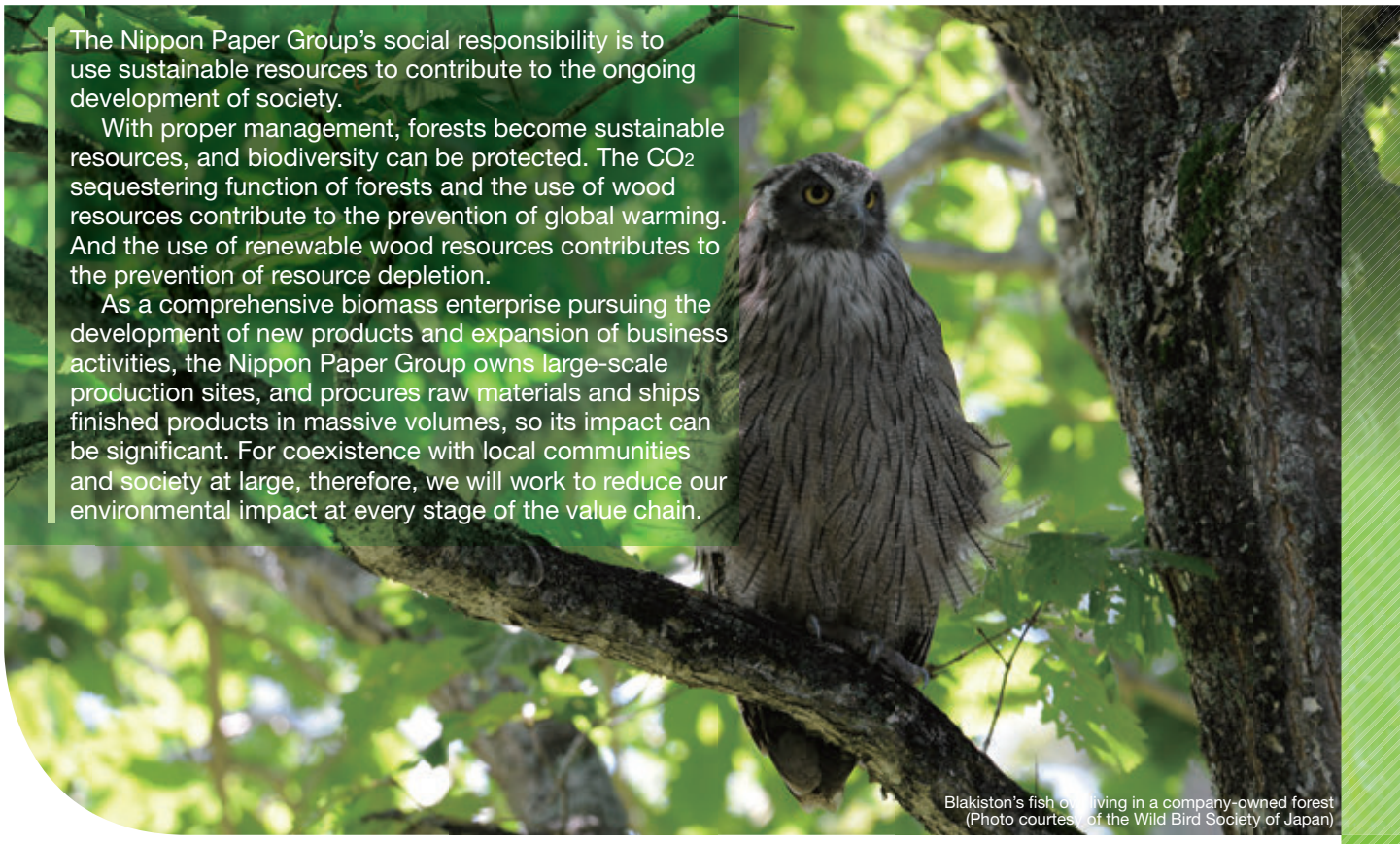
Environmental Responsibility

The Nippon Paper Group's social responsibility is to use sustainable resources to contribute to the ongoing development of society.

With proper management, forests become sustainable resources, and biodiversity can be protected. The CO_2 sequestering function of forests and the use of wood resources contribute to the prevention of global warming. And the use of renewable wood resources contributes to the prevention of resource depletion.

As a comprehensive biomass enterprise pursuing the development of new products and expansion of business activities, the Nippon Paper Group owns large-scale production sites, and procures raw materials and ships finished products in massive volumes, so its impact can be significant. For coexistence with local communities and society at large, therefore, we will work to reduce our environmental impact at every stage of the value chain.



Blakiston's fish owl living in a company-owned forest (Photo courtesy of the Wild Bird Society of Japan)

Indicators	Key Objectives	Performance (fiscal 2015)
Materiality: Climate Change Initiatives		
CO_2 emissions from fossil energy	Fiscal 2015 objective/Reduce by 25% vs. fiscal 1990	Reduced by 30%
Use of fossil energy	Fiscal 2015 objective/Reduce by 30% vs. fiscal 1990	Reduced by 39%
Materiality: Reduction of Environmental Impacts		
Waste recycling rate	Fiscal 2015 objective/at least 97%	98%
Onsite recycling rate for waste generated within mills	Fiscal 2015 objective/at least 40%	30%
Materiality: Wastepaper Collection and Use		
Ratio of recycled paper	Fiscal 2015 objective/At least 40% for paper and at least 88% for paperboard	38% for paper and 89% for paperboard
Materiality: Preserving Biodiversity		
Forest certifications for company-owned forests	100%	100%
Check for rare species prior to harvesting in company-owned forests	100%	100%

* The reporting scope for environmental data is described on page 5. In cases where a different reporting scope is used a notification to that effect is provided.

Policy and Management

We are putting in place a Group-wide environmental management system based on our Environmental Charter and engaging in environmentally friendly corporate activities

Basic Stance

Endeavoring to reduce the environmental impact of our activities taking into consideration the unique characteristics of our business and wide-ranging social issues

To reduce the environmental impact of its production processes, the Nippon Paper Group, in upholding the principles and basic stance expressed in the Nippon Paper Group Environmental Charter, emphasizes environmental performance in selecting equipment and strives to increase operating efficiency.

The Nippon Paper Group Environmental Charter

(Established on March 30, 2001, and revised on March 30, 2007)

Philosophy

The Nippon Paper Group is committed to helping preserve the global environment over the long term and contributing to the development of a recycling based society by carrying out its corporate activities in recognition of the importance of biodiversity*.

Basic Policy

1. Act to counter global warming
2. Protect and develop forest resources
3. Increase use of recycled resources
4. Comply with environmental statutes and work to minimize our environmental impact
5. Develop environmentally friendly technologies and products
6. Engage in active environmental communication

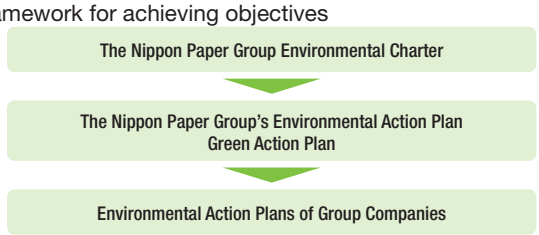
Environmental Action Plan (Green Action Plan)

Setting forth specific objectives and actions

The Nippon Paper Group has established its Environmental Action Plan - the Green Action Plan – in accordance with the six basic policies expressed in its Environmental Charter.

Group companies have each established their own specific environmental action plans to reflect their own individual business circumstances based on the Green Action Plan. Their efforts to fulfill these plans is enhancing our ability to accomplish the Green Action Plan.

Framework for achieving objectives

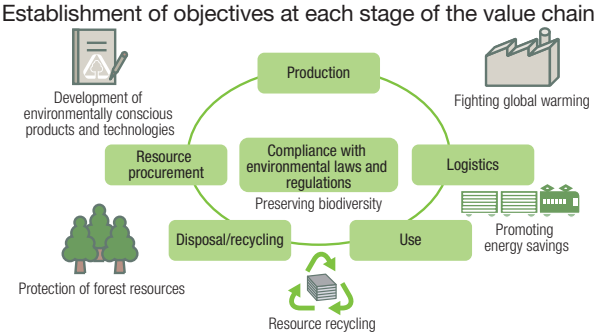


Green Action Plan 2015 results and formulation of the 2016-2020 plan

In implementing the Environmental Action Plan (Green Action Plan 2015) (see page 35), covering fiscal 2011-2015, Group companies achieved successes through proactive efforts, but came up short in promoting the use of recycled resources (see the following page).

Based on the Group's overall performance on Green Action Plan 2015, we have formulated the Green Action Plan 2020, which took effect in April 2016. With objectives established for each stage of the value chain, we are now working to achieve further reductions in our environmental impact.

Establishment of objectives at each stage of the value chain



The Nippon Paper Group Environmental Action Plan (Green Action Plan 2020) (In effect from April 1, 2016)

	Green Action Plan 2020
1. Anti-global warming action	Reduce greenhouse gas emissions by 10% compared to fiscal 2013*.
	Reduce logistics-generated CO_2 emissions.
2. Protection and development of forest resources	Advance domestic company-owned forest operations and the overseas afforestation project (Tree Farm Initiative) to ensure the sustainable nurturing of forest resources.
	Maintain forest certifications in all proprietary forests, both domestically and internationally.
	Ensure that all wood materials for pulp and paper are endorsed under forest certification schemes.
	Enhance traceability and facilitate the procurement of sustainable forest resources.
	Advance the use of wood fiber produced from domestically grown trees to promote sound growth of forest resources in Japan.
3. Recycling of resources	Promote greater use of wastepaper by achieving advances in wastepaper utilization technologies.
	Increase the waste recycling rate to at least 98%.*
4. Observance of environment-related laws and reduction of environmental load	Use the environmental management system to strengthen environmental management and reduce environmental impact.
	Properly manage chemical substances in accordance with the Nippon Paper Group Chemical Substance Management Guidelines.
5. Development of eco-friendly technologies and products	Enhance the more sophisticated use of wood materials.
	Develop equipment technology for facilitating a departure from reliance on fossil energy.
	Reduce the environmental load through the provision of ecofriendly products and services.
6. Environmental communication	Disclose environment-related information to stakeholders and accelerate environmental communication through dialogue and other means.
	Proactively participate in and support environment conservation activities.
7. Biodiversity commitments	Advance companywide biodiversity initiatives in accordance with the Nippon Paper Group Basic Policies on Protection of Biodiversity.

