

Cover Photo

Nippon Paper Industries Co., Ltd. company-owned forest
Photo: Yuji Itsumi



SHAPING THE FUTURE WITH TREES



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NIPPON PAPER GROUP

Integrated Report 2019

For the Fiscal Year Ended March 31, 2019

Shaping the Future with Trees



Group Mission

MISSION

The Nippon Paper Group aims to contribute to better living and cultural progress everywhere it does business.

VISION

- 1. Drive social sustainability through our business
- 2. Delight our customers
- 3. Instill pride in employees
- 4. Give back to society

VALUES

Challenge: Embrace new challenges

Fairness: Be fair

Teamwork: Champion teamwork

SLOGAN

Shaping the future with trees

Contribute to Better Living and Cultural Progress

The Nippon Paper Group produces a variety of materials from wood, a renewable resource, and develops a variety of businesses out of trees, including the paper and paperboard business, under its slogan of “shaping the future with trees.”



Packaging



Chemical



Innovative materials



Lumber & construction materials



Household paper & healthcare



Energy



Paperboard



Paper

Editorial Policy

Until FY2018/3, the Nippon Paper Group published its annual report and sustainability report as separate documents. Beginning in FY2019/3, with *Integrated Report 2019*, the Company will systematically combine financial and non-financial information into a single integrated report. In this report, we will clarify our business model as well as the strengths of the Company. Furthermore, by presenting the Company’s efforts geared toward its growth strategy and strengthening its management base, we will promote greater understanding among shareholders, investors, and other stakeholders on how the Company will achieve sustainable growth in the future.

External Evaluations

(Nippon Paper has been recognized by the following key ESG indices)





The Development Bank of Japan (DBJ) has awarded Nippon Paper its highest environmental rating, citing its particularly advanced environmental initiatives. Environmental rating acquisition date: November 2018

Sumitomo Mitsui Banking Corporation has awarded Nippon Paper the AAA rating, its highest rating for ESG and SDG evaluation-type financing.

Disclaimer
Statements in this report concerning plans, forecasts, strategies, beliefs, and other forward-looking information related to Nippon Paper Industries Co., Ltd. and companies comprising its corporate group, other than those of historical fact, are forecasts of future business performance based on the judgments of management at Nippon Paper Industries Co., Ltd. and Nippon Paper Group companies in light of currently available information. Accordingly, please refrain from making investment decisions based solely on forecasts of business performance in this integrated report. Actual business performance may differ significantly from these forecasts due to changes in a variety of factors.

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Domestic Network

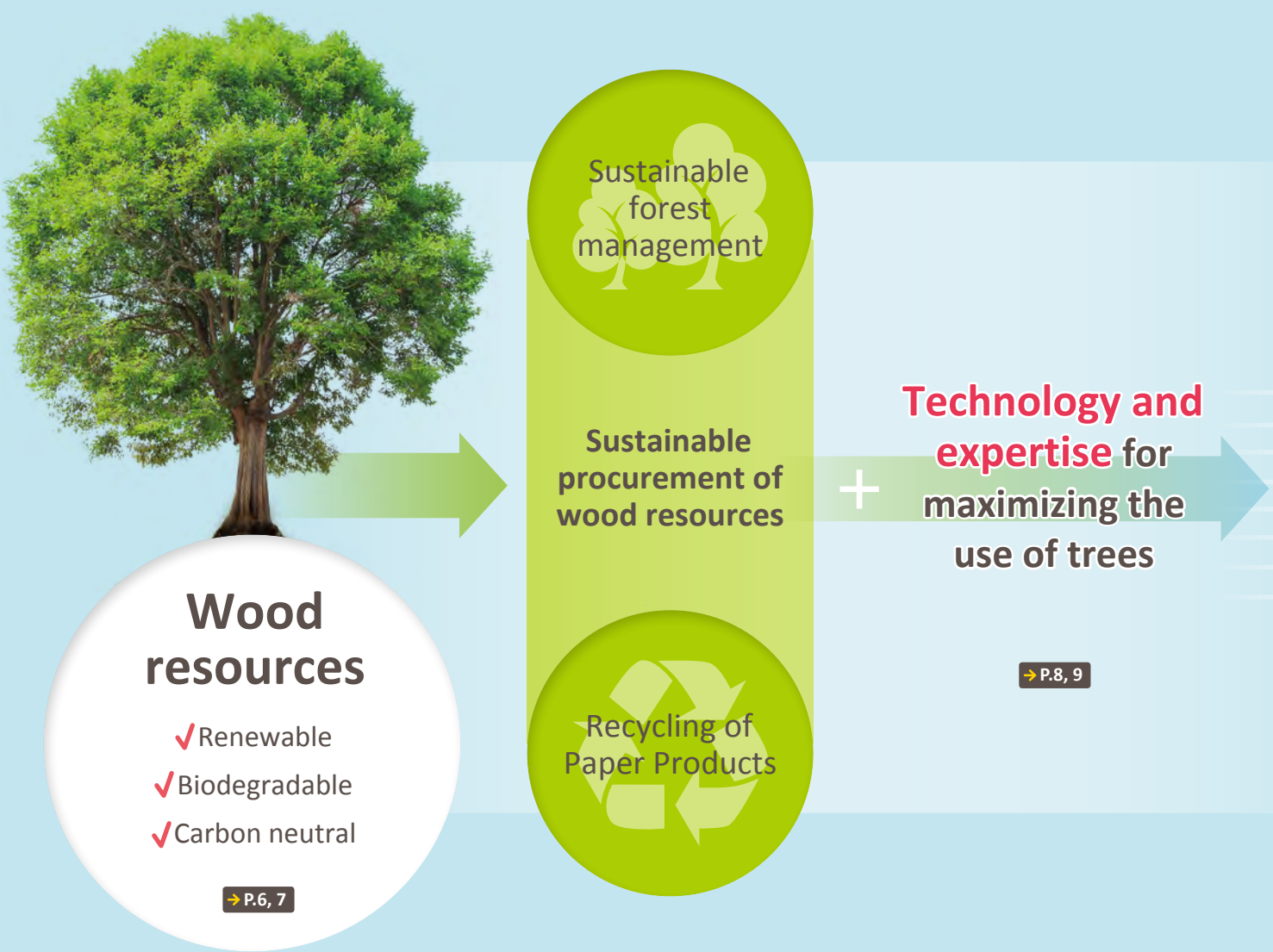
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Company Profile / Stock Information

