OJI PAPER

Green, Forever

# Oji Paper Group Environmental and Sustainability Report 2006

Preparing to ship seedlings from a nursery.

A tree plantation in the first year after planting.

A tree plantation with mature, harvestable trees.

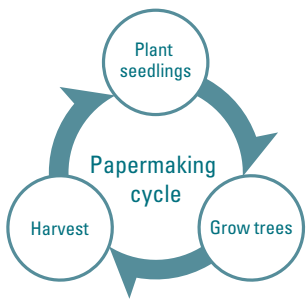
Loading a truck with harvested plantation wood.

*Harvest,*

*produce paper,*

*and replant*

*seedlings.*




**People need both paper and forests—**
**two good reasons to keep planting trees.**

## About this report

This report focuses on the Oji Paper Group's corporate social responsibility as it relates to the production of paper, which is the group's main business, the details of which are presented in the Highlights section: "Commitment to Fulfilling Corporate Social Responsibility in All of Our Businesses." Highlight 1 explains our approach to sustainable forest management, which is our basic guiding principle for the procurement of wood raw materials for papermaking. Highlight 2 presents the specific steps we are taking to achieve sustainable forest management, and includes reports from Oji Paper Group employees posted outside Japan. These reports provide information about our tree plantations outside Japan and sites where we purchase wood chips from third parties as well as local social conditions and challenges.

The Oji Paper Group's social responsibility is to meet the world's demand for paper and preserve the delicate balance of the global environment. However, this is not something that we can do alone. We hope that this report enables readers to understand how much work it takes to achieve both of these goals, contributing to an awareness that will lead to a world where paper is always available.

**Period of coverage**
April 1, 2005 - March 31, 2006
Except for numerical data, some sections may contain information from April 2006 and later.

**Reference guidelines**
*Environmental Reporting Guidelines* (fiscal 2003 version), Ministry of the Environment, Japan.
*Sustainability Reporting Guidelines 2002,* Global Reporting Initiative (GRI)

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Please send comments and inquiries to:

Environmental Management Department

Oji Paper Co., Ltd.

4-7-5 Ginza, Chuo-ku, Tokyo, Japan 104-0061
Fax: +81-3-3563-1139
Website: http://www.ojipaper.co.jp/english/
E-mail: info@ojipaper.co.jp

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# Business Profile of the Oji Paper Group

## Business overview

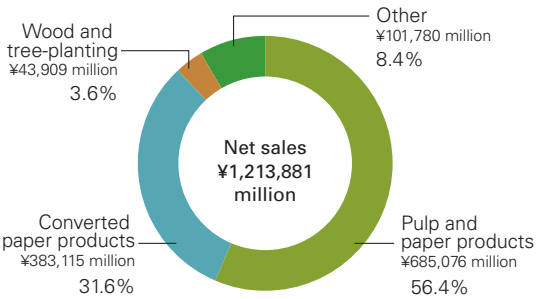
The Oji Paper Group is engaged in businesses in four main fields: pulp and paper products, converted paper products, wood and tree-planting, and other businesses.

- Pulp and paper products: The Oji Paper Group's core business, this entails the production and marketing of all types of paper, from newsprint and other printing and communications papers to paperboard and tissue paper.
- Converted paper products: This business encompasses the production and marketing of corrugated containerboard, paper containers, thermal paper, disposable diapers, and other specialty paper products.
- Wood and tree-planting: This consists of the maintenance of our company-owned forests in Japan, operating tree plantations outside Japan, exporting, importing and processing wood, and greenery businesses such as landscaping and gardening.
- Other activities: This field include logistics, real estate, machinery, food-related businesses, as well as the management of hotels and concert halls

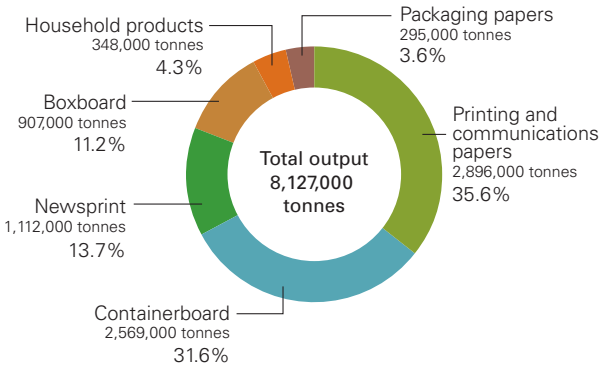
## Company data

| | |
|---|---|
| **Company Name:** | Oji Paper Co., Ltd. |
| **Headquarters:** | 4-7-5 Ginza, Chuo-ku, Tokyo, Japan 104-0061 |
| **Established:** | August 1, 1949 |
| **Representative Director:** | Kazuhisa Shinoda, President and Chief Executive Officer |
| **Paid-in Capital:** | ¥103,880 million |
| **Major Businesses:** | Manufacturing and marketing of pulp, paper and converted paper products |
| **Net Sales (fiscal year ended March 31, 2006):** | Non-consolidated: ¥554,992 million<br>Consolidated: ¥1,213,881 million |
| **Number of Employees:** | Non-consolidated: 4,863<br>Consolidated: 20,223 |

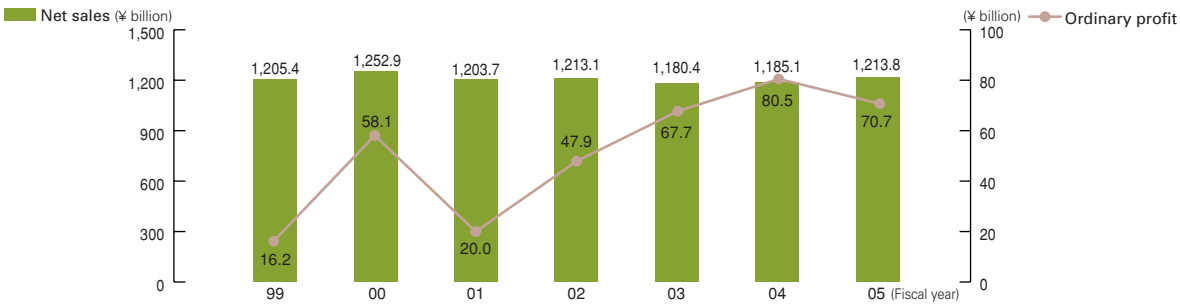
## Net sales by business (consolidated) (fiscal 2005)




## Production by product type (consolidated) (2005)




## Net sales and ordinary profit over time (consolidated)



## Scope of this report: Oji Paper Co., Ltd., and principal Oji Paper Group companies

| | |
|---|---|
| Paper Manufacturing: | •Oji Paperboard Co., Ltd. •Oji Nepia Co., Ltd. •Oji Specialty Paper Co., Ltd. |
| Paper Processing: | •Oji Chiyoda Container Co., Ltd. •Oji Cornstarch Co., Ltd. •Yupo Corporation •Oji Kinocloth Co., Ltd. •Oji Packaging Co., Ltd. •Oji Tac Co., Ltd. •Oji Seitai Kaisha, Ltd. •Shinomura Chemical Industry Co., Ltd. •Shizuoka Oji Container Co., Ltd. •Kyodo Shiko Co., Ltd. •Chuetsu Co., Ltd. •Musashi Oji Container Co., Ltd. •Oji Forest & Products Co., Ltd. •TAKASAKI KASEI Co., Ltd. •NIHON SEIKAHOSO Co., Ltd. |
| Service Provision: | •Tomakomai Energy Kosha Co., Ltd. •Medical Corporation Oji General Hospital •DHC Ginza Co., Ltd. •Oji Real Estate Co., Ltd. •Hotel New Oji Co., Ltd. |
| Distribution/ Warehousing: | •Oji-Pier Terminal Co., Ltd. •Oji Kaiun Co., Ltd. •Oji Logistics Co., Ltd. •Kikkou Tsuun Co., Ltd. •Oji Rikuun Co., Ltd. •Hirata Warehouse Co., Ltd. •Honshu Toshin Co., Ltd. |
| Other: | •OJISAITOU SHIGYO PAPER RECYCLE CORPORATION |

**Eliminations and consolidations**

* On April 1, 2005, Oji Logistics and Fuji Rinkai Warehouse merged, with the resulting firm named Oji Logistics.
* On April 1, 2005, Oji Rikuun, Bando Transportation, and Sanko Transportation merged, with the resulting firm named Oji Rikuun.
* On October 1, 2005, Oji Container and Chiyoda Container merged, with the resulting firm named Oji Chiyoda Container.
* In the second half of fiscal 2005, Oji Paper acquired the Mori Shigyo Group. This acquisition is not included in the tabulation scope of this report.

**Definitions of terms in this report**

| | |
|---|---|
| Oji Paper Co., Ltd.: | Refers to the non-consolidated Oji Paper Co., Ltd. |
| Main companies: | Refers to the following four companies: Oji Paperboard Co., Ltd., Oji Specialty Paper Co., Ltd., Oji Nepia Co., Ltd., and Oji Chiyoda Container Co., Ltd. |
| Oji Paper Group: | Refers to Oji Paper Co., Ltd., and the main companies given above. |
| Group companies: | Refers to all the companies of the Oji Paper Group, excluding Oji Paper Co., Ltd. |

## Major mills

### Oji Paper Mills

1. Kushiro Mill 2. Tomakomai Mill 3. Edogawa Mill* 4. Fuji Mill
5. Kasugai Mill 6. Kanzaki Mill 7. Yonago Mill 8. Kure Mill
9. Tomioka Mill 10. Nichinan Mill

* Effective October 2006, the Edogawa Mill will be placed under the management of Oji Paperboard Co., Ltd.

### Oji Paperboard Mills

11. Nayoro Mill 12. Kushiro Mill 13. Nikko Mill 14. Fuji Mill
15. Matsumoto Mill 16. Ena Mill 17. Nakatsugawa Mill
18. Sobue Mill 19. Osaka Mill 20. Oita Mill 21. Saga Mill

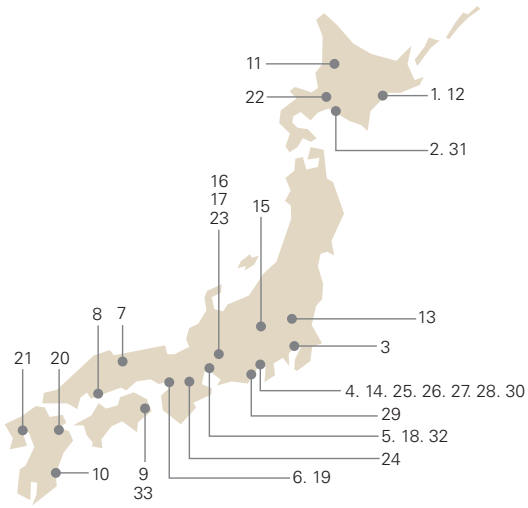
### Oji Specialty Paper Mills

22. Ebetsu Mill 23. Nakatsu Mill 24. Shiga Mill, Tokai Mill*
25. Iwabuchi Facility 26. Daiichi Facility 27. Fuji Facility
28. Fujinomiya Facility 29. Shizuoka Facility 30. Shibakawa Facility

* Facilities numbered 25-30 are managed by the Tokai Mill.

### Oji Nepia Mills

31. Tomakomai Mill 32. Nagoya Mill 33. Tokushima Mill




## Profiles of main companies

### Oji Paperboard Co., Ltd.

**Business:**
Manufacture and marketing of containerboard and paperboard

### Oji Nepia Co., Ltd.

**Business:**
Manufacture, processing, and marketing of tissue, pulp and paper products, and disposable paper diapers

### Oji Specialty Paper Co., Ltd.

**Business:**
Manufacture, processing, and marketing of pulps, papers, and their co-products as well as processed synthetic resins, packaging materials, chemical agents, and bonded-fiber fabric

### Oji Chiyoda Container Co., Ltd.
### Mori Shigyo Group

**Business:**
Manufacture, processing, and marketing of containerboard sheets and cases, paperboard containers, and packaging paper, as well as the development and marketing of packaging machinery

## Message from the President

"Oji Paper is determined to meet the world's increasing demand for paper without any environmental compromises. Our goal is to source our raw materials from the sustainable practices of forest recycling and paper recycling."

I joined Oji Paper Co., Ltd., in 1969. Back then, industrial pollution had just become a major social issue in Japan, and paper companies had been implicated in paper sludge pollution in Tagonoura Bay in Shizuoka Prefecture. The companies involved acknowledged that large-scale environmental investments were needed, and the industry has since then achieved enormous improvements in the environmental impact of paper production processes. The path from here forward, I believe, demands even further reduction of environmental impact throughout the lifecycle of paper products—from the procurement of raw materials through the production, disposal, and recycling phases.

## Oji Paper's core mission is to use resources effectively to provide a stable supply of paper.

It is clear that worldwide demand for paper will increase rapidly in coming years, especially in the massive Chinese market. Paper plays an extremely significant role as a medium for communication—it has even been called a measure of culture. Paper products are also an integral part of industrial infrastructure: containerboard boxes are required to transport goods. It is no exaggeration to say that paper is indispensable to society, in terms of both culture and industry. The challenge, however, is securing the resources needed to meet the growing demand for paper. We believe that we can and must fulfill both responsibilities: to provide a stable supply of paper, and to conserve and effectively utilize the world's finite wood resources. These two duties are the essence of the Oji Paper Group's corporate social responsibility.

Our approach to effective utilization of resources and the provision of a stable supply of paper is twofold: forest recycling and paper recycling. The Oji Paper Group Environmental Charter declares our commitment to these two responsible practices. Paper recycling is already a central part of the papermaking process: recovered paper currently accounts for about 60% of our raw material for papermaking. Paper recycling has become indispensable. Today's paper industry cannot live without it. It is no exaggeration to say that paper recycling is the very foundation of management in the paper industry. Currently in Japan, the used paper recovery rate is about 70%. I want to push this rate as high as possible.

As for forest recycling, the Oji Paper Group is making large investments to develop tree plantations outside Japan. We plan to have 300,000 hectares of tree plantations by fiscal 2010. In some areas, local companies are planting trees in the areas around our tree plantations, and we make use of these resources as well. As we maximize the use of recovered paper, I would like to see the Oji Paper Group source all of the remaining raw materials needed from plantation trees. No doubt, it will be a major challenge to meet 100% of our needs with plantation wood, but this is the goal that I would like to aspire to.

We are committed to the goal of meeting all of our raw material needs through forest recycling and paper recycling.

## Forests are a heritage of humankind. We recognize the need to reform Japanese forest management and revitalize the forests here.

I see forests as a priceless heritage of humankind. Far too often, the world's forests have been thoughtlessly destroyed, taking a significant toll on our societies. Nevertheless, logging continues due to the extremely high economic value and great utility of wood, and these factors are also causes for illegal logging. In Japan, 70% of the land is forested, but much of this area is in the mountains, where slopes are so steep that it is not profitable to harvest timber. These factors explain why Japan's forestry industry is in decline.

Japan's forestry industry must be revived somehow. This is not an insurmountable task. Forest value can increase if properly managed, and deforestation can be prevented by following the principles of sustainable use. Today, there is a new movement in Japan promoting the use of thinned timber, and advanced forest-related technologies are making Japanese wood resources more viable. The Oji Paper Group alone holds about 190,000 hectares of company-owned forests in Japan. I think the time has come for us to reform the way we manage our forests. My intention is not to generate large profits in the forestry industry, but to introduce forest management that puts Japan's wood resources into the cycle of sustainable use.

# Message from the President

## We are striving to dispel the misconception that paper has anything to do with the destruction of tropical forests.

Some people mistakenly believe that papermaking leads to the destruction of tropical forests. Certainly, it is true that recovered paper alone cannot cover the raw material requirements for the paper the world needs. The difference has to be made up with wood chips, and when there is not enough sawmill residue to make those chips, trees are indeed cut. The fact is, however, that Oji Paper and other paper companies are actively investing in planting trees. Further, we never indiscriminately log precious forests that should be protected. It remains a mystery to me, then, why the paper industry still gets so much criticism. I suppose it could be that the pollution incidents the paper industry was involved in long ago have left a lingering negative impression.

Perhaps this is not the only explanation. Unlike durable items such as furniture that are also made of wood, paper products usually have a short life. When people think of paper, they probably think only of something used for a moment and then thrown away. In order to dispel these misconceptions, I want to give the general public more information about the conditions at sites where we incur considerable time, effort, and cost to make the paper that is a necessity in people's daily lives, and also to help the public better understand our environmental initiatives.

## Protecting the environment comes at a cost. This fact must become common knowledge for everyone.

The Oji Paper Group holds stakeholder dialogues to obtain feedback on its activities. Participants have pointed out that, as civilization develops, there are inherent costs associated with balancing human and environmental needs while still enjoying a comfortable life. This is a truth that the world has yet to acknowledge sufficiently. The paper industry makes an enormous effort to care for the environment, and incurs a sizeable cost in the process. But it is difficult to shift some of this environmental cost to the price of finished products. On the other hand, the failure to include environmental cost in product prices may be part of the reason that people are not very aware of it.

To increase social concern for the environment, not only producers like Oji Paper, but also distributors and consumers, must deepen awareness of environmental costs within the context of rational economic activity. This is easier said than done, but I think that we can make a good start by recognizing how important it is that environmental costs be shared by all sectors of society, and then working hard to communicate this principle to the public.

Another important aspect of our activities is to take the initiative in leading society to adopt environmentally friendly lifestyle patterns. I expect the management and all employees of the Oji Paper Group to be ambitious in this area—protecting the environment in their immediate surroundings both as company representatives and as ordinary citizens, and speaking up again and again about the importance of such activities to the people around them. I hope that the personal commitment to environmental responsibility of our employees will lead to a deeper public understanding of the Oji Paper Group's environmental concern.

## High ethical standards are prerequisite to corporate survival and growth. Our human resources systems enable employees to demonstrate their full potential.

I am a firm believer that high ethical standards are essential for corporate survival and growth. Fortunately, the Oji Paper Group has inherited the fundamental values of the founder of Oji Paper, Eiichi Shibusawa, who frequently used two words—*rongo* (Analects of Confucius) and *soroban* (abacus)—to emphasize the need to pair good ethics with profitable business practices. Although the Oji Paper Group has experienced a number of mergers over the years, our employees have maintained a strong spirit of camaraderie, and the company has not strayed from Shibusawa's vision. I am confident that these values have penetrated the organization. I think of it this way: top management should exhibit and ensure such high ethical standards that any parent would want to have their child join the Oji Paper Group.

In the book, *The Enthusiastic Employee*, David Sirota and his coauthors introduce a three-factor theory on what employees need in order to reach their full potential: fairness, a sense of accomplishment, and a sense of unity. With these points as our compass, we are currently transforming several human resources programs and systems to make Oji Paper an even stronger company. The Oji Paper Group has been in existence for many years—so it may take time to change some internal systems. It is my desire, however, to accomplish these changes as quickly as possible.

I also want to focus on empowering women. Oji Paper's childcare leave systems were in place before such systems were prescribed by Japanese law. I see a particularly strong opportunity for female employees in the development and marketing of products for women.

## Our goal is to build a strong global presence.

We are currently drafting a three-year medium-term plan that will start in 2006. This plan will be based on our long-term vision, which looks ahead ten years. The Oji Paper Group has a 133-year history. Over the next 100 years, I want Oji Paper to make its presence felt not only in Japan but around the world. To do this, we will build a company with the high ethical standards appropriate for an enterprise that supplies the paper that is vital to the further development of culture and industry. We will do our utmost to see that the Oji Paper Group realizes these goals. We are certainly committed to financial success, but we are also fully aware of our corporate social responsibility. I am determined to see that the group not only further improves the papermaking process, including the procurement of raw materials and the recycling of paper, but also promotes the reduction of all forms of environmental impact on both the corporate and the personal level by every employee.

July 2006
**Kazuhisa Shinoda**
President and
Chief Executive Officer
Oji Paper Co., Ltd.

# Corporate Philosophy and Corporate Code of Conduct

The Oji Paper Group has inherited the fundamental values of the founder of Oji Paper, Eiichi Shibusawa, who frequently used two words—*rongo* (the Analects of Confucius) and *soroban* (abacus)—to emphasize the need to consistently combine good ethics with profitable business practices. The Group has articulated these values, which continue to serve as the basis of all its operations, in its corporate philosophy in the form of three goals: "Contribute to the protection of the environment and the advancement of culture," "Strive for continuous innovation in a proactive, responsive and determined manner," and "Build and maintain trust throughout the world." The information below describes the various elements of our commitment to this philosophy, and shows how they are related to each other and to earning the trust of all stakeholders.

## Corporate philosophy

| | |
|---|---|
| **Contribute to the protection of the environment and the advancement of culture** | Paper is used in many ways in our lives—to read, write, wrap and clean. For over 130 years since its founding in 1873, Oji Paper has upheld its corporate philosophy of contributing to the advancement of culture by providing a stable supply of paper. Oji Paper is committed to contributing proactively to the preservation of the environment and the building of a recycling-based society by practicing both forest recycling and paper recycling. |
| **Strive for continuous innovation in a proactive, responsive and determined manner** | In today's rapidly changing business environment, management that responds flexibly, quickly and appropriately to change is the key to continuing to develop as a business and maintaining Oji Paper's position as an industry leader. In the 21st century, Oji Paper will continue to grow by remaining faithful to its heritage while boldly exploring new frontiers. |
| **Build and maintain trust throughout the world** | Oji Paper's business activities, which range from the planting of trees to raw material procurement, production and marketing, have taken on a global scope, and even its local operations are conducted with a global perspective. In its mainstay papermaking business and all its other business activities, Oji Paper will continue its untiring efforts to earn the trust and affinity of shareholders, customers, business partners, local communities, governments and employees. |

**Corporate Philosophy**

With pride in and recognition of its responsibilities as a leading paper company, Oji Paper will work to continuously improve itself and win greater trust worldwide.

**Corporate Code of Conduct**

We will undertake business activities based on an awareness of the Group's responsibilities as a corporate citizen and on high ethical standards worthy of society's trust.

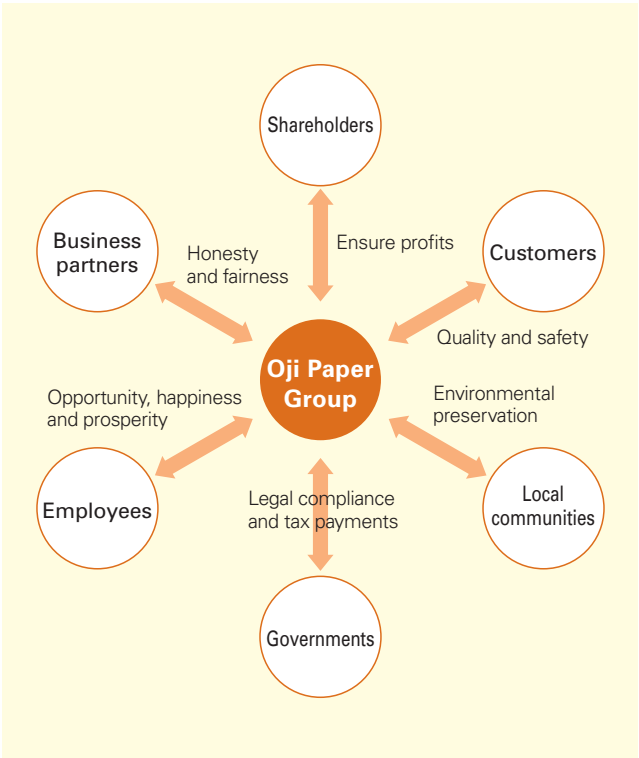
**Environmental Charter**

In line with our global perspective, we will engage in business activities that respect the delicate balance of the environment, focusing on forest recycling, paper recycling and global warming countermeasures.

**Environmental Action Plan 21**

This plan establishes quantitative targets for tree plantations, recovered paper utilization, global warming countermeasures, waste reduction, and other issues that are to be achieved by fiscal 2010.

☐ Earning the trust of all stakeholders



## The ethos inherited from Oji Paper's founder: Eiichi Shibusawa's philosophy of combining good ethics with profitable business practices

The founder of Oji Paper, Eiichi Shibusawa, declared that the continued existence and growth of a company depends on consistently combining good ethics with profitable business practices, which he expressed with two words—*rongo* (the Analects of Confucius) and *soroban* (abacus). This philosophy has remained the cornerstone of the Oji Paper Group's corporate conduct ever since. All Oji Paper Group employees are committed to valuing this philosophy inherited from the founder. Even as the socioeconomic environment changes, we are determined to see that the Oji Paper Group continues to utilize its inheritance of manufacturing pride and technology to contribute to society in the future.

## Global Compact

In June 2003, Oji Paper Co., Ltd., became a member of the United Nations Global Compact. The Oji Paper Group then wrote the spirit of the Global Compact into its Corporate Code of Conduct and Conduct Regulations, which it puts into practice in all daily operations.

## WBCSD

The Oji Paper Group participates in the World Business Council for Sustainable Development (WBCSD), within which it seriously addresses issues faced by the forestry industry, such as establishing forest certification systems and preventing illegal logging, as well as the more general question of the role companies should play in steering the world toward sustainable development in an age of globalization. The WBCSD's parent organization, the Business Council for Sustainable Development (BCSD), was inaugurated in 1991. The BCSD contributed to the Earth Summit held in 1992 with innovative proposals relating to business management—coming up with a vision of sustainable industry and advocating the concept of the complementarity of environmental and economic efficiency. The WBCSD is currently composed of about 220 companies and organizations from around the world. It is engaged in issuing guidelines for sustainable development founded on three core concepts: economic growth, environmental preservation, and social justice.

### What is the United Nations Global Compact?

The Global Compact was proposed by United Nations Secretary General Kofi Annan in 1999 and officially inaugurated at UN Headquarters in New York in 2000. The Global Compact requires participating companies and organizations from around the world to uphold and practice ten principles in the areas of human rights, labor, the environment and anti-corruption. About 3,000 companies and organizations in 90 countries, of which 47 are Japanese (as of June 2006), are participating.

THE GLOBAL COMPACT

### ☐ Oji Paper Group Corporate Code of Conduct

I. We, the management and employees of the Oji Paper Group, hereby adopt the Oji Paper Group Corporate Code of Conduct, as detailed below, as guiding principles for corporate activities based on an awareness of our responsibilities as a good corporate citizen and on high ethical principles appropriate for an organization that enjoys the trust of society.

II. We, the management and employees of the Oji Paper Group, will strive at all times to implement this Code, and to contribute to the genuine enrichment of society.

1. Compliance with the law
   We will comply with the letter and spirit of the law in Japan and other countries, respect corporate ethics and all social standards, including common sense, and ensure that our business activities are fair and honorable.
2. Harmony with the environment
   We will promote forest recycling and paper recycling and maintain and develop business activities that are in harmony with the environment from a global perspective.
3. Supply of safe, useful products and services
   We will contribute to society and culture by developing and supplying products that will allow us to gain the satisfaction and trust of customers, with proper consideration for usefulness and safety.
4. Communication with society
   We will establish relationships of trust with all stakeholders, including customers, shareholders, and local residents, through an active commitment to good communication with society.
5. Participation in social contribution activities
   We will contribute to the development and improvement of society through active participation in social contribution activities.
6. Coexistence with the international community
   We will respect the culture and customs of other countries and contribute to local communities.
7. Contribution through manufacturing
   We will express our pride in our role as a manufacturer by contributing to local communities through production activities guided by a commitment to safety and protecting the environment, and by contributing to the advancement of industry through technology development and innovation.
8. Achievement of employee satisfaction
   We will take all possible steps to ensure employee health and safety, and we will strive to give employees opportunities to achieve happiness and prosperity and realize their potential as individuals.

# Sustainable Forest Management: Ensuring that Paper Will Always Be Available

Paper has since ancient times been considered a measure of civilization and culture. Modern social progress in the areas of economic development and education—especially in places like China and India with growing populations—will surely be accompanied by greater demand for paper, which also means more demand for wood raw material.

The Oji Paper Group recognizes that its corporate social responsibility as a paper company is to support the development of culture, education, and industry by meeting the world's demand for paper while maintaining a strong commitment to environmental responsibility.

Accordingly, the Oji Paper Group has chosen to engage in recycling-based businesses that take full advantage of the economic and environmental potential of both Forest Recycling[*1] and Paper Recycling (see page 14).

## Highlight 1

## Sustainable Forest Management at the Oji Paper Group

### What is sustainable forest management?

Governments, enterprises, organizations and citizens around the world are working hard to find ways to practice the principle of sustainability, which has gripped the world's conscience since the Earth Summit held in Rio de Janeiro in 1992. Within the forestry industry, the practice of sustainable forest management has been gaining ground. It is now widely recognized as a means to ensure that future generations will be able to enjoy the many benefits provided by forests—soil conservation, replenishment of water resources, and mitigation of global warming, to name just a few.

Sustainable forest management refers to a method of managing forests that gives due consideration to local biodiversity, meets the needs of the human societies that rely on the forest, and responsibly utilizes forests for sustainable timber production. In other words, sustainable forest management is about finding the right balance between environmental, social, and economic factors.

The paper industry is misunderstood in some quarters as an industry that exploits natural resources, since it uses wood as a raw material. However, papermaking is actually a recycling-based enterprise, in that the practice of sustainable forest management contributes to the absorption of carbon dioxide through afforestation and the solution of global environmental issues.