* Applies to production sites in Japan.

The Nippon Paper Group Environmental Action Plan (Green Action Plan 2015) main initiatives and final results (as of March 31, 2015)

	Green Action Plan 2015	Main Initiatives and Final Results	Page
1. Anti-global warming action	Reduce CO_2 emissions from fossil energy by 25% versus fiscal 1990.	• Despite lower production volume in the Paper and Paperboard businesses, reduced CO_2 emissions from fossil energy by 30.0% and the use of fossil energy by 39.0% versus fiscal 1990, outperforming the targets, through boiler modifications, updating of equipment, consolidation of facilities, fuel conversion, and energy-saving activities in daily operations.	39, 41
	Reduce the use of fossil energy by 30% versus fiscal 1990.		
	Reduce logistics-generated CO_2 emissions.	• Advanced highly efficient modal shift transport. • Nippon Paper Industries Co., Ltd.'s use of freight trains to transport wastepaper on return trips, thereby, reducing energy consumption and CO_2 emissions earned the Fiscal 2014 Green Logistics Partnership Conference Special Award and the Logistics Environment Special Award at the Japan Association for Logistics and Transport's 16th Environmental Awards.	40
2. Protection and development of forest resources	Facilitate the Tree Farm Initiative, an overseas afforestation project for procuring sustainable resources, with the aim of increasing overseas afforested area up to 200,000 hectares.[1]	• As of the end of 2015, total afforested areas came to 89,000 ha. • Going forward, plans to take full advantage of AMCEL's forest resources in Brazil will be drawn up for purposes including afforestation for the energy business.	32
	Maintain forest certification in all proprietary forests, both domestically and internationally.	• Currently maintaining SGEC, FSC®[2], and PEFC certification for 179,000 ha of company-owned forests in Japan and overseas. • AMCEL S.A., adding to its FSC®-FM certification, obtained the PEFC reciprocal CERFLOR FM certification in September 2014.	29, 32
	Ensure that all imported hardwood chips are PEFC- or FSC®-certified.[3]	• Have purchased only certified woodchips since fiscal 2013.	29
	Enhance traceability and facilitate the procurement of sustainable forest resources.	• In working to enhance traceability through the use of forest certifications, cleared the requirements of PEFC rules in their entirety and FSC® rules to 91% with respect to the assessment of imported wood risk in fiscal 2015.	29
3. Recycling of resources	Increase the ratio of recycled paper to paper to at least 40%. Increase the ratio of recycled paper to paperboard to at least 88%.	• Ratio of recycled paper to paper: 38% (Underachieved the target. Proactive efforts to use wastepaper were negatively affected by factors such as lower production of products incorporating recycled content.) • Ratio of recycled paper to paperboard: 89% (Achieved the target)	47
	Increase the waste recycling rate to at least 97%.	• Granulation equipment was introduced to diversify the approaches for recycling ash, which accounts for approximately 80% of waste by volume. Sales of the granulated product, however, came to 30%, below the target rate for on-site recycling. The objective for waste recycling rate, including off-site recycling, was achieved with a 98% result.	45
	Recycle at least 40% of waste generated within mills.		
	Reduce water use in the manufacturing process.	• Vigorous efforts, including the installation of filtration equipment and the reuse of process water, were made to reduce water consumption.	44
4. Observance of environment-related laws and reduction of environmental load	Use the environmental management system to strengthen environmental management.	• As of March 31, 2016, 48 business locations at 14 consolidated subsidiaries, and 4 business locations at 4 non-consolidated subsidiaries, had obtained ISO 14001 certification. Eco-Action 21 certification had been obtained by 1 business location at 1 non-consolidated subsidiary. Of the Nippon Paper Group's principal production sites, 95% have obtained ISO 14001 certification.	36
	Properly control and reduce the use of chemical substances.	• Based on the Nippon Paper Group Chemical Substance Management Guidelines, the types and volumes of chemical substances handled are being ascertained, and proper chemical substance management is being pursued. • Updates of recovery equipment and substitutions of chemical substances reduced releases and transfers of PRTR substances by 22%, compared to figures for fiscal 2010.	46
	Facilitate the procurement of raw materials and equipment with a smaller environmental burden throughout the supply chain.	• In establishing and updating facilities, pursuant to energy management rules, energy efficiency is being used as one selection benchmark for procurement.	–
5. Development of eco-friendly technologies and products	Enhance the more sophisticated use of wood materials.	• Having succeeded in developing a cellulose nanofiber (CNF) sheet with exceptional deodorant properties, Nippon Paper Crecia Co., Ltd. introduced the new Acty brand of adult diapers incorporating CNF in October 2015. • To expand sales of CNF deodorant sheets and commercialize other CNF properties, Nippon Paper Industries Co. Ltd. decided to build a high-capacity CNF production facility at its Ishinomaki Mill. With annual capacity of 500 tonnes, this facility is scheduled to come online in April 2017. • Participated in a NEDO project for the development of manufacturing process technology for non-edible plant-based chemical products. Achieved progress in developing elemental technologies for an integrated woody-biomass-to-chemical-raw-material production process.	11
	Develop equipment technology for facilitating a departure from reliance on fossil energy.	• Work to develop a new biomass solid fuel resulted in the decision to adopt torrefaction technology. Under a joint research and development agreement with Phoenix Pulp and Paper Public Company Limited (PPPC), demonstration facilities will be established at PPPC's Khon Kaen Mill.	39
	Reduce the environmental load through ecofriendly products and services.	• Production facilities for CfFA®, a concrete admixture made from heat-modified fly ash, began operating at Nippon Paper Industries Co., Ltd.'s Ishinomaki Mill. Provision of samples from test production runs began in January 2016 and full-scale operations began in April. • The Aluminum-Free Fuji Pak, a brick-shaped aluminum free paper carton, received the Eco-Products Awards Steering Committee Chairperson's Award at the 11th Eco-Products Awards. • Nippon Paper Industries Co., Ltd. began operations at its solar power plant, on the grounds of its former Komatsushima Mill (Tokushima Prefecture), and the Yatsushiro Mill's biomass power plant (Kumamoto Prefecture) fueled entirely with unused woody materials. In addition, a wind power generation project is planned for a site adjacent to the Akita Mill (Akita Prefecture), as the company moves forward with expansion of power generation using renewable energy.	11, 45
6. Proactive environmental communication	Disclose environment-related information to stakeholders whenever appropriate with the use of CSR reports, the website etc.	• At the end of September of every year, sustainability reports are issued in both printed and online editions. Also, the ShikiOriori, environmental communication magazine is being published to provide reader-friendly information on various social issues and the Nippon Paper Group's responses to them.	21
	Proactively facilitate environmental communication on a regional basis through, for example, dialogue with local people and governments.	• Risk information was shared with local communities and to foster relationships of mutual trust.	37
	Proactively participate in and support environment conservation activities.	• Actively participated in environmental endeavors including clean-up and greening initiatives organized by local communities, while promoting various activities including mill tours and internships.	62, 67-68
7. Biodiversity commitments	Remain aware of the impact of business activities on biodiversity, and facilitate companywide biodiversity commitments.	• The Nippon Paper Group's Basic Policy on the Protection of Biodiversity was established in April 2016. • With forest certification systems as one of several biodiversity protection benchmarks, efforts were made to promote sustainable forest management. • Concluded a memorandum of understanding with the Wild Bird Society of Japan for the mutual benefit of Blakiston's fish owl habitat preservation and the Nippon Paper Group's logging operations, in company-owned forests in Hokkaido.	48-50

1 No deadline has been set at this point.
2 FSC® Logo License No.FSC®C120260, FSC®C012171, FSC®C023383
3 Aside from FM certification, CW certification is also included.

Environment performance data
http://www.nipponpapergroup.com/english/csr/

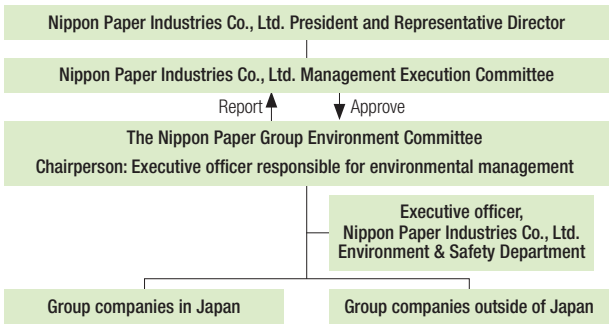
Policy and Management

Environmental Management Promotion Structure

Putting in place a group-wide structure

The Management Execution Committee bears management decision-making responsibility for environmental strategy and oversees environmental activities, for the entire Group. Chaired by the executive officer responsible for environmental management, the Nippon Paper Group Environmental Committee draws up the Environmental Action Plan. This Action Plan serves as the basis for practicing the philosophy and basic policies of the Environmental Charter, which outlines the environmental management principles of Group companies. In addition to monitoring the status of progress under the Plan, the Environmental Committee reports to the Management Execution Committee. Deliberating and determining new initiatives, the Management Execution Committee leads the environmental activities of the entire Group and promotes ongoing improvement.

The Nippon Paper Group's environmental management promotion structure (as of March 31, 2016)



● Strengthening environmental management systems

At the Nippon Paper Group, the environmental departments at our headquarters and production facilities work together to strengthen the environmental management systems.

Nippon Paper Industries, for example, has adopted a system for centrally managing emissions from the boilers of individual mills and other business locations. This effort illustrates how the company's headquarters and production facilities work together to ensure compliance with laws and regulations, and reduce environmental impact.

● Introducing environmental management systems

As one measure aimed at promoting environmental management, the Nippon Paper Group is introducing various environmental management systems including ISO 14001, the international standard for environmental management, and Eco-Action 21. ISO 14001 certifications have been obtained by 95% of the principal production sites of Nippon Paper Industries Co., Ltd. and its consolidated subsidiaries.