The Nippon Paper Group, a Company That Shapes the Future with Trees



Developing a Variety of Businesses out of Trees



Business Conditions

- Shift away from the use of plastic due to the issue of marine plastic pollution
- Move toward low-carbon society
- Declining birthrate and aging population
- Digitalization

The Characteristics of Wood Resources

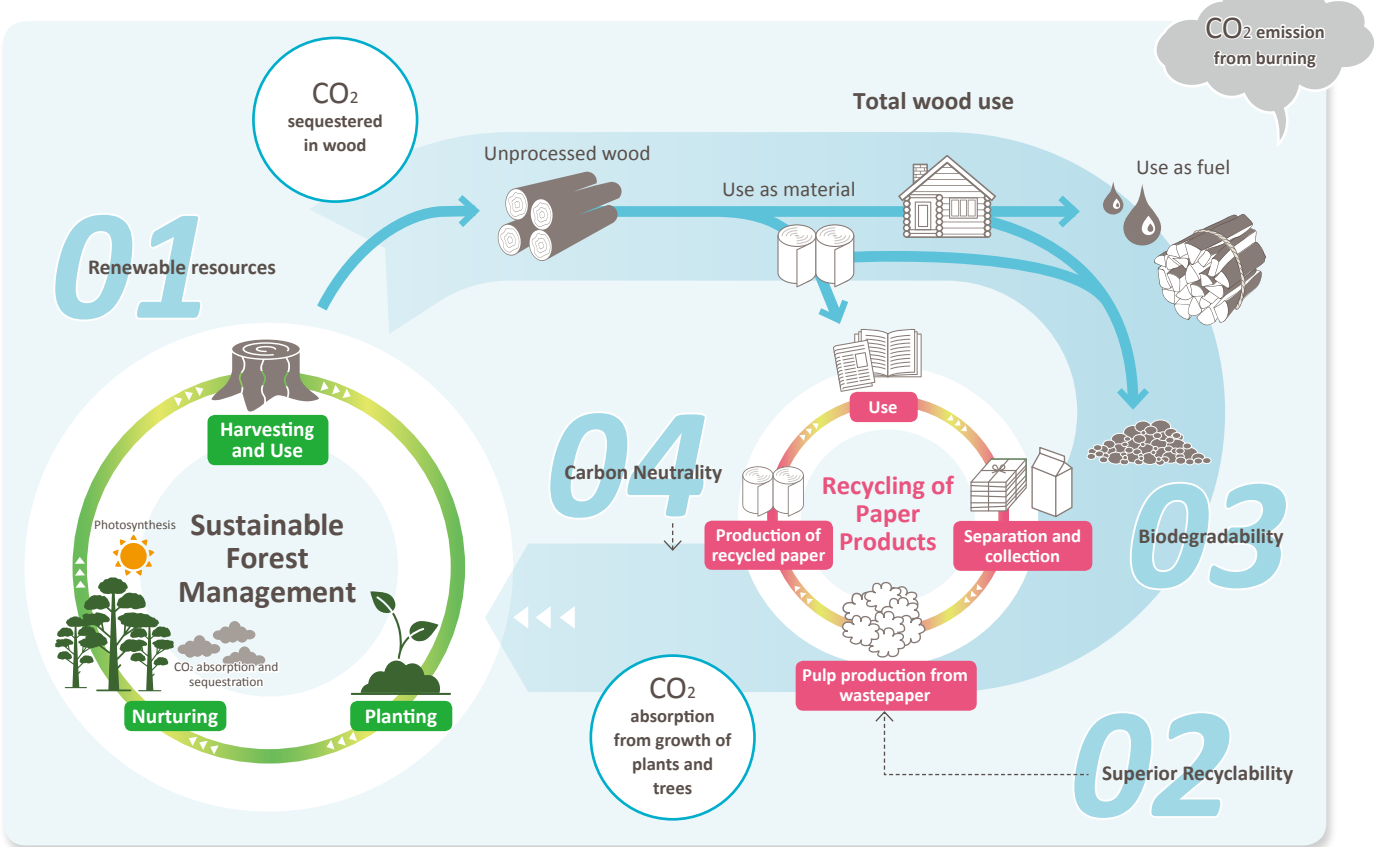
A Strong Affinity for Building a Sustainable Society