The Oji Paper Group considers the environmental, social and economic circumstances of both local communities and the global village in its practice of sustainable forest management. Sustainable forest management cannot be approached the same way everywhere. Topography and social circumstances differ by country, region, and climate. These pages provide case studies in the environmental and social issues that inform the Oji Paper Group's practice of sustainable forest management.

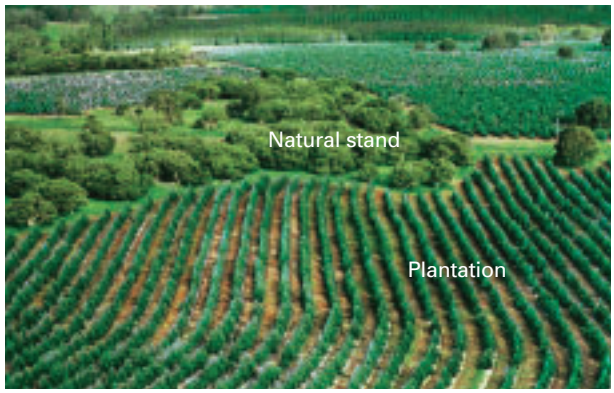



Photo 1 Tree plantation in western Australia planted in pastureland surrounding a natural stand. (APFL, Oji Paper Group)

# Tree planting: Critical to securing raw material for papermaking

In Australia, Brazil, and Laos, Oji Paper plants trees between remaining natural stands in an effort to create a seamless forest landscape (photo 1). When a river runs through a certain plot of land, we leave a certain area on each bank in its native, pristine condition. This approach to afforestation, carried out with full consideration for the local natural environment, has been demonstrated to attract a variety of insects and birds back to the afforested land. Oji Paper's afforestation also benefits the people who live in the area by contributing to increased standards of living, thanks to the stable incomes that result from the creation of new local jobs.

## Natural stands: A limited resource

Forests come in the form of either natural stands or tree plantations. Tree plantations are forests planted by human beings, such as those that the Oji Paper Group plants outside Japan. Natural stands are forests that naturally regenerate by sprouting from seeds that fall from nearby trees or from tree stumps, without the assistance of people. In the end, a natural stand is considered natural based solely on its method of regeneration. Thus, forests that regenerate spontaneously after a natural stand has been logged are also natural stands. Some natural stands are used for economic purposes, such as raw material for papermaking or for producing timber.

The fact of the matter is that natural stand resources are limited, even taking into consideration all those throughout the world. This reality underscores the need to make use of forest resources in a way that strikes a careful balance between environmental and social considerations. We must not compromise on our duty to leave natural forests for posterity.

At the Oji Paper Group, we are convinced that we can meet our obligation to provide a stable supply of paper by vigorously implementing afforestation. After all, even the valuable resource of recovered paper comes originally from wood raw material. Afforestation is sure to become increasingly important as the years go by.

## Expanding the area of tree plantations outside Japan to 300,000 hectares to meet increasing demand for paper

The Oji Paper Group began planting trees outside Japan in the 1970s in order to secure a stable supply of raw material for papermaking. Currently, we are working to reach the goal of operating 300,000 hectares of tree plantations outside Japan by 2010. This approach will not only meet growing demand for paper, but also fulfill our commitment to environmental responsibility. By the end of fiscal 2005, we had finished planting 150,000 hectares. We expect the wood raw material supplied from our tree plantations outside Japan to account for about 40% of the total volume of wood chips we import, when all 300,000 hectares become harvestable.

Generally, tree planting to produce timber is referred to as industrial afforestation and tree planting with an environmental aim is called environmental afforestation. As a paper company, Oji Paper undertakes industrial afforestation; the company plants trees to grow timber to use as a raw material for papermaking. When plantation trees reach maturity, they are harvested, and then new trees are replanted, in a continuous cycle.

Logging virgin forests with rich biodiversity and then planting trees on the logged site would harm the local ecosystem and environment. The Oji Paper Group therefore selects denuded land, such as former pastures and slash-and-burn sites, for its plantations. This type of afforestation, even if it consists only of one species such as eucalyptus, sparks a recovery of greater biodiversity than existed before, and is able to produce new ecosystems.

By expanding tree plantations and increasing use of plantation trees, we are able to curb the use of precious natural stands that should be protected, which in turn leads to the protection of biodiversity. Moreover, tree plantations provide a variety of other benefits, including prevention of soil loss and replenishment of water resources.

*1 Forest recycling
Green procurement that obtains resources from sustainably managed forests. Oji Paper's tree plantations outside Japan are at the core of its green procurement.

# Oji Paper does not buy chips or pulp made from timber that was illegally logged.

## Effective eucalyptus planting: Using the right tree species for the land

The Oji Paper Group primarily uses eucalyptus, acacia, and other fast-growing trees on its industrial tree plantations for papermaking raw material. Another reason for using eucalyptus trees is that there are many varieties, which allows the appropriate variety to be selected for the soil, temperature, and rainfall of the plantation. The practice of planting fast-growing trees such as eucalyptus has been criticized on the grounds that they rob the soil quickly of large amounts of water and nutrients. Compared to other trees and crops, however, it is simply not true that only eucalyptus trees have an adverse effect on the land. There are quite a variety of crops that require more water and nutrients than eucalyptus trees. The Oji Paper Group believes that selecting and planting tree species that are appropriate for the land conditions and practicing environmentally sensitive management is a sustainable practice in terms of the environment, economy, and society.

## Considerations in purchasing wood raw material for paper

The Oji Paper Group does not buy chips or pulp made from illegally logged timber, as is clearly stated in the group's Wood Raw Material Procurement Policy and Pulp Procurement Policy. When importing wood chips, we have our suppliers submit a traceability report for each of our nearly 200 annual shiploads of chips, checking the origin of the raw material, whether it comes from plantations or natural stands, the method of forest management and whether the forest is certified. We routinely have our nearly 700 suppliers of wood chips in Japan also submit traceability reports. We will continue to follow this course and further enhance the level of detail being verified.

## Growing trees—A long-term enterprise that depends on the blessings of nature

Growing Japanese cedar and cypress requires extremely long periods of time, between 50 to 100 years from planting to logging and utilization. In contrast, fast-growing trees such as the eucalyptus planted on our plantations outside Japan can be harvested in a relatively short period, between 5 to 15 years from planting to logging and utilization. Nevertheless, this is still a long time compared to crops that are harvested each year.

The work of growing trees does not end with the planting of seedlings. In fact, this is just the start of a long process. Soon after starts the battle with weeds. The seedlings must be protected by weeding, fertilizer applied to replenish nutrients, and fire prevention and pest control measures taken to protect plantation trees from fires, disease and pest damage, and other natural disasters. Simply due to the length of time needed to cultivate the trees, there is a significant risk of a natural disaster striking a stand.

Timber resources are a gift from nature, but it takes a very long period of time and an immense amount of human effort to cultivate them. We hope that everyone who uses paper will feel an interest in the real story of the raw material that paper is made from and how that raw material is produced.

## Toward expanded utilization of Japanese wood and development of forests

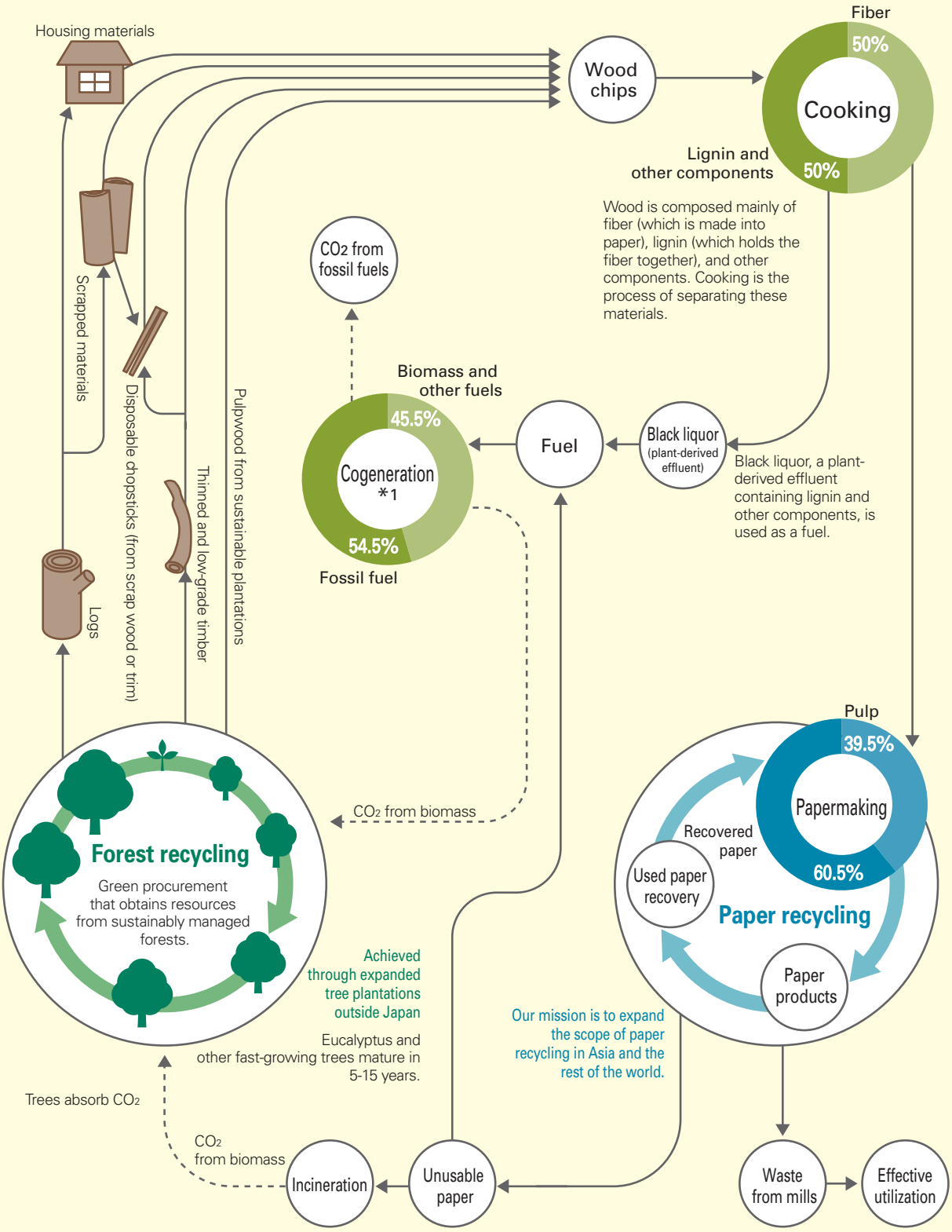
Japanese plantation forests planted after World War II have been growing for about 40 years and are now rich in forest resources. However, Japan can still supply only 20% of its own timber needs, and must import the rest. This means that there is a need to increase the utilization of Japanese timber resources. Toward this end, young plantations must be further thinned, which actually helps the forests develop. The Oji Paper Group is promoting the use of thinned timber as a raw material for papermaking. Especially in Hokkaido, we use large quantities of thinned spruce, fir, and larch timber, and are conducting research into increasing use of thinned cedar and cypress.

Today, there is growing momentum in the industry to create integrated systems from the upstream production of raw timber to downstream timber processing in an effort to revitalize Japan's forestry industry.

As the owner of the largest private forest holdings in Japan—about 190,000 hectares—and as a member of the papermaking industry that uses wood as a raw material, the Oji Paper Group is working to expand utilization of Japanese wood, and to contribute to both the revival of Japan's forestry industry and the sound development of its forests.

Oji Paper wants everyone who uses paper to know the real story behind the wood raw materials used in paper.

## Schematic Diagram of the Oji Paper Group's Recycling-based Business Model




*1 Cogeneration: Utilization of waste heat from power generation

*Figures represent fiscal 2005 performance for the Oji Paper Group.

Highlight 2

# Considering the Global Environment and Local Communities in the Procurement of Wood as a Raw Material for Papermaking

In April 2005, the Oji Paper Group announced a new Wood Raw Material Procurement Policy. This policy promotes green procurement—that is, the purchasing of wood from sustainably managed forests as a raw material for papermaking. These pages provide a report on how we have been putting this procurement policy into practice over the last year.

## Wood Raw Material Procurement Policy

### ●Procurement Philosophy

Wood used in making paper is a resource of excellent reproducibility. In procuring wood raw material, Oji Paper pursues green procurement to acquire resources grown through sustainable forest management.

### ●Procurement Guidelines

**1. Expand procurement of wood from certified forests**
Oji Paper will work to acquire certification for all forests in our overseas tree plantation operations. When procuring material from third-party sources, Oji Paper will give priority to wood from certified forests and actively encourage suppliers of non-certified wood to seek forest certification.

**2. Increase use of plantation trees**
Oji Paper will increase the proportion of plantation trees used as raw material by increasing the volume of self-supplied plantation trees through an expansion of our overseas plantations and by increasing the amount of plantation trees purchased from third-party sources.

**3. Utilize unused wood effectively**
Oji Paper will pursue the effective use of sawmill residue, thinned wood, and other unused wood resources as a means of making full and complete use of resources.

**4. Ensure raw material traceability**
Oji Paper will work to trace the origin of wood raw material and confirm that it was produced from well managed forests. Oji Paper will be particularly vigilant about not purchasing wood from illegal logging. To this end, Oji Paper will ensure raw material traceability through ongoing surveys of the raw material production sites and forest management methods of the suppliers from whom Oji Paper purchases wood raw material. Oji Paper will encourage suppliers to obtain information on the origin of raw materials and to increase their level of accuracy. Oji Paper will also audit traceability survey processes.

**5. Disclose information**
Oji Paper will release an annual progress summary on the implementation of these procurement guidelines.

## New efforts to ensure raw material traceability

In April 2005, the Oji Paper Group announced a Wood Raw Material Procurement Policy (see box at left). One important commitment under the policy is to "Ensure raw material traceability."

"Safety and peace of mind" have become common social concerns in recent years. We believe that people are concerned about what kind of wood raw material is used to make the paper that they use daily, what kind of forest management practices were used to produce that wood raw material, and issues relating to the people who work at the production sites, the community residents, and the surrounding natural environment.

When the Oji Paper Group imports wood chips from outside Japan, employees from Japan posted to that site monitor the loading of the wood chips onboard the ship. They also visit the forests or tree plantations from which the chips originated. In addition to the locally posted employees, we also send people from Japan to check the on-site situation when appropriate. This has been our policy since long before the idea of "traceability" became a hot topic. Our employees have long been checking to make sure that exported wood chips meet our quality standards for use as a papermaking raw material, verifying the potential to provide long-term stable supplies, and making certain that there are no legal issues or social or environmental problems.

The Oji Paper Group's corporate social responsibility is to provide a stable supply of paper. At the same time, we clearly recognize that the only way to do this is to operate with respect for the global environment. The Oji Paper Group is committed to procuring raw materials with the utmost consideration to the global environment and local communities, building on its already strong track record in this area. We are working to increase the accuracy of raw material traceability in order to fulfill our accountability regarding wood raw material.

## Preparing traceability reports for each shipload of imported chips

The Oji Paper Group currently imports wood chips from 14 countries, including countries where the company has established its own tree plantations. The imported wood chips are transported by sea in chip carriers. Oji Paper employees from Japan posted to each local site (or employees of trading companies when we make purchases through trading companies) check the traceability reports that are prepared by the supplier for each shipload.

In fiscal 2005, the Oji Paper Group procured 4.996 million BD tonnes*1 of wood raw material, of which 70% was imported from outside Japan. The main countries of origin for our imported chips are Australia (32%), South Africa (18%), and Vietnam (11%) (graph 1).

Out of all the wood chips we imported in fiscal 2005, the share of chips from plantation trees increased by only three percentage points over the previous fiscal year. However, the quantity from certified wood increased considerably—2.17 times over the previous fiscal year—due to the acquisition of new certifications by our suppliers. The quantity procured from our own tree plantation projects outside Japan increased satisfactorily, as did the quantity from our own certified plantations (graphs 2 and 3). We also made sure that our procured wood did not include illegally logged timber or genetically modified timber.

Illegal logging has become an international problem. Oji Paper clearly stipulates in its chip purchase and sales agreements that it will only buy legal resources. We also implement third-party audits (photo 1) of our traceability reports to ensure objectivity and transparency.

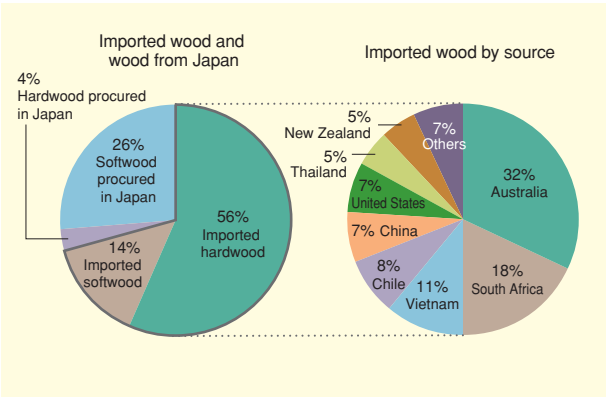
## Using traceability reports to comply with revisions to the Green Purchasing Law

With illegal logging becoming a global problem, the Japanese government revised the Green Purchasing Law in April 2006 to require that the legality of wood and wood products procured by the government must be proven. Targeted products made from wood fall into five categories, including paper and stationery products.

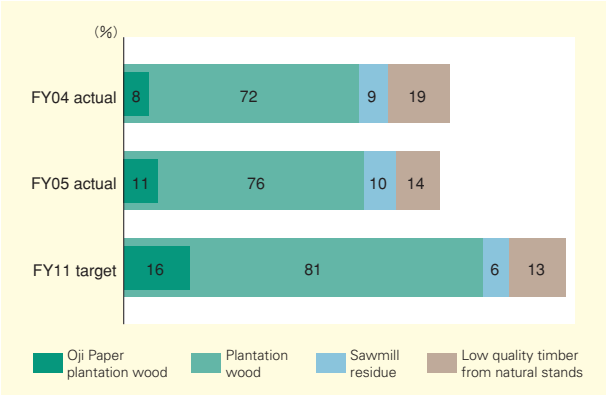
The Oji Paper Group complies with this rule by using traceability reports in line with the group's Wood Raw Material Procurement Policy.


Photo 1 Third-party audit report of fiscal 2005 wood raw material traceability reports.

Graph 1 Procured Wood Chips (FY05)




Graph 2 Share of Wood from Plantation Trees, of All Imported Chips




Graph 3 Share of Wood from Certified Forests, of All Imported Chips


*1 BD tonnes
Bone Dry tonnes. The weight of something when completely dry (0% moisture content).

# Ensuring Traceability: A Report from the Field on Logging Tree Plantations in Vietnam

## Vietnam

**Kuniaki Baba**
**Vice President, QPFL (Currently President)**

### Precipitous topography and a harsh plantation environment

The difficulty of running a plantation business in Vietnam starts with securing a plantation site. Because Vietnam has a high population density and even hilly land is used for agriculture, tree plantations always end up being in precipitous back country areas without roads. While plantation sites are assigned by the Vietnamese government, we actually conduct studies and consider whether the land is really suited for a tree plantation and whether the plantation will cause any adverse effects on the nearby populace and surrounding environment before making a decision.

Quy Nhon Plantation Forest Company of Vietnam (QPFL) operates its tree plantation operations in the south-central Vietnamese province of Binh Dinh (map 1). It takes a long time to get from the office to the plantation sites, which are often in back country where the roads leave a lot to be desired. Nevertheless, QPFL's six forest staff members take turns traveling to the on-site location when trees are being planted or logged. I also try to visit the plantations as frequently as possible to check on the work situation.

### At least seven years from tree planting to paper

In our tree plantation operation, we plant trees during the rainy season and log during the dry season. We do it this way because in Vietnam logs cannot be transported to the mill if they are harvested in the rainy season, since the condition of the roads to the plantations is poor. Logging is therefore conducted in the dry season. The workers who do the logging set up a semi-permanent onsite living situation, since it would be difficult to come down from the logging area every day.

At Canh Phong 7 (map 1), one of QPFL's tree plantations, the trees were logged seven years after planting. About 500 workers spent one month logging nearly 150 hectares of

### Flow of raw material procurement

1 It takes about three and a half hours by car to get from the QPFL office to Canh Phong 7, one of QPFL's tree plantations, located about 70 km away, because the road conditions are very poor. It is hard to transport logs by truck in the rainy season.

2 This worker is logging an acacia tree that has grown for seven years since planting. Workers must always wear helmets when using chainsaws. As can be seen in this picture, the logged tree is not that big around.

3 Logged trees are being loaded onto a truck. For safety concerns, QPFL staff members supervise the loading.

plantation trees. These trees were transported to a chip mill in the city of Quy Nhon, where they were processed into chips. The chips were then exported from Quy Nhon port to the Oji Paper Group's mills in Japan.

It takes at least seven years from tree planting until the trees are turned into chips, the raw material for papermaking. Even more time is needed if one considers the time it takes to find a plantation site. I would be very happy if people knew just how much time and labor goes into making paper, which is often used without hardly a thought.

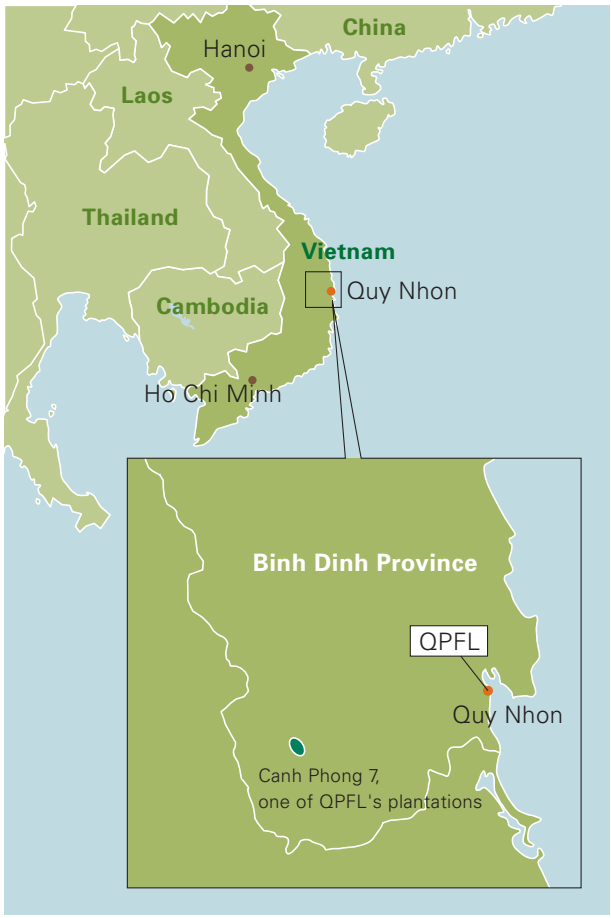
## QPFL

The tree plantation company QPFL, located in Quy Nhon in the southern central Vietnamese province of Binh Dinh, was established by Oji Paper Co., Ltd., Sojitz Corporation, and Dai Nippon Printing Co., Ltd., in 1995.

From the time tree planting started in 1995 through the end of fiscal 2005, we planted an area of 9,123 hectares. Logging of the tree plantations began in 2002. The wood is processed locally into chips and then exported to the Oji Paper Group's mills in Japan.

In March 2006, we obtained Forest Management (FM) Certification from the Forest Stewardship Council (FSC). QPFL is the first company in Vietnam to acquire FM certification. We also obtained Chain of Custody (CoC) Certification, another FSC certification, so now the entire process of QPFL's plantation projects is certified, from planting and logging to chip production and exportation.

Map 1 Location of QPFL




4 Workers at the logging site set up semi-permanent living facility where they stay for one or two months while the logging is in progress. When the work here is done they move to the next logging site.

5 The pulpwood logged from QPFL's plantations is transported to this chip mill where it is turned into chips.

6 These chips are being delivered to port before exportation to Japan.

7 Chips getting loaded onto a ship in Quy Nhon port. In about seven days after the ship sails from here, the chips will be delivered to the Oji Paper Group's mills.

## Tracing the Origin of Raw Material—Chips Exported from USA Are Nearly 100% Sawmill Residue

# West Coast of the United States

**Azumi Kawabe**
**Vice President, Oji Paper Canada Ltd.**
**(Currently Group Manager, Wood Material Department, Oji Paper Co., Ltd.)**

The United States is taking its own approach to environmental issues, as indicated by the decision not to participate in the Kyoto Protocol. On the west coast there are many public forests, and in the south there are many small, privately owned woodlands, like in Japan. Consequentially, the idea of a forest certification system—where people pay to have private forests certified—has not yet become popular.

Nevertheless, nongovernmental environmental groups in the United States are influential. Between the late 1980s to the early 1990s, states on the west coast developed logging regulations that protect the environment and conserve virgin forests.

Nearly 80% of the wood chips that companies use as raw material for papermaking on the west coast of the United States comes from sawmill residue. Further, almost 100% of exported chips come from sawmill residue, demonstrating that our raw material procurement here is environmentally friendly.

However, tracing the origin of the raw material from which the residue comes could be even more difficult than tracing the origin of raw timber for whole log chips. Oji Paper's suppliers deal with dozens of direct suppliers—the sawmills—each of which has a number of loggers from whom it buys sawlogs. Fortunately, however, the United States has advanced forest laws and regulations which are strictly enforced. As a result, chip suppliers submit traceability reports of their own accord, and there is little concern about illegal logging.

The west coast of the United States is not completely free of challenges for us, however. As mentioned, tracing raw materials can be difficult. And sometimes local suppliers can be overly confident that illegal logging is unconceivable simply because of the strong regulatory framework in place. At Oji Paper, we will continue to take every opportunity to deepen our suppliers' understanding of the importance of confirming traceability.

A chip carrier docked at Port of Coos Bay, Oregon, on the west coast of the United States.

An Oji Paper employee visits a chip supplier to confirm sources of wood raw material and discuss chip production plans.

Mr. Kawabe atop wood chips loaded on a chip carrier. Oji Paper employees personally monitor the loading process to check the quality of the chips and supervise the loading work.

In gently sloped Australian forests, a single harvester can fell trees, delimb them, make the cross cuts, and stack the logs.

Plantation of Albany Plantation Forest Company of Australia Pty. Ltd. (APFL) in Western Australia, seen from the sky.

An Oji Paper employee visits a supplier's plantation to check resources.

# Tracking the Regions where All Raw Materials Were Harvested

## Australia

**Tomonobu Okuda**
**Brisbane Office, Oji Paper Co., Ltd.**
**(Currently posted to Melbourne Office)**

Softwood chips exported from Australia use plantation trees as the raw material, whether chipped directly or made from sawmill residue. On the other hand, the raw material background for hardwood chips differs by supplier. In Western Australia, all hardwood chips come from plantation trees. In Tasmania, they come from both plantation trees and trees from natural stands. Our Tasmanian supplier, Gunns Limited, complies with the strict Tasmanian Forest Practices Code in all its forest practices, and has acquired ISO 14001 certification for its environmental management system as well as Australian Forestry Standard (AFS*1) certification.

When we asked for a traceability report, Gunns was ready—they had already spent three years building a traceability system for wood raw material based on Chain of Custody (CoC) certification in the AFS and the Programme for the Endorsement of Forest Certification Schemes (PEFC). When we went on to ask that traceability reports include the municipality where the wood raw material was harvested, the Gunns system administrator spent two months clearly identifying the administrative districts where all raw materials are harvested.

Before we started asking for traceability reports, it was a regular duty of Oji Paper employees to travel to logging sites to check actual harvesting practices. In the future, we will continue this practice, ensuring we always fully grasp the circumstances of our supply of wood raw material.

*1 AFS
Gunns has received mutual recognition from the Programme for the Endorsement of Forest Certification Schemes (PEFC), the world's largest forest certification scheme. As such, Gunns is not only certified as following the law at the state level in Tasmania regarding planning and practice of forest management, but also as a practitioner of sustainable forest management at the national level in Australia and the global level, as well.

## Highlight 3

# Stakeholder Dialogue: What We Expect of the Oji Paper Group in Terms of CSR

What should the Oji Paper Group do to help create a sustainable society? On March 6, 2006, the Oji Paper Group held its first stakeholder dialogue, which was attended by five representatives from different sectors: business, government, academia, NGOs, and consumers. Each participant offered a unique perspective on Oji Paper's corporate social responsibility (CSR). We are determined to make use of this feedback in our future CSR efforts.

### Participants

Outside experts (in alphabetical order)

**Masayasu Kitagawa**, Professor, Okuma School of Public Management, Waseda University Graduate School
**Eishi Maezawa**, Assistant Director, Conservation Division, WWF Japan
**Hiroaki Niihara**, Director, Paper Industry, Consumer and Recreational Goods Division, Manufacturing Industries Bureau, Ministry of Economy, Trade and Industry, Japan (Currently a research fellow at Harvard Business School)
**Kazuhiro Shibuya**, Editor-in-Chief, Nikkei Business Associé, Nikkei Business Publications Inc.
**Yumi Zenzai**, Director, Green Consumer Tokyo Net

Oji Paper Co., Ltd.

**Yoshihiro Kanamaru**, Executive Director responsible for environmental affairs, Oji Paper Co., Ltd. (Currently, Senior Managing Director)
**Junji Ohsawa**, Corporate Officer, and General Manager, Environmental Management Department, Oji Paper Co., Ltd.