Acquisition of ISO 14001 certification (as of March 31, 2016)

Company Name	Mills / Operating Divisions / Manufacturing Companies
Nippon Paper Industries Co., Ltd.	Kushiro Mill, Hokkaido Mill, Akita Mill, Ishinomaki Mill, Iwanuma Mill, Nakoso Mill, Ashikaga Mill*, Soka Mill*, Fuji Mill, Otake Mill, Iwakuni Mill, Yatsushiro Mill, R&D Dept.
(Paper-Pak Division)	Paper-Pak Division (Ochanomizu and Oji regions), SOKA PAPER-PAK CO., LTD., EGAWA PAPER-PAK CO., LTD., MIKI PAPER-PAK CO., LTD., ISHIOKA KAKO CO., LTD.
(Chemical Division)	Gotsu Mill, Iwakuni Mill, Higashimatsuyama Mill, Yufutsu Mill
Nippon Paper Crecia Co., Ltd.	Tokyo Mill, Kaisei Mill, Koyo Mill, Kyoto Mill
Nippon Paper Papylia Co., Ltd.	Harada Mill, Suita Mill, Kochi Mill
Kitakami Paper Co., Ltd.	Headquarters/Ichinoseki Mill
NP Trading Co., Ltd.	Headquarters/Sapporo Branch Office/Chubu Branch Office/Kansai Branch Office/Chugoku Branch Office/Kyushu Branch Office/Shizuoka Sales Office
Nippon Seitai Corporation	Headquarters, Hokkaido Office, Niigata Office, Maebashi Mill, Saitama Mill, Kansai Office, Kyusyu Office
Daishowa Uniboard Co., Ltd.	Headquarters, Miyagi Mill
N&E Co., Ltd.	
Nippon Paper Development Co., Ltd.	Headquarters, Landscape Department, Tokyo Department
Sakurai Co., Ltd.	Headquarters
Nippon Paper Ishinomaki Technology Co., Ltd.	Headquarters
Nippon Paper Industries USA Co., Ltd.	Port Angeles Mill
Australian Paper	Maryvale Mill
Jujo Thermal Oy	Kauttua Mill

* Operations were consolidated in April 2016 and renamed the "Kanto Mill."

The status of Eco-Action 21 acquisition (as of March 31, 2016)

Company Name	Mill / Operating Division
Akita Jujo Chemicals Co., Ltd.	Head Office Plant

Strengthening Environmental Compliance

Taking action in a two-pronged approach

In order to better manage and reduce the environmental impact of its business activities, the Nippon Paper Group is strengthening environmental compliance by placing equal emphasis on preventing problems and on establishing a framework that ensures all problems come to light.

• • • To bolster environmental compliance • • •

1. Building systems to prevent problems
   - Building a workplace that emphasizes the importance of the environment (environmental compliance training)
   - Strengthening the system for identifying applicable laws and regulations
   - Implementing measures from both the facility and technology perspectives
2. Establishing a framework that ensures all problems come to light
   - Bolstering environmental audits
   - Strengthening the environmental management structure
   - Engaging in environmental communication and active information disclosure

● Strengthening the framework for reliably identifying laws to be observed

To accurately respond to wide-ranging and relatively frequent changes in environmental legislation, Nippon Paper Industries has retained legal experts as advisors and implemented a legal and regulatory search system.

● Introducing equipment and facilities to prevent environmental accidents

Nippon Paper Industries identifies risks of environmental accidents in terms of both probability and potential impact, and introduces the equipment and facilities needed for prevention. Acting to prevent chemical major spills - considered a top priority again in fiscal 2015 - the company took steps like installing liquid containment walls and wastewater containment gates.

● Environmental audits that place particular emphasis on legal compliance and risk control

Based on the environmental management guidelines on pollution prevention issued by the Japanese Ministry of the Environment and Ministry of Economy, Trade and Industry, the Nippon Paper Group's various business locations perform internal audits, and Nippon Paper Industry's head office Environment & Safety Department conducts environmental audits for double confirmation of legal compliance. Environmental audits are also performed at the local level to look for chemical leaks and other risky conditions and take action to prevent environmental accidents. Furthermore, a system of mutual audits has been put in place by the Nippon Paper Group as an additional step to strengthen compliance and risk control.

Conducting a field inspection

● Status with regard to legal compliance

We were not subject to any form of adverse disposition from regulatory authorities (revocation of licenses, orders to suspend operation or the use of facilities, or fines) with respect to compliance with environmental regulations in fiscal 2015.

Environmental Communication

Reflecting feedback into our environmental activities

● Risk communication

The Nippon Paper Group places particular emphasis on sharing risk information with local communities in an effort to nurture strong ties of trust with them. To this end, the Group engages in risk communication with local residents, as provided in the Nippon Paper Group Risk Communication Guidelines.

When installing large-scale equipment, the Nippon Paper Group also conducts explanatory meetings to provide a better understanding of any impact on the environment.

Risk communication
(Nippon Paper Industries Fuji Mill)

● Responses to opinions and complaints

In addition to receiving opinions and inquiries via its website, the Nippon Paper Group has established a complaint and inquiry contact at each of its mills. We have also adopted environmental monitoring systems that encourage input from local residents.

In fiscal 2015, the Nippon Paper Group received 12 environment-related complaints in Japan. With each complaint, the relevant mill took steps to determine the cause, and took swift countermeasures. In those instances where a permanent solution required an extended amount of time to implement, all appropriate provisional measures were taken as quickly as possible. With each complaint, the Group takes steps to explain the details of remedial action to be taken and to obtain the necessary acknowledgement.

Environment-related complaints (fiscal 2015)

Complaints	No. of complaints	Complaints	No. of complaints
Noise	5	Vibration	1
Dust and mist dispersal	3	Smoke	0
Odor	1	Other	2
Total 12			

Environmental Education and Training

Supporting employees to learn

The Nippon Paper Group provides basic to specialized environmental education covering topics such as wastewater treatment plant operation. In addition, the Group encourages employees to participate in external training and take advantage of other opportunities to gain pollution prevention qualifications and expertise.

● Environmental e-learning

The Nippon Paper Group has introduced an online educational program to allow employees to learn about the environment at their own pace. June is Environment Month and this time around in 2016 we offered an online program, under the theme of "Forests and Biodiversity," which many employees participated in.

● The Nippon Paper Group Eco Photo Award

Eco Photo Awards in June 2015 as a part of its Environment Month activities for employees and their families.

The 9th Eco Photo Award grand prize
"Pecko and the Marsh"

Policy and Management

Environmental Accounting

Environmental conservation expenses amounted to around ¥31.6 billion

To advance environmental protection initiatives more efficiently and effectively, the Nippon Paper Group practices environmental accounting to track its environmental protection investments and expenses and quantify their impacts.

Environmental accounting at domestic consolidated subsidiaries*

Environmental conservation costs

(Millions of yen)

Categories	Principal Activities	Investment	Cost
(1) Business area costs			
1. Pollution prevention costs	Maintaining, managing and improving air and water pollution prevention facilities, etc.	681	12,427
2. Global environmental conservation costs	Preventing global warming as well as maintaining and managing company-owned forests, etc.	3,786	1,051
3. Resources circulation costs	Effectively utilizing recycled paper as well as treating, reducing and recycling industrial waste, etc.	556	8,766
(2) Upstream / downstream costs	Recovering pallets, etc.	–	1,990
(3) Administration costs	ISO 14001 inspection, operation and management; environmental information disclosure; employee environmental education; and workplace cleaning initiatives, etc.	–	641
(4) R&D costs	R&D relating to environmentally friendly products as well as the reduction of environmental load imposed by paper manufacturing processes, etc.	–	1,107
(5) Social activity costs	Local community natural conservation, tree planting, cleaning and landscaping activities, as well as donations and support for environmental organizations, etc.	–	54
(6) Environmental remediation costs	Levy for pollution-related health damage compensation system (SOx), etc.	–	541
Subtotal		5,023	26,578
Total		31,601	

Environmental conservation impacts

Categories	Environmental Impact Indicators		Results	YoY Change
Effects related to resources introduced to business activities	Afforestation projects overseas	Overseas afforestation areas	89,000 hectares	Down 25,000 hectars
	Energy-saving measures	Fuel use (Heavy oil equivalent)	–	Down 50,368 kl
Effects related to environmental impact and waste from business activities	Greenhouse gas emissions	CO_2 emissions from fossil energy	6,380,000 tonnes	Down 110,000 tonnes
	Hazardous air pollutant emissions	NOx emissions (NO equivalent)	7,835 tonnes	Up 327 tonnes
		SOx emissions (SO_2 equivalent)	2,674 tonnes	Up 153 tonnes
		Soot and dust emissions	1,235 tonnes	Down 306 tonnes
	Water contaminant emissions	Effluent	881,000,000 tonnes	Up 2,000,000 tonnes
		COD/BOD emissions	53,257 tonnes	Down 826 tonnes
		SS emissions	23,196 tonnes	Up 1,693 tonnes
	Final waste disposal		17,400 tonnes	Up 3,800 tonnes
Effects related to goods and services produced from business activities	Product recycling	Recycled paper utilization rate (paper)	37.8%	Down 0.4%
		Recycled paper utilization rate (paperboard)	88.6%	Down 3.7%
	Shipping material recycling	Pallet recovery rate	48.1%	Up 3.5%

Economic benefits of environmental conservation

(Millions of yen)

Effect	Amount
Income from company-owned forests in Japan	519
Reduced expenses from energy saved	1,932
Reduced disposal expenses through the effective use of waste	5,373
Gain on sales from the recycled waste	125
Reduced expenses through the recycling of shipping materials	88
Total	8,037

* Accounting standards are based on Environmental Accounting Guidelines 2005.

Climate Change Initiatives

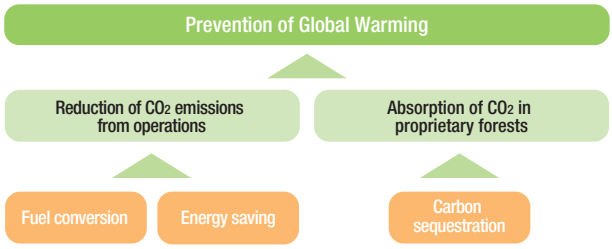
Reducing CO_2 emissions at every stage of our business activities

Basic Stance

Advancing three core initiatives

As a part of our efforts to prevent global warming across every stage of our business activities, we are (1) converting to non-fossil energy by employing boilers that use biomass and waste fuels, (2) conserving energy in each of our production and transportation processes, and (3) managing proprietary forests properly to ensure CO_2 absorption/sequestration (see pages 39–41).