Trees sequester CO₂ from the atmosphere as they grow, and forests can be sustainable if they are properly cultivated and managed. The use of wood resources, therefore, helps to fight global warming, and because wood resources are renewable, their use also prevents resource depletion. When these resources are disposed of, they are returned to the environment and, therefore, burning them does not increase the amount of CO₂ in the air. In other words, the use of wood resources follows a carbon neutral philosophy in that the CO₂ created is offset by the CO₂ absorbed.

In this way, wood resources have a strong affinity for building a sustainable society, a shared goal among humanity.

The Nippon Paper Group nurtures and manages forests sustainably and effectively uses and recycles their biomass resources, wasting nothing in the process, to pursue a wide range of businesses, and in doing so, serves as a comprehensive biomass company that takes advantage of the characteristics of wood resources stated above.

The Characteristics of Wood Resources and Building of a Sustainable Society



01

Renewable resources



Wood is a renewable resource unlike oil, minerals, and other exhaustible resources. Appropriate management of forests post-felling, such as planting and maintenance, enables its sustainable use.

Nippon Paper Industries possesses 173 thousand hectares of Company-owned forests in Japan and overseas, all of which are subject to proper forest management and maintain forest certifications.

Company-owned forests worldwide
173 thousand hectares

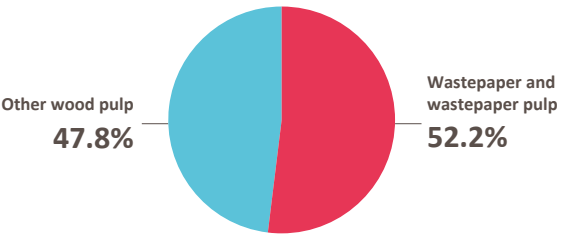
02

Superior Recyclability



Paper can be recycled to create new products through separation and collection after use. Wastepaper accounts for over half of the raw materials used in paper products produced by the Nippon Paper Group.

Breakdown of raw materials used for paper manufacturing (FY2019/3)



03

Biodegradability



In the best-case scenario, wood resources are recycled to the highest degree possible. However, if these resources do get discarded, they can be broken down by microorganisms and other means to be returned to nature.

In recent years, marine plastic pollution has become a problem. The Nippon Paper Group is promoting the development of products that contribute to resolving environmental problems, driven by the slogan "let paper do what it can do."

Biodegradability Test Results for SHIELDPLUS® Square-Bottom Bags



04

Carbon Neutrality



Trees absorb and hold CO₂ from the atmosphere as they grow. It is believed, therefore, that the release of CO₂ when wood resources are burned does not result in any net increase in atmospheric CO₂. The ongoing effective use of wood resources from properly managed, sustainable forests constitutes a carbon-neutral cycle that adds no CO₂ to the atmosphere.