## Is the social cost included in the low price of paper?

**Niihara**: In thinking about Oji Paper's CSR, there is one issue that we cannot just skirt around—the issue of the price of paper. Eiichi Shibusawa said that, "The public good and private interests will be in agreement when a business is upright." As is apparent in these words, I think that the essence of CSR is to continuously provide a stable supply of goods that are satisfying to the customer while producing as little impact as possible on the environment. Is this ideal being accomplished when it comes to household paper? In Japan, packets of facial tissue are handed out for free on the streets by advertisers, and in supermarkets toilet paper is a bargain eye-catcher. Clearly, a gap has emerged between the social cost of paper, such as the environmental impact generated during production, and the personal cost to the consumer. It seems unlikely that a fair profit is being made in the household paper business. So, why would a paper company price its products so low? Probably to increase market share. This has led to production that exceeds demand, which has driven prices even further down. This might be fine if it were sustainable, but a company cannot continue that practice forever, operating in the red. I wonder if paper companies think they can reliably secure the natural resources needed to provide stable supplies in the long-term, also given the fact that demand for paper is increasing rapidly in China. If not, I think that the environmental impact of the household paper business is a problem. I think consumers need to bear their fair share of the social cost.

**Maezawa**: One reason why paper is so inexpensive is that some of the costs for forest management are unfortunately not included in prices to the consumer. Paper can be cheap if people abandon the idea of resource sustainability and simply cut down forests for the raw materials. WWF Japan has been working to stop large-scale tree-clearing and illegal logging, like that which occurs on the island of Sumatra in Indonesia. The fact is, if forests are managed properly, costs go up. People should expect costs to rise if they want resources to be sustainable. One problem is that the general populace does not understand this. Consumers judge the value of paper only by the price. Since Oji Paper has company-owned forests in Japan, I think it would be good for the company to make known the cost of managing those forests.

**Zenzai**: Consumers certainly do tend to flock to cheap products, but I think it would be fair if prices rose to reflect social costs. If manufacturers clearly explained this point to help consumers and retailers to become more aware, I think consumers would still buy products at the higher price.

Yumi Zenzai

**Shibuya**: I think Japanese consumers are actually very aware. I think they would change their shopping habits if they understood that lower prices sometimes represent greater environmental impact. I also think that the media has a

responsibility to make this type of issue known. We need to think seriously about how paper companies are going to keep pace with the demand for paper in general, not just household paper. I wholeheartedly approve of the view that paper is a measure of culture. However, when one thinks that the demand for paper will increase to 460 million tonnes by 2015, there is a real need to consider just what a sustainable society will have to look like. As we secure natural resources, we also need to consider reducing paper consumption by using paper only when needed, relying on electronic media whenever possible. For example, there are many things that no longer need to be printed on paper, such as credit card statements and phone books.

## Of all the different kinds of paper on the market, which are really environmentally friendly?

**Maezawa**: Every year the world loses about 13 million hectares of forests, which corresponds to nearly a third of the land area of Japan. Traceability—that is, making clear just where a piece of timber came from—is important for protecting forests. In that sense, I find it very encouraging that Oji Paper announced a procurement policy that states that it will not procure illegally logged timber. WWF Japan has proposed the concept that responsible procurement means giving due consideration to the environment and to human rights. But this idea often gets dismissed with a laugh when we bring it up to companies. Oji Paper's procurement policy is a good example that responsible procurement is actually possible, and it is having a large impact on local timber exporters. I sincerely hope that you will extend this effort to your business partners and affiliates. Even recovered paper originates from a forest. I think it is essential, therefore, to focus not only on the recycled paper ratio, but also to select papers made using wood from certified forests. WWF Japan selects both paper with a high recycled paper ratio and paper made of wood from certified forests. I think there is no single answer as to which paper is really environmentally friendly.

Eishi Maezawa

**Niihara**: While cutting raw timber to make fresh pulp clearly impacts the environment, using recovered paper also has a large impact on global warming, because the production processes use energy. Each option has its advantages and disadvantages. So, I would like to suggest that you provide information on which paper has the lowest environmental impact based on comprehensive assessments using the life cycle assessment (LCA) method of determining effects on the environment.

**Shibuya**: I truly hope that Oji Paper will demonstrate leadership in the industry in that area. Oji Paper's efforts could have a ripple effect just like when Toyota released its hybrid car, Prius, which helped to accelerate other automakers' development of eco-cars and encouraged new initiatives on environmental issues.

## Oji Paper needs to let people know how it plans to use its extensive forest holdings in Japan.

**Kitagawa**: In my work, I am striving to establish social rationality—that is, a condition that everyone can accept—regarding sustainability. Oji Paper owns extensive forests in Japan. As such, I think it would be great if the company were to treat its forests as environmental forests and engage in conservation activities. Some estimates put the total economic value of forests in Japan at ¥70-90 trillion. I think that, if you made an appeal based on an estimate of just how much a conversion of forest value into environmental value would come to, you could expect a significant increase in the social rationality of Oji Paper's business.

Masayuki Kitagawa

**Maezawa**: I think that one must clarify exactly what kind of value is being measured when calculating the value of forests. For example, a lot of forests in Japan were planted, but many of them are not being used. There is no need to spend money maintaining natural stands if they are to be left as natural stands. I think we need to map out a clear direction for forest management. Are we going to return unused tree plantations to the original hardwood species or not? What are we going to do about finding ways to use Japanese timber that is going unused due to the pressure of cheap imported wood?

**Shibuya**: I also think it is a good idea for Oji Paper to state clearly what type of forests it wants to create. I think it would be great for Oji Paper to use its forest resources as examples of its own vision. Such an initiative could become quite symbolic of Oji Paper's commitment to the environment, and I think it would lead to an increase in corporate value.

**Zenzai**: That makes sense. Rather than merely pursuing economic efficiency in forest management, I would like to see Oji Paper calling consumers' attention to the value of forests, including the environmental costs.

## The company should ascertain consumer needs and share information from the paper mill floor.

**Kitagawa**: Oji Paper is a good company with a long tradition, and I think that its environmental initiatives are exemplary. However, it seems that the employees have the feeling that their hard work and dedication is not getting communicated to the public. This is due to the perspective of the people on the supply side—that is, they get stuck in their own internal logic. This tends to be an unintentional consequence of doing something earnestly. When my friends and I were working hard on electoral "manifesto" campaigns, the concept was not very well known. But once manifestos were used in a general election, I won the grand prize in the buzzwords contest, and the word caught on in no time. I think Oji Paper can produce this type of extraordinary result. It would be great if it got to the point where people started saying, "Hey, let's check out the latest thing Oji Paper is doing." For example, you could launch a campaign to protect the value of forests. You should be aggressive about building unique value.

**Niihara**: Good point. B-to-B companies are faced with the problem of not having a good handle on end user needs due to the distance between them and consumers. For example, this is something I heard: Boxes of tissue are often sold in packs of five, and the boxes are bright colors like pink and yellow. It seems those boxes were designed to be eye-catching at volume retailers. But, young women nowadays do not care for those boxes. They do not want to put gaudy things in their homes, and so go to the trouble of buying a chic tissue box cover at a variety store. In the case of the Prius, Toyota did not start out trying to develop an environmentally friendly car. They put together a team of young employees and asked them to think about what the 21st century car would be like. The result was a car that had a small environmental impact. What if Oji Paper did the same thing? Take a team of the young people who will forge the future, and ask them to listen to consumer feedback while they consider what paper and paper companies ought to be like in the future.

Hiroaki Niihara

**Kitagawa**: That is a good idea. I once put together a project team tasked with considering how to approach changing the organization of prefectural government. When I advertised for team members, I was overwhelmed with female applicants. That just goes to show how much of a male-dominated society

we are. Since we are talking about creating new value, how about incorporating the innovative values of women and the younger generation? I think that good ideas are sure to come from discussions that cut across the usual social hierarchy.

**Shibuya**: It is certainly true that B-to-B companies tend to be disinterested in creating opportunities to interact with consumers. However, interest among consumers in how the things they use and the things they eat are made is rising dramatically. It might be a good idea to make opportunities to interact with consumers and use those opportunities to communicate with them as well as get feedback about your company. One method is to make a bulletin board on your website. If you do, I advise you to disclose unfavorable information as well, because, except for really radical people, I think most folks will take away the right understanding and respond to your genuine approach.

Kazuhiro Shibuya

**Maezawa**: I think it is important to communicate to consumers the actual forest management practices you follow in the field. Just talking about sustainability might be somewhat difficult to understand. But, if people are shown what conditions in the field are really like, they will understand that paper is not so easily obtained. That's where the seed will begin to sprout in people's awareness—we all have to accept environmental costs.

**Zenzai:** Exactly. I would really like the company to communicate to consumers about the effort you make as an integral part of doing business. It would also be effective to cooperate with NPOs to gain an understanding of consumer needs and to make your company's initiatives better known. Nowadays, green consumers do not use the word recycle, because that is the last option. Instead, I think society needs to aim at creating a value system different from the one we have had thus far. I think it would be great if Oji Paper moved forward with environmental initiatives that have this sense of innovation.

**Kitagawa**: I agree. In addition, if possible, how about adopting the idea of thinking about entire communities, not only your own company, in terms of LCA? I would like you to consider entire communities in terms of LCA, and to undertake your business activities based on the premise that communities, including the natural environment, and the people who live in them should be able to endure over the long run.

## Response to Stakeholder Dialogue

Junji Ohsawa
Corporate Officer
General Manager, Environmental Management Department
Oji Paper Co., Ltd.

During this first stakeholder dialogue, our guests all provided useful opinions. The point about the pricing of paper, which addresses the very foundation of the paper industry, is something we will take seriously as a future management issue. As for environmentally conscious procurement of wood raw material and the management of company-owned forests in Japan, we will develop clearer policies as we continue to move forward.

While we have been working hard to provide information on the Oji Paper Group's environmental initiatives to the public, the discussion left me with the strong impression that our efforts have not been sufficient. Going forward, we will communicate more information about the social cost of the paper industry to general consumers and will continue to incorporate outside feedback into our management practices through stakeholder dialogues and other channels.

# Corporate Governance

**At the Oji Paper Group, continuous improvement of corporate governance*1 is a top management priority. We are always fine-tuning our governance framework to make it as effective as possible. We believe our commitment to efficient, sound, and transparent management is a key factor in earning the trust of society and increasing corporate value.**

## Our view of corporate governance, and adoption of stock option-based compensation

At the Oji Paper Group, a ten-member Board of Directors makes the strategic business decisions for the company. Officers with expertise in our business are responsible for the implementation of decisions made by the Board of Directors. Important management issues are deliberated by the Executive Council, which is comprised of directors who also serve as executive officers, and final decisions are taken by the Board of Directors. All these activities are audited by four auditors, two of whom are external (figure 1).

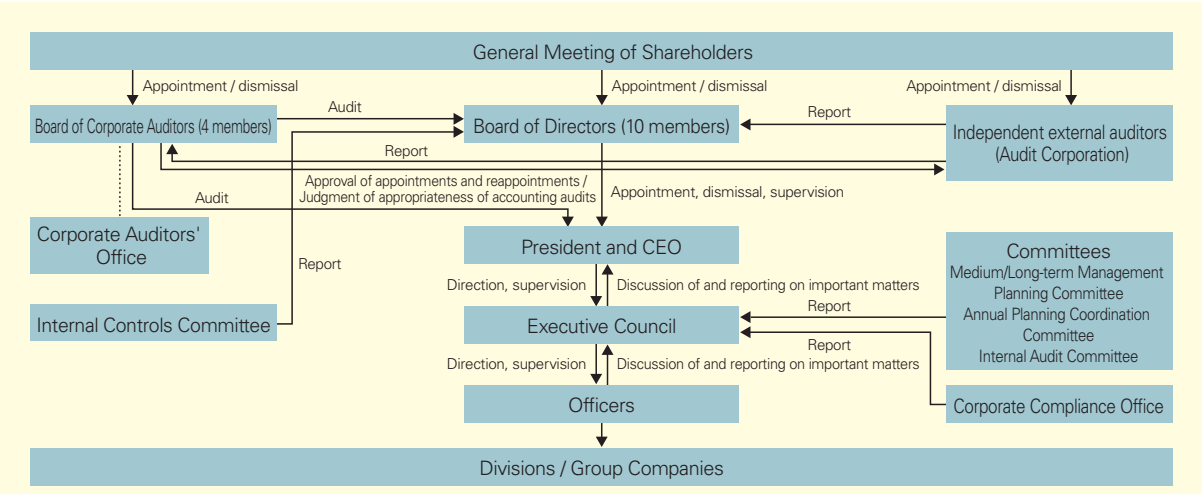
In June 2006, the General Meeting of Shareholders decided to discontinue the system of retirement bonuses for directors and to adopt stock option-based compensation. This decision was intended to encourage management that improves corporate value by increasing the linkage between compensation for directors and the company's consolidated performance.

In May 2006, the Board of Directors established Basic Guidelines for Building an Internal Controls System. This system ensures that legal compliance and appropriate risk management are carried out as the president and all employees push forward with business activities based on the high ethical standards of the Oji Paper Group Corporate Code of Conduct.

We have established an Internal Controls Committee tasked with verifying and assessing responses to major risks and monitoring the functionality of internal control systems, then making changes to those systems as needed.

The Medium/Long-term Management Planning Committee and the Annual Planning Coordination Committee debate and implement measures addressing important management risks that influence decision-making on corporate strategy. We have also developed a system to respond to disasters, accidents, and other unexpected situations by preparing group-wide basic policies on disaster prevention management and establishing a Disaster Prevention Committee.

Figure 1 Function of the Internal Controls Committee in the Corporate Governance Framework




*1 Corporate Governance
A system for preventing the occurrence of misconduct by ensuring management transparency, soundness, and legal compliance through the clarification of responsibilities for executives and managers at all levels and the disclosure of corporate information.

*2 Compliance
Legal compliance. Ensuring strict, thorough organizational compliance with laws and regulations is important in light of the recent spate of corporate scandals.

# Compliance

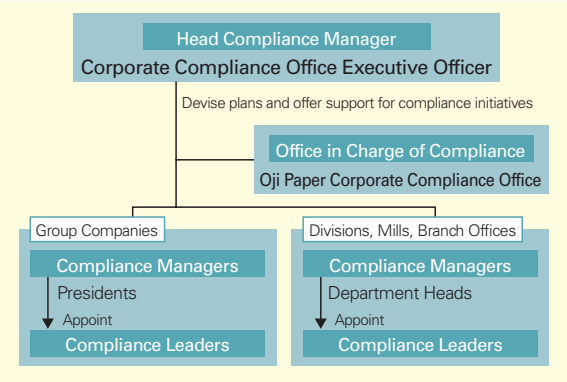
In fiscal 2005, the Oji Paper Group offered a variety of educational and training opportunities to ensure that employees are thoroughly familiar with the Oji Paper Group Corporate Code of Conduct and the Oji Paper Group Conduct Regulations. The group recognizes that education is a key element of a strong compliance*2 system.

## Compliance framework

In January 2004, Oji Paper built a new compliance framework to ensure complete compliance with laws, regulations, and business ethics in accordance with the Oji Paper Group's Corporate Code of Conduct and Conduct Regulations (figure 1).

The Corporate Compliance Office, which manages compliance initiatives, and compliance leaders in each department cooperate in running specific activities to improve compliance awareness, such as providing education and training.

Figure 1 Compliance Organization




## Compliance education: Training for regular employees

In fiscal 2005, the Oji Paper Group implemented compliance training workshops for regular employees (about 16,000). The Corporate Compliance Office compiled and published the results of questionnaires taken during those workshops. One notable result revealed how important the role of superiors is in the workplace. When asked what they would do when unable to make a decision regarding compliance, 51% of respondents said that they would ask their supervisor to make a judgment call.

We are also striving to raise employee awareness of compliance issues by carrying serial articles on the Oji Paper Group's intranet that introduce new laws (such as the Whistleblower Protection Act) and law revisions (such as the Unfair Competition Prevention Law) and other issues.

## Business ethics helpline

Oji Paper's business ethics helpline provides all group employees (including part-time, non-regular staff, and temporary employees) with contacts for consulting about or reporting violations of laws and misconduct (including work-related and sexual harassment issues). The goal of the helpline is to prevent such incidents or correct them through early detection. In September 2003, the Oji Paper Group set up two contact points: the Corporate Compliance Office within Oji Paper and an outside attorney. In fiscal 2005, 15 incidents were reported or consulted about, and appropriate measures were taken in all cases.

Photo 1 Compliance Leader group training session.

# Environmental Management and Auditing

**We recognize that one of the Oji Paper Group's key social responsibilities is to continue to step up our commitment to caring for the global environment. To that end, we have recently reinforced our environmental management system. Our Environment Management Department is taking the lead in ensuring that our business activities are conducted with full respect for the delicate balance of the global environment.**

## Oji Paper Group's environmental management system

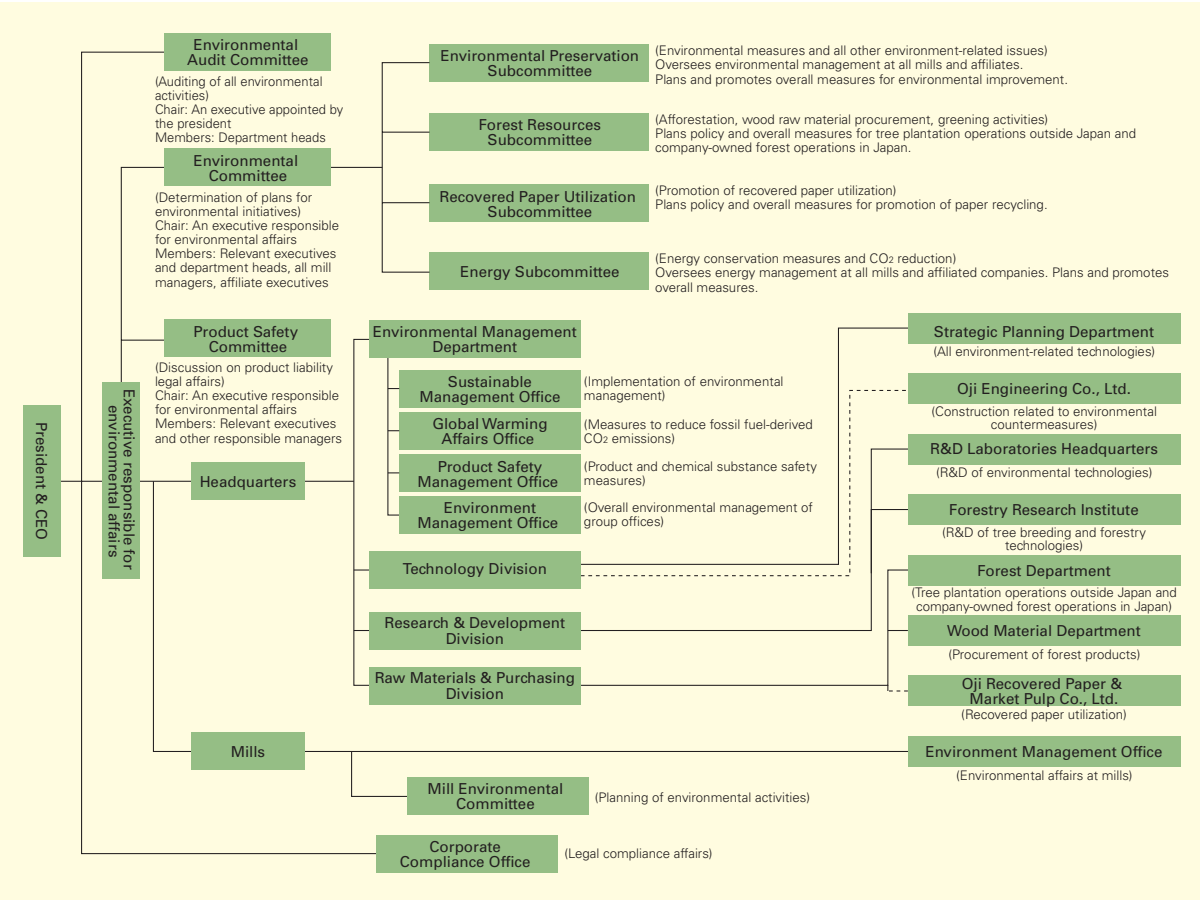
The Oji Paper Group's environmental management system (figure 1) is the framework within which the group deliberates and decides on basic policies under the guidance of officers in charge of the environment. The Environment Management Department then takes the lead in driving these policies so that they are reflected in the environmental management of the entire group.

The Environmental Committee and Environmental Audit Committee are the most important central organizations of the environmental management system at Oji Paper Co., Ltd. The Environmental Committee, composed of executives, principal mill managers and technology managers, is an important body that determines the Oji Paper Group's priorities and future policies on environmental management.

The Environmental Audit Committee conducts on-site inspections of mills group-wide, identifies problems in their environmental performance, and provides instructions for improvement. The committee helps to further improve environmental management at business sites through the guidance it provides during environmental audits. It also helps bring environmental management at facilities that have not yet acquired ISO 14001*1 certification up to par with mills that have already been certified.

In June 2005, we reorganized our Environmental Affairs Department into the Environmental Management Department, within which we established the Sustainable Management Office, Product Safety Management Office, and Environment Management Office alongside the existing Global Warming Affairs Office. These four offices collaborate in implementing their respective tasks.

Figure 1 Environmental Management Organization



## Certification of environmental management systems

The Oji Paper Group's Environmental Action Plan 21 calls for ISO 14001 certification, which all of Oji Paper's papermaking mills and most containerboard mills have acquired as of June 2006. We are also pursuing Green Management Certification (table 1) for our distribution companies.

Table 1 Status of Green Management Certification (Certifications in FY05)

| | |
|---|---|
| Oji Rikuun Co., Ltd. | Certification acquired at Kasugai Logistic Center of the Central Branch Office and Yonago Logistic Center and Fukuoka Logistic Center of the Western Japan Branch Office. |

* Thus far, 15 of 17 logistic centers have acquired certification.

## Oji Paper Group's environmental audits

The Environmental Management Department at Oji Paper Co., Ltd., monitors environmental management across the entire Oji Paper Group and issues appropriate guidance and new policies as needed. The department's highest priority is on-site environmental audits, which have been conducted every year since 1994. In fiscal 2002, we expanded the scope of these audits and began auditing the large-scale facilities of some Oji Paper affiliates. In fiscal 2004, we expanded the scope again to include small-scale facilities, and set up a two-year audit schedule covering a total of 111 facilities. In fiscal 2005, we increased the number again to 151 mills in Japan and 9 mills outside Japan.

The audits revealed quite a few instances of inadequate environmental management due to lack of knowledge about regulations, especially at small-scale mills. The audits proved effective in that improvements were made early-on through appropriate guidance before any serious problems developed, as the scale of the facilities is small and so produces little environmental impact. The auditors did more than just point out items requiring improvement; they put in place a system to ensure improvements whereby the facilities had to report back with improvement plans and improvement completion reports.

As a future measure, we built a system for thoroughly communicating environmental information, including information on regulations, to the entire group and providing guidance where needed. We also encouraged understanding by preparing a guidebook on environmental laws and regulations, the handling of waste, and other matters.

In fiscal 2005, we audited four business sites outside Japan. Presently, there is very little practice of effective utilization of waste in those particular countries, and it was quite clear that the mills were underperforming when it came to effective utilization of waste. No doubt that this issue will soon grow in prominence in these countries, as it did in Japan. We instructed the audited mills to take the lead, going one step beyond government and industry standards in their nations in terms of the effective utilization of waste.

Table 2 Fiscal 2005 On-site Audit Results for Japan (Conducted at 78 of 151 sites)

| | | |
|---|---|---|
| Indicated items | Items that should be improved promptly | 143 |
| Advisable items | Items that should be systematically improved or that it is advisable to improve | 437 |

* Of 151 sites, 78 were audited. The remaining 73 sites are scheduled to be audited in fiscal 2006.



*1 ISO 14001
An environmental management system established by the International Organization for Standardization (ISO). Facilities that have established a system that meets these standards are able to receive ISO 14001 certification.

# Progress Report on the Oji Paper Group Environmental

The Oji Paper Group's Environmental Charter, most recently revised on June 20, 2006, sets out a Basic Policy that makes it clear that environmental issues are a top management priority. It also defines Action Guidelines to ensure that the Basic Policy is applied in a practical way in everyday business activities. Going a step further, the Charter sets specific numerical targets to be achieved by fiscal 2010, in the Environmental Action Plan 21. The Oji Paper Group is committed to ensuring that all of its business activities are conducted with the sensitivity required to maintain the delicate balance of the global environment. Below, we report progress made in fiscal 2005 toward achieving our targets for fiscal 2010.

| Environmental Charter Action Guidelines | Environmental Action Plan 21 (fiscal 2010 targets) *(Revised April 27, 2006) |
|---|---|
| **1. Promotion of forest recycling** | Establish 300,000 ha of overseas plantations. |
| **2. Promotion of paper recycling** | Achieve a recovered paper ratio of 62%. |
| **3. Promotion of global warming countermeasures** | Reduce fossil fuel-based energy consumption per unit of production by 20% relative to fiscal 1990 levels.<br>Reduce fossil fuel-based carbon dioxide emissions per unit of production by 20% relative to fiscal 1990 levels. |
| **4. Reinforcement of environmental improvement measures and environmental management systems** | Targets<br>(1) Pursue certification under environmental management systems, including ISO 14001 and the Eco-Action 21 program set up by Japan's Ministry of the Environment, selecting the system best suited to each facility. Group companies involved in distribution aim to achieve certification under the Ministry of Land, Infrastructure and Transport's Green Management System at all business sites by March 2007.<br>(2) Pursue acquisition of forest certification at all overseas forest plantations and, under the Sustainable Green Ecosystem Council (SGEC) program, at company-owned forests in Japan. |
| **5. Development of production technologies and products that minimize environmental impact** | |
| **6. Reduction and effective utilization of waste** | Ultimately reduce the volume of landfill disposal to zero through further efforts to reduce or reuse waste.<br>Achieve a final disposal ratio of 0.5% by March 2011. |
| **7. Transfer of environmental protection technology to other countries** | |
| **8. Building relationships of trust with stakeholders** | |

# Charter and Environmental Action Plan 21

## Oji Paper Group Environmental Charter Basic Policy

The Oji Paper Group Environmental Charter requires the Oji Paper Group to help create a truly enriched and sustainable society by developing business activities that harmonize with the environment from a global perspective. The Charter calls for the Oji Paper Group to make autonomous efforts to achieve further environmental improvement, and aggressively drive its forest recycling, paper recycling, and global warming countermeasures forward.

| Fiscal 2005 Activities and Progress | | | Page(s) |
|---|---|---|---|
| Tree plantations outside Japan<br>Total area as of end of FY2005<br>(Excluding harvested areas that have not yet been fully replanted)<br>Reference value: Amount of wood chips from group plantation wood | 152,344 ha<br><br>370,000 BD tonnes | Up 11,988 ha from FY04<br><br>Up 56,000 BD tonnes from FY04 | 33-36 |
| Recovered paper utilization rate<br>Reference value: Recovered paper consumption<br>Reference value: Share of recovered paper consumption in Japan | 60.5%<br>4,968,000 tonnes<br>26.7% | Down 0.3 point from FY04<br>Up 102,000 tonnes from FY04<br>Up 0.5 point from FY04 | 37-38 |
| Fossil fuel-based energy consumption per unit of production<br>Fossil fuel-based $CO_2$ emissions per unit of production<br>Reference values<br>Fossil fuel-based energy consumption<br>Fossil fuel-based $CO_2$ emissions | 264 liters (crude oil conversion basis) / tonne of paper<br>0.704 tonnes-$CO_2$ / tonne of paper<br><br>2,206,000 kiloliters (crude oil conversion basis)<br>5,884,000 tonnes-$CO_2$ | Achieved 17.1% reduction from FY90<br>Achieved 16.8% reduction from FY90<br><br>Achieved reduction of 133,000 kiloliters from FY04<br>Achieved reduction of 468,000 tonnes-$CO_2$ from FY04 | 39-41 |
| Facilities that newly acquired ISO 14001 certification in fiscal 2005 | Three mills in Japan, which completes certification at all mills of Oji Paperboard Co., Ltd. | | 27-28 |
| Facilities that acquired Green Management Certification by fiscal 2005 | Three logistics centers acquired certification in FY05, which completes certification at 15 of 17 logistics centers. The remaining two offices are in the process of acquiring certification. | | |
| Forests that acquired forest certification by fiscal 2005 | Outside Japan, PAN PAC and SPFL in New Zealand, APFL in Australia, and QPFL in Vietnam acquired FSC certification.<br>In Japan, in addition to Kamiinako Forest in Shizuoka Prefecture, Fuso Forest in Wakayama Prefecture, and Biei Forest in Hokkaido, the remaining 155 company-owned forests in Hokkaido (covering 120,000 ha) acquired SGEC certification. | | |
| Environmental preservation guidance based on environmental audits provided to facilities | Audits conducted and guidance provided at 78 of 151 sites in Japan and 4 of 9 sites outside Japan. | | |
| Conversion of kraft pulp (KP) bleaching process to elemental chlorine free (ECF) bleaching | Equipment installation completed at one mill in FY05, and three other mills completed ECF conversion between April and June of FY06, which completes ECF conversion at all Oji Paper Group mills. | | 34 |
| Environmentally friendly research and new product development | Developed environmentally-balanced paper ("FR") made from a blend of wood from Oji Paper's FSC-certified plantations and recovered newspaper.<br>Developed a variety of printing papers (Eco Forest) and a new color cast for a high-quality printing paper (Marshmallow CoC), all made from wood from Oji Paper's FSC-certified plantations. | | |
| Amount of final disposal in landfills<br>Final disposal rate<br>Effective utilization rate | 67,000 BD tonnes<br>0.80%<br>89.1% | Improved by 64,000 BD tonnes from FY04.<br>Improved by 0.77 point from FY04.<br>Improved by 12.2 points from FY04. | 46 |
| Conducted survey of pilot tree plantation project in Madagascar and studied implementation of CDM project.<br>Expanded operations of our Forestry Research Institute in Australia.<br>Conducted technical survey in preparation for the construction of a paper mill in China featuring leading-edge technologies. | | | 36, 49-50 |
| Held company environmental exhibition and talk in September 2005 entitled, "The DNA of Forest Building."<br>Held various environmental talks on request from outside the company.<br>"Groundwork" programs:<br>Recovered disposable chopsticks for use in making pulp: 487,307 kg; Recovered domestic waste cooking oil for use as fuel: 57,568 liters;<br>Community clean-up, beautification, and tree-planting activities: Held 1,485 times with the participation of 22,438 people<br>Community Monitors meetings: Held 111 times<br>Environment-related mill tours: Attended by 1,649 people<br>Oji Forest Nature Schools opened in FY05: Hokkaido and Nishi Tanzawa; Number of participant children: 20 in Hokkaido and 19 in Nishi Tanzawa | | | 57-60 |

* Companies covered by aggregate figures: Oji Paper Co., Ltd., Oji Paperboard Co., Ltd., Oji Specialty Paper Co., Ltd., and Oji Nepia Co., Ltd.