Nippon Paper Group environmental initiatives



Fuel Conversion Led by the Adoption of Biomass Boilers

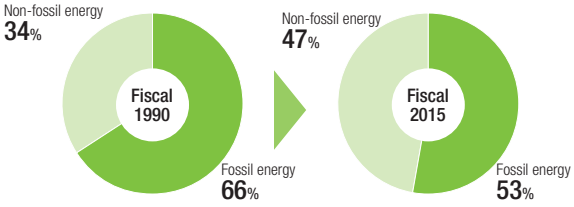
Actively using biomass and waste fuels to reduce fossil energy usage

In fiscal 2004, the Nippon Paper Group began installing two types of boilers—high-efficiency boilers and boilers capable of burning construction waste and woody biomass fuels; used tires, RPF*; and other waste fuels.

As a result of energy saving activities, and the fuel conversion accomplished through the introduction of these boilers, the fossil energy usage ratio in Japan fell to 53% in fiscal 2015, compared to 66% in fiscal 1990.

* RPF (Refuse paper and plastic fuel): Fuel derived from paper that is unusable as recycled paper and waste plastic.

Change in fossil energy usage ratio (calories) (domestic subsidiaries with mills and works)



Construction waste and other materials

RPF

Used tires

Development of a new biomass solid fuel effective for reducing CO_2 emissions

Trees absorb CO_2 as they grow. When fuel made from trees (woody biomass fuel) is burned, the CO_2 that results is recognized as the CO_2 that the trees absorbed and sequestered as they were growing, so there is no net impact on atmospheric CO_2. Given this carbon-neutral characteristic of woody biomass fuel, the co-firing of woody biomass is being advanced to reduce the CO_2 emissions of coal-fired boilers. Woodchips and wood pellets, however, cannot be efficiently crushed and there are other issues, for example, with water repellency when stored outdoors.

To address these challenges, Nippon Paper Industries has applied torrefaction technology to carbonize woody biomass at a relatively low temperature to develop a new biomass solid fuel that has pulverization properties similar to those of coal and retains most of its energy value.

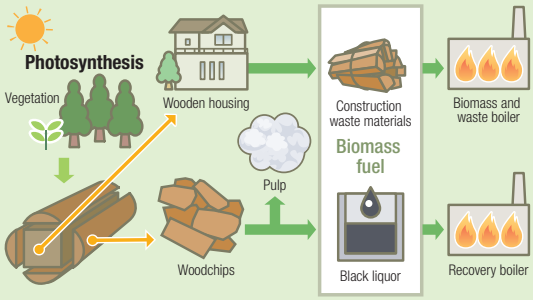
New woody biomass solid fuel made with torrefaction technology

One of the largest corporate users of biomass energy in Japan

The Nippon Paper Group actively applies biomass energy from sources such as black liquor, a byproduct of the pulp manufacturing process, and construction waste. The amount consumed accounts for up to 7%* of non-fossil energy (excluding nuclear and hydroelectric power) used in Japan. The Nippon Paper Group is one of the largest corporate users of biomass energy in Japan.

* In-house data prepared by Nippon Paper Industries Co., Ltd. using energy supply information (fiscal 2014 finalized information) published by the Natural Resources and Energy Agency.

Biomass energy utilization at the Nippon Paper Group



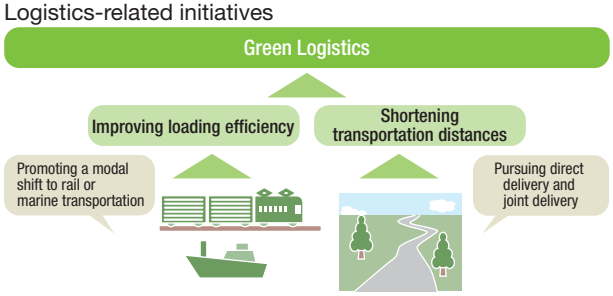
Climate Change Initiatives

Advancing Energy Efficiency in Logistics

Working to promote green logistics

The Nippon Paper Group focuses mainly on the two core initiatives of improving its loading efficiency and shortening transportation distances to reduce logistics-related CO_2 emissions.

Logistics-related initiatives

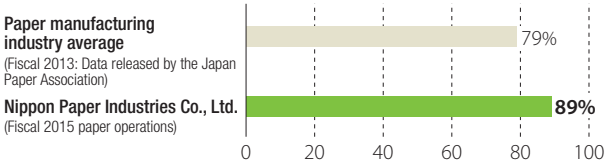


● Promoting a modal shift in transportation to secure high loading efficiency

Nippon Paper Industries achieved a modal shift rate* of 89% in its paper operations in fiscal 2015. This far surpassed the domestic and industry averages.

*** Modal shift rate:**
The percentage of rail or marine (including coastal shipping and ferries) transport in general cargo transported over 500 kilometers.

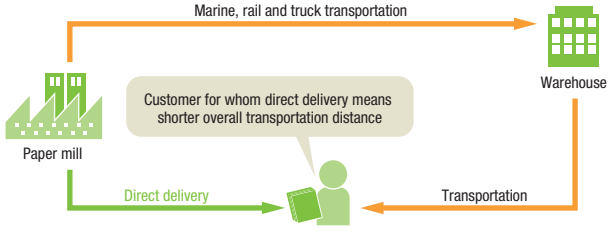
Comparison of modal shift rates



● Working with logistics service providers to shorten transportation distances

The Nippon Paper Group is working with logistics service providers to bypass warehouses and deliver products directly to customers. This effort is intended to reduce CO_2 emissions by shortening overall transportation distances.

Reducing the total distance by direct delivery from paper mills



● Obtaining Green Management Certifications

Green Management Certifications are awarded and registered by the Foundation for Promoting Personal Mobility and Ecological Transportation. Companies that undertake at least a certain minimum level of initiatives based on the Green Management Promotion Manual are eligible for these certifications.

Within the Nippon Paper Group, 17 business locations of 9 Group companies have received Green Management Certification. The Nippon Paper Group is actively implementing ecological driving, vehicle inspection and maintenance, reduction of vehicle disposal and waste generation, proper waste handling and recycling, and other practices consistent with green management.

Green Management Certification logo

Green Management Certifications (As of July 1, 2016)

Company
NIPPON PAPER LOGISTICS, Kyokushin Transport, Nanko Logistics Support, Hotoku, NP Unyu Kanto, NP Unyu Fuji, NP Unyu Kansai, NP Unyu Iwakuni, and New Transport

* Consolidated and non-consolidated subsidiaries in Japan

Environmental Consciousness Award Received under the Chiyoda Ward Global Warming Action Plan System

NP Trading Co., Ltd. was named a winner of the Environmental Consciousness Award presented by Tokyo's Chiyoda ward under its Global Warming Action Plan System. In presenting these awards, the Chiyoda ward government intends to promote environmentally conscious action. Determination of winners is based on reports companies within the ward's jurisdiction submit on the routine environmental protection activities they undertake. In fiscal 2015, 249 companies submitted reports and four were selected as award winners. For NP Trading, this was the second time it has been recognized for its environmental performance, the first being an award received for energy saving in fiscal 2011.

The reasons given for presenting the company with an Environmental Consciousness Award included distribution of the company's environmental stance and objectives on cards to employees, local clean-up activities undertaken seven times a year, environmental education and other environmental protection activities, donations to the Council of Social Welfare and other social contribution activities, and issuance of an environmental report.

Presentation of the Environmental Consciousness Award by the Mayor of Chiyoda ward, Tokyo

Absorbing and sequestering CO_2 through Proper Management of Company-Owned Forests

Sequestering atmospheric CO_2 in forests and wood products

● Sequestering CO_2 with 179,000 hectares of forests in and outside Japan

As trees grow, they absorb and sequester CO_2 from the atmosphere. As they are a major repository of carbon, it is widely recognized that the proper protection of forests helps prevent global warming.

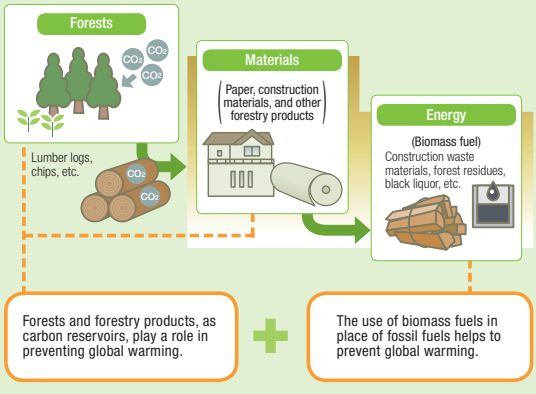
Together with its 90,000 hectares held across 30 prefectures in Japan, the Nippon Paper Group manages 89,000 hectares of forests across four countries abroad for a total of 179,000 hectares. Through proper forest management, the Group retains its CO_2 absorption and sequestration capabilities. These forests, both in and outside Japan, continuously sequester approximately 32 million tonnes of CO_2, thereby helping to prevent global warming.

Sequestering CO_2 in various wood products

CO_2 sequestered in trees as carbon remains sequestered even after trees have been processed into products like construction materials and paper. Products made from wood, therefore, work to prevent increases in atmospheric CO_2 concentrations. Using wood products and actively recycling waste paper, in other words, by fixing CO_2 for extended periods of time in products, helps to hold down increases in atmospheric CO_2 concentrations.

Moreover, when wood products like construction materials reach the end of their useful lives they can be used as carbon-neutral biomass fuel, the burning of which does not increase atmospheric CO_2.

Helping to prevent global warming through the cascade-use of wood*



* "Cascade-use" refers to the full use of an individual tree for applications across the quality scale, from ones requiring very high quality to others for which quality is not a consideration, for maximum efficiency in resource usage.

Action Plan 2015 Results

Capital investment, efficiency-improvement, and other energy–saving initiatives

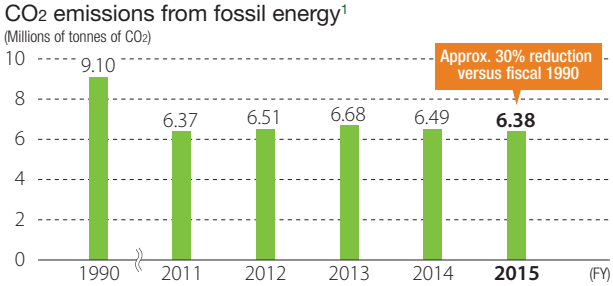
The Nippon Paper Group has established objectives for fighting global warming in its Environmental Action Plan (Green Action Plan) (see page 35).

In fiscal 2015, the final fiscal year covered by Green Action Plan 2015, investments were made in energy-saving facilities, energy-saving activities were pursued in daily operations, and other proactive initiatives were undertaken in pursuit of plan objectives. As a result, fiscal 2015 CO_2 emissions from fossil energy were reduced by 30% and use of fossil energy was cut by 39%, both in comparison to fiscal 1990. These figures, albeit with the effects of lower production volume in the Group's mainstay paper and paperboard businesses, greatly outperformed Green Action Plan 2015 objectives.