CO₂ sequestered in Company-owned forests* (as of the end of 2018)

32 million tons

* According to the rules of the Clean Development Mechanism included in the Kyoto Protocol, CO₂ emissions are recorded at the time of logging. The volume of sequestered CO₂ remains fixed as new planted saplings and forest stock increases compensate for CO₂ emissions.

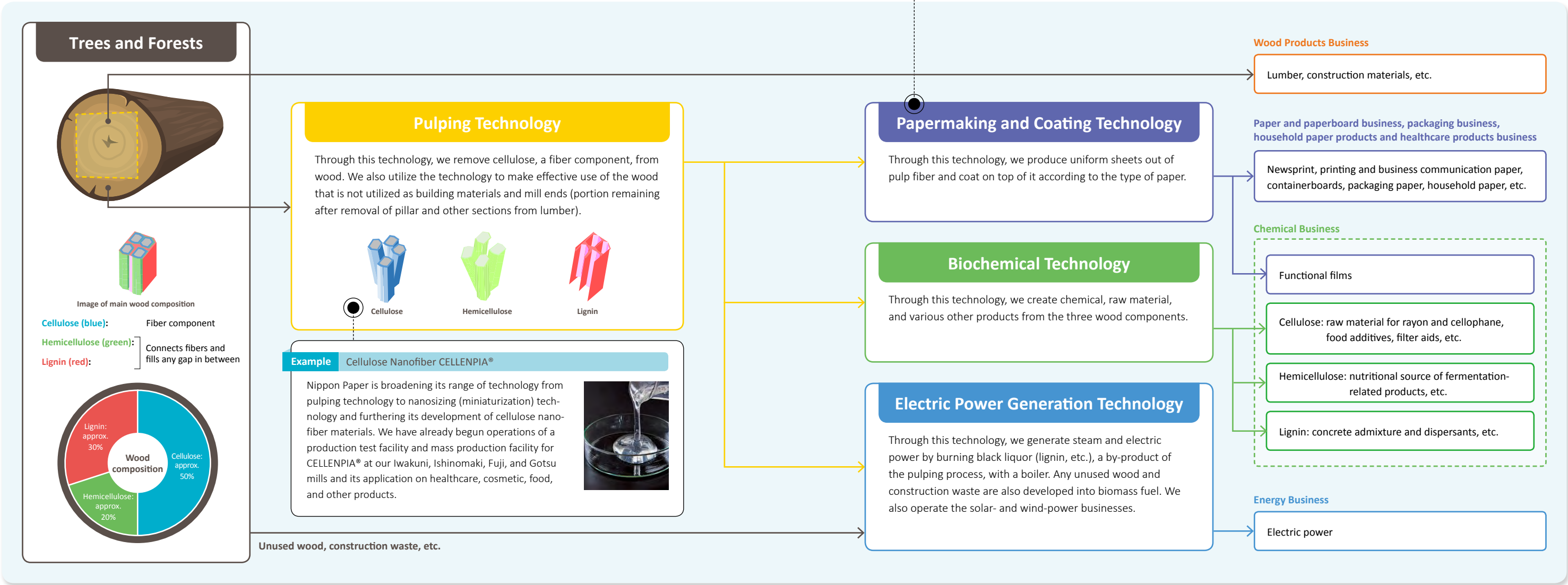
Technology and Expertise for Maximizing the Use of Trees

As a comprehensive biomass company, the Nippon Paper Group endeavors to maximize the use of trees in all facets of its business.

We have also accumulated a diverse lineup of technologies for wood processing, pulping, papermaking and coating, biochemical, power generation, and other processes. We will continue to leverage our existing technologies to advance forward with the development of new technologies and products that maximize the use of trees.