# Material Flow from an Environmental Perspective

One key responsibility of the manufacturing industry is to constantly track and monitor resource inputs and energy needed for production, as well as the wastes and other environmental impacts that result from the production process. Below, we report the Oji Paper Group's fiscal 2005 material flow from an environmental perspective.

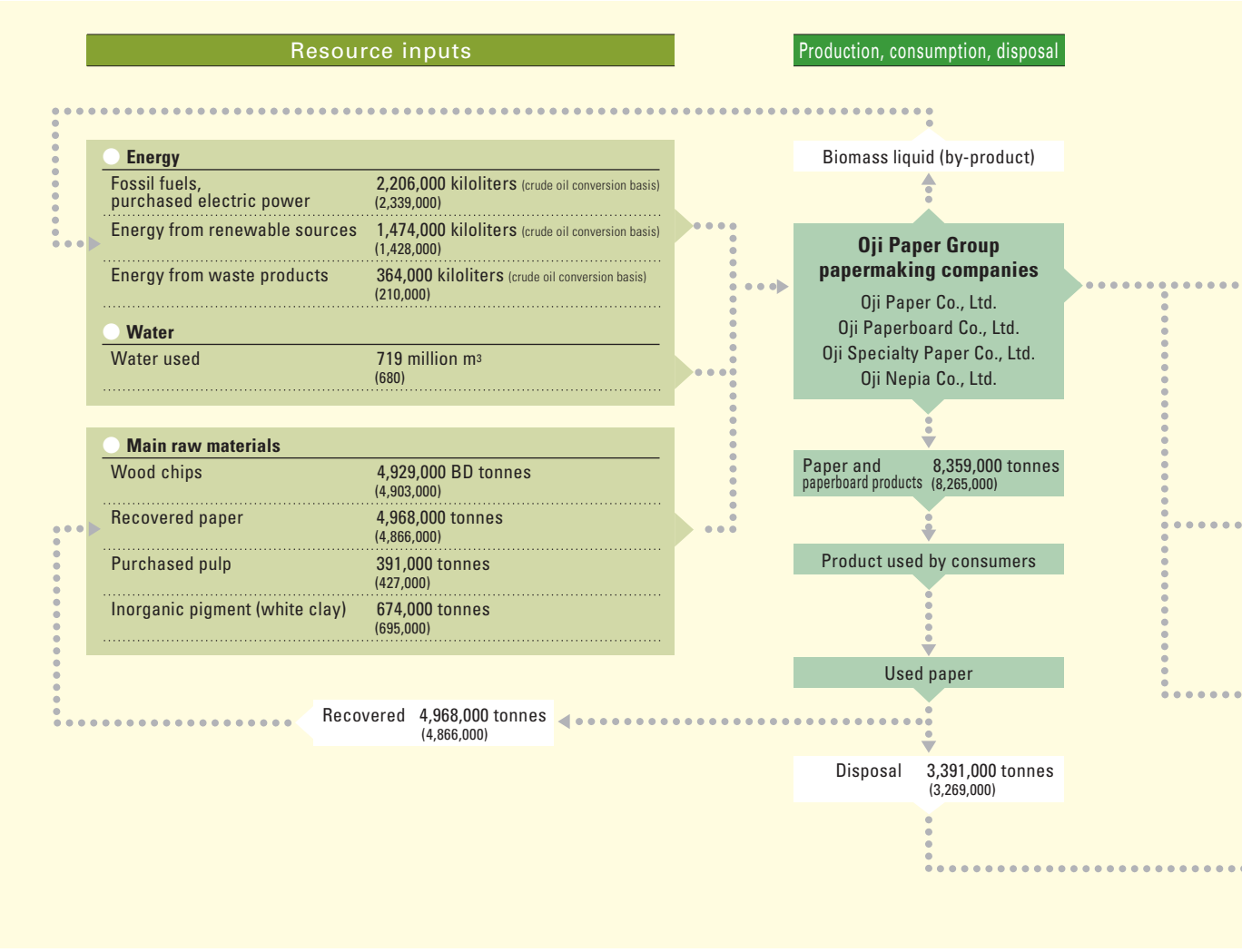
## Interpreting the material flowchart

In the flowchart below, we show the overall balance of our main material inputs and outputs, including the amount of resources used, the amount of product manufactured, the emissions and waste generated, and the amount of $CO_2$ fixed by our company-owned forests in Japan and tree plantations outside Japan.

Starting from the left, we show the resource inputs needed for manufacturing, such as energy, water, and raw materials. Next, we show the amount of products produced and the final amount of material recycled as recovered paper plus the remainder disposed of as waste. To the right of that, we show the amount of soot and smoke discharged to the environment, the amount of wastewater, the amount of COD,[*1] BOD,[*2] and SS[*3] included in the wastewater, and the amount of industrial waste. Finally, on the far right, we show the amount of $CO_2$ absorbed by the group's forests and the amount of waste recycled.

By understanding the overall picture of material inputs and outputs, we are able to consider the most effective ways to improve our contribution as a recycling-based company.

Fiscal 2005 Material Flow (Figures in parentheses are for fiscal 2004)



## Amounts of main resources used by the Oji Paper Group

If we were to supply all of our timber needs from tree plantations outside Japan, we would need an area of about 660,000 hectares—three times the size of Tokyo (calculated assuming an average annual growth/hectare/year of 7.5 BD tonnes). If we were to convert the 4,970,000 tonnes of recovered paper used by the Oji Paper Group in one year into 40-page newspapers (one newspaper weighing about 190 grams), it would come to about 26.1 billion recycled newspapers in one year, or about 71.6 million newspapers' worth of paper recycled per day. If we were to make a simple comparison, the volume of industrial water used by the Oji Paper Group would come to about 4.5% of the 16 billion $m^3$ of Japan's annual public water supply. Finally, the Oji Paper Group's consumption of fossil fuels is equivalent to about 4% of Japan's consumption of gasoline.

## Papermaking uses large amounts of resources

The papermaking industry must constantly confront the fact that it consumes large amounts of resources, especially timber and fuel. This is why we need to make reforms that lower environmental impact. Such reforms include growing as much of the timber that we use as possible, recycling as many used paper products as possible, and reducing our consumption of fossil fuels, as called for by our recycling-based business model.

*1 COD (chemical oxygen demand)
The amount of oxygen consumed to decompose organic compounds in water through oxidation. The smaller the number, the cleaner the water.

*2 BOD (biochemical oxygen demand)
The amount of oxygen consumed when microorganisms decompose organic compounds in water. BOD is an indicator of the amount of biodegradable organic compounds in wastewater.

*3 SS (suspended sediment)
Insoluble matter in wastewater. When there is a lot of suspended sediment, it settles out in aquatic environments, and may accumulate into sludge if there is an excessive amount.

### Discharge to environment

**Discharge to atmosphere**

| | |
|---|---|
| $CO_2$ from fossil fuels | 5,884,000 tonnes-$CO_2$ (6,352,000) |
| $CO_2$ from biomass and waste fuels | 6,265,000 tonnes-$CO_2$ (5,661,000) |
| SOx | 10,833 tonnes-$SO_2$ (10,587) |
| NOx | 13,389 tonnes-$NO_2$ (13,358) |
| Soot | 1,725 tonnes (1,761) |

**Discharge to water**

| | |
|---|---|
| Wastewater volume | 686 million tonnes (669) |
| COD / BOD | 46,000 tonnes (47,000) |
| SS | 24,000 tonnes (22,000) |

**Waste**

| | |
|---|---|
| Waste discharge volume | 615,000 BD tonnes (566,000) |

**$CO_2$ emitted from the burning of our products**

| | |
|---|---|
| Biomass $CO_2$ | 3,174,000 tonnes-$CO_2$ (3,060,000) |

### $CO_2$ sequestration

**Sequestration by forests**

| | |
|---|---|
| Company-owned forests in Japan | 190,000 ha |
| $CO_2$ sequestration | 1,150,000 tonnes-$CO_2$ (1,150,000) |
| Tree plantations outside Japan | 152,344 ha (140,356) |
| $CO_2$ sequestration | 6,001,000 tonnes-$CO_2$ (5,474,000) |

**Recycling and effective utilization of waste**

| | |
|---|---|
| Recycled tonnage | 548,000 BD tonnes (435,000) |

* Companies covered: Oji Paper Co., Ltd., Oji Paperboard Co., Ltd., Oji Specialty Paper Co., Ltd., Oji Nepia Co., Ltd.

# Forest Recycling Planting What We Use

The Oji Paper Group started planting trees in 1893. Ever since, the principle of planting what we use has been an important part of our tradition. We increased the area of our company-owned forests in the twenty years following World War II, and have been planting trees since then to expand these forest resources. In the 1970s, we initiated tree plantation projects outside Japan. Our goal today is to increase the area of our tree plantations outside Japan to 300,000 hectares by 2010.

## SGEC Certification acquired in Hokkaido: Oji Paper now holds largest certified private forest in Japan

### ●Block certification acquired for all 120,000 hectares of company-owned forests in Hokkaido

The Oji Paper Group practices paper recycling and forest recycling in order to meet the world's increasing demand for paper without disturbing the delicate balance of the global environment. In essence, forest recycling means planting and growing trees, harvesting the mature trees, turning the wood into raw material for papermaking, and replanting more trees on the same site. The proper management of forests is the key to sustaining the practice of forest recycling far into the future. Accordingly, we recognize the value of acquiring forest certification*1 from a third party that certifies proper management practices. To date, we have acquired a number of FSC certifications at tree plantations outside Japan and SGEC certifications at company-owned forests in Japan (table 1).

Kamiinako Forest in Shizuoka Prefecture acquired certification in December 2003, Fuso Forest in Wakayama Prefecture in March 2004, and Biei Forest in Hokkaido in March 2005. Next, we acquired SGEC certification for all 120,000 hectares of forests in Hokkaido that are owned and managed by the Oji Paper Group (photo 1). We have company-owned forests throughout Hokkaido, primarily in the north and the east of the island. Some of our holdings include high moors that are of academic interest. We have opened part of the Sarufutsu Forest in northern Hokkaido to the public for research purposes.

With this recent certification, Oji Paper now holds the largest privately-owned certified forest in Japan.

### ●66% of all company-owned forests certified

SGEC certification requires seven criteria*2 to be met. Our recent certification included special praise for our proactive efforts to conserve and maintain soil and water resources and to maximize social and economic benefits. Specifically, in the first area, we were commended for our attention to detail, such as harvesting timber as much a possible during the snowy season so as to avoid damaging the surface of the ground or harming the understory vegetation. In the second area, we were lauded for opening forests to the public as places for recreation, education, and research, and for maintaining small water-supply systems and water resources for farming.

Thus far, we have acquired certification for 66% of our company-owned forests in Japan. We will continue to work toward certification of all of our company-owned forests on the islands of Honshu, Shikoku, and Kyushu. Moreover, we will also look into the possibility of becoming certified to handle SGEC certified forest products in our processing and distribution companies.

Table 1 Current Certification of Company-owned Forests in Japan

| Forest | Location | Forest certification scheme | Certification date | Area (ha) |
|---|---|---|---|---|
| Kamiinako | Shizuoka | SGEC | December 2003 | 211 |
| Fuso | Wakayama | SGEC | March 2004 | 645 |
| Biei | Hokkaido | SGEC | March 2005 | 3,152 |
| All of Hokkaido (excluding Biei) | Hokkaido | SGEC | December 2005 | 121,846 |
| Total | | | | 125,854 |

Photo 1 Audit for SGEC forest certification.

Photo 2 Company-owned forest in Hokkaido (Mt. Tokachidake seen from Biei Forest).

## The Oji Paper Group's tree plantations outside Japan cover 152,000 hectares

### Planting what we use

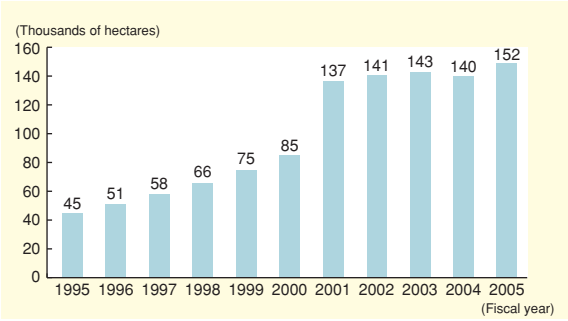
The Oji Paper Group upholds the principle of planting the wood resources it needs, not just sourcing them through purchasing. In Japan, the annual growth rate of trees is relatively small, and it is difficult to secure expansive tracts of land for tree plantations. By comparison, tree plantations outside Japan have the benefits of faster tree growth, availability of sufficient tracts of land, and highly productive, mechanized forest management processes. We therefore started tree plantation operations outside Japan in the early 1970s. Since the 1990s in particular, we have been making significant progress with tree plantation operations outside Japan. In view of prospects for future business development, we increased our fiscal 2010 target for the area of these tree plantations to 300,000 hectares, aiming to secure the timber resources we need as a resource recycling-based company. As of March 2006, we have finished planting 152,000 hectares (graph 1).

### Considerations in operating tree plantations outside Japan

Oji Paper always considers the unique characteristics of local communities when operating its tree plantations, which it develops with a careful balance among environmental, social, and economic factors. When selecting new plantation sites, we look into a number of issues: Is there a sufficiently sizeable tract of land? Are there any biodiversity issues? Can the plantations be run safely? Can economic benefit be expected? Is it possible to transport the logged trees? We thoroughly discuss each of these and other issues with the relevant country and local authorities. Another key priority for us is improving the standard of living of community residents.

Our basic premise is that community-based operations are the key to the success of our tree plantation operations outside Japan. It would be impossible to maintain the long-term operations required for tree plantations without the understanding and cooperation of community residents.

Graph 1 Area of Tree Plantations Outside Japan




* Area of tree plantations at end of fiscal year (excluding unplanted area following harvests).

Table 2 Forest Certification of Tree Plantations Outside Japan

| Company | Country | Forest certification scheme | Certification date | Area (ha) |
|---|---|---|---|---|
| PAN PAC | New Zealand | FSC | December 2001 | 28,350 |
| SPFL | New Zealand | FSC | February 2004 | 9,796 |
| APFL | Australia | FSC | October 2004 | 23,746 |
| CENIBRA | Brazil | FSC | June 2005 | 49,183 |
| QPFL | Vietnam | FSC | March 2006 | 9,123 |
| Total | | | | 120,198 |

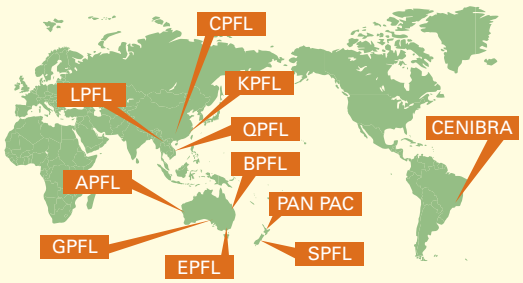
*1 Forest certification
A system whereby an independent, third-party organization evaluates and certifies that a forest is being managed according to sustainable forest management standards. There are a number of different schemes, of which FSC and PEFC are the representative international standards. In Japan, the SGEC sets standards for forest certification.

*2 Seven SGEC criteria
(1) Clear indication of forests to be certified and establishment of their management policies; (2) Preservation of biodiversity; (3) Conservation and maintenance of soil and water resources; (4) Maintenance of productivity and health of forest ecosystem; (5) Legal and systematic framework for sustainable forest management; (6) Maintenance and promotion of social and economic benefits; and (7) Monitoring and disclosure of information.

## Increasing the supply of chips from our own tree plantations

Oji Paper currently operates tree plantations at 11 locations (nine of which are engaged in export of chips and two of which produce pulp on-site) in six countries: Australia, New Zealand, Vietnam, China, Laos and Brazil (figure 1, table 3). The first trees planted at these plantations have reached harvestable size, and the volume of chips produced from them has been gradually increasing. In fiscal 2005, chips supplied from these plantations reached 11% of our total import of chips. This percentage will reach 16% by 2011, and is planned to hit 40% when the trees on our future 300,000 hectares of plantations attain harvestable size.

Figure 1 Location of Tree Plantations Outside Japan




SPFL Southland Plantation Forest Company of New Zealand Ltd.
QPFL Quy Nhon Plantation Forest Company of Vietnam Ltd.
BPFL Brisbane Plantation Forest Company of Australia Pty. Ltd.
CPFL Guangxi Oji Plantation Forest Company Ltd.
PAN Pan Pac Forest Products Ltd.
KPFL Huizhou Nanyou Forest Development Company Ltd.
APFL Albany Plantation Forest Company of Australia Pty. Ltd.
GPFL Green Triangle Plantation Forest Company of Australia Pty. Ltd.
EPFL East Victoria Plantation Forest Company of Australia Pty. Ltd.
LPFL Oji Lao Plantation Forest Company Ltd.
CENIBRA Celulose Nipo-Brasileira S.A.

## Contributing to the global environment through afforestation: Absorption of $CO_2$ by our tree plantations outside Japan reaches 6 million tonnes

Oji Paper's main purpose in planting trees is to secure wood resources. However, it is important to note that trees also contribute greatly to the prevention of global warming by absorbing $CO_2$ (a greenhouse gas). The amount of $CO_2$ absorbed through tree growth on the Oji Paper Group's plantations outside Japan in fiscal 2005 was estimated at 6 million tonnes-$CO_2$.*1 This figure reaches a total of 7.15 million tonnes of $CO_2$ per year when the group's company-owned forests in Japan are included.

The Oji Paper Group has studied afforestation in Madagascar and Laos based on the Clean Development Mechanism (CDM)*2 under the Kyoto Protocol. In follow up, we submitted a Proposed New Methodology*3 and Project Design Document to the CDM Executive Board for a carbon sink CDM industrial afforestation project in Madagascar. This is the first such project led by a Japanese company. In Madagascar, desolate grasslands are increasing due to excessive logging for fuel wood and slash-and-burn agriculture. The start of the Oji Paper

Table 3 Oji Paper Group Tree Plantations Outside Japan

| | Country | Region | Company | Est. | Cooperating companies | Tree species | Target plantation area (ha) | Plantation area at end of FY05 (ha) | Harvest cycle (years) |
|---|---|---|---|---|---|---|---|---|---|
| Chip export | New Zealand | South Island | SPFL | '92 | Oji Paper Co., Ltd., ITOCHU Corporation, Fuji Xerox Co., Ltd., Fuji Xerox Office Supply Co., Ltd. | Eucalyptus | 10,000 | 9,796 | 12 |
| | Australia | Western Australia | APFL | '93 | Oji Paper Co., Ltd., ITOCHU Corporation, Senshukai Co., Ltd., Tohoku Electric Power Co., Inc., Nippon Yusen K.K. | Eucalyptus | 26,000 | 23,746 | 10 |
| | Vietnam | Binh Dinh Province | QPFL | '95 | Oji Paper Co., Ltd., Sojitz Corporation, Dai Nippon Printing Co., Ltd. | Acacia, Eucalyptus | 9,100 | 9,123 | 7 |
| | Australia | Victoria | GPFL | '97 | Oji Paper Co., Ltd., Sojitz Corporation, Toppan Printing Co., Ltd., HEPCO Hokkaido Electric Power Co., Inc. | Eucalyptus | 10,000 | 6,565 | 10 |
| | Australia | Queensland | BPFL | '98 | Oji Paper Co., Ltd., ITOCHU Corporation, Kodansha Ltd., Seihoku, Electric Power Development Co., Ltd., J-POWER RESOURCES Co., Ltd. | Eucalyptus | 10,000 | 4,376 | 10 |
| | Australia | Victoria | EPFL | '99 | Oji Paper Co., Ltd., Sojitz Corporation, Shogakukan Inc., Japan Pulp and Paper Co., Ltd. | Eucalyptus | 10,000 | 3,133 | 10 |
| | China | Guangxi Zhuang Autonomous Region | CPFL | '01 | Oji Paper Co., Ltd., Marubeni Corporation | Eucalyptus | 6,000 | 4,862 | 6 |
| | Laos | Central Laos | LPFL | '05 | Oji Paper Co., Ltd., Kokusai Pulp & Paper Co., Ltd., Shueisha, Inc., Mitsui O.S.K. Lines, Senshukai Co., Ltd., Recruit Co., Ltd., Daiichi Paper Inc., Sato Corporation, C's Create Co., Ltd., U-CAN, Inc., Maruman Corporation, Government of Laos | Eucalyptus | 50,000 | 1,876 | 7 |
| | China | Huizhou, Guangdong | KPFL | '05 | Oji Paper Co., Ltd., Guangdong Petro-trade Development Corp., Guangdong Petro-trade Development Zhanjiang Corp., Marubeni Corporation | Eucalyptus | 60,000 | 11,334 | 5 |
| Pulp production | Brazil | State of Minas Gerais | *CENIBRA | '73 | Japan Brazil Paper and Pulp Development Co., Ltd. (Oji Paper Co., Ltd., Japan Bank for International Cooperation, others) | Eucalyptus | 43,450 | 49,183 | 7 |
| | New Zealand | North Island | *PAN PAC | '91 | Oji Paper Co., Ltd., Nippon Paper Industries Co., Ltd. | Radiata pine | 26,010 | 28,350 | 30 |
| | | **Total** | | | | | 260,560 | 152,344 | |
| | | **Target** | | | | | 300,000 | | |

* Tree plantation areas are as of the end of December 2005 for CPFL, KPFL, and CENIBRA and as of the end of March 2005 for the others. The area for QPFL includes 605 ha of plantations loaned to another companies.
* The total target area and planted area (estimated) for PAN PAC and CENIBRA were pro-rated by our investment percentage. (PAN PAC: 86.7%, CENIBRA: 39.5%) (Total area—PAN PAC: target area 30,000 ha, planted area 32,699 ha; CENIBRA: target area 110,000 ha, planted area 124,513 ha)

Group's afforestation project is expected to make a significant contribution to society and the environment in Madagascar, while also generating raw material for papermaking. The project will also help slow global warming by creating sustainably managed forests on otherwise barren lands.

In addition to tree plantations for industrial purposes, the Oji Paper Group also undertakes environmental afforestation with the aim of preventing flooding, preserving ecosystems, and reducing wind erosion and desertification. We have worked to plant trees that protect Vietnam's coastline and trees that protect China's Loess Plateau under projects funded by Official Development Assistance (ODA) grants from the Japanese government. We have also been an active partner since the start of a Nippon Keidanren (Japan Business Federation) afforestation project in Chongqing, China. This project aims to prevent flood damage and protect the ecology near the Yangtze River. In all these endeavors, we are responsible for the tree planting operations.

## Investing more than ¥500 million annually to manage healthy forests in Japan

The Oji Paper Group has been managing company-owned forests in Japan since the 1890s. These forests were originally used to secure raw material for papermaking, but are now primarily managed to produce wood for lumber. Currently, plantations account for about 41%, or about 80,000 hectares, of our 190,000 hectares of company-owned forests in Japan. Plantations in Hokkaido are planted with spruce, fir, larch, and other species. Plantations in other regions are planted with cedar, cypress, and other species. The average age of the trees in these forests, which were planted mainly following World War II, is about 40 years. To ensure the health of the forests, we need to thin out younger trees and do other maintenance work. We invest more than ¥500 million each year to perform this work.

Forests provide a variety of public benefits, including absorption of $CO_2$, replenishment of water resources, soil retention, and preservation of biodiversity. Thinning younger trees and other maintenance work not only increases these public benefits but also raises timber production. Our company-owned forests in Japan have been estimated to absorb 1.15 million tonnes of $CO_2$ per year,*4 and to provide public benefits worth ¥570 billion per year.*5

## Company-owned forests made available for environmental education programs

Oji Paper offers philanthropic programs that make use of its company-owned forests. Our Oji Forest Program utilizes company-owned forests as research and education sites. The Forest Museum, a field museum established in Kuriyama, Hokkaido in 1995, uses an experimental forest as a real live specimen. We have also opened up some of our company-owned forests in Sarufutsu, Hokkaido to the general public for nature conservancy as well as research and educational activities. The Oji Forest Nature School, which has been using company-owned forests since 2004, is a forest and environmental education program. In this program, children learn about the relationship between nature and human beings, and between forests and industry, through hands-on experience of the great outdoors (photo 3).

Additionally, the NPO Mori no Uta ("Song of the Forest") uses our company-owned forest in Tanzawa, Kanagawa Prefecture for their forest activities, including conservation of the natural environment, promotion of environmental education, and forest therapy.

Photo 3 Children climbing trees.

*1 and *4 calculation

$CO_2$ absorption = area x growth x specific gravity x carbon content in wood x scaling factor x $CO_2$ equivalent, where annual growth = 3.9 $m^3$/ha in Japan and 25 $m^3$/ha outside Japan

Specific gravity = 0.5 t/$m^3$ Carbon content in wood = 0.5

Scaling factor = 1.7 $CO_2$ equivalent = 44/12

Scaling factor: Factor used when calculating the absorption for all wood, including unused parts such as branches, leaves, and roots, as opposed to the absorption for just the trunk, which is the part of logged timber that is used industrially.

*2 Clean Development Mechanism (CDM)

A method by which an industrialized country implements measures to reduce or absorb greenhouse gases in a developing country, the results of which are emissions credits that are shared between the two countries.

*3 New methodology

CDM project applications must use a methodology (method for measuring the absorption or reductions of emissions of greenhouse gases such as carbon dioxide) approved by the CDM Executive Board. A proposed new methodology must be submitted to the CDM Executive Board for approval if there is no appropriate existing methodology.

*5

Based on the Forestry Agency's assessment of the public benefits of forests. ¥75 trillion x 0.76%. (The 0.76% is the ratio of forest area in Japan owned by Oji Paper to all forest area in Japan.)

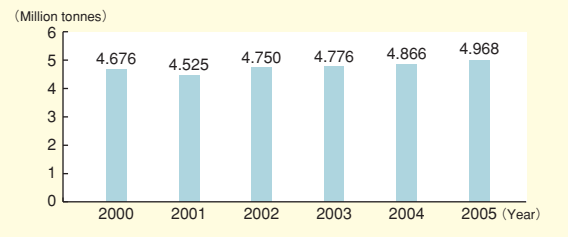
# Paper Recycling Recovered Paper Is a Valuable Raw Material for Papermaking

**The Oji Paper Group sees its corporate social responsibility as meeting the demand for paper while giving full consideration to environmental concerns. For that reason, paper recycling—the making of paper using the maximum possible volume of recovered paper—is a key foundation of our environmental approach. Oji Paper is Japan's largest user of recovered paper in the production of recycled paper.**

## Nearly 60% of our raw material for papermaking is sourced from recovered paper

The Oji Paper Group operates its business based on the concept of maximum possible recovery and use of recovered paper. In 2005 we used about 4.97 million tonnes of recovered paper, or 26.7% (on a calendar year basis) of all the recovered paper used in Japan. Our average recovered paper utilization rate for all products is 60.5% (fiscal year), making the Oji Paper Group the largest user of recovered paper in Japan.

Graph 1 Oji Paper Group's Recovered Paper Utilization Over Time




## The challenge of developing technology that makes full use of recovered paper

Recovered paper includes a lot of extraneous materials, such as adhesives for book binding and films attached to the covers of magazines, which may increase what is called "dirt count," or small dark spots, when the recovered paper is made into new paper. Recovered paper also includes inks for printing. These inks can cause the paper color to become dark or affect the dirt count if it is not removed completely, thereby lowering the quality of the recycled paper.

In order to achieve the maximum possible use of recovered paper, the Oji Paper Group employs technology for effectively separating such extraneous materials. We are also working to develop chemical and mechanical processing techniques that separate and remove inks more effectively from the pulp fibers.