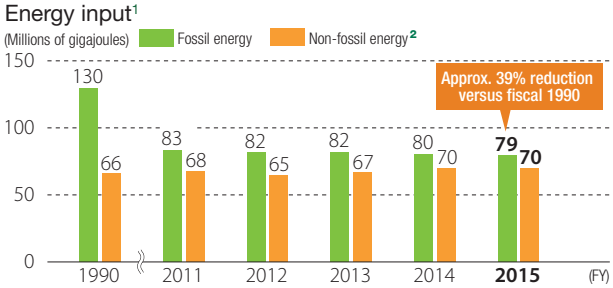
Targets for Preventing Global Warming (Green Action Plan 2015)

- Reduce CO_2 emissions from fossil energy by 25% versus fiscal 1990 levels
- Reduce the use of fossil energy by 30% versus fiscal 1990 levels
- Reduce logistics-generated CO_2 emissions (see page 40)

CO_2 emissions from fossil energy[1]



Energy input[1]



1 For consolidated and non-consolidated Japanese subsidiaries subject to the Act on Rational Use of Energy
2 Energy from biomass and waste.

Reduction of Environmental Impacts

Coexisting with local communities by striving to lower environmental impacts

Material Balance

Identifying and reducing the environmental impact of our business activities

The Nippon Paper Group engages in a broad range of paper-related and other business activities driven primarily by the Pulp and Paper Division, which accounts for 82% of total net sales. Constituting most of the Group's material balance in Japan, this division is responsible for approximately 92% of the Group's water consumption and 95% of its CO_2 emissions there.

Woodchips and recycled paper make up the bulk of raw materials used to make paper. After converting these raw materials into pulp, the pulp is diluted with water to produce

Balance of materials (principal materials) [1]

[Units] GWh = Gigawatt hours BDt = Bone-dry tonnes ADt = Air-dry tonnes

Input

Energy input
- Purchased electricity ---- 2,145 GWh
- Oil ---------- 163,000 kℓ
- Coal ---------- 2,603,000 tonnes
- Gas ---------- 241,000 tonnes
- Other fossil fuels ------ 12,000 tonnes
- Other non-fossil fuels[3] 5,716,000 tonnes (Black liquor subtotal: 3,975,000 tonnes)

Chemical substances subject to the PRTR Law[3]
- (Amount handled) ------ 11,433 tonnes

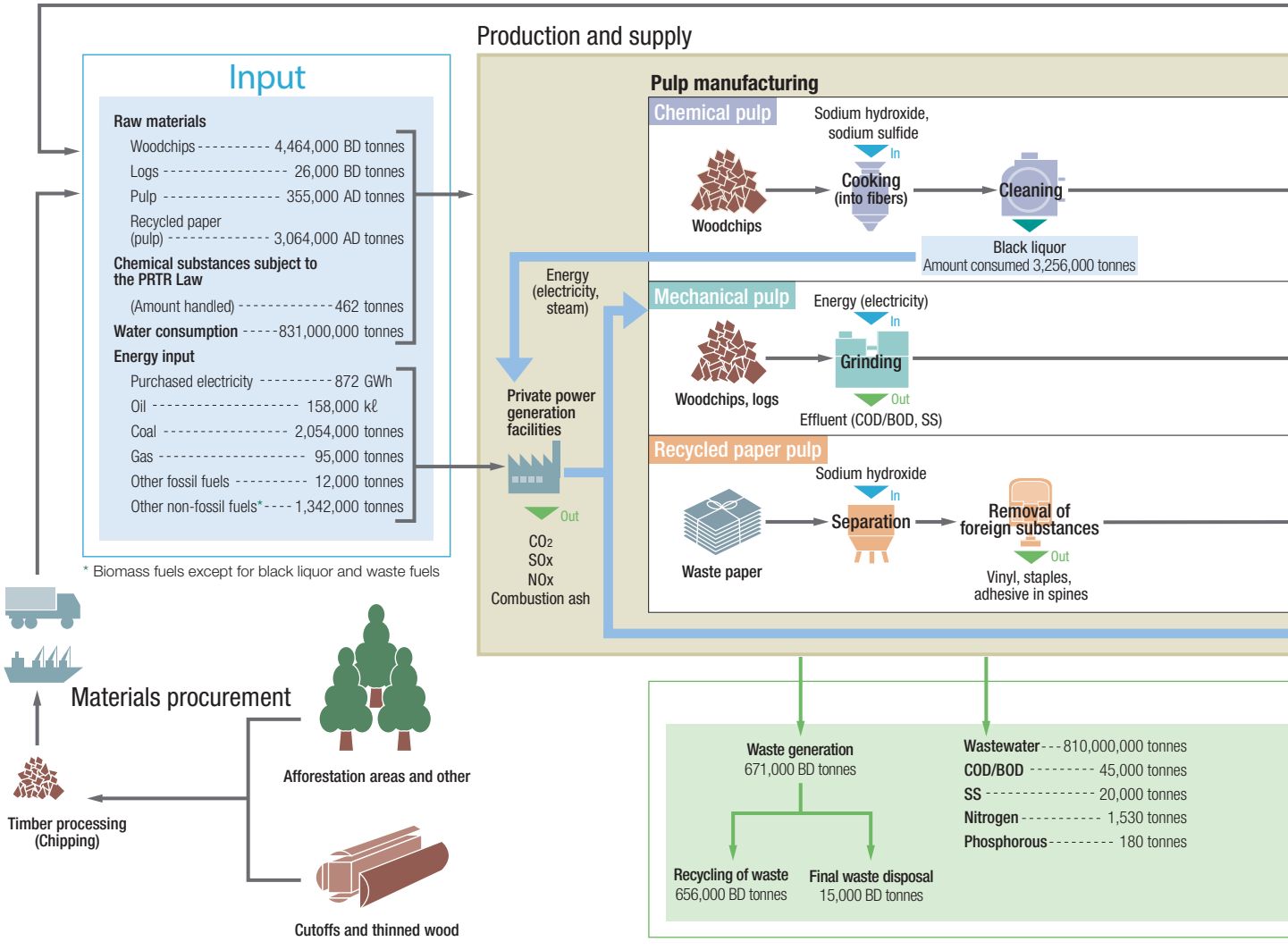
Water consumption ---------- 942,000,000 tonnes
- River water - -744,000,000 tonnes
- Industrial water ---------- 170,000,000 tonnes
- Well water - - - 27,000,000 tonnes
- Public water supply ---------- 1,000,000 tonnes

Raw materials
- Woodchips 4,894,000 BD tonnes
- Logs ------- 810,000 BD tonnes
- Pulp ------- 431,000 AD tonnes
- Recycled paper (pulp) ----- 3,140,000 AD tonnes
- Base paper - - 114,000 BD tonnes

1 Beginning with fiscal 2015, the reporting scope has been changed to add Siam Nippon Industrial Paper and remove South East Fibre Exports, which was divested, and Australian Paper's Shoalhaven Paper Mill, which was closed.

2 Biomass fuels and waste fuels
3 Japan only

Material balance in the Pulp and Paper Business in Japan (principal materials)



pulp slurry and then formed as wet thin sheets. The water is then removed by drying to make paper. In the pulp and papermaking processes, steam is used as a heat source and electricity as a power source. Pulp and paper mills are equipped with boilers that combust fuel to generate steam, and generators that create electricity with turbines driven by steam.

Unfortunate byproducts of the pulp and paper manufacturing process are effluents containing water contaminants as well as steam containing air pollutants and CO_2. Moreover, the fuels combusted by boilers produce ash waste. With this in mind, the Nippon Paper Group strives to reduce the environmental impact of these pollutants.

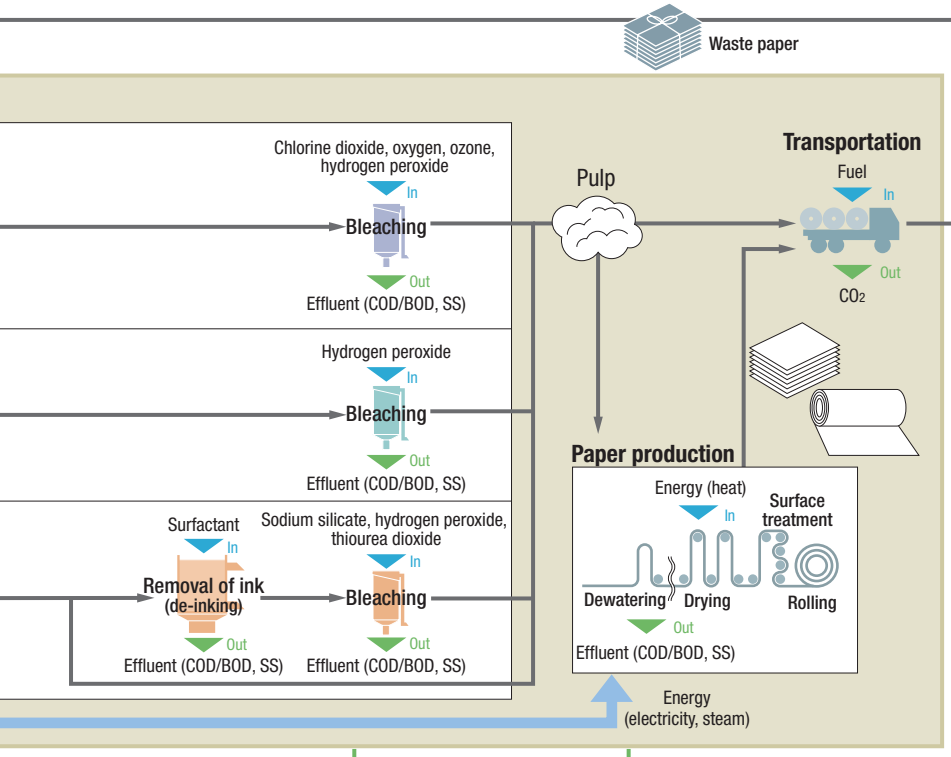
Output

CO_2 emissions from fossil energy ---------- 7,150,000 tonnes
SOx emissions ------- 5,100 tonnes
NOx emissions ------- 9,600 tonnes
Soot and dust -------- 1,500 tonnes
Chemical substances subject to the PRTR Law[3]
(Amount released) ----- 158 tonnes
(Amount transferred) ---- 78 tonnes

