyochem Ink Pte. Ltd.:

31, Tuas Avenue 2, Jurong Town, Singapore 659462

# TOYO INK

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This environmental report can also be viewed in its entirety on the Company's home page.

URL: <http://www.toyoink.co.jp/>



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