## Recovered paper is most environmentally friendly when utilized for the right grade of paper

Many people do not realize that increasing the content ratio of recovered paper in all paper products is not necessarily an environmentally friendly thing to do. Dirt in paper used in dictionaries and textbooks may result in a misreading and cause errors. Putting a high ratio of recovered paper into paper intended for products like these necessitates excessive use of bleaching chemicals to remove dirt and raise the brightness of the paper. Using this much bleaching agent is actually worse for the environment than using fresh pulp.

The environmentally responsible thing to do is to match the quality of the recovered paper used for raw materials to the grade of paper to be produced. Doing so eliminates the need to take environmentally harmful steps to recycle low-quality recovered paper into paper products that must be high quality, and this minimizes unfavorable impact on the environment. We therefore emphasize increasing the group's overall utilization of recovered paper, rather than focusing on the content ratio of recovered paper in every single one of our products.

## There is a limit to the collection and reuse of recovered paper

Certain types of used paper, such as toilet paper, are simply impossible to recover. Other papers, such as thermal paper and paper cups, are difficult to use as a raw material for papermaking and so need to be separated as an unacceptable item. Even if recovered paper can be reused, repeated recycling weakens the fibers, eventually making it difficult to recycle again into new paper.

## Not all paper can be made from recovered paper: Environmentally friendly fresh pulp is also needed

Since it is not possible to use recovered paper as the only raw material for papermaking, we make up the difference with environmentally friendly fresh pulp made from certified wood, plantation wood, and reused and unused wood—including sawmill residue and wooden parts from old houses. The Oji Paper Group does not use illegally logged timber. We are committed to using resources grown in sustainably managed forests as our raw material.

In producing paper, the Oji Paper Group emphasizes obtaining a good balance between recovered paper and

fresh pulp made from timber resources from forests grown and managed using environmentally friendly practices.

## GPN guidelines on raw material for papermaking

In an effort to popularize environmentally friendly products, Japan's Green Purchasing Network (GPN) has established guidelines on specific points to consider when purchasing products. In October 2005, however, a discussion among Oji Paper Co., Ltd., other paper companies, paper distribution companies, consumers, and NGOs resulted in the GPN revising its thinking on use of recovered paper to match the understanding that we have explained above.

**Guideline Change for Printing and Communication Papers**

Before revision: High content ratio of recovered paper [considered "green"]

After revision: Recovered paper pulp and environmentally friendly virgin pulp blended [considered "green"]

## Edogawa Mill's new initiative: Recycling confidential documents

In October 2006, the Oji Paper Group will start the Oji Confidential Documents Recycle System (Oji CoDoReS), for recovering and recycling confidential documents which companies wish to dispose of safely.

The majority of confidential documents in Japan are incinerated in order to ensure security against the leakage of information.

The Edogawa Mill of Oji Paper Co., Ltd., has established a new processing facility specifically for confidential documents. The new facility can even treat unopened document boxes that contain items other than paper, such as binders, files, and paper clips. Confidential documents are recycled into boxboard, such as is used for confectionery boxes.

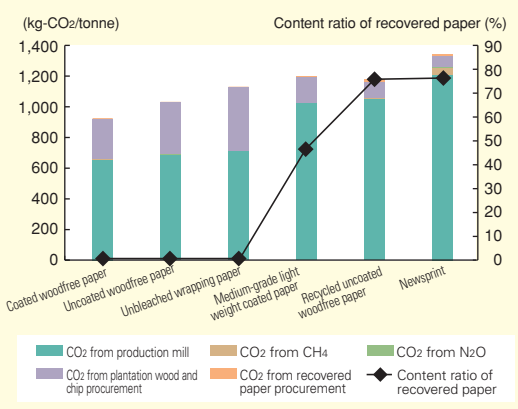
## Japan Paper Association analyzes Life Cycle Inventory (LCI) data on paper— Paper recycling uses little energy but produces large amounts of fossil fuel-based $CO_2$ emissions

The Japan Paper Association collected and analyzed LCI data on six types*1 of paper. The results showed that producing papers with a higher content ratio of recovered paper generates more fossil fuel-based $CO_2$ emissions. They also revealed that, while producing papers with a lower content ratio of recovered paper uses less fossil fuel-based energy, it uses a large amount of total energy.

### 1 Fossil fuel-based $CO_2$ emissions per unit of production, by type of paper

Fresh pulp made from wood produces black liquor that can be used as a biomass fuel, thereby reducing consumption of fossil fuels. On the other hand, black liquor is not produced when recovered paper is recycled, resulting in more consumption of fossil fuels and higher fossil fuel-based $CO_2$ emissions than when using fresh pulp.

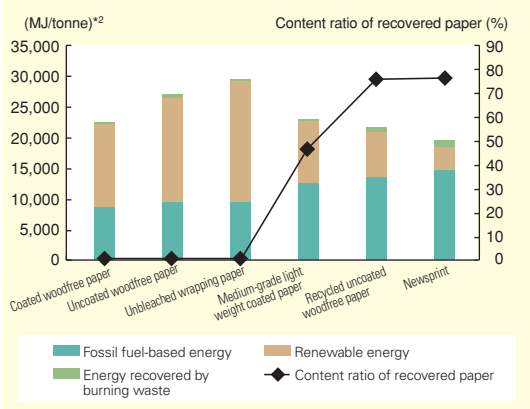
Graph 2 Fossil Fuel-based $CO_2$ Emissions per Unit of Production, by Type of Paper




### 2 Total energy usage per unit of output, by type of paper

While papers with a high content ratio of recovered paper use less energy in the pulp-making process, the process tends to use more fossil fuel-based energy, since it cannot rely on energy from the black liquor that is obtained from fresh pulp making. On the other hand, more total energy is needed for the kraft pulping (cooking) process to make fresh pulp, resulting in larger overall energy usage than the process using recovered paper.

Graph 3 Total Energy Usage per Unit of Output, by Type of Paper




*1 High-quality coated paper, high-quality printing paper, and unbleached wrapping paper (0.0% recovered paper), medium-quality light weight coated paper (48.5% recovered paper), recycled high-quality paper (75.9% recovered paper), and newsprint (76.5% recovered paper)

*2 MJ/tonne: The amount of energy used to make one tonne of paper.

# Initiatives to Help Prevent Global Warming

The Oji Paper Group is making a concerted effort to switch from fossil energy to energy recovered from waste. One such energy source is refuse paper and plastic fuel (RPF). RPF is a solid fuel made from recovered paper that is difficult to recycle, and plastic waste. Here, we give an account of the Oji Paper's Group's energy conservation efforts, starting with a report from the Tomakomai Mill, which operates an RPF boiler.

## Report from the Tomakomai Mill: Energy conservation measures using RPF

### ●Not only reducing our dependence on fossil fuels, but also utilizing recovered paper that is difficult to recycle as a highly efficient fuel

The advantage of installing an RPF boiler goes beyond reducing our dependence on fossil fuels; it also allows us to effectively utilize recovered paper that is difficult to recycle. Recovered paper itself has low transport efficiency because it is bulky. Burning it generates little heat (less than half that of fossil fuels). However, mixing it with plastic to form dense pellets enables recovered paper to be reused as a highly efficient fuel at a low cost.

Moreover, our RPF boiler is comparable in quality to a fossil fuel (heavy oil, coal) boiler—capable of producing high-temperature, high-pressure steam—since the quality of RPF as a refuse derived fuel is stable. This is the world's first such trial. Here at the Tomakomai Mill, the RPF boiler runs day and night as the main boiler for our production line.

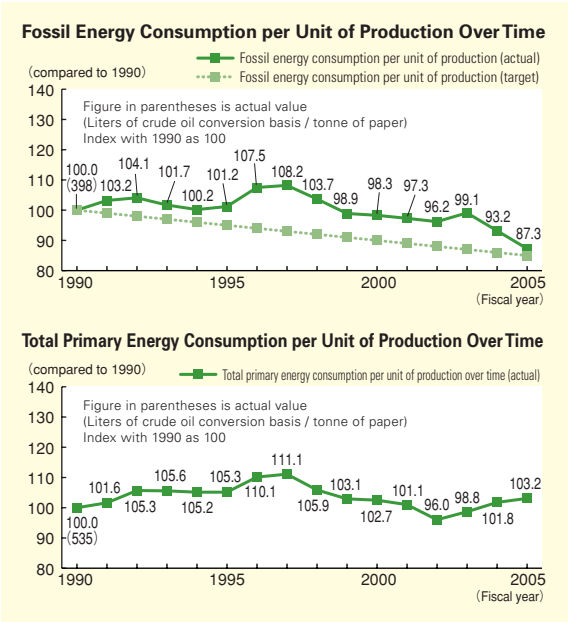
Photo 1 (Inset) RPF made from paper and plastic. (photo) RPF boiler at the Tomakomai Mill of Oji Paper Co., Ltd.

### ●Challenges that come with RPF: Even if fossil energy consumption decreases...

The main challenge of using RPF is the inadequate amount of plastic and recovered paper for use as raw materials in Japan due to their export to China as well as a sharp rise in demand in Japan. Another problem is the varying quality of RPF due to the lack of unified production standards.

As shown in graph 1, while our fossil energy consumption per unit of production has decreased, our total primary energy consumption per unit of production, which indicates total energy consumption within the mill, is on the increase. The main reason for the rising energy consumption is the facility expansion we have undertaken to increase quality and strengthen our environmental and safety measures. The reality of the big picture, then, is that our energy conservation measures are offsetting one another.

Graph 1 Tomakomai Mill's Fossil and Total Primary Energy Consumption per Unit of Production Over Time




### ●Aiming to reduce energy consumption: A different perspective on our efforts

It is currently common practice within the paper industry, including the Oji Paper Group, to calculate energy consumption per unit of production by dividing energy consumption by the amount of production of paper and paperboard. However, this figure alone may not adequately express energy conservation results.

Take newsprint as an example. Through ongoing technical innovation and quality improvements, we have been able to produce a thinner and lighter product, reducing the base weight from 60 g/m$^2$ to 40 g/m$^2$ over a few decades. Thus, we have been able to reduce per-unit energy consumption for each page of newsprint produced. Taking a different approach—such as calculating per-unit energy consumption for area of paper produced, not just weight produced—may more accurately express the results of our efforts.

Challenges remain in popularizing RPF, demand for which is anticipated to increase in the future as an alternative energy source for fossil fuels. The Oji Paper Group is committed to maintaining its flexibility, and is keeping a close watch on other possibilities, such as switching to natural gas or other fuels with lower $CO_2$ emissions.

## Leading the way in reducing consumption of fossil energy

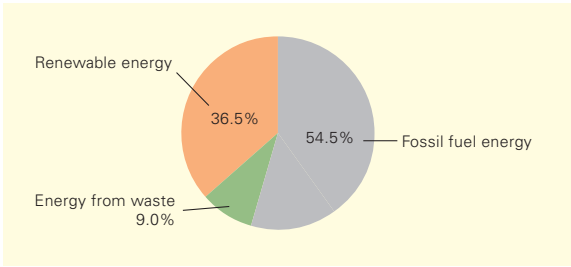
### ●The paper industry is one of the largest consumers of energy

Like other basic material manufacturers such as the chemical and steel industries, the paper industry is a major consumer of energy. This is why companies in the paper industry supply the majority of their energy needs through in-house power generation and in-house boilers. The Oji Paper Group is unique in that a large percentage (45% in fiscal 2005; see graph 2) of its energy comes from non-fossil fuel sources. It has also been on the vanguard of the adoption of cogeneration systems, which increase energy efficiency by using generated steam to produce electricity and building heat.

### ●Working to reduce consumption of fossil energy

Nowadays, the installation of new and additional facilities for handling non-fossil fuel energy sources, as typified by RPF boilers, is driving the growing use of renewable energy and energy recovered from waste, such as RPF, scrap tires, and wood waste.

Graph 2 Breakdown of Fiscal 2005 Energy Consumption (calorie basis)




### ●Oji Paper target exceeds Japanese paper industry goals

The Japanese paper industry overall has raised its target of reducing consumption of fossil energy per unit of production.*1 The new goal is to cut back by 13% from fiscal 1990 levels by fiscal 2010. The Oji Paper Group, however, has committed itself to a 20% reduction. We are making steady progress toward this goal, having achieved a rate of reduction of 17.1% from fiscal 1990 levels by fiscal 2005. We will continue to increase our use of energy from non-fossil fuel sources to meet the fiscal 2010 goal.

## Energy conservation efforts

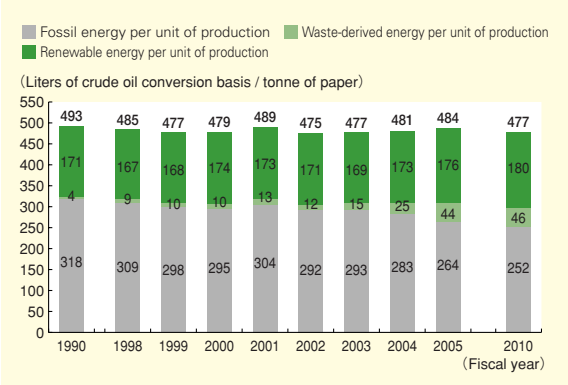
### ●Working to reduce total primary energy consumption

For many years the Japanese paper industry has been pursuing energy conservation as a top priority issue. The Oji Paper Group substantially reduced its total primary energy consumption per unit of production*2 during the 1980s. However, the pace of reduction has slowed since 1990, as we had already invested in almost all potentially effective energy conservation equipment.

As a result of the recent rise in the price of fossil fuels, as typified by heavy oil, we are revisiting old energy conservation proposals that were difficult to implement before, and are now taking steps to put them in place across all of our mills. Nevertheless, in fiscal 2005 our total primary energy consumption per unit of production remained as high as 98.1% of the fiscal 1990 level.

Striving to achieve a breakthrough that will drive energy conservation forward, managers responsible for energy conservation at each business facility gather twice a year at an Energy Committee meeting to share information on new technologies and successful case studies. The information shared is then put to use at various facilities.

Graph 3 Total Primary Energy Consumption per Unit of Production Over Time




*1 Consumption of fossil energy per unit of production
Amount of fossil energy consumed per unit of production, calculated by dividing energy consumption by the production amount.

*2 Total primary energy consumption per unit of production
Amount of energy consumed per unit of production, calculated by dividing total energy consumption by the production amount.

*3 Fossil energy-derived $CO_2$ emissions per unit of production
Amount of fossil energy-derived $CO_2$ emissions per unit of production, calculated by dividing the emissions by the production amount.

## Group-wide efforts to combat global warming

### ●Reducing $CO_2$ emissions from fossil fuels

In Japan, $CO_2$ emitted during the use of fossil energy—that is, $CO_2$ produced by burning fossil fuels—accounts for nearly 90% of Japan's greenhouse gases. Japan's Kyoto Protocol Target Achievement Plan calls for the industrial sector to reduce $CO_2$ from fossil energy. Accordingly, the Oji Paper Group has committed itself to reducing fossil energy-based $CO_2$ emissions per unit of production*3 by 20% from the fiscal 1990 level by fiscal 2010. As of fiscal 2005, we have achieved a 16.8% reduction from the fiscal 1990 level.

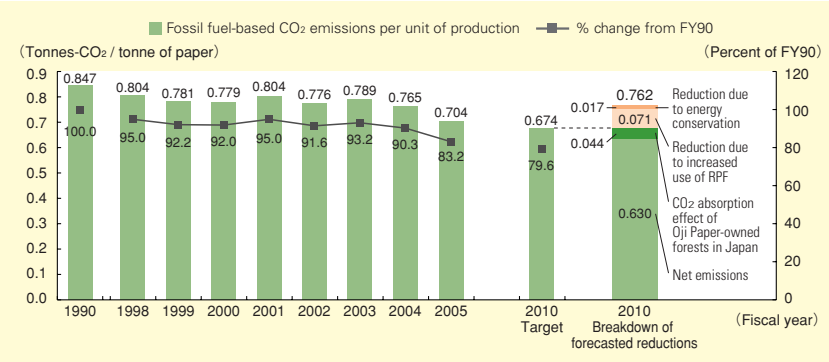
We believe that we can achieve our fiscal 2010 goal by switching to fossil fuels with a low $CO_2$ emission factor (such as switching from heavy oil to gas), enhancing our energy conservation measures, and switching to non-fossil energy.

### ●Comprehensive evaluation of $CO_2$ emissions

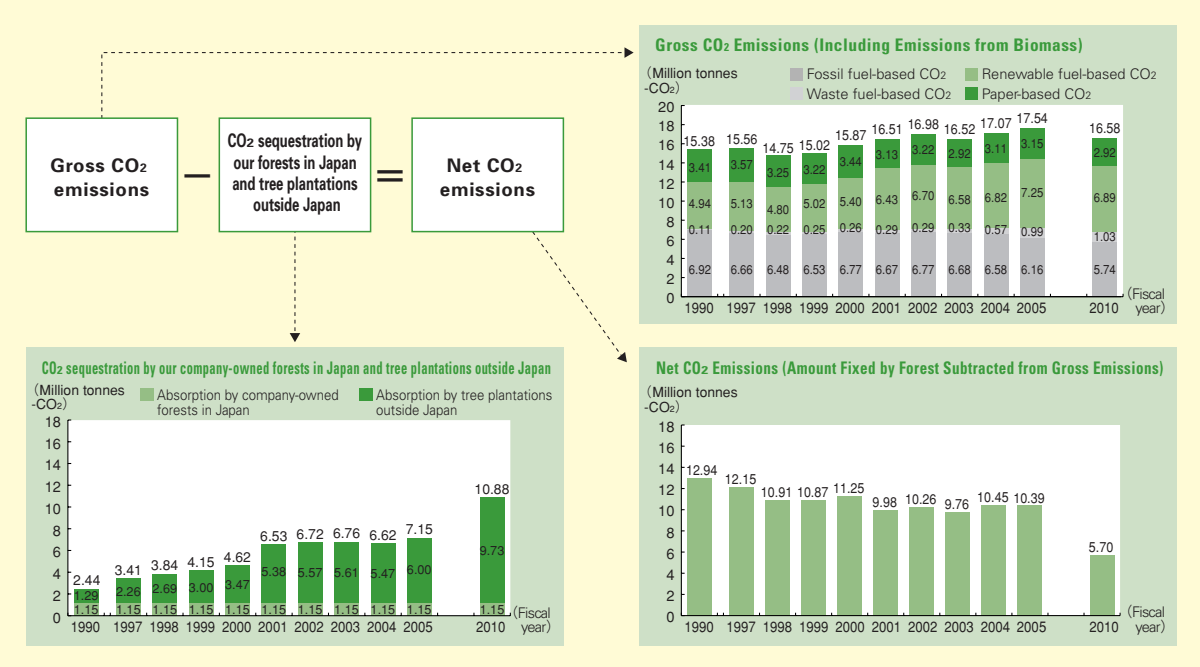
While the Oji Paper Group works to reduce its $CO_2$ emissions, its tree plantations outside Japan and company-owned forests in Japan are also absorbing a great deal of $CO_2$. We make it our practice, therefore, to evaluate our $CO_2$ emissions and absorption comprehensively, considering more than just $CO_2$ derived from fossil energy. We take into account $CO_2$ derived from our total primary energy use, including fossil fuels as well as waste and renewable energy sources. We also calculate and include the amount of $CO_2$ contained in the paper products we produce, considering the fact that they will likely be burned at some point. Finally, we estimate total $CO_2$ sequestration during the growth of trees at our plantations outside Japan and company-owned forests in Japan.

In fiscal 2005, our tree plantations absorbed 41% of the amount of our total $CO_2$ emissions. We forecast that this figure will reach 65% by fiscal 2010.

Graph 4 Fossil Fuel-based $CO_2$ Emissions per Unit of Production




Graph 5 Evaluation of $CO_2$ Emissions



# Distribution Policy Cooperation to Reduce $CO_2$

**By shifting from truck-based distribution, which produces high $CO_2$ emissions (a large contributor to global warming), to distribution by sea and rail (which enable large-volume transportation), the Oji Paper Group is stepping up its distribution efficiency, considerably reducing its $CO_2$ emissions. Moreover, we are building a framework for cooperation between cargo owners and distributors in order to reduce distribution-related $CO_2$ emissions.**

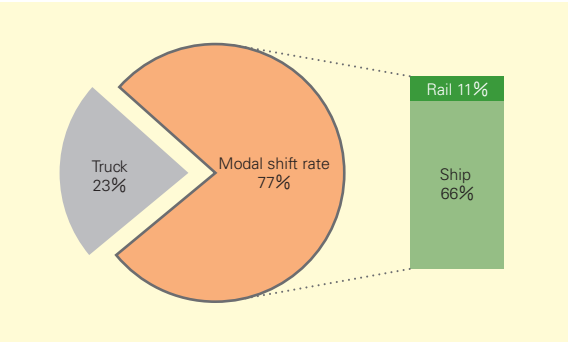
## A high modal shift rate: Product transport by ship now main mode

Modal shift is a method of countering global warming by shifting the means of transporting goods and raw materials from trucks, which have a high environmental impact, to rail and ship. On a tonne-kilometer basis (weight multiplied by distance transported), the Oji Paper Group has achieved a high modal shift rate of 77% (graph 1).

Table 1 Environmental Impact of the Oji Paper Group's Product Transportation

| | Transported weight (Tonnes) | Average distance transported (km) | Weight x distance (Million tonne-kilometers) | $CO_2$ emissions (Tonnes) |
|---|---|---|---|---|
| Ship | 2,745,000 | 1,062 | 2,915 | 115,000 |
| Rail | 622,000 | 778 | 484 | 10,000 |
| Automobile | 4,420,000 | 237 | 1,048 | 367,000 |
| Total | 7,787,000 | — | 4,447 | 492,000 |

Graph 1 Modal Shift Rate




## Cooperation with cargo owners and transporters: Eliminating inefficiencies and reducing $CO_2$ and distribution costs

Rather than cargo owners and distributors working independently to counter global warming, we think that the sharing of knowledge and cooperation between them is essential to fighting global warming. In fiscal 2005, we started a Green Distribution Partnership Model Project endorsed by Japan's Ministry of Economy, Trade and Industry. On the return voyage of ships that carry paper products from Oji Paper's Nichinan Mill to the Kanto and Kinki regions, we now utilize trailers, which used to be forwarded empty, to transport scrap tires for use as fuel at the Nichinan Mill (figure 1). This move enabled us to cut $CO_2$ emissions from the transportation of scrap tires by about 80% compared to overland shipping and to realize a reduction in distribution costs. Going forward, we plan to continue strengthening and expanding cooperation on projects including other goods and modes of transportation.

Revisions made to Japan's Energy Conservation Law in April 2006 mandate cargo owners with specific responsibilities. With the enforcement of this law, cargo owners must establish methods for accurately monitoring and reporting energy consumption in the distribution of goods. Oji Logistics Co., Ltd., participates and cooperates as an industry representative in a trial project entitled Energy Conservation Law Compliant Calculation and Reporting by Cargo Owners and Others, which is being promoted by the Ministry of Economy, Trade and Industry.

Figure 1 Diagram of Green Distribution Partnership Model Project

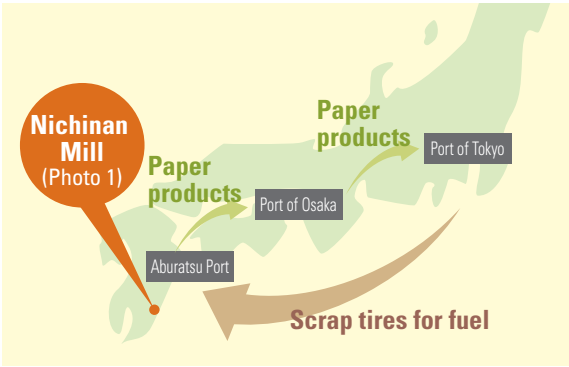



Photo 1 Shredded scrap tires sent to the Nichinan Mill.

# Air, Water, and Other Environmental Impact

**Unfortunately, industries that manufacture basic materials like paper are unable to avoid having a significant environmental impact on the air and water. Even so, in terms of emissions, environmental pollution has improved significantly since the 1970s, when it first became a major social issue in Japan. There is still room for improvement, however, and we embrace our obligation to do everything we can to improve environmental performance.**

## Air pollutants: Working to substantially reduce VOC emissions

The main source of environmental impact on the atmosphere from paper mills is the exhaust gas from onsite power boilers and waste incinerators. Pollutants in this gas include sulfur oxides (SOx),*1 nitrogen oxides (NOx),*2 and soot.*3 While the impact of these pollutants has been reduced considerably using modern equipment since the 1970s, large-scale mills still generate huge numbers in terms of annual emissions (graphs 1, 2, and 3).

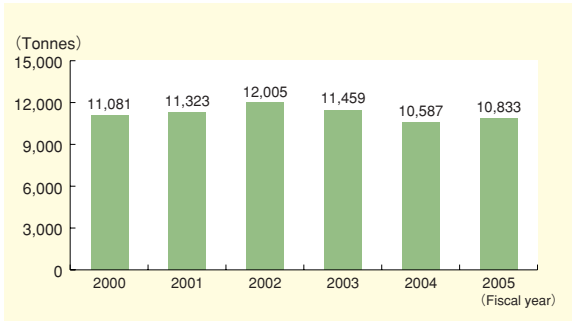
Moreover, volatile organic compounds (VOCs),*4 so-called organic solvents, have recently been singled out for their role in impacting air quality. VOCs, regardless of their toxicity, are said to be a source of oxidants—the primary ingredients in photochemical smog—when released into the air.

The Oji Paper Group uses VOCs in the manufacture of adhesive papers and release coated papers,*5 in gravure printing, and in film processing and related processes. All together, the group releases a considerable amount of VOCs into the air. We are working toward the goal of reducing this amount by 80% by fiscal 2010 compared to our fiscal 2000 levels by making substantial equipment improvements (graph 4).

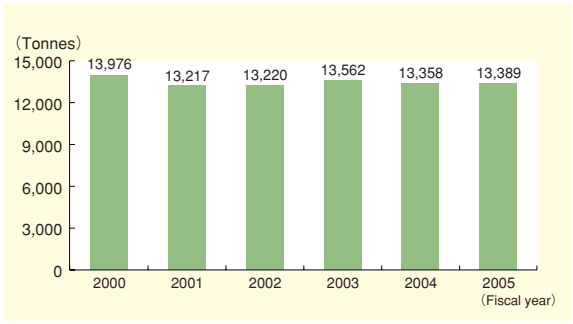
## Curbing water consumption through cyclical use

The paper industry requires huge amounts of industrial water, because the papermaking process requires pulp fiber to be diluted with water at a ratio of about 0.5% pulp to 99.5% water (by weight). The Oji Paper Group produces

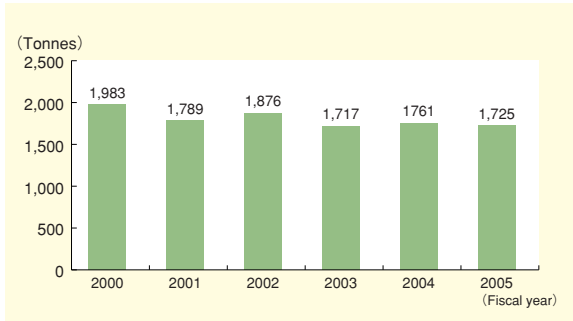
Graph 1 SOx Emissions Over Time



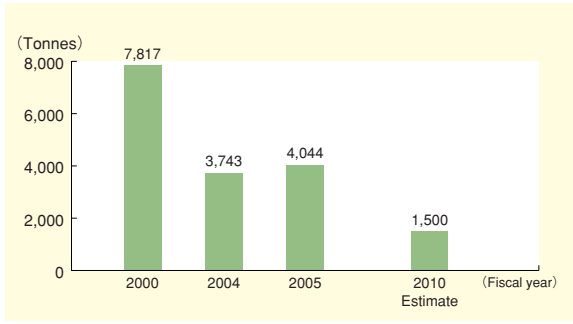

Graph 2 NOx Emissions Over Time




Graph 3 Soot Emissions Over Time




Graph 4 VOC Emissions Over Time




*1 Sulfur oxides (SOx)
Oxides of sulfur (mainly sulfur dioxide) included in the exhaust gas from boilers, incinerators, and other combustion equipment. SOx emissions have been reduced in recent years using exhaust gas desulfurizers.

*2 Nitrogen oxides (NOx)
Oxides of nitrogen included in the exhaust gas from boilers, incinerators, and other combustion equipment. NOx produce photochemical oxidants through a photochemical reaction triggered by ultraviolet light.

*3 Soot
Particulate matter included in the exhaust gas from boilers, incinerators, and other combustion equipment. The exhaust gas is generally released to the air after being processed in multi-cyclone dust collectors and electrostatic precipitators.

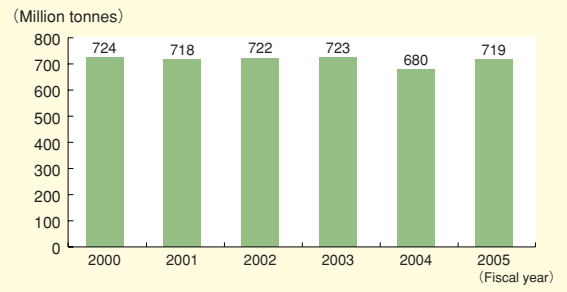
*4 VOCs
Volatile organic compounds, including thinners such as toluene, acetone, and ethyl acetate. In recent years, they have come to be considered a cause of photochemical oxidants, and expectations are high for reduced emissions.

roughly 8.36 million tonnes of paper annually (see page 31). Thus, at this dilution ratio, the group would need approximately 200 times this amount of water, or 1.66 billion tonnes of water, just for the papermaking process alone. The Oji Paper Group, however, is able to hold this amount down to less than half, or about 700 million tonnes of water, through cyclical water use during the production process (graph 5).