Wastewater --- 920,000,000 tonnes
Public water ---- 912,000,000 tonnes
Sewerage ------- 8,000,000 tonnes
COD/BOD ---------- 62,900 tonnes
SS ---------- 26,000 tonnes
Nitrogen ---------- 1,700 tonnes
Phosphorous ---------- 260 tonnes

Waste generation -- 839,000 BD tonnes
Final waste disposal ---52,400 BD tonnes
Recycling of waste - 787,000 BD tonnes

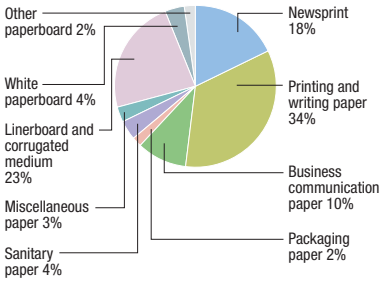
Products manufactured
Paper, household paper ---------- 4,570,000 tonnes
Paperboard ------ 1,900,000 tonnes
Pulp ---------- 107,000 tonnes
Paper container ------ 98,000 tonnes
Chemical products --- 105,000 tonnes
Building materials ---- 67,000 tonnes
Electricity ---------- 1,228GWh



Output

Products
Paper, household paper products ---------- 4,120,000 tonnes
Paperboard ---------- 1,670,000 tonnes
Pulp ---------- 32,000 tonnes

Breakdown of products of the Pulp and Paper Business (Japan)
(2015 calendar year basis)



Output

Chemical substances subject to the PRTR Law
(Amount released) ------ 94 tonnes
(Amount transferred) ---- 12 tonnes

CO_2 emissions from fossil energy ---------- 6,060,000 tonnes
SOx emissions ---------- 2,400 tonnes
NOx emissions ---------- 7,500 tonnes
Soot and dust ---------- 1,200 tonnes

Reduction of Environmental Impacts

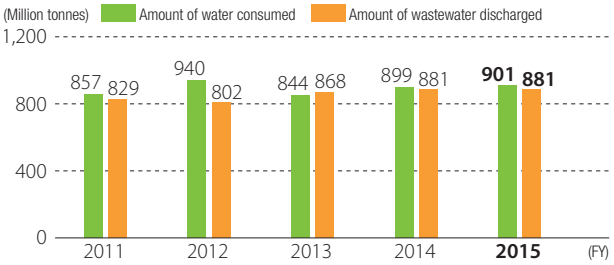
Preventing Water Pollution

Purifying wastewater through the use of microorganisms

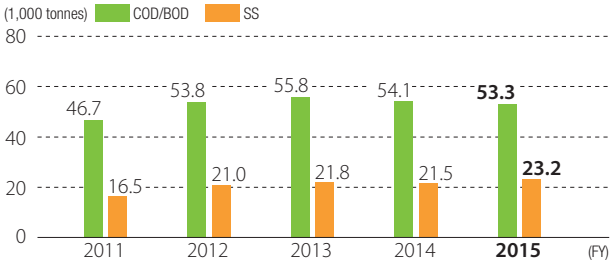
In papermaking, pulp is highly diluted with water to make a pulp suspension and then formed into a thin sheet. The sheet is then dried to make paper. Wastewater contains minute pulp fibers, filler, and other materials that did not remain in the paper.

The Nippon Paper Group treats wastewater to bring it within our COD, BOD, SS, and pH standards and standards agreed upon with local governments.

Amount of water consumed / wastewater discharged in domestic subsidiaries with mills and works



COD / BOD and SS figures for domestic subsidiaries with mills and works

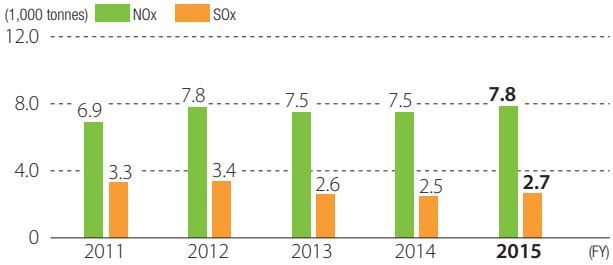


Preventing Air Pollution

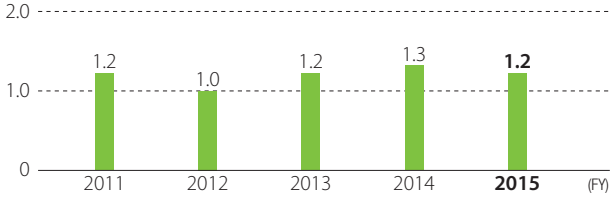
Working to reduce NOx, SOx, soot and dust

The Nippon Paper Group uses boilers and turbines to generate power internally at its paper mills. The steam emitted by boilers includes substances such as nitrogen oxide (NOx), sulfur oxide (SOx), soot, and dust. The Group uses desulfurization, denitrification, dust collection, and other equipment to bring these pollutants within our own standards and standards agreed upon with local governments.

NOx and SOx emissions in domestic subsidiaries with mills and works



Soot and dust emissions in domestic subsidiaries with mills and works



Standard wastewater treatment process at Nippon Paper Industries Co., Ltd. paper mills

Preventing Soil Pollution

Fiscal 2015, another year free of soil contamination

The raw materials and chemicals used by Nippon Paper Group mills contain almost no heavy metals, trichloroethylene or other soil contaminants. There were no instances of contaminated soil generated at Group companies during fiscal 2015.

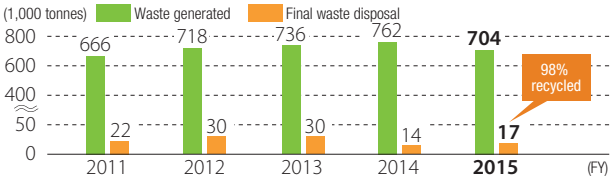
Reducing Industrial Waste (Green Action Plan 2015 results)

Working to make effective use of waste, while reducing waste generation

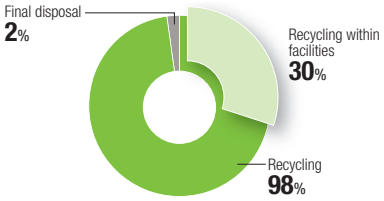
The Group is working to expand the effective use of waste, while cutting the amount of waste generated, to reduce final waste disposal.

Under its Green Action Plan 2015 (see page 35), the Group endeavored to increase the waste recycling rate to at least 97% and recycle at least 40% of waste generated within its facilities to promote the effective use of resources. To diversify the approaches for recycling ash, which accounts for approximately 80% of waste by volume, granulation equipment was introduced. Sales of the granulated product, however, did not proceed entirely as hoped, holding the rate for on-site recycling to 30% and preventing achievement of the target rate. Nevertheless, the waste recycling rate, including off-site recycling, came to 98%, a level that achieved our objective.

Waste generated and final waste disposal in domestic subsidiaries with mills and works



The ratio of recycling to the amount of waste generated
(Fiscal 2015)



Preventing Noise, Vibration, and Odors

Putting in place measures to reduce the impact on areas in proximity to mills

Prevention of noise and vibration

Pulp and paper mills use large machines incorporating numerous motors and pumps that generate noise and vibration. Acting even when complaints have not been received, each mill takes steps to minimize the level of noise generated, and installs sound insulation facilities or relocates machinery whenever an issue is determined to have arisen.

Before installation of sound insulation wall (left) and after (right) (Fuji Mill, Nippon Paper Industries)

Prevention of odors

When making kraft pulp, foul odors from substances such as hydrogen sulfide, methyl mercaptan, methyl sulfide, and methyl disulfide can be generated. In addition to installing equipment that contains odors or breaks down the substances that emit them, we regularly measure odor levels and conduct patrols of surrounding areas to ensure that issues do not arise.

Case

Project for making and selling heat-modified fly ash as the concrete admixture, CfFA® (Carbon-free Fly Ash)

Nippon Paper Industries Co. Ltd. uses coal-fired power plants to generate some of the electricity and heat needed to make paper. Fly ash, a byproduct of coal-fired power generation, has many benefits, such as increasing durability and extending useful life, when added to concrete. The use of fly ash as a concrete admixture, however, has not taken hold because it often contains unburned carbon, which, in even small percentages, can have negative impacts on the properties of ready-mixed concrete and the quality of hardened concrete.

Responding to this problem by adopting firing technology to eliminate the problem of unburned carbon, Nippon Paper Industries began in April 2016 to produce CfFA®, a heat-modified fly ash product at its Ishinomaki Mill. Easy to work with and offering consistent, well-controlled quality, CfFA® represents the recycling of a waste product into a resource that improves concrete.

Increasing the durability and useful life of concrete allows us to make positive contributions in terms of aiding disaster recovery in areas devastated by the Great East Japan Earthquake and reducing infrastructure lifecycle costs.

40-tonne breakwater tetrapod made with concrete containing CfFA®

Reduction of Environmental Impacts

Controlling Chemical Substances

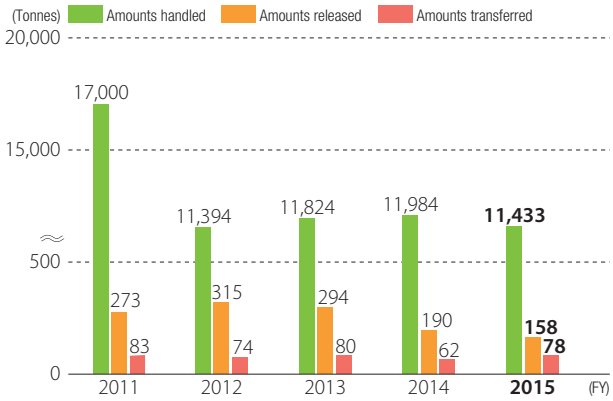
Properly managing chemical substances while pursuing efforts to limit use

● Responding to the PRTR Law

The Pollutant Release and Transfer Register (PRTR) is a mechanism for businesses to use in tallying and reporting the wide variety of hazardous chemical substances that are either emitted from their facilities or transferred from their facilities in waste.

The Nippon Paper Group holds risk communication meetings at its mills. Steps are taken at each meeting to explain to local residents how chemical substances subject to the PRTR Law are being managed and used.