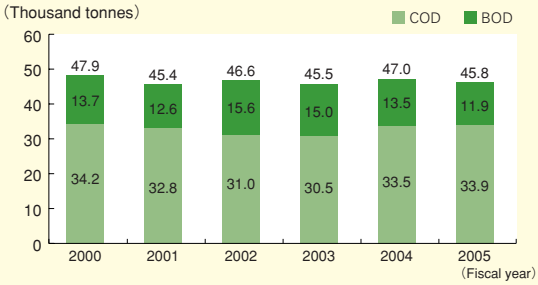
The degree of wastewater cleanliness is expressed in terms of the amount of oxygen needed to decompose dissolved or suspended wastes, using indicators such as chemical oxygen demand (COD) and biochemical oxygen demand (BOD) (graph 6). About 30 years ago, a wastewater processing method using activated sludge, in which microorganisms digest the organic compounds, was widely adopted, remarkably improving wastewater treatment. Since then, however, there have been no significant technological advancements in wastewater processing. We anticipate future technology development in this area.

Suspended solids in the wastewater produced by the papermaking industry include mainly short pulp fibers that were not made into paper, and inorganic pigments. We remove these from the wastewater through the coagulation and sedimentation process. The amount of short pulp fibers, inorganic pigments, and other suspended matter that is not easily removed through the coagulation and sedimentation process, while not yet at a level for great concern, has been increasing somewhat in recent years as the recycling of recovered paper advances. Efforts to reduce the level of this suspended matter need to be continued in the future (graph 7).

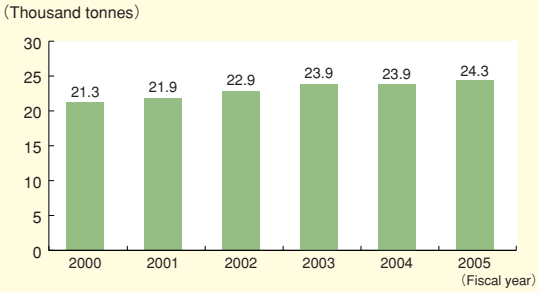
Graph 5 Water Usage Over Time




Graph 6 COD and BOD Emissions Over Time




Graph 7 Emissions of Suspended Solids Over Time




* Data are for four companies: Oji Paper Co., Ltd., Oji Paperboard Co., Ltd., Oji Specialty Paper Co., Ltd., and Oji Nepia Co., Ltd.

## Storage of PCB Wastes

PCB wastes must be tightly controlled according to Japan's Waste Disposal Act and processed appropriately by July 2016 according to the Law Concerning Special Measures against PCB Waste. All consolidated companies of the Oji Paper Group have finished the early registration procedures for commissioning the Japan Environmental Safety Corporation (JESCO) to process their PCB wastes. From now on, these wastes will be systematically processed. The Oji Paper Group's amounts of stored PCB wastes are shown in table 1.

Table 1 Storage of PCB Wastes, including PCB Equipment in Use (kg)

| | Amount stored | Amount in use | Total |
|---|---|---|---|
| Oji Paper | 31,095 | 9,461 | 40,556 |
| Oji Paperboard | 36,328 | 7,673 | 44,001 |
| Oji Specialty Paper | 13,402 | 594 | 13,996 |
| Other | 16,951 | 2,923 | 19,874 |
| Total | 97,776 | 20,651 | 118,427 |

* As of February 2006.

*5 Release coated paper
A smooth paper affixed over an adhesive as a backing to protect the adhesive surface of adhesive paper. A silicone resin is applied to the paper to make it detachable.

## Addressing soil pollution

### 1 Soil cleanup measures

We took cleanup measures at one site, based on the results of a soil contamination investigation conducted when former mill sites belonging to Oji Paper Co., Ltd., and group companies were sold (table 2). The site in question is reclaimed land. Excessive levels of fluorine are thought to have been caused by dredged seabed sand, as the sea contains large amounts of fluorine. In addition, buried objects such as wood waste were found in embankments along the coastline. Various cleanup measures were taken.

### 2 Voluntary soil contamination investigation

In fiscal 2005, we conducted detailed surveys, using a designated survey organization, at two business sites belonging to group companies that perform manufacturing. These sites were thought to have a high possibility of pollution based on the results of voluntary surveys conducted the previous fiscal year. Pollution was found at one of the two sites. We plan to take cleanup measures within fiscal 2006. We will continue with these voluntary surveys for other sites as well, under the direction of headquarters at Oji Paper Co., Ltd.

Table 2 Soil Cleanup Measures

| Location | Pollution | Cleanup measures |
|---|---|---|
| Former Sodegaura Distribution Center site (Chiba Prefecture) | Fluorine and buried objects such as wood waste | Buried objects were excavated and removed. (Completed March 2006.) |

* The pollution did not extend beyond the property boundaries of the mill site.

### 3 About the press report that Seiko Epson Corporation sued Oji Paper Co., Ltd.

In April 2006, Seiko Epson Corporation brought a suit for damages against Oji Paper on the grounds that it discovered waste and soil pollution in land in Nagano Prefecture that Oji Paper sold to Seiko Epson in July 2000.* In the suit, Seiko Epson demanded an unreasonable amount of compensation that exceeds the scope of Oji Paper's legal responsibility. As such, we feel absolutely unable to meet this demand. Looking ahead, we plan to make our position clear during the hearing.

* Oji Paper was not in violation of any law or regulation.

## Release and transfer of PRTR chemical substances

Companies in Japan are legally obliged to keep track of and report the amounts of specified chemical substances released to the environment or transferred to other locations.

The Oji Paper Group releases more toluene to the environment than any other PRTR chemical substance. Toluene is a volatile organic compound (VOC), and we expect to significantly reduce its release by 2010 (see page 43).

Table 3 PRTR Summary Sheet for the Oji Paper Group

(Fiscal 2005 record: April 2005 - March 2006)
(Unit: kg, except for dioxins, which are mg-TEQ)

| Substance | Amount handled (output) | Released to atmosphere | Released to public waters | Total released | Total transferred | Total released and transferred | Total released and transferred during FY04 | Total released and transferred during FY03 |
|---|---|---|---|---|---|---|---|---|
| zinc compound (water-soluble) | 23,367 | 0 | 4,700 | 4,700 | 11,372 | 16,072 | 13,872 | 11,822 |
| acrylic acid | 1,091 | 0 | 0 | 0 | 5 | 5 | 0 | 0 |
| 2-aminoethanol | 19,630 | 0 | 0 | 0 | 389 | 389 | 889 | 677 |
| diethylenetriamine | 3,180 | 0 | 0 | 0 | 15 | 15 | 14 | 4 |
| n-alkylbenzenesulfonic acid and its salt (C=10-14) | 2,070 | 0 | 140 | 140 | 0 | 140 | 140 | 160 |
| antimony and its compounds | 4,025 | 0 | 120 | 120 | 230 | 350 | 400 | 1,200 |
| ethylbenzene | 3,084 | 1,007 | 0 | 1,007 | 100 | 1,107 | 1,107 | 1,447 |
| ethylene glycol | 18,102 | 0 | 6,819 | 6,819 | 21 | 6,840 | 27,429 | 40,445 |
| xylene | 1,614,963 | 4,428 | 2 | 4,430 | 370 | 4,800 | 4,016 | 15,806 |
| glyoxal | 9,325 | 0 | 0 | 0 | 83 | 83 | 85 | 103 |
| chloroform | 117,783 | 75,200 | 27,500 | 102,700 | 0 | 102,700 | 152,840 | 147,520 |
| vinyl acetate | 664,509 | 1,150 | 37 | 1,187 | 213 | 1,400 | 1,500 | 1,500 |
| cyclohexylamine | 4,869 | 4,600 | 79 | 4,679 | 0 | 4,679 | 2,515 | 1,021 |
| dichloromethane (methylene chloride) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,000 |
| styrene | 6,525 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| copper water-soluble salt (except complex salt) | 20,409 | 0 | 720 | 720 | 3,200 | 3,920 | 1,800 | 1,300 |
| toluene | 5,159,517 | 3,179,705 | 1,610 | 3,181,315 | 158,300 | 3,339,615 | 3,238,738 | 3,693,172 |
| hydrazine | 1,480 | 790 | 370 | 1,160 | 0 | 1,160 | 44 | 0 |
| di-n-Butyl benzyl phthalate | 5,233 | 0 | 11 | 11 | 33 | 44 | 753 | 1,081 |
| benzene | 503,882 | 12,993 | 0 | 12,993 | 0 | 12,993 | 29,803 | 21,003 |
| boron and its compounds | 603,614 | 0 | 9,610 | 9,610 | 3,901 | 13,511 | 32,817 | 22,192 |
| poly (oxyethylene) alkyl ether (C=12-15) | 2,484 | 0 | 12 | 12 | 170 | 182 | 5,081 | 6,369 |
| poly (oxyethylene) nonylphenol ether | 13,986 | 0 | 0 | 0 | 170 | 170 | 190 | 240 |
| formaldehyde | 17,027 | 980 | 9,000 | 9,980 | 0 | 9,980 | 9,740 | 19,090 |
| manganese and its compounds | 1,390 | 0 | 1,400 | 1,400 | 0 | 1,400 | 1,090 | 3,880 |
| methylenebis (4,1-cyclohexylene) diisocyanate | 1,040 | 0 | 0 | 0 | 72 | 72 | 0 | 0 |
| Total (excluding dioxins) | 8,822,585 | 3,280,853 | 62,130 | 3,342,983 | 178,644 | 3,521,627 | 3,524,863 | 3,993,032 |
| dioxins (mg-TEQ) | 3,838 | 288 | 342 | 970* | 2,868 | 3,838 | 2,765 | 867 |

* Including amount of landfill disposal (340) at the site in question.

# Minimizing Waste Sent to Landfills

As mentioned in the "Paper Recycling" section of this report (see page 37), reducing waste and using it more efficiently is a priority for the Oji Paper Group, which is determined to act as a recycling-based enterprise. In addition to emphasizing utilization of recovered paper, we have set high targets for the reduction of waste and are committed to meeting them.

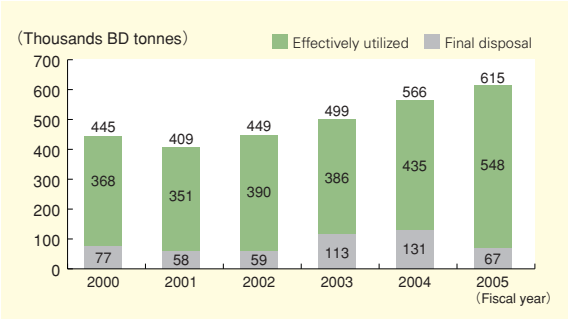
## A challenge for the paper industry: Waste increases as more recovered paper and RPF are used

Since about 1997, the Oji Paper Group has worked hard to reduce waste and to utilize it more effectively. Consequentially, the amount of waste for final disposal*1 steadily decreased, but in fiscal 2002, it took an upward turn. Graph 1 shows the amount buried in landfills, out of all the waste sent out of the Oji Paper Group, and the amount that was recycled, reused, commodified, etc.

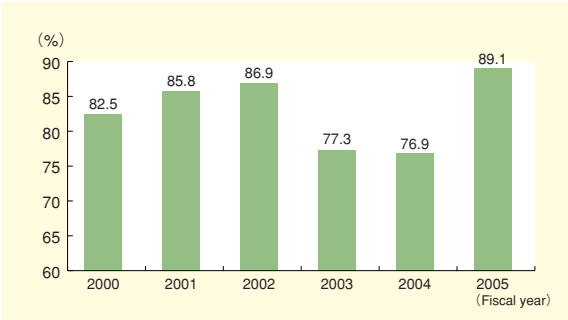
In fact, two of the Oji Paper Group's environmental initiatives are actually causes of increased waste: (1) the increased use of recovered paper; and (2) global warming countermeasures. In the former, when recovered paper is recycled, extra material mixed in with the recovered paper is separated and discharged as extraneous matter during the pulping process. This becomes waste.

In the latter, we have reduced consumption of fossil fuels (mainly heavy oil) and have increased use of the new waste-derived fuel RPF*2 instead (see page 39). However, RPF includes a lot of inorganic matter that remains as ash after combustion in the boiler, and this has ended up increasing the amount of ash produced by our mills. In fiscal 2004, our effective utilization rate*3 suffered a temporary decline, as we were not able to increase the utilization of waste fast enough to offset the increased waste generation (graph 2). In fiscal 2005, we made improvements through the development of methods to increase effective utilization. Although not reflected in the graph, we expect our fiscal 2006 final disposal rate*4 to once again worsen slightly, since an RPF boiler came on line at the Nichinan Mill in January 2006. Looking ahead, the Oji Paper Group will continue to pursue effective ash utilization methods while closely monitoring ash conditions.

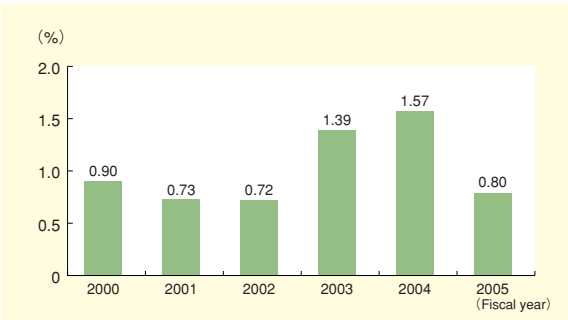
Graph 1 Waste Disposal Over Time




Graph 2 Effective Utilization Rate




Graph 3 Final Disposal Rate




* Data are for four companies: Oji Paper Co., Ltd., Oji Paperboard Co., Ltd., Oji Specialty Paper Co., Ltd., and Oji Nepia Co., Ltd.

***1 Final disposal**
While we make an effort to reduce the amount of waste through dehydration, incineration, and other processing, and to use it for other applications, we must ultimately dispose of the leftover waste by burying it at landfills.

***2 RPF**
Japanese-English coinage meaning "Refuse Paper and Plastic Fuel." A solid fuel made by mixing waste plastic with recovered paper that is difficult to recycle.

***3 Effective utilization rate**
The percentage of waste generated at mills that was effectively utilized by being recycled, reused, or commodified, etc.

***4 Final disposal rate**
The amount of waste generated at mills that was disposed of by burying in landfills, expressed as a percentage of production volume. This is a commonly used indicator in the paper industry.

# Product Safety

Our customers directly handle and touch the paper that we produce. To ensure customer safety and to safeguard the health of our employees at the production stage, the Oji Paper Group gives careful consideration to safety, beginning with the selection of raw materials.

## What is paper safety?

Paper, which is made by cooking*1 wood chips, turning them into pulp, and running the pulp through the papermaking*2 process, creates a basically harmless product. Depending on the type of paper, however, pigments and binders (adhesives)—which contain chemical substances—sometimes have to be added to give the paper special properties.

Accordingly, the Oji Paper Group has built a system in which we check the safety of all raw materials before procurement. It is very important to us that consumers are able to use our products with peace of mind, that our employees stay healthy and safe during production, and that environmental impact is kept to an absolute minimum.

This safety-check system is based on Oji Paper's Product Safety Charter (figure 1), which we established in 1995. The charter clearly describes Oji Paper's commitment to ensuring that all of its products can be used safely by consumers.

Figure 1 Product Safety Charter

**Oji Paper has, throughout its history, delivered safe products, fully recognizing that its corporate social responsibility entails providing quality and services that enable customers to use its products with peace of mind. Going forward, we will continue to fulfill the trust of our customers by ensuring that all of our employees reliably implement the following commitments.**

1. We will continually improve our group-wide quality control system, ensuring that we always provide safety-conscious products using the latest technology.
2. We will provide timely and appropriate information on product safety and proper usage.

## Product safety improvement framework

### New Raw Material Safety Sheets

Since as early as 1994, the Oji Paper Group has used its own New Raw Material Safety Sheets to increase green procurement and improve product safety. Under this unique screening system, new raw materials are checked to ensure that they can be safely handled by employees in our mills and safely used by consumers. All materials are reviewed for the potential impact that would result in the remote chance of a chemical substance leak. The checks also consider the impact if materials could not for some reason be fully treated by a wastewater treatment facility, or were discharged to a river or other medium. We request suppliers to provide safety data on materials that we purchase, and when raw materials include substances that present safety concerns, we ask them to use alternative substances. If alternative substances cannot be substituted, we do not use that raw material.

Japanese laws and guidelines require businesses that handle chemical substances to produce Material Safety Data Sheets (MSDS*3) that contain information on the safety and proper handling of chemical substances. The Oji Paper Group obtains MSDS from all raw material suppliers. However, we determined that the information required on an MSDS from the raw material suppliers was inadequate for Oji Paper's safety assessments. This determination led us to start using our unique New Raw Material Safety Sheets, which ask for more detailed information than a standard MSDS.

### Evaluation Process for New Raw Material Safety Sheets

When we consider using a new raw material (figure 2), each mill requests suppliers to submit a New Raw Material Safety Sheet (steps 1 and 2). The information is evaluated by departments at the mills (step 3) and by the headquarters' Environmental Management Department (step 4), and a decision is made on the advisability of using the raw

*1 Cooking
A process of stewing wood in an alkali bath and leaching out the resins to separate the pulp from the wood. The plant waste liquor that is leached out in this process is made into the biomass fuel known as black liquor.

*2 Papermaking
The process of making paper by spreading pulp out thin. Pulp is diluted in water at about 0.5% pulp and spread out on a wire mesh. After the pulp mat has been dehydrated on the wire mesh, the pulp sheet is pressed and then hot air dried into paper.

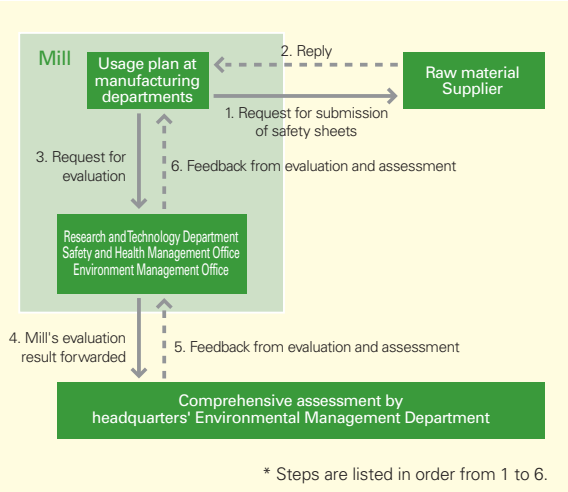
*3 Material Safety Data Sheet
A means of communicating hazard and toxicity information and handling precautions for chemical substances when those substances are traded between businesses.

*4 GHS
Globally Harmonized System. A recommendation made by the United Nations in July 2003 for a globally harmonized system relating to the classification and labeling of chemicals.

material (step 5). Finally, the mill that intends to use the material is notified of the evaluation result (step 6). Only after passing this strict procedure can a material become eligible for purchase by an Oji Paper mill. We update the information requested by the safety sheets as needed to comply with revisions in Japanese and foreign laws and regulations.

By the end of fiscal 2005, we had evaluated as many as 12,600 substances using our New Raw Material Safety Sheets. Of these, we decided not to use about 400 for safety reasons.

Figure 2 New Raw Material Safety Sheet Evaluation Flowchart




### New regulatory and hazard information investigation system

The progress of safety inspections for chemical substances in line with the adoption of new systems in and outside Japan in recent years has resulted in discoveries of hazardous chemical substances for which the hazards were previously unknown. Accordingly, we have been requesting our raw materials suppliers to promptly provide new hazard information. However, not all of their responses were adequate.

Hazard information is expected to increase from 2006 onward with the acceleration of safety tests for chemical substances and the adoption of a new labeling and notification system known as GHS.*4 Accordingly, the need to quickly obtain new regulatory and hazard information has become more important than ever.

For that reason, in fiscal 2005 Oji Paper introduced a new investigation system with the cooperation of raw materials suppliers to periodically check information relating to regulations and the hazards of raw materials we are presently using. This system complements our current system of using New Raw Material Safety Sheets. In addition, we also ask that raw materials suppliers provide new information relating to regulations and hazards in a timely fashion.

Through these and other efforts, Oji Paper is stepping up its efforts to strengthen supply chain management for green procurement and ensure the complete safety of all its products.

## Safety measures for chemical substances used in products

As a matter of course, the Oji Paper Group complies with all laws and regulations. We also undertake independent initiatives such as those listed below to ensure the safety of chemical substances used in our products, always incorporating the latest safety information available.

1. Full phase-out of surfactants made from nonylphenol and octylphenol, which have been reported to cause endocrine disruption*5 (so-called environmental hormones) in the ecosystem.
2. Full phase-out of fluorine-containing water repellants and oil repellants used in food packaging. These substances have been found to persist in the environment over a long period of time and to accumulate in the bodies of living organisms.
3. Compliance with European directives*6 (76/769/EEC) restricting the marketing and use of azo dyes made from specified aromatic amines.
4. Disuse of raw materials that test positive for mutagenicity (the potential to cause gene mutations—that is, a characteristic related to carcinogenicity).
5. Use of a questionnaire to have raw materials suppliers promptly provide new information on regulations and hazards, as it is difficult to obtain new information only by using the New Raw Material Safety Sheets.

*5 Endocrine disruption
An effect of certain chemical substances, which act as if they were hormones within the body and can trigger damaging and deleterious effects.

*6 European directives on chemical substances
The EU's regulations on chemical substances are at the forefront of the field internationally. Japan's exporting companies consider the EU's regulatory trends especially important and work to comply with them promptly.

# Australia Forestry Research Center, Forestry Research Institute

The Oji Paper Group's Forestry Research Institute, located in Kameyama City, Mie Prefecture, Japan, is conducting research into increasing the productivity of plantation trees. In 2002, the Institute established a Forestry Research Center in Albany, Australia to conduct research directly focused on actual plantation sites outside Japan. The Forestry Research Center is working hard to identify practical applications for new technologies.

## Finding a superior eucalypt is the key to improving productivity

### New clonal plantation technology— First step is finding a superior tree species and tree

Creating large numbers of a superior variety of tree using cuttings*1 and then using them to establish clonal plantations*2 is an effective means of increasing the productivity of tree plantations in a relatively short period.

The first thing that must be done when developing a clonal plantation is to select a tree variety that grows quickly and that produces a quality of wood that is appropriate for making pulp and paper. The Forestry Research Center has taken notice of a type of eucalypt with superior characteristics as a raw material for papermaking, the *Eucalyptus globulus*. Within this species, researchers selected about 450 outstanding trees with particularly good growth (photo 1).

In looking for outstanding trees, one thing they discovered is that trees can vary significantly in density even though they may look the same in their appearance. More pulp can be extracted from trees with a higher density. Thus, in order to maximize yield per unit of acreage, it is vital to carefully assess not just rate of growth, but also tree quality, including density (photo 2).

Finding tree varieties that are suited to the local conditions is also important, since climate conditions such as precipitation and soil conditions vary by the location of the tree plantation. The Forestry Research Center has succeeded in finding varieties that are well suited to the differing levels of precipitation at each tree plantation.

### Next step is to effectively multiply the outstanding trees

The next phase when developing a clonal plantation is to effectively multiply the selected outstanding trees. *Eucalyptus globulus*, which is excellent as a raw material for papermaking, is a difficult species to clone extensively (i.e., generate many individual trees with the same genetic makeup) using cuttings. Accordingly, the Forestry Research Center selected trees that easily produce roots from among the nearly 450 outstanding trees and also improved the cutting method. In this way, it has multiplied the number of outstanding trees that can be extensively cloned (photo 3).

In August 2004, two experimental sites in Western Australia with different weather and soil conditions were established, and research conducted on the growth potential of outstanding trees under different conditions. Based on the research data, the researchers will attempt to increase productivity by selecting varieties that are suited to the

Photo 1 An outstanding tree selected from a plantation.

Photo 2 Collecting disks to examine wood quality.

Photo 3 Cutting propagation of outstanding trees.

different plantation sites. Oji Paper is planning to develop a 100 hectare clonal plantation in August 2006, and will continue to expand the area of clonal plantations in the future.

Clonal plantations are planted with outstanding trees that all have the same genes. Consequentially, the best among these trees cannot be selected out. For that reason, our researchers are making an effort to get seeds from the crossing of different outstanding trees in order to create the next generation of superior trees (photo 4). Even higher quality trees could potentially come from the seeds obtained in this way.

## Improving technology in silviculture: Aiming for sustainable forest management suited to local conditions

### ●Research for fertilization and coppicing techniques

The Forestry Research Center also researches techniques for applying fertilizer and coppicing, which is a method of growing new trees from the shoots that sprout from stumps left after harvesting (photo 5).

Australia is said to be the world's oldest continent. Generally, the land in Australia is lean, as its soils have been weathered and nutrients washed away. The local people have for a long time cleared groves of eucalypts and other trees and converted the land for use as pastures. Over the years, they applied fertilizers, especially phosphates, since the soil had particularly scant quantities of phosphates. In some logged areas, there was fertilizer salt damage to the soil: the level of high-salt groundwater rose because the grasses returned much less water from the soil to the atmosphere than the trees had before. The tree plantation projects in Australia that the Oji Paper Group is currently undertaking turn these lands back into eucalypt groves, although the species of eucalypt for our plantation is different from the indigenous species. This contributes to the improvement of the local environment by reducing salt damage through lowering the groundwater level.

Soil nutrients must be studied and appropriate fertilization methods established in order to sustainably manage tree plantation forests in Australia. In the future, Oji Paper will continue to improve fertilization methods, making them more efficient, economical and environmentally sound.

As for coppicing, Oji Paper researchers are studying the best time to trim shoots, and the best methods to later apply fertilizer. Studies have shown that trimming shoots 18 months after logging is effective (photo 6).

Photo 7 The Forestry Research Institute in Kameyama City, Mie Prefecture, Japan. The institute researches outstanding trees for producing wood chips, the raw material for papermaking.

Photo 4 Outstanding tree in bloom due to chemical treatment.

Photo 5 A shoot growing from a stump left after logging.

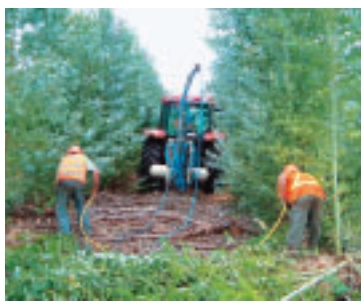


Photo 6 Leaving one good shoot among many.

*1 Cuttings
A method of regenerating roots from a shoot that has been removed and set in an appropriate supporting material and kept under controlled conditions, including humidity, in order to create a copy of a certain individual tree or other plant.

*2 Clonal plantations
Plantations planted with trees cloned using cuttings.

# Environmental Accounting

In fiscal 2005, total environmental investment rose by 27% from the previous fiscal year. Environmental conservation management costs rose 47% due to new steps taken to improve wastewater quality, including construction for changing over to elemental chlorine-free (ECF) bleaching equipment. Resource circulation costs rose 28% due to investment in boilers using new energy sources. Investment by Oji Cornstarch Co., Ltd., which had been involved in an environmental problem (see page 61), rose sharply compared to the previous fiscal year to pay for improvements in wastewater treatment facilities. Oji Cornstarch will continue to make investments for environmental improvement during the current fiscal year. Total environmental costs for the Oji Paper Group remained almost unchanged.

Table 1 Environmental Conservation Cost

(Unit: ¥ million)

| Category | | Main initiatives | Investment | Costs |
|---|---|---|---|---|
| 1. Environmental conservation costs for curbing environmental impact generated by production and service activities within business sites | | | 27,044 | 17,258 |
| Breakdown | a. Environmental conservation management costs | Renovation of electrostatic precipitators, changeover to ECF bleaching equipment, installation of deodorizing equipment, noise and vibration control measures, soil cleanup | 7,345 | 10,311 |
| Breakdown | b. Global environmental conservation costs | Cultivating company-owned forests in Japan, tree plantation operations outside Japan, energy conservation investments | 5,342 | 812 |
| Breakdown | c. Resource circulation costs | Efficient utilization of resources, costs for waste measures | 14,357 | 6,135 |
| 2. Costs for curbing environmental impact generated by production and service activities | | Costs for purchasing low-sulfur fuel (balance amount), effective utilization of wastes | 0 | 1,185 |
| 3. Environmental conservation costs related to administrative activities | | Employee education, ISO 14001 costs, costs for air and water analysis, costs for operating committees and other organizations | 3 | 790 |
| 4. Environmental conservation costs related to R&D activities | | Product development that contributes to environmental conservation by promoting utilization of recovered paper, curbing environmental impact that occurs during production | 313 | 2,052 |
| 5. Environmental conservation costs related to social activities | | Philanthropic programs, support for various environmental groups, environmental and sustainability reporting, environmental exhibitions and other public relations activities | 0 | 171 |
| 6. Costs related to environmental damage | | Pollution impact levy (SOx) | 0 | 932 |
| Total | | | 27,360 | 22,389 |

Table 2 Environmental Conservation Benefit (see pages 29-30)

| Result | Environmental impact indicators |
|---|---|
| Global warming measures | Consumption of fossil fuel-based energy per unit of production has decreased by 17.0% compared to the 1990 level. Fossil fuel-based $CO_2$ emissions per unit of production have decreased by 16.9%. |
| Waste reduction | Amount of waste disposed in landfills improved by 64,000 tonnes, a reduction of 49% in the final disposal rate, compared to fiscal 2004. The final disposal rate improved from 1.57% to 0.80% |
| Tree plantations outside Japan | Tree plantations outside Japan increased from 140,356 ha to 152,344 ha compared to fiscal 2004. |
| Recovered paper recycling | Although the recovered paper utilization rate decreased from 60.8% in fiscal 2004 to 60.5%, the recovered paper utilization increased from 4,866,000 tonnes to 4,968,000 tonnes. |
| Philanthropic programs | In fiscal 2005, 487 tonnes of disposable chopsticks were recovered, and 22,438 employees participated in local cleaning and beautification programs. |

Table 3 Economic Benefit Associated with Environmental Conservation Activities

(Unit: ¥ million)

| Effect | Value |
|---|---|
| Income from company-owned forests in Japan | 451 |
| Cost reductions through energy conservation | 1,765 |
| Income from recycling | 1,353 |
| Total | 3,569 |

### Method and scope of data aggregation

* Data aggregation was performed in accordance with the *Environmental Accounting Guidelines* published by Japan's Ministry of the Environment in March 2000, March 2001, March 2002, and February 2005.
* Scope of aggregation: Oji Paper and its main affiliates (Oji Paperboard, Oji Specialty Paper, Oji Nepia, Oji Chiyoda Container, Oji Cornstarch, and Oji Tac).
* Period covered: April 1, 2005 - March 31, 2006

# Data for Individual Mills

The Oji Paper Group is united in the effort to reduce emissions of substances that have an environmental impact. Below, we report the environmental impact in fiscal 2005 for the individual mills belonging to Oji Paper Co., Ltd. (table 1) and for the major companies and affiliates within the Oji Paper Group (table 2).

Table 1 Environmental Impact for Individual Mills of Oji Paper Co., Ltd. (Fiscal 2005)

| Establishment | Production | Environmental impact on water | | | | Environmental impact on atmosphere | | | Waste | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Water consumption | Waste water | COD or BOD | Suspended solids | Sulfur oxides | Nitrogen oxides | Soot | Total transferred | Effectively utilized waste | Disposed waste | Effective utilization rate | Final disposal rate |
| | a | | | | | SOx | NOx | | b+c | b | c | b/(b+c) | c/a |
| | Tonnes | Thousands of tonnes | Thousands of tonnes | Tonnes | Tonnes | Tonnes-$SO_2$ | Tonnes-$NO_2$ | kg | BD tonnes | BD tonnes | BD tonnes | % | % |
| Kushiro Mill | 668,240 | 83,299 | 79,682 | 7,251 | 3,984 | 2,210 | 916 | 242,000 | 77,028 | 76,438 | 590 | 99.2 | 0.088 |
| Tomakomai Mill | 1,217,030 | 142,168 | 130,479 | 14,337 | 7,401 | 2,289 | 2,746 | 91,000 | 212,168 | 189,166 | 23,002 | 89.2 | 1.890 |
| Edogawa Mill | 139,386 | 12,150 | 10,530 | 28 | 41 | 10 | 52 | 3,200 | 3,060 | 3,060 | 0 | 100.0 | 0.000 |
| Fuji Mill | 421,328 | 35,215 | 34,227 | 1,403 | 856 | 56 | 395 | 22,900 | 37,661 | 37,661 | 0 | 100.0 | 0.000 |
| Kasugai Mill | 765,449 | 66,676 | 62,750 | 3,200 | 1,945 | 380 | 1,877 | 530,500 | 47,218 | 32,957 | 14,261 | 69.8 | 1.863 |
| Kanzaki Mill | 80,495 | 362 | 236 | 14 | 12 | 0 | 19 | 49 | 11,276 | 11,269 | 7 | 99.9 | 0.009 |
| Yonago Mill | 584,714 | 44,700 | 43,800 | 2,935 | 1,402 | 574 | 1,179 | 82,000 | 36,318 | 36,057 | 261 | 99.3 | 0.045 |
| Kure Mill | 295,140 | 55,496 | 52,854 | 2,697 | 931 | 28 | 744 | 21,000 | 12,399 | 12,399 | 0 | 100.0 | 0.000 |
| Tomioka Mill | 602,099 | 56,972 | 55,427 | 3,330 | 1,214 | 412 | 1,280 | 179,000 | 17,877 | 17,600 | 277 | 98.5 | 0.046 |
| Nichinan Mill | 269,650 | 42,031 | 42,031 | 3,148 | 2,438 | 1,098 | 713 | 134,000 | 24,304 | 7,412 | 16,892 | 30.5 | 6.264 |
| Total | 5,043,531 | 539,068 | 512,016 | 38,344 | 20,224 | 7,057 | 9,920 | 1,305,649 | 479,309 | 424,019 | 55,290 | 88.5 | 1.096 |

Table 2 Environmental Impact of Oji Paper Group Companies (Fiscal 2005)

| Establishment | Number of facilities | Production | Energy | | Environmental impact of emissions into water | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Fossil fuel consumption | $CO_2$ emissions | Water consumption | Wastewater | COD | BOD | COD+BOD | Suspended solids |
| | | a | Crude oil equivalent | Derived from fossil fuels | | | | | | |
| | | Tonnes | Thousands of kl | Thousands of tonnes-$CO_2$ | Thousands of tonnes | Thousands of tonnes | Tonnes | Tonnes | Tonnes | Tonnes |
| Oji Paper Co., Ltd. | 10 | 5,043,531 | 1,381 | 3,698 | 539,068 | 512,016 | 31,050 | 7,294 | 38,344 | 20,224 |
| Oji Paperboard Co., Ltd. | 10 | 2,533,534 | 496 | 1,379 | 104,477 | 101,064 | 1,764 | 1,907 | 3,671 | 2,332 |
| Oji Specialty Paper Co., Ltd. | 9 | 515,460 | 197 | 512 | 69,466 | 66,539 | 622 | 2,725 | 3,347 | 1,633 |
| Oji Nepia Co., Ltd. | 3 | 270,291 | 132 | 295 | 6,351 | 6,417 | 399 | | 399 | 104 |
| Oji Cornstarch Co., Ltd. | 3 | 354,792 | 54 | 116 | 5,177 | 4,748 | 85 | 69 | 154 | 57 |
| Oji Chiyoda Container Co., Ltd. | 32 | 1,032,920 | 36 | 58 | 290 | 263 | 1 | 8 | 8 | 7 |
| Oji Tac Co., Ltd. | 2 | 37,346 | 9 | 21 | 763 | 767 | | 2 | 2 | 2 |
| Yupo Corporation | 1 | 22,107 | 15 | 30 | 62 | 59 | | | | |
| Oji Kinocloth Co., Ltd. | 2 | 23,408 | 7 | 13 | 560 | 560 | | | | |
| Oji Packaging Co., Ltd. | 2 | 72,080 | 5 | 11 | 32 | 32 | | | | |
| Total for 22 other affiliates | 61 | 338,628 | 30 | 86 | 668 | 447 | | | | |
| Total | 135 | 10,244,097 | 2,364 | 6,218 | 726,915 | 692,911 | 33,921 | 12,004 | 45,925 | 24,359 |

| Establishment | Environmental impact of emissions to atmosphere | | | Industrial waste | | | | |
|---|---|---|---|---|---|---|---|---|
| | Sulfur oxides | Nitrogen oxides | Soot | Total transferred | Effectively utilized waste | Disposed waste | Effective utilization rate | Final disposal rate |
| | SOx | NOx | | b+c | b | c | b/(b+c) | c/a |
| | Tonnes-$SO_2$ | Tonnes-$NO_2$ | kg | BD tonnes | BD tonnes | BD tonnes | % | % |
| Oji Paper Co., Ltd. | 7,057 | 9,920 | 1,305,649 | 479,309 | 424,019 | 55,290 | 88.5 | 1.096 |
| Oji Paperboard Co., Ltd. | 982 | 1,834 | 171,105 | 80,439 | 74,413 | 6,026 | 92.5 | 0.238 |
| Oji Specialty Paper Co., Ltd. | 2,004 | 1,036 | 227,496 | 48,462 | 44,991 | 3,471 | 92.8 | 0.673 |
| Oji Nepia Co., Ltd. | 790 | 600 | 20,341 | 6,565 | 4,368 | 2,197 | 66.5 | 0.813 |
| Oji Cornstarch Co., Ltd. | 17 | 57 | 2,693 | 2,850 | 2,084 | 766 | 73.1 | 0.216 |
| Oji Chiyoda Container Co., Ltd. | 105 | 52 | 7,835 | 101,316 | 100,248 | 1,068 | 98.9 | 0.103 |
| Oji Tac Co., Ltd. | 17 | 5 | 120 | 3,400 | 3,283 | 117 | 96.6 | 0.313 |
| Yupo Corporation | 0 | 0 | 0 | 825 | 813 | 12 | 98.5 | 0.054 |
| Oji Kinocloth Co., Ltd. | 0 | 14 | 0 | 1,016 | 905 | 111 | 89.1 | 0.473 |
| Oji Packaging Co., Ltd. | 0 | 0 | 5 | 8,282 | 8,180 | 102 | 98.8 | 0.141 |
| Total for 22 other affiliates | 50 | 21 | 1,244 | 18,838 | 17,194 | 1,645 | 91.3 | 0.486 |
| Total | 11,022 | 13,539 | 1,736,488 | 751,301 | 680,498 | 70,804 | 90.6 | 0.691 |

# Employee Relations

The Oji Paper Group Corporate Code of Conduct expresses our commitment to the achievement of employee satisfaction. Our human resources programs are designed to ensure employee health and safety, provide comfortable workplaces, and give all employees the opportunity to prosper as they realize their full potential.

## Women's roundtable discussion:
### In the ideal workplace, people work naturally without thinking about gender

Women make up only about 7% of the Oji Paper Group's workforce, because many of its worksites require a demanding three-shift system like other capital-intensive process industries. When hiring, however, our door is open to all, regardless of gender. Our hiring process is driven by character and ability. The percentage of women among new recruits has been increasing gradually in the main career track office positions. Women work in the exact same situations as men and can be transferred to any business location in or outside Japan. We invited seven career women to a two-hour roundtable to discuss what can be done to improve working conditions for women and further increase employee diversity at the Oji Paper Group.

**●Mill work is rewarding: More information requested on maternity and family care leave systems**

Many employees in career track positions at the Oji Paper Group experience mill work after joining the company. However, there are many mills where no women have been in a career track position for many years. The women at the roundtable discussion who have worked in a mill talked about what it is really like. One mentioned men being surprised to see a woman in a career track position. Another noted that, depending on the mill, sometimes there are no women's dormitories, nor women's restrooms on the production floor. Despite these drawbacks, the women agreed that they were not uncomfortable at the mills. "Working in the mill was really useful for getting to know what things are like on the production floor. The work was rewarding. The employees have good relationships and there are lots of company events. It was really fun."

Many of the roundtable participants felt that the working conditions are good at their present work-places. One stated, "The atmosphere is conducive to taking maternity or child-care leave when you need it." Another noted, "While it used to be taken for granted that women would quit when they got married or had children, it is now common for them to stay." Another participant described how her colleagues helped out when she took a one-month nursing care leave.

On the other hand, participants pointed out that most people are not aware of these leave programs until they actually need one. The main source of information, they said, is word of mouth. They recommended that the company be more proactive about letting employees know about these programs.

At the roundtable discussion for women.

**●Transfer issues can hold back career track women—More choices of job types and systems are needed**

The women also offered opinions about where women are most active. One participant who had moved from a basic office role to a career track position suggested, "It would be nice if there were a structure that valued more the experience of women who work in basic positions and enabled them to demonstrate greater skills." It appears that the women feel that there are still many who do not take on a career track position due to concerns that a job transfer might interfere with childbirth or caregiving plans. Another participant suggested that the company set up "area career track positions" with the same expectations as a regular career track but geographic limits to potential transfers.

**●Creating a more open workplace culture, and the change of awareness all employees need**

One participant explained that she felt that the voices of employees who are having a really difficult time do not reach the ears of the company. Many of the women approved of the idea: "If the company would put a bulletin board on the Intranet, where people who have actually taken maternity or childcare leave can post their

opinions and concerns, employees' true sentiments could be heard. This would give the company a way to identify the needed improvements."

This roundtable discussion was only for women in career track positions. However, one participant said, "In the future, the company should make opportunities such as this that bring together both men and women and employees from a variety of situations. We need to hear men's opinions of women who are in career track positions and of women who are in basic positions. When people understand each other, the treatment of women will not be the only thing to change. The way men work will also change. It may become commonplace for men also to take child care leave." Participants expressed a degree of shock when it was revealed that only 16 of 800 management positions at Oji Paper Co., Ltd., are held by women.* One participant who is herself in a management position said that the company needs to be more proactive about promoting women to management positions. "There are issues that only become visible once one reaches a management position. Measures for improvement should result from women in the same positions talking together."

At workplaces where there are few women, it seems that it is not uncommon for the opinion of a female employee to be taken as the opinion of women in general. Many of the participants identified with the view that the ideal workplace is one in which people work naturally without thinking about gender. The roundtable ended with the message that, first of all, it is important for each participant to communicate naturally at her workplace. There was consensus on the ideal situation, where one wins trust in the workplace and can work together well with others through difficult times. Participant felt this happens when people make use of their individuality and demonstrate their capabilities at work. They also felt that an increase in the percentage of women should lead to improvements in the facilities and systems at plants, making it easier to work. This in turn, they hoped, will lead to a further increase in women on the job, creating a positive cycle.

* As of April 2006, the number of employees at Oji Paper Co., Ltd. (including those seconded to group companies) stood at 7,081 men and 527 women.


Yuko Akiyama
Oji Chiyoda Container Co., Ltd.


Sayaka Iwashita
Oji Paper Co., Ltd.


Kaoru Kurata
Oji Paper Co., Ltd.


Nobuko Shizuno
Oji Paper Co., Ltd.


Haruko Soma
Oji Paper Co., Ltd.


Akiko Nishioka
Oji Paper Co., Ltd.


Hiromi Watanabe
Oji Paper Co., Ltd.


Tsutomu Yamane
Department Manager,
Personnel Department,
Human Resources
Headquarters
Oji Paper Co., Ltd.

**The Oji Paper Group has until now not had many women employees, in part because the company is in a capital-intensive process industry that requires round-the-clock operation. Recently, the number of women has increased, and we expect that the number of women in management positions will continue to rise in the future.**

**Through this roundtable discussion, I came to realize that supporting the development of workplaces that work well for women goes beyond merely enhancing benefit programs such as child care leave: for one thing, we need to get out the message about these programs so potential users know how to take advantage of them. With the aim of building an organization that can respond flexibly to rapid changes in society and the market, I will continue to work to build a workplace culture in which a diverse range of individuals—not just women—can succeed to the fullest.**

## Programs that support employee improvement

### The Oji Paper Group's human resources philosophy: Management based on respect for people

The Oji Paper Group is proud of its 130-year history of excellent labor relations. At the core of this success are the positive human relationships—the bonds of affection and trust—that characterize both our management and staff. This intangible relational asset is, in fact, our most valuable possession. Built on the bedrock of our management philosophy—management based on respect for people—our basic human resources policy is to build an organization that encourages each employee's originality and ingenuity.

In recent years, we have enjoyed stable labor relations as we enhance both the quality and quantity of our human resources worldwide. We are shifting from an emphasis on seniority to a performance-based human resources system, and this is energizing the entire organization. We are also working to expand the abilities of individuals and energize the entire organization by assigning the best person for each position and offering challenging rotations throughout the Oji Paper Group (see table 1 on next page).

Table 1 Main Human Resources Programs

| | |
|---|---|
| Performance-based human resources and salary system for managers | Introducing a transparent performance evaluation system and salary system based on clarification of the results and abilities expected of managers. (In fiscal 2006, introduced performance-based bonuses by department.) |
| Ability-based grade system for regular employees | Operating an ability-based human resources and wage system based on clear functional qualification standards. |
| Personnel transfer and assignment system | Systematically implementing job rotations to enable individuals to demonstrate their abilities more effectively, based on a commitment to assigning the best person for each position. |
| "Self-declaration" system | Implementing annual employee self-declarations of career vision in conjunction with interviews with supervisor, with a view toward long-term, systematic human resources development. |
| Encouraging employees to pursue new qualifications | Operating a system of providing incentive pay for employees who acquire new qualifications, in order to create a corporate culture where individuals take the initiative to learn and advance their careers. |

### Improving the workforce

In March 2005, we launched a major revision to our group human resources system designed to build a highly motivated workforce—which we believe is the wellspring of all business development. The changes are focused on three priority areas: (1) creating a culture where people take the initiative to learn; (2) strengthening capability on the job; and (3) enhancing education to foster future top managers.

In the first area, we have established a distance-learning program of skill development courses, promoting a culture that makes it easy for employees to improve their own skills (1,970 employees took part in this program in fiscal 2005). In the second, we are maintaining on-site expertise by keeping experienced employees who want to continue to work past the official retirement age—ensuring their skills are passed on. We have also worked out guidelines for implementing rank-driven and department based educational programs. In the third area, management-level instruction, we have implemented executive candidate training programs covering strategic planning, business operations, and business analysis.

## Advancing the plantation business after studying Chinese

Masanori Morisaki
Deputy Managing Director
Guangxi Oji Plantation Forest Co., Ltd. (CPFL)

I studied in China from August 2003 to August 2005 using an Oji Paper system offering in-service training outside Japan, which is available to employees who have been with the company for at least five years. The first year, I devoted myself to learning Chinese at Shanghai Jiao Tong University. The second year, I studied Chinese at Guangxi University and underwent training at an Oji Paper Group business site in Guangxi.

After my studies I stayed in China and took a position with CPFL. This study-abroad program has been great for me. When I started, I could not speak a word of Chinese, but now I am communicating with local staff members and making a difference in our plantation business here.

## Striving to diversify our workplaces

### Creating environments that work for women

The Oji Paper Group promotes measures that support childcare. Specific measures include: (1) a free childcare consultation service at the Oji Group Health Consultation Office; (2) a shorter working hours system (flextime, part-time, and working every other day) to enable care for children before they start elementary school; (3) encouraging male employees to take childcare leave; and (4) expanding the situations under which reserve leave can be taken to care for children who are sick or injured (previously this was limited to long-term convalescence of one or more weeks).

We also help with finances to make sure raising children and work are compatible by paying a partial salary to employees from the time they start prenatal and postnatal leave, through childcare leave, until their child reaches one year of age. This goes beyond the requirements of Japanese law. We also secure replacements for people while they are on leave. As a result, the percentage of women who take childcare leave has been on the rise (table 2).

Table 2 Percentage of Female Employees Who Have Taken Childcare Leave

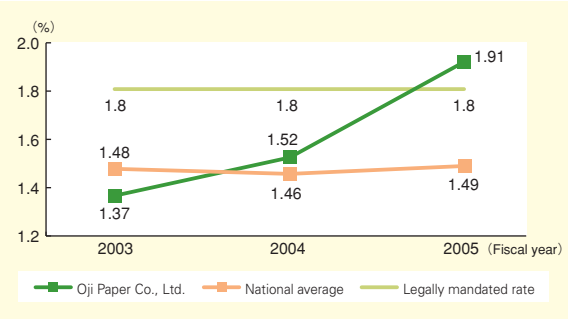
| | FY00 | FY01 | FY02 | FY03 | FY04 | FY05 |
|---|---|---|---|---|---|---|
| Number of women | 11 | 14 | 9 | 15 | 15 | 16 |
| Percentage who took childcare leave | 73% | 93% | 69% | 88% | 83% | 100% |

* Ratio of female employees who took childcare leave to those who became eligible to take childcare leave after giving birth, for each fiscal year.
* Percentage of women who take childcare leave: National average: 70.6%; average for business establishments with 500 or more employees: 83.2% (Source: *Fiscal 2004 Basic Survey of Employment Management for Women,* Ministry of Health, Labour and Welfare, Japan)

### ●Employment of persons with disabilities

In fiscal 2005, we focused our efforts in the following areas to facilitate the fuller participation in society of persons with disabilities. (1) We aggressively utilized job-placement offices and private employment agencies to hire persons with disabilities for positions ranging from traditional job categories to peripheral tasks. (2) With the help of public agencies and NPOs, we succeeded in employing persons with mental disabilities at our headquarters building in Ginza, Tokyo. Currently, we are employing nine persons with mental disabilities. These new hires increased the fiscal 2005 employment rate for persons with disabilities to 1.91% at Oji Paper Co., Ltd. (graph 1).

Graph 1 Employment Rate for Persons with Disabilities




* Oji Paper: Average monthly performance for each fiscal year.
* National average: Performance as of June 1 for each fiscal year.

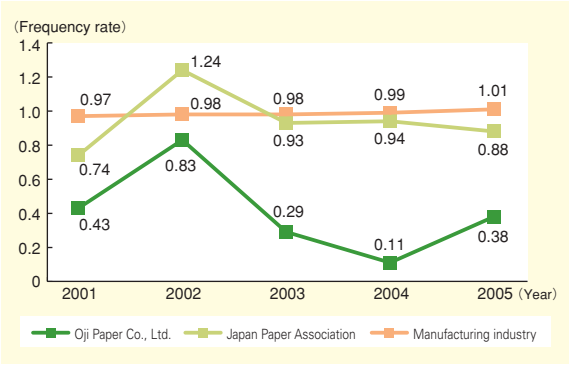
## Safe, healthy workplaces

### ●Occupational safety and health initiatives

In 2005, we addressed various issues using the Oji Paper Group Guidelines for the Promotion of Occupational Safety and Health. We clarified top management's commitments and responsibilities, worked to eradicate serious accidents, enhanced safety awareness group-wide, encouraged a culture of safety, prepared to switch over to an occupational safety and health management system, and strengthened safety measures at group companies.

All Oji Paper mills and some of our main company mills adopted a risk management system in 2002 and have implemented the Plan-Do-Check-Act cycle to reduce workplace risks. In 2005, we prepared to switch over to an occupational safety and health management system by creating a system procedure manual and training internal system auditors. In addition, group companies launched risk management initiatives at all business sites under a two-year plan that began in 2005. Work-related accidents at Oji Paper increased slightly from 2004, but accidents at group companies dropped by nearly half, from 47 to 21. However, many of these accidents involved something getting caught in a roller, which could have led to serious accidents.

Graph 2 Frequency Rate of Injuries Leading to Lost Work Time




* Frequency rate = (Number of fatalities and persons injured / Total working hours) x 1,000,000
* Japan Paper Association:
Data for member companies of the Japan Paper Association.

In 2006, all Oji Paper mills and some of our main company mills will switch over to an occupational safety and health management system in order to further increase the safety within the Oji Paper Group.

### ●Keeping employees safe on plantations outside Japan

The Oji Paper Group operates plantations at 11 sites in six countries. We are committed to ensuring the safety of all the people who work at those sites.

For example, one of our group companies, Quy Nhon Plantation Forest Company of Vietnam Ltd. (QPFL), ensures that employees carry first-aid kits and wear helmets and gloves when working (photo 1)—quite a challenge in a place where there was no such custom due to the hot and humid Vietnamese weather. It became easier when on-site safety considerations were made explicit when QPFL acquired FSC certification in March 2006. We are committed to taking further steps to ensure safety on our overseas plantations.

Photo 1 An employee with a helmet logging trees at a QPFL plantation in Vietnam.

# Community Relations

Residents who live in the neighborhoods around company mills and near tree plantations expect consideration and decent treatment. The Oji Paper Group is doing its utmost to avoid inconveniencing the people who live close to its mills and to ensure its tree plantations are understood and welcomed by the people nearby.

## Case study from Japan: Responding to residents who live near the Kure Mill

### Dialogue with Hiroshima International University on environmental management at mills

Oji Paper's Kure Mill is a coastal mill located along the Seto Inland Sea about seven kilometers east of Kure City in Hiroshima Prefecture. The mill produces about 30,000 tonnes of products per month, including pulp, inorganic paper, wrapping paper, and printing paper such as uncoated woodfree paper and lightweight coated paper.

The mill's environmental policy includes the goal of being "beloved by customers and community residents," and ensuring that an accident that would cause trouble for the community never happens. The mill has continuously implemented environmental measures in line with this policy.

Accordingly, when the mill heard that professors and students at Hiroshima International University in Kure City were experiencing offensive odors around the university campus, staff from the mill's environment management office visited the university. When they explained that the mill is continuously implementing environmental measures, including steps to deal with the odor problem, the professors and students expressed the wish to tour the mill.

A total of 11 people came on the day of the tour. These included Professors Hiromatsu and Ishizu, who teach courses on environmental assessment at the university and are knowledgeable about the relationship between companies and community residents, their seminar students, and other students. Mill employees explained the paper manufacturing process step by step. We believe that this experience deepened our guests' understanding of the consideration the mill puts into raw material procurement and energy consumption as well as its environmental measures.

Photo 1 Students from Hiroshima International University visiting the Kure Mill.

### Committed to proactive disclosure of information and dialogues with residents

Students provided comments such as the following:

- "I learned about the difficulty of running a production operation at a large mill as well as the difficulty of implementing environmental measures. I really felt the company is making an effort for the environment. I also felt the need for us to think together with the company and participate in environmental initiatives."
- "Oji Paper not only makes paper: it aggressively undertakes environmental initiatives, including groundwork activities. I am glad I had the chance to learn about corporate activities that I did not know about before."

Professor Hiromatsu pointed out that, "Hiroshima International University is a newcomer in the area, having been established here only four years ago. Oji Paper could have avoided mistrust and misunderstandings at the university if it had provided information early on, such as by putting up posters on the campus. I hope that the company will be more proactive, rather than taking the apologetic stance of asking about concerns after a problem arises."

The mill decided to ask the university to appoint environmental monitors, and to set up a system in which the mill will be immediately contacted about news of bad odors on the campus or other concerns.

The mill is committed to moving forward with the implementation of environmental measures. The mill recognizes that contributing to the community is part of its corporate social responsibility. It is determined to enhance information disclosure and deepen the understanding of community residents, ensuring an accurate response to the ever-changing surrounding environment. Inviting people to visit the mill is a first step to that end. Going forward, the mill will solicit and welcome tour visitors and communicate with residents of nearby neighborhoods. The mill will work on holding dialogues with community residents by actively

participating in environmental monitor meetings and community meetings.

## Case study in Vietnam: Consideration for residents living near plantations

### Plantation success depends on the trust of the local community

The Oji Paper Group is developing tree plantations outside Japan in order to secure raw materials for papermaking. In a land where the culture and customs are different from those in Japan, and considering the fact that the fruits of a tree plantation are long in coming, the success of a plantation depends on winning the trust of the local community. The Oji Paper Group operates 11 plantations in six countries. Below, we introduce our relationship with community residents and the activities of QPFL, a group company operating in the south central Vietnamese province of Binh Dinh.

### Providing seedlings to local residents: A plan for obtaining raw materials in the future

QPFL was established in May 1995. The company started planting acacia and eucalyptus trees on unused lands and grassy areas, and developed 9,123 hectares of tree plantations by the close of fiscal 2005. Harvesting began in July 2002. The harvested sites are replanted with acacia trees. In March 2006, we acquired the first FSC certification in Vietnam.

As part of its efforts to win local understanding for its business, QPFL provides the same acacia tree seedlings that it uses on its plantations to local residents for free. This is a mutually beneficial system: QPFL has offered to buy the wood back from the local residents for use as raw material, if they choose to cut down a tree that has grown to a certain size on their property.

We started providing seedlings in 2002—950,000 between 2002 and 2003, 2 million in 2004, and 2.4 million in 2005. The trees have not yet reached harvestable size. However, assuming that all the trees provided in 2005 are actually planted and grow steadily, this corresponds to 1,500 hectares per year, which is equivalent to the total area planted in a year by QPFL.

When providing the seedlings, we ask that people bring the wood back to QPFL when the trees are grown. However, the seedlings are simply given to the local residents with no obligation to bring the wood back to QPFL. It is therefore difficult to forecast how much wood will actually be brought back.

The primary objective of this program is not economic: it is to maintain friendly relations with the local people and to earn their trust. In Vietnam, it is common for people to respect their superiors. They have other customs, too, like eating breakfast together before discussing work. Here, good communication with the local people is indispensable. Our approach to this is to use the unique characteristics of our tree plantation business, such as the provision of nursery trees, to build solid, long-term relations (photo 2).

Photo 2 An acacia tree that grew from a seedling provided by QPFL, and the resident who planted it.

### Creating jobs, technology licensing, and consideration for ethnic minorities

Local employment has expanded since QPFL started developing tree plantations in Vietnam. At first, we only employed people to plant the trees. Harvesting began in 2002, when the plantation trees had grown big enough. Since then, we have also employed loggers. Thus, we have created jobs for people in every season—planting in the rainy season and harvesting in the dry season. We have come to employ a total of between 1,000 and 1,500 people each year.

In addition to creating jobs, we see the licensing of technology as an important contribution. Nguyen An Diem (photo 3), general director of PISICO, the company that operates QPFL's plantations, said, "Since we started working with QPFL, our tree planting technology has improved, and our safety instructions to on-site employees have become more rigorous. QPFL's tree planting technology has now become the model for tree planting in Vietnam." PISICO is also developing a wide range of businesses focused on wood processing.