Amounts of substances subject to the PRTR Law handled, released and transferred



Amounts of substances subject to the PRTR Law released and transferred[1] (Fiscal 2015)

Cabinet Order No.	CAS No.	Chemical Substance	Unit	Amount Released	Amount Transferred
1	—	Water-soluble zinc compounds	t	2	11
2	79-06-1	Acrylamide	t	0	0
4	—	Acrylic acid and water-soluble salt	t	0	0
6	818-61-1	Acrylic acid 2-hydroxyethyl ester	t	0	0
9	107-13-1	Acrylonitrile	t	0	0
30	—	n-alkylbenzenesulfonic acid and its salts (alkyl C=10-14)	t	0	0
33	1332-21-4	Asbestos	t	0	4
37	80-05-7	4,4'-isopropylidenediphenol	t	0	0
48	2104-64-5	O-ethyl O-4-nitrophenyl phenylphosphonothioate	t	2	0
53	100-41-4	Ethylbenzene	t	0	0
57	110-80-5	Ethylene glycol monoethyl ether	t	1	5
80	1330-20-7	Xylene	t	3	0
85	111-30-8	Glutaraldehyde	t	0	0
98	79-11-8	Chlorodifluoromethane	t	0	0
127	67-66-3	Chloroform[2]	t	57	15
144	—	Inorganic cyanide compounds (except complex salts and cyanates)	t	2	0
145	100-37-8	2-diethylaminoethanol	t	0	0
149	56-23-5	Tetrachloromethane	t	0	37
154	108-91-8	Cyclohexylamine	t	1	0
213	127-19-5	N,N-dimethyl acetamide	t	0	0
232	68-12-2	N,N-dimethylmethanamide	t	0	0
243	—	Dioxins[2]	g-TEQ	0	8
272	—	Copper salts (water-soluble, except complex salts)	t	2	0
296	95-63-6	1,2,4-trimethylbenzene	t	4	0
300	108-88-3	Toluene	t	20	5
302	91-20-3	Naphthalene	t	0	0
318	75-15-0	Carbon disulfide	t	7	0
333	302-01-2	Hydrazine	t	0	0
374	—	Hydrogen fluoride and its water-soluble salts	t	22	0
392	110-54-3	N-hexane	t	0	0
395	—	Water-soluble salts of peroxodisulfuric acid	t	0	0
405	—	Boron compounds	t	11	0
407	—	Poly (oxyethylene) alkyl ether (alkyl C=12-15)	t	0	0
410	9016-45-9	Polyoxyethylene nonylphenyl ether	t	0	0
411	50-00-0	Formaldehyde	t	4	0
412	—	Manganese and its compounds	t	18	0
414	108-31-6	Maleic anhydride	t	0	0
415	79-41-4	Methacrylic acid	t	0	0
418	2867-47-2	2-(dimethylamino) ethyl methacrylate	t	0	0
419	97-88-1	N-butyl methacrylate	t	0	0
420	80-62-6	Methyl methacrylate	t	0	0
438	1321-94-4	Methylnaphthalene	t	1	0
448	101-68-8	Methylenebis (4,1-phenylene) diisocyanate	t	0	0
455	110-91-8	Morpholine	t	0	0
Total[3]			t	158	78

1 A summary of the release or transfer volumes of substances, excluding dioxins, that are handled in quantities of at least 1 tonne by Group companies. Dioxins and formaldehyde are designated type 1 chemical substances.
2 Includes unintentionally generated chloroform and dioxins.
3 Dioxins are not included in total data.

Wastepaper Collection and Use

Contributing to the development of a recycling-based society by promoting increased use of recycled paper

Basic Stance

Actively promoting paper recycling

To promote effective use of resources, the Nippon Paper Group, together with customers, has built systems for collecting and using wastepaper and is working with citizens' and industry groups to promote awareness and understanding of wastepaper collection. In addition to bolstering its wastepaper processing capabilities, the Group is striving to improve the quality of pulp made from waste paper and to increase the number of applications of pulp.

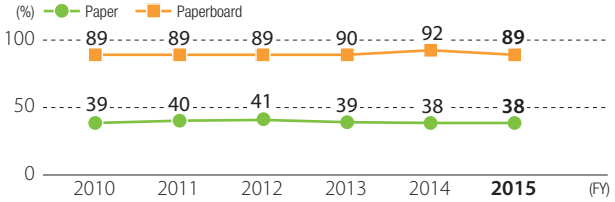
Green Action Plan 2015 Results

Efforts to advance the use of wastepaper

Under its Green Action Plan 2015 (see page 35), the Nippon Paper Group raised the objective of advancing the use of wastepaper by increasing the ratio of recycled paper to paper and to paperboard to at least 40% and 88%, respectively.

For fiscal 2015, the ratio of recycled paper used in paper came to 38%, less than the objective, due to factors including a decline in production. The ratio of recycled paper used in paperboard declined in comparison to the previous fiscal year, but, at 89%, achieved the objective.

Recycled paper utilization rate in domestic subsidiaries with mills and works

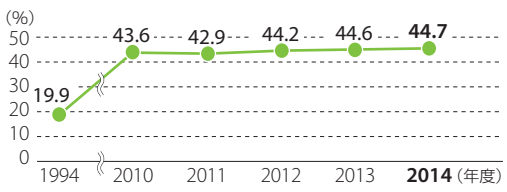


Case

Initiatives aimed at recovering milk cartons (The Nippon Paper Industries)

Nippon Paper Industries Co., Ltd., a member of the Committee for Milk Container Environmental Issues, for example, is promoting activities consistent with the committee's goal of achieving a beverage carton collection rate of at least 50% by 2020. Through a variety of educational initiatives as well as the exchange of information and placement of milk carton collection boxes at schools and public facilities, we achieved a paper beverage carton collection rate of 44.7% in fiscal 2014.

Beverage carton collection rate



Initiatives for Expanding the Use of Recycled Paper

Expanding the production of products made with wastepaper pulp in Australia

Australian Paper, located in the Australian state of Victoria, is that country's only company manufacturing eco-friendly copier paper – a product that incorporates wastepaper pulp. And, responding to the country's heightened environmental awareness, the company is increasing its production of eco-friendly products.

In fiscal 2015, Australian Paper began operations at facilities that are capable of producing 50,000 tonnes of wastepaper pulp annually. These facilities were built at the company's Maryvale Mill with technical assistance by Nippon Paper Industries Co., Ltd. and assistance from the Australian government. Australian Paper aims to make the most of these facilities in expanding and enhancing its line of products incorporating wastepaper pulp.

REFLEX brand copier paper incorporating wastepaper pulp

Australian Paper is also going beyond the use of wastepaper pulp, and conducting educational activities encouraging the collection of wastepaper for recycling.

In 2013, the company entered into a partnership with PLANET ARK, Australia's best-known nonprofit environmental protection organization, to pursue the Make It Australian Recycled campaign promoting the use of products incorporating wastepaper pulp. Established in 1992, PLANET ARK supports individuals, companies, governments, and others who are pursuing activities and education to protect the environment. The Make It Australian Recycled campaign encourages people to choose recycled products made with pulp recycled from wastepaper collected in Australia.


Campaign to promote the collection of wastepaper for recycling, in the town of Maryvale, Queensland, Australia


Collecting office wastepaper for recycling

Beginning in 2016, Australian Paper, putting to work its expanded capabilities to make products incorporating wastepaper pulp and strengthening its relationship with PLANET ARK, will embark on efforts to contribute to the building of a recycling-oriented society by promoting even greater use of recycled products.

Preserving Biodiversity

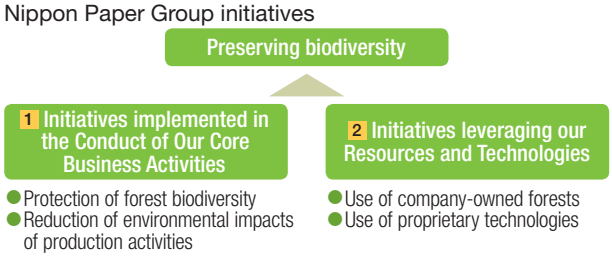
Pursuing activities that protect the ecosystems of company-owned forests and leverage proprietary resources and technologies

Basic Stance

Formulation of a new basic policy

The business activities of the Nippon Paper Group entail the cultivation and utilization of forests and, therefore, have an inherently significant and wide-ranging impact on forest biodiversity. We recognize that the sustainable use of forests is fundamental to our existence and development as a going concern. The basic philosophy of the Nippon Paper Group Environmental Charter (see page 34) states that the Nippon Paper Group will engage in corporate activities that recognize the importance of biodiversity. Our Basic Policies on the Preservation of Biodiversity, established in April 2016, provides guidance for the pursuit of such activities.

Nippon Paper Group initiatives



1 Initiatives in Our Core Business Activities

Pass thriving forests on to future generations

In pursuing sustainable forest management (see pages 30 and 32), the Nippon Paper Group conducts biodiversity surveys in company-owned forests. We also strive to reduce our impact on biodiversity by, for example, treating wastewater and controlling greenhouse gas emissions in our manufacturing processes.

Basic Policy on the Preservation of Biodiversity

(Established April 1, 2016)

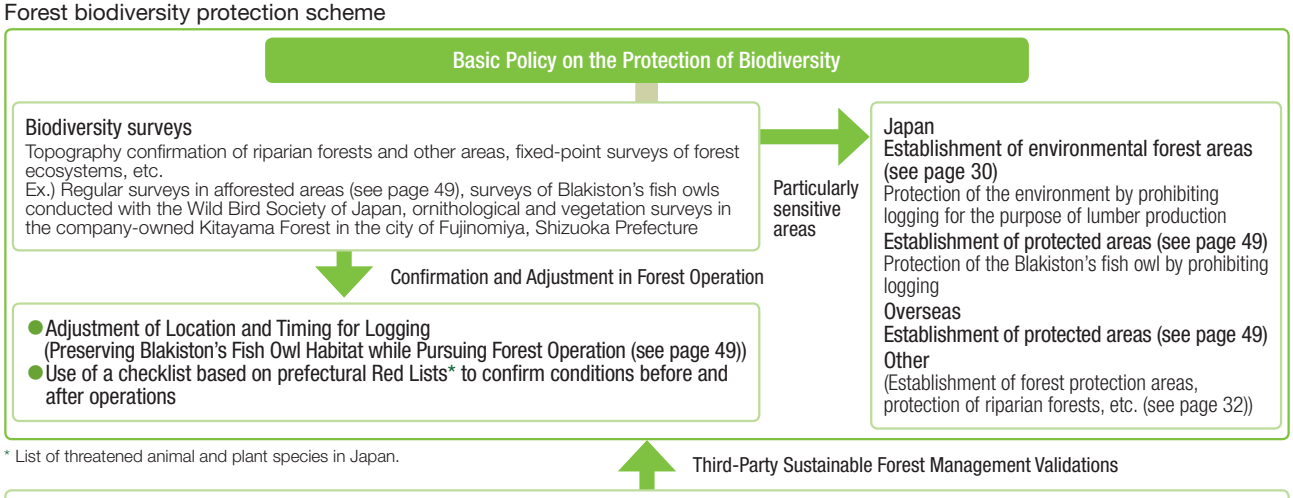
Principle

The Nippon Paper Group, a corporate group to which forest resources are of fundamental importance, appreciates the natural gifts bestowed by biodiversity and, by preserving biodiversity, aims to help create a sustainable society that can continuously enjoy ecosystem services.