QPFL operates plantations at 57 sites in Binh Dinh Province. Naturally, ethnic minorities live in some of these areas. When deciding on a plantation location, QPFL obtains information on ethnic minorities from the provincial government, and makes sure not to upset the traditional lifestyles of these minority groups.

Photo 3 Nguyen An Diem, general director of PISICO, talking about QPFL's tree planting.

# Corporate Citizenship Working Together with Local Communities

**The Oji Paper Group is committed to fulfilling its role as a good corporate citizen at each of its business sites in and outside Japan. We are dedicated to making contributions that take advantage of the unique characteristics of our core business, and we always strive to improve the communities that are our hosts.**

## Philanthropic programs at business sites in Japan: Building harmony with local communities

The Oji Paper Group produces paper and converted paper products at its mills (business sites) throughout Japan. Since before World War II, we have been building mills and doing business in a way that earns the respect of local communities. Having local residents gain an understanding of our business activities is an important step in ensuring that we will be able to continue production at these sites.

Each business site belonging to the Oji Paper Group participates in groundwork activities such as helping out with community clean-ups and planting trees, beautification projects like planting flower beds and installing lighting, and joining in the fun at local festivals. In addition, we also welcome members of the general public at health clinics and kindergartens that are managed directly by the company.

### Groundwork activities in the community: Joint projects with the Japan Groundwork Association

In fiscal 2005, Oji Paper conducted 1,485 groundwork activities, in which a total of 22,438 employees participated. We have extended the ethos of the Japan Groundwork Association[*1] to all of our business establishments across Japan.

In 2002, Japan and the United Kingdom formed the UK-Japan Green Alliance in commemoration of the two countries' century of friendship. At that time, the United Kingdom made a present to Japan of about 200 oak trees. One of those trees was planted in a park in the city of Anan with the help of staff from the British Consulate General, people from Anan, and volunteers under the coordination of the Groundwork Association and Oji Paper's Tomioka Mill (photo 1). At the same time, Oji Paper Co., Ltd., presented an *utsukushi matsu* (a type of red pine) that was also planted in Anan (photo 2). The *utsukushi matsu* is a protected species that is native to the city of Konan in Saga Prefecture. It was on the verge of extinction due to damage caused by an outbreak of pine weevils in the 1970s. However, Oji Paper's Forestry Research Institute succeeded in cultivating seedlings and prevented the extinction of the species.

Photo 1 The oak three years after being planted.

Photo 2 The *utsukushi matsu* three years after being planted.

### Recovery of disposable chopsticks: Enhancing environmental education with a donation fund

Since 1992, the Oji Paper Group has been collecting used disposable chopsticks and effectively utilizing them as a raw material for papermaking. They are delivered to our mills through the goodwill of those who send them. In fiscal 2005, we collected about 487 tonnes of disposable chopsticks.

Out of our gratitude for the goodwill and the raw materials sent in by community members, we decided to give something back to the community. In 2005, we established a system for donating funds—in proportion to the volume of recovered disposable chopsticks—to an organization that would use the money effectively. We donate 1,000 yen for every tonne of disposable chopsticks.

The organization we selected to receive these donations is the NPO Japan Council on the UN Decade of Education for Sustainable Development (ESD-J).[*2] In fiscal 2005, we donated 490,000 yen for the second year's delivery. The recovery of disposable chopsticks

Photo 3 Every year, students from the nearby elementary school and many others come to see the recycling of disposable chopsticks at the Kasugai Mill.

from all across Japan is helping to enhance environmental and other forms of education that will contribute to a sustainable society.

## Philanthropic programs at tree plantations outside Japan: Helping children understand afforestation

Plantation operations outside Japan invariably depend upon the borrowing of land. Interaction with the local community is indispensable for gaining an understanding of plantation operations on the part of the people who live in that area. Below, we introduce some examples of the philanthropic programs undertaken by the Guangxi Oji Plantation Forest Co., Ltd. (CPFL) in China.

### Benevolent ambitions passed along in Guangxi, China

In the *Oji Paper Group Environmental Report 2004* and the *Oji Paper Group Environmental and Sustainability Report 2005*, we published accounts of activities undertaken by CPFL's Masatoshi Endo as exemplary social contributions. Mr. Endo has now moved to a different tree plantation company in China. At CPFL, local staff member Song Min is now continuing his initiative. Ms. Song, who has been with CPFL since June 2004, is currently in charge of accounting. At the same time, she is also the leader who is driving forward the philanthropic programs undertaken by CPFL.

Ms. Song says that at first she questioned why a tree plantation company would be so active about philanthropic programs. She seems to have felt that mere activities without a budget for making donations were meaningless—it seemed that no matter how often she visited a school, she was always asked for a donation of money to solve its poverty problems. Moreover, she also wondered what the sense was of traveling all the way to visit schools in rural villages when it took four or five hours one-way by bus and two to three transfers. Nevertheless, Mr. Endo was able to persuade her to continue the programs. Along the way, a painting contest in April 2005 became a turning point for Ms. Song. The children at an elementary school she was often visiting to prepare for the contest started to welcome her wholeheartedly. Now, the children even send her letters and call her on the telephone. Ms. Song came to feel the value of doing something together with the local people and the importance of empowering children, not just giving money.

Photo 4 Elementary school children who took part in the painting contest.

Photo 5 Health checkups.

Currently, Ms. Song is involved in supporting a child with heart disease, running fund drives to collect money to cover the costs of surgery for the child. Ms. Song started this initiative when a child with a heart murmur was discovered among nearly 1,000 children who were given health checkups (photo 5) under a cooperative agreement between CPFL and a health office of the Communist Youth League of China.

Ms. Song had this to say. "In order to get people to understand tree plantation companies, it is important to enable them to learn from childhood about the advantages of planting trees, including the prevention of landslides and the absorption of carbon dioxide. If people come to understand the significance of planting trees, they will contact us immediately if, for example, a fire breaks out on a plantation, or to help us to prevent illegal logging."

### Philanthropic programs undertaken by CPFL

- Once-monthly Japanese language salon starting in September 2002.
- Provision of funds and labor to repair the gate of an elementary school in January 2005.
- Free health checkups for children at four elementary schools in March 2005.
- Painting, calligraphy, and essay contests between April and November 2005.
- Helped to attract Grant Assistance for Grassroots Projects from the Japanese government in July 2005.
- Created a calendar using paintings by elementary school students in October 2005.
- Donated about 400 books to four elementary schools in October 2005.
- Provided support and ran fund drive to cover the costs of surgery for a child with heart disease in April 2006.

*1 Japan Groundwork Association
A volunteer organization that originated in the United Kingdom. The ethos of the association is that citizens, local governments, and companies should work together to contribute to the local environment. In October 1995, Oji Paper Co., Ltd., became the first corporate member in Japan.

*2 ESD-J
A network organization that promotes education geared to the building of a sustainable society, including environmental education. The network is composed of NGOs, NPOs, and individuals who are working to address a variety of social issues including the environment, development, and human rights.

# Record of Accidents and Awards

## Concrete measures for improving environmental management at the Chiba Mill of Oji Cornstarch Co., Ltd.

Written by
Kunikazu Ohdakara
President
Oji Cornstarch Co., Ltd.

In July 2005, we discovered that the Chiba Mill of Oji Cornstarch Co., Ltd., had failed to comply with environmental management regulations. In the interest of information disclosure, we voluntarily reported this very regrettable incident to the relevant authorities. Later, on August 5, 2005, we issued a press release expressing our determination to identify and eradicate the root cause of the incident. We immediately set up an Environmental Incident Response Committee, which I chair, and considered and steadily implemented measures to prevent a recurrence. In these matters we were guided and supported by the relevant authorities and by Oji Paper Co., Ltd.

First, we took the following measures in response to the revelation that false information had been submitted in a water quality measurement report and other documents submitted in accordance with a pollution prevention agreement: (1) we positioned environmental issues as a top priority of corporate management, and strengthened the authority and checking system of the environmental management department by reforming the pollution prevention organization and involving new human resources; (2) we drastically improved the environmental management system through such steps as increasing the staff of the Environmental Conservation Office and moving the Quality Assurance Department under the Environmental Quality Assurance Department; and (3) we re-educated all employees, including mill executives, regarding environmental management and relevant laws and regulations.

Photo 1 Wastewater detention tank under construction.

Then, in response to having exceeded the standard values set by the pollution control agreement for chemical oxygen demand (COD), suspended solids (SS), and volume of wastewater, we took these steps: (1) we strengthened water quality monitoring by installing a warning system that automatically reports abnormalities in water quality; (2) we implemented equipment-related measures to prevent a recurrence, including stabilizing the concentration of suspended solids by improving coagulation and sedimentation devices; (3) we took other preventive measures such as preparing manuals on operational management and environmental management and ensuring that all employees were familiar with them; and (4) we installed a 1,500 $m^3$ wastewater tank (photo 1) in which abnormal wastewater can be detained in an emergency (completed in August 2006).

Oji Cornstarch is committed to continuing to make improvements like these. We have started the process of acquiring ISO 14001 certification to further bolster our commitment to environmental conservation.

## Accident report

In fiscal 2005, the Oji Paper Group had two accidents related to wastewater treatment systems and one accident involving leakage of a wastewater treatment agent. In each case, we investigated the causes and made improvements. We went beyond merely making improvements at the mills where the accidents occurred; we also took steps to prevent the occurrence of similar accidents. Oji Paper's Environmental Management Department sent out relevant information group-wide and instructions were given to develop countermeasures that cut across the entire organization.

## Record of awards

The Oji Paper Group's *Environmental and Sustainability Report 2005* won an Outstanding Environmental Report Award in the Ninth Environmental Communication Awards, which is an authoritative recognition scheme in Japan sponsored by the Global Environmental Forum.


Front cover of the *Environmental and Sustainability Report 2005.*

# Third-party Opinion of This Report

**Hiroyuki Ishi**
Professor
Hokkaido University Public Policy School

Joined the Asahi Shimbun Company after graduating from the University of Tokyo. Since 1996, has served as a professor in the Graduate School of Arts and Sciences and the Graduate School of Frontier Sciences at the University of Tokyo. Served as ambassador extraordinary and plenipotentiary to Zambia from 2002. During this time, held positions as a senior advisor to the United Nations Environment Programme, a director at the Regional Environmental Center for Central and Eastern Europe, and an advisor to the Japan International Cooperation Agency (JICA). Publications include *Global Environmental Reporting I and II, Tracing Global Forest Destruction,* and *My Global Odyssey,* among others.

Starting with the sludge incident that happened around 1970 in Tagonoura Bay in Shizuoka Prefecture, where there is a concentration of paper mills, and then with dioxin pollution, we have seen campaigns put on by environmental protection groups against Japan's logging of natural stands and imports of timber from Asia, Canada and Australia. I have followed the environmental issues relating to paper companies for almost 40 years now. However, until I read this report, I did not know that recovered paper could account for up to 60% of the raw material for papermaking or that 40% of your imported chips will be supplied from tree plantations in 2010 if tree planting outside Japan proceeds as planned. This report fully communicates the paper industry's commitment to seriously addressing environmental issues. The report indicated that Australia is the Oji Paper Group's largest supplier of wood chips, supplying nearly 30%. Nevertheless, the Australian report from the logging field in this report was rather brief compared to those from other countries. The report did not go beyond saying that the local supplier with which the Oji Paper Group has signed contracts is a company that complies with applicable regulations and standards (and can therefore be trusted).

That particular company happens to be the object of a deeply-rooted local protest movement against its logging of precious old-growth forests on the island of Tasmania. It is in the midst of an all-out confrontation with environmental protection groups. This problem has been reported in Japan, and it is well known among interested parties that forest protection NGOs in Japan have lodged protests. I wish the report had made clear how the Oji Paper Group has been responding to protest movements like these.

Thus far, each time they get hit with a shower of criticism over logging issues outside Japan, Japanese companies involved in logging and the importation of timber have always taken the stance that their imports are legal, having been approved by the local governments. However, government policy and public opinion do not always agree. In particular, there are strong feelings in all countries that natural stands are a national asset. This is apparent even in the protest movements in various regions of Japan and the lawsuits against Japan's Forestry Agency, which goes so far as to log natural stands to cover its deficit. What kind of feelings would the public have if logging in Japan was for the purpose of exporting wood chips? I think it is time something gets done about this. Some Japanese paper companies have already stopped importing chips from natural stands in Australia.

Japan is proud of the fact that forests cover nearly 70% of the country. At the same time, however, forestry as an agricultural practice has nearly collapsed in Japan; the country depends on the outside world for about 90% of its pulp and chips, about 70% of its saw timber, and almost all of its plywood. The fact that Japan's reliance on other countries is so extensive means that global forest problems will eventually come back to impact this country. The movements of NGOs also deserve more attention.

While I know this is easier said than done, I suspect that it will be the companies who establish cyclical utilization of tree plantations the soonest who will be the survivors in the looming supply-and demand-gap in forestry resources expected from 2050 onward. The Oji Paper Group declares that it has 190,000 hectares of company-owned forests spread across Japan. I want to believe President Shinoda's words when he says, "It will be a major challenge to meet 100% of our [need for raw materials] with plantation wood [while maximizing the use of recovered paper], but this is the goal that I would like to aspire to."

**Shinichiro Kondo**
Executive Director Responsible for Environmental Affairs
Oji Paper Co., Ltd.

## Response to third-party opinion

Forestry policy in Tasmania is based on a regional forestry agreement that was enacted in 1997 after passing through a democratic process. It is recognized that the natural stands that are approved for timber production outside of protected areas are being regenerated through sustainable forest management practices. While various stakeholders have different points of view, the fact remains that forestry is an important industry for Tasmania. During the previous national elections in 2004, forestry policy in Tasmania, which balances environmental and economic interests, won the support of the Australian public. Moreover, Tasmanian chips have forest certification. This indicates that a third-party has assessed and certified that the wood was produced from forests that are properly managed in terms of environmental, social, and economic factors. We have explained our thinking to certain environmental protection groups, but unfortunately have not yet reached a full understanding with them.

The Oji Paper Group is committed to the principle of green procurement for the wood raw materials it needs beyond the maximal utilization of recovered paper. The group is resolutely opposed to illegal logging and the logging of forests with a high protection value. World demand for forestry resources is forecasted to continue to increase in the future. We plan to move forward with the production of environmentally friendly paper, which is our corporate social responsibility, by increasing our procurement of wood chips from certified forests and tree plantations. While keeping the above feedback in mind, I would like to keep the focus on the company's own plantations and help put the Oji Paper Group in a position where it can live up it its ideal of planting what it uses.

# Comparison of GRI *Sustainability Reporting Guidelines* and This Report

The Global Reporting Initiative's *Sustainability Reporting Guidelines* provide a framework for corporate reporting on sustainability initiatives for the environment, society, and economy. In preparing this report, we used the 2002 version of the guidelines. The table below indicates the page(s) on which each item is discussed.

| Item | Indicator | | Page(s) |
|---|---|---|---|
| **1 Vision and Strategy** | | | |
| 1.1 | Statement of the organisation's vision and strategy regarding its contribution to sustainable development. | | 5-8,9 |
| **2 Profile** | | | |
| Organisational Profile | | | |
| 2.1 | Name of reporting organisation. | | 1-2 |
| 2.2 | Major products and/or services, including brands if appropriate. | | 1-2 |
| 2.3 | Operational structure of the organisation. | | 1 |
| 2.4 | Description of major divisions, operating companies, subsidiaries, and joint ventures. | | 2 |
| 2.6 | Nature of ownership; legal form. | | 1 |
| 2.7 | Nature of markets served. | | 11-13,15-16 |
| 2.8 | Scale of the reporting organisation. | | 1-2 |
| 2.9 | List of stakeholders, key attributes of each, and relationship to the reporting organisation. | | 9 |
| Report Scope | | | |
| 2.10 | Contact person(s) for the report, including e-mail and web addresses. | | 4 |
| 2.11 | Reporting period (e.g., fiscal/calendar year) for information provided. | | 4 |
| 2.12 | Date of most recent previous report (if any). | | 4 |
| 2.13 | Boundaries of report (countries/regions, products/services, divisions/facilities/joint ventures/subsidiaries) and any specific limitations on the scope. | | 2 |
| 2.14 | Significant changes in size, structure, ownership, or products/services that have occurred since the previous report. | | 2 |
| Report Profile | | | |
| 2.18 | Criteria/definitions used in any accounting for economic, environmental, and social costs and benefits. | | 51 |
| 2.20 | Policies and internal practices to enhance and provide assurance about the accuracy, completeness, and reliability that can be placed on the sustainability report. | | 4,10△ |
| 2.22 | Means by which report users can obtain additional information and reports about economic, environmental, and social aspects of the organisation's activities, including facility-specific information (if available). | | 4 |
| **3 Governance Structure and Management Systems** | | | |
| Structure and Governance | | | |
| 3.1 | Governance structure of the organisation, including major committees under the board of directors that are responsible for setting strategy and for oversight of the organisation. | | 25 |
| 3.4 | Board-level processes for overseeing the organisation's identification and management of economic, environmental, and social risks and opportunities. | | 26,27 |
| 3.5 | Linkage between executive compensation and achievement of the organisation's financial and non-financial goals (e.g., environmental performance, labour practices). | | 25 |
| 3.6 | Organisational structure and key individuals responsible for oversight, implementation, and audit of economic, environmental, social, and related policies. | | 25-26,27 |
| 3.7 | Mission and values statements, internally developed codes of conduct or principles, and polices relevant to economic, environmental, and social performance and the status of implementation. | | 5-8,9-10,11,14,15-16,29-30,54-56 |
| Stakeholder Engagement | | | |
| 3.10 | Approaches to stakeholder consultation reported in terms of frequency of consultations by type and by stakeholder group. | | 26,Questionnaire |
| 3.11 | Type of information generated by stakeholder consultations. | | 21-24, 53-54,57,Questionnaire |
| 3.12 | Use of information resulting from stakeholder engagements. | | 57,Questionnaire |
| Overarching Policies and Management Systems | | | |
| 3.13 | Explanation of whether and how the precautionary approach or principle is addressed by the organisation. | | 35 |
| 3.14 | Externally developed, voluntary economic, environmental, and social charters, sets of principles, or other initiatives to which the organisation subscribes or which it endorses. | | 10 |
| 3.15 | Principal memberships in industry and business associations, and/or national/international advocacy organisations. | | 10,59 |
| 3.16 | Policies and/or systems for managing upstream and downstream impacts. | | 11-16,47-48 |
| 3.17 | Reporting organisation's approach to managing indirect economic, environmental, and social impacts resulting from its activities. | | 36,42 |
| 3.19 | Programmes and procedures pertaining to economic, environmental, and social performance. | | 25-26,27-28 |
| 3.20 | Status of certification pertaining to economic, environmental, and social management systems. | | 28 |
| **4 GRI Content Index** | | | |
| 4.1 | A table identifying location of each element of the GRI Report Content, by section and indicator. | | 63-64 |
| **5 Performance Indicators** | | | |
| Integrated Indicators | | | |
| Systemic indicators | | | 30,32,37 |
| Cross-cutting indicators | | | 40-41, Per unit of output |
| Economic Performance Indicators | | | |
| Customers | EC1 | Monetary flow indicator: net sales. | 1 |
| Public Sector | EC13* | The organisation's indirect economic impacts. Identify major externalities associated with the reporting organisation's products and services. | 58△ |

| Item | | Indicator | Page(s) |
|---|---|---|---|
| **Environmental Performance Indicators** | | | |
| Materials | EN1 | Total materials use other than water, by type. Provide definitions used for types of materials. Report in tonnes, kilograms, or volume. | 31-32 |
| | EN2 | Percentage of materials used that are wastes (processed or unprocessed) from sources external to the reporting organisation. Refers to both post-consumer recycled material and waste from industrial sources. Report in tonnes, kilograms, or volume. | 31-32,37 |
| Energy | EN3 | Direct energy use segmented by primary source. Report on all energy sources used by the reporting organisation for its own operations as well as for the production and delivery of energy products (e.g., electricity or heat) to other organisations. Report in joules. | 29-30,31-32,39-41 |
| | EN4 | Indirect energy use. Report on all energy used to produce and deliver energy products purchased by the reporting organisation (e.g., electricity or heat). Report in joules. | 31-32,42 |
| | EN17* | Initiatives to use renewable energy sources and to increase energy efficiency. | 39,40-41 |
| | EN19* | Other indirect (upstream/downstream) energy use and implications, such as organisational travel, product lifecycle management, and use of energy-intensive materials. | 37-38,42 |
| Water | EN5 | Total water use. | 44,52 |
| | EN22* | Total recycling and reuse of water. Include wastewater and other used water (e.g., cooling water) | 44 |
| Biodiversity | EN7 | Description of the major impacts on biodiversity associated with activities and/or products and services in terrestrial, freshwater, and marine environments. | 11-12 |
| | EN23* | Total amount of land owned, leased, or managed for production activities or extractive use. | 35 |
| | EN26* | Changes to natural habitats resulting from activities and operations and percentage of habitat protected or restored. Identify type of habitat affected and its status. | 11-12,35-36 |
| | EN27* | Objectives, programmes, and targets for protecting and restoring native ecosystems and species in degraded areas. | 35-36 |
| Emissions, Effluents, and Waste | EN8 | Greenhouse gas emissions. ($CO_2$, $CH_4$, $N_2O$, HFCs, PFCs, $SF_6$) | 30,32,41,52 |
| | EN10 | NOx, SOx, and other significant air emissions by type. | 32,43,52 |
| | EN11 | Total amount of waste by type and destination. "Destination" refers to the method by which waste is treated, including composting, reuse, recycling, recovery, incineration, or landfilling. Explain type of classification method and estimation method. | 31-32,46,52 |
| | EN12 | Significant discharges to water by type. See GRI Water Protocol. | 44,52 |
| | EN13 | Significant spills of chemicals, oils, and fuels in terms of total number and total volume. Significance is defined in terms of both the size of the spill and impact on the surrounding environment. | 26,61 |
| | EN30* | Other relevant indirect greenhouse gas emissions. ($CO_2$, $CH_4$, $N_2O$, HFCs, PFCs, $SF_6$). Refers to emissions that are a consequence of the activities of the reporting entity, but occur from sources owned or controlled by another entity. Report in tonnes of gas and tonnes of $CO_2$ equivalent. | 32,42,52 |
| | EN31* | All production, transport, import, or export of any waste deemed "hazardous" under the terms of the Basel Convention Annex I, II, III, and VIII. | 45 |
| Products and Services | EN14 | Significant environmental impacts of principal products and services. Describe and quantify where relevant. | 32,47-48 |
| | EN15 | Percentage of the weight of products sold that is reclaimable at the end of the products' useful life and percentage that is actually reclaimed. "Reclaimable" refers to either the recycling or reuse of the product materials or components. | 31-32,37 |
| Compliance | EN16 | Incidents of and fines for non-compliance with all applicable international declarations/conventions/treaties, and national, sub-national, regional, and local regulations associated with environmental issues. Explain in terms of countries of operation. | 26,61 |
| Suppliers | EN33* | Performance of suppliers relative to environmental components of programmes and procedures described in response to Governance Structure and Management Systems section (Section 3.16). | 47-48 |
| Transport | EN34* | Significant environmental impacts of transportation used for logistical purposes. | 42 |
| Overall | EN35* | Total environmental expenditures by type. Explain definitions used for types of expenditures. | 51 |
| **Social Performance Indicators:** | | | |
| **(Labour Practices and Decent Work)** | | | |
| Employment | LA1 | Breakdown of workforce, where possible, by region/country, status (employee/non-employee), employment type (full time/part time), and by employment contract (indefinite or permanent/fixed term or temporary). Also identify workforce retained in conjunction with other employers (temporary agency workers or workers in co-employment relationships), segmented by region/country. | 1-2 |
| | LA12* | Employee benefits beyond those legally mandated. (e.g., contributions to health care, disability, maternity, education, and retirement). | 55 |
| Health and Safety | LA7 | Standard injury, lost day, and absentee rates and number of work-related fatalities (including subcontracted workers). | 56 |
| Training and Education | LA16* | Description of programmes to support the continued employability of employees and to manage career endings. | 54 |
| | LA17* | Specific policies and programmes for skills management or for lifelong learning. | 54 |
| Diversity and Opportunity | LA10 | Description of equal opportunity policies or programmes, as well as monitoring systems to ensure compliance and results of monitoring. Equal opportunity policies may address workplace harassment and affirmative action relative to historical patterns of discrimination. | 55 |
| | LA11 | Composition of senior management and corporate governance bodies (including the board of directors), including female/male ratio and other indicators of diversity as culturally appropriate. | 55 |
| **(Human Rights)** | | | |
| Strategy and Management | HR1 | Description of policies, guidelines, corporate structure, and procedures to deal with all aspects of human rights relevant to operations, including monitoring mechanisms and results. State how policies relate to existing international standards such as the Universal Declaration and the Fundamental Human Rights Conventions of the ILO. | 10 |
| Non-discrimination | HR4 | Description of global policy and procedures/programmes preventing all forms of discrimination in operations, including monitoring systems and results of monitoring. | 10 |
| Freedom of Association and Collective Bargaining | HR5 | Description of freedom of association policy and extent to which this policy is universally applied independent of local laws, as well as description of procedures/programmes to address this issue. | 10 |
| Child Labour | HR6 | Description of policy excluding child labour as defined by the ILO Convention 138 and extent to which this policy is visibly stated and applied, as well as description of procedures/programmes to address this issue, including monitoring systems and results of monitoring. | 10 |
| Forced and Compulsory Labour | HR7 | Description of policy to prevent forced and compulsory labour and extent to which this policy is visibly stated and applied as well as description of procedures/programmes to address this issue, including monitoring systems and results of monitoring. | 10 |
| Disciplinary Practices | HR9* | Description of appeal practices, including, but not limited to, human rights issues. Describe the representation and appeals process. | 26 |
| Indigenous Rights | HR12* | Description of policies, guidelines, and procedures to address the needs of indigenous people. This includes indigenous people in the workforce and in communities where the organisation currently operates or intends to operate. | 12,58 |
| **(Society)** | | | |
| Community | SO1 | Description of policy for preserving customer health and safety during use of products and services, and extent to which this policy is visibly stated and applied, as well as description of procedures/programmes to address this issue, including monitoring systems and results of monitoring. | 12,34 |
| | SO4* | Awards received relevant to social, ethical, and environmental performance. | 61 |
| Bribery and Corruption | SO2 | Description of the policy, procedures/management systems, and compliance mechanisms for organisations and employees addressing bribery and corruption. | 10,26 |
| Political Contributions | SO3 | Description of policy, procedures/management systems, and compliance mechanisms for managing political lobbying and contributions. | 26 |
| Competition and Pricing | SO7* | Description of policy, procedures/management systems, and compliance mechanisms for preventing anti-competitive behavior. | 26 |
| **(Product Responsibility)** | | | |
| Customer Health and Safety | PR1 | Description of policy for preserving customer health and safety during use of products and services, and extent to which this policy is visibly stated and applied, as well as description of procedures/programmes to address this issue, including monitoring systems and results of monitoring. | 47-48 |
| | PR6* | Voluntary code compliance, product labels or awards with respect to social and/ or environmental responsibility that the reporter is qualified to use or has received. Include explanation of the process and criteria involved. | 10,Back cover |
| Products and Services | PR2 | Description of policy, procedures/management systems, and compliance mechanisms related to product information and labelling. | 26 |
| | PR8* | Description of policy, procedures/management systems, and compliance mechanisms related to customer satisfaction, including results of surveys measuring customer satisfaction. Identify geographic areas covered by policy. | 26 |
| Respect for Privacy | PR3 | Description of policy, procedures/management systems, and compliance mechanisms for consumer privacy. | 26 |

* Optional indicators

Oji Paper Co.,Ltd.

## About the cover photo

The cover photo was taken at a tree plantation in Vietnam, one site where the Oji Paper Group is practicing forest recycling. The logs on the truck were harvested from an FSC-certified tree plantation of acacia trees. These trees were planted seven years ago to provide raw material for papermaking. See page 17 for details.

## About the papers used in this report

The Oji Paper Group produces paper by practicing forest recycling and paper recycling. This report is printed on three different kinds of paper. The first half of the report (pages 2-25) uses FSC-certified paper, which is the product of forest recycling. The second half (pages 26-63) features paper made using thinned timber from Hokkaido. The cover uses 100% recycled paper. We hope that this publication itself conveys the message that the Oji Paper Group is working to help build a sustainable way of life for all.

地球を救おう森のリサイクル
王子 チーム・マイナス6%

The "Team Minus 6%" logo, created by the Japanese government for the national campaign to achieve Japan's Kyoto Protocol commitment of a 6% reduction in greenhouse gases. The mark has been adapted by Oji Paper.

100% 古紙100%再生紙

Oji Paper's own mark for paper made from 100% recycled paper.

FSC Mixed Sources
Product group from well-managed forests and other controlled sources
www.fsc.org Cert no. SGS-COC-2201
© 1996 Forest Stewardship Council

A mark for FSC-certified paper (used for pages 2 to 25).

植林木 使用紙

Oji Paper's own mark for paper which contains pulp made from planted forest.

ECFpulp

Oji Paper's own mark for paper which contains elemental chlorine free pulp.

A mark for paper made from thinned timber.

道産

A mark for paper made from thinned timber from Hokkaido.

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