Basic Policy

1. Recognizing the protection of biodiversity as a critical social issue, we will work to pursue business activities that are in harmony with the sustainable use of ecosystem services.
2. In supply-chain management, we acknowledge the impacts on biodiversity of cross-border use of ecosystem services, and will manage our ecosystem service usage properly.
3. In an effort to reduce environmental impacts on biodiversity, we will actively work to recycle and save resources.
4. We will promote the development of technologies, products, and services that contribute to the preservation of biodiversity and the sustainable use of ecosystem services.
5. Endeavoring to raise employees' awareness of biodiversity, and collaborating with stakeholders, we will contribute to the building of a society that nurtures biodiversity.

Forest biodiversity protection scheme



* List of threatened animal and plant species in Japan.

Third-Party Sustainable Forest Management Validations

Forest certification programs (see pages 28-29)
Forest certifications have been awarded to Nippon Paper Industries in recognition of its practice of biodiversity-friendly forest management in all of its company-owned forests in Japan and overseas.

Breakdown of company-owned forests in Japan (Facts and Figures)
http://www.nipponpapergroup.com/english/csr/

Case

Preserving Blakiston's fish owl habitat while pursuing business activities – Collaborating with the Wild Bird Society of Japan

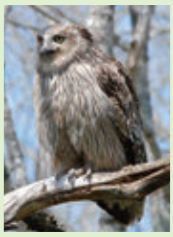
In 2010, Nippon Paper Industries entered into an agreement with the Wild Bird Society of Japan where approximately 126 hectares of forestland owned by the company in the Nemuro region of Hokkaido was identified as a sanctuary for Blakiston's fish owl. This sanctuary is home to three confirmed braces of this endangered species.

In May 2015, we signed a memorandum of understanding* for the pursuit of business activities while preserving Blakiston's fish owl habitat in company-owned forests located in the Kushiro region of Hokkaido. After collaborative surveys conducted in an atmosphere of mutual trust, we have agreed to standards for methods and timing for continuing lumber production, while also protecting habitat and breeding activity, without establishing protected areas.

* The activities pursued under this memorandum of understanding were presented with a 2015 Biodiversity Action Award by the Japan Committee for the United Nations Decade on Biodiversity.

Surveys undertaken with the Wild Bird Society

Fiscal Year	Survey Description
2010	Large trees suitable as Blakiston's fish owl habitat
2011	Bird species habitat
2012	Nesting survey focusing on white-tailed eagles and Steller's sea eagles, and an audio survey of nocturnal bird species
2013	Mammals and Blakiston's fish owl habitat
2014	Geographic activity scope of the Blakiston's fish owl
2015	Blakiston's fish owl habitat, other bird species habitat



(Photo courtesy of the Wild Bird Society of Japan)

Blakiston's fish owl
Standing 70 to 80cm high and weighing 3 to 4.5 kg, Blakiston's fish owl is the world's largest owl, with a wingspan of 180 cm. Formerly numbering over 1,000 and found throughout Hokkaido, Blakiston's fish owls are now found mainly in the eastern parts of Hokkaido, with confirmed numbers of around 140, making up 50 braces. Blakiston's fish owl was identified as a national protected species in 1971, and placed on the Red List of critically endangered species by Japan's Ministry of the Environment.

Case

Conducting biodiversity research overseas (AMCEL S.A, Brazil and Volterra S.A., Chile)

AMCEL S.A., located in the Brazilian state of Amapa, owns approximately 310,000 hectares of land and has set aside 170,000 hectares as a conservation area.

Volterra S.A., in Chile, owns approximately 19,000 hectares of forests and has designated about 5,000 hectares as protected forests.

These areas are home to large numbers of plant and animal species, many of which are rare or endangered. Protecting them, therefore, is very meaningful. Both AMCEL and Volterra undertake surveys and other initiatives to research and monitor biodiversity in the areas they are protecting.

Footprints of a jaguar (a "near-threatened" species on the IUCN Red List)

Performing a wildlife survey

Survey being performed by the Universidad de Concepcion

Pudu (a "near-threatened" species on the IUCN Red List)

Initiatives by afforestation companies in South America

Activity	Description
AMCEL S.A.	
Regular water inspections	Installation of equipment for monitoring the quality and level of water in the afforestation area, and performance of regular water inspections
Cooperation in a wildlife release program	Annual provision of the conservation area for use in a wildlife release program being conducted by the Brazilian Institute for the Environment and Renewable Natural Resources
Collaboration with the Department of Biological Sciences at the Federal University of Para	Ongoing monitoring by AMCEL following a joint mammalian habitat survey in afforested and other areas.
Collaboration with the local environmental research institution in Amapa state	A vegetation survey was initiated in a protected area to determine the distribution and status of plant life.
Collaboration with the Universidade Federal Rural da Amazonia (2011-2012)	Conduct of a pre-afforestation tropical savanna survey to gather basic vegetation information. Plants from 25 orders and 14 families were catalogued.
Conduct of a survey of medium- and large-size mammals in the conservation area (2011-2013)	A survey covering eight communities located within the conservation area adjacent to AMCEL's afforested land was conducted. The survey employed a questionnaire to gather sighting and other information, and incorporated observations of evidence such as animal trails, fecal matter, and footprints. Jaguars and other "near-threatened" species were found to be living within the conservation area.
Volterra S.A.	
Joint activity with the Universidad de Concepcion	Biodiversity surveys are being conducted on company land. The 2013 survey identified rare species including the endangered Chilean pine (Araucaria araucana).
Wildlife surveys in the company's protected forests	Using camera traps and other tools, surveys have identified mammals (including pumas) and bird species. The 2015 survey confirmed the existence of the "near-threatened" pudu and several rare species.

Preserving Biodiversity

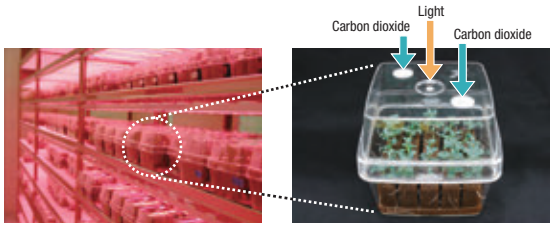
2 Initiatives Leveraging Our Resources and Technologies

Contributing to the protection of a variety of plant species

● Protecting trees of historical value and endangered species

Nippon Paper Industries Co., Ltd. is working to protect precious plant species. It does this by using a proprietary technology that encourages cuttings to take root in containers kept in a special cultivating room. This technology, which promotes photosynthesis, enables the propagation of even trees that failed to root via traditional cutting technology.

In response to requests from various institutions, the Company has used this technology to propagate and return precious plants species. Examples include endangered Ryukyu Island plant species being preserved for research by the Tsukuba Botanical Garden of Japan's National Museum of Nature and Science, cherry trees from various shrines throughout Japan, and cherry trees being used for research at Japan's National Institute of Genetics.



Even plant species that normally fail to root by cutting are able to root

● Use of company-owned forests

Case

Supporting the activities of the Shirane-aoi wo Mamoru Kai

Shirane-aoi (Glaucidium palmatum: Japanese wood poppy) is designated as a "threatened II" species in the Red Data Book of Gunma Prefecture. To protect and breed this plant species, the Shirane-aoi Preservation Group was set up in December 2000, mainly at the initiative of Gunma Prefectural Oze High School and the residents of the village of Katashina in Tone-gun, Gunma Prefecture. As recognition of its achievements to date, it received the Greenery Day Minister of the Environment's Prize for Meritorious Service Related to the Natural Environment in April 2014.

Since its inception, Nippon Paper Development, which manages Nippon Paper Industries' Sugenuma Forest, has supported the operation of the Shirane-aoi Preservation Group, and Nippon Paper Industries has offered a portion of the Sugenuma Forest as a plantation site for Shirane-aoi. Since 2002, the Group has called for volunteers to participate in planting, seed collection, and other activities.

Collecting Shirane-aoi seeds

Comment Daikichi Hoshino, Chairman of the Shirane-aoi Preservation Group

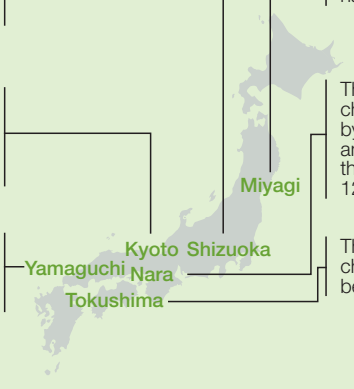
The Shirane-aoi Preservation Group is now in its 16th year of operation, and I would like to express my heartfelt thanks to the Nippon Paper Group for its cooperation and for its participation in our activities.

Nippon Paper Industries Co., Ltd.'s cherry tree preservation activities

Cherry trees of Japan's National Institute of Genetics, which has numerous cherry tree species considered to be of exceptional value

The Tatekawa cherry tree owned by Shinnyodo, a temple in Kyoto, and said to be connected to the third shogun of the Tokugawa dynasty

Cherry tree presented by the feudal lord Kikkawa Hiroie to Ueda Soko, a noted warrior and tea master, around 1625



Cherry tree owned by Shiogama Shrine and registered as a Japanese national treasure

The Uwamizuzakura cherry tree owned by Fuefuki Shrine and dating back to the end of the 12th century.

The Hachisukazakura cherry tree, estimated to be over 250 years old

Cherry tree presented by Kikkawa Hiroie to Ueda Soko
(Photo courtesy of Uedaryu-Wafudou (Hiroshima Prefecture, Japan))