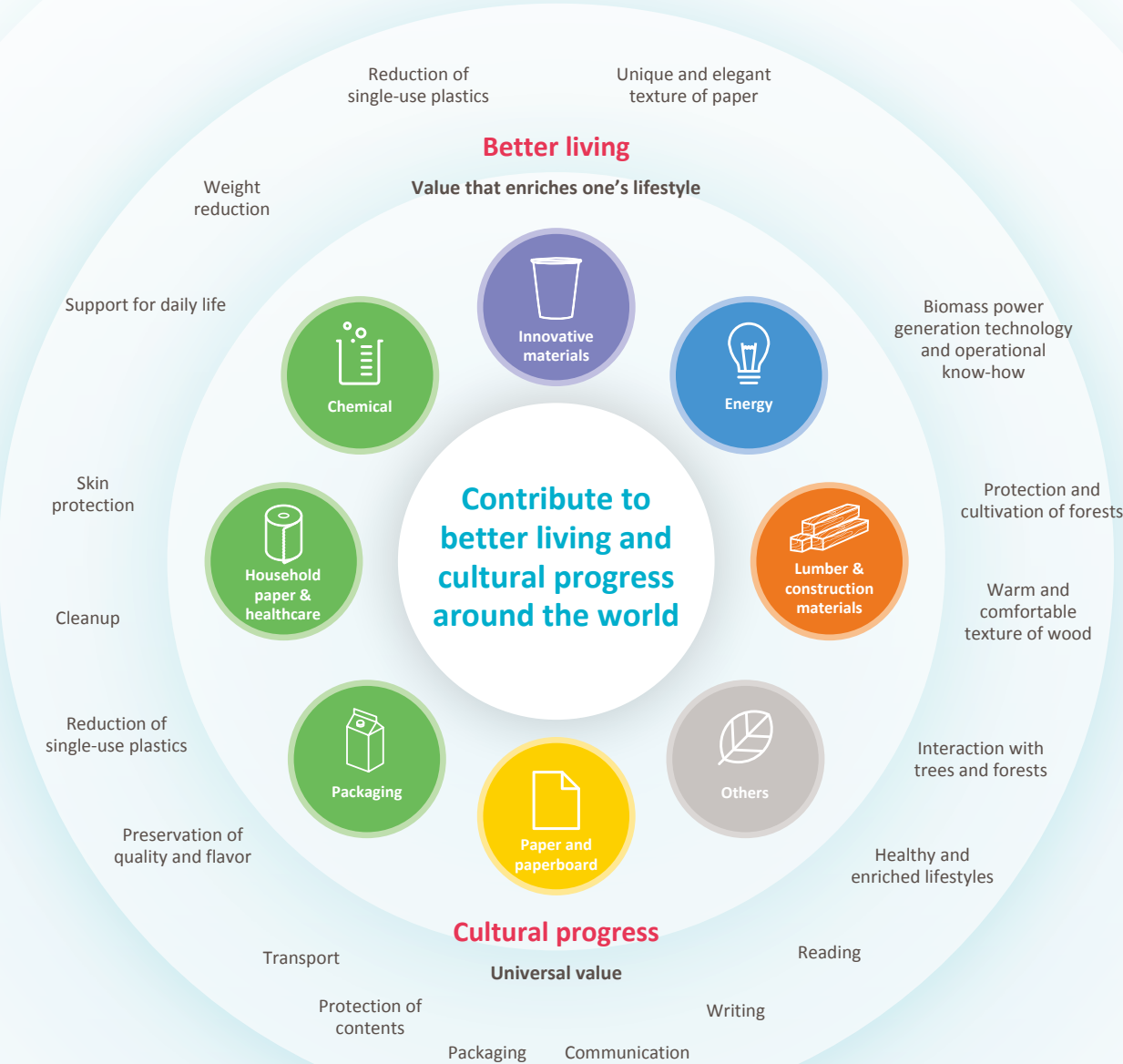
Example SHIELDPLUS® Series

While paper is easy to process, it does not offer gas or moisture barrier properties due to its large air gap. The Nippon Paper Group applies its coating paper production technology to form thin, uniform barrier layers by coating papers with significantly uneven surfaces. In this way, the Group is promoting the development of the SHIELDPLUS® series of barrier packaging materials, which performs on a par with the variety of barrier-film options available.



Value Provided by the Nippon Paper Group

The Nippon Paper Group develops a variety of businesses out of trees in keeping with its corporate philosophy of contributing to “better living and cultural progress around the world.” Under this philosophy, “cultural progress” serves as the universal value and “better living” represents the value that enriches one's lifestyle. Here are some examples of the value we provide.



→ See pages 38–39

Promotion of Printing Culture

Reading / writing / communication



Key Products

- Newsprint
- Printing paper



Effective Distribution through Packaging

Packaging / protection of contents / transport



Key Products

- Linerboards, corrugated mediums
- Packaging paper



Creation of Environmentally Friendly Packages

Preservation of quality and flavor / reduction of single-use plastics



Key Products

- Barrier packaging materials
- Paper straws
- New-shape cartons with closures



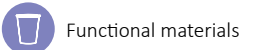
Realization of Convenient and Comfortable Lifestyles

Cleanup / skin protection / support for daily life (food, daily necessities)



Key Products

- Long-length toilet rolls
- Healthcare products made of cellulose nanofiber (CNF) deodorant sheets
- High-performance cellulose (CMC)



Reduction of CO₂ Emissions

Weight reduction / support for daily life (automobiles) / biomass power generation technology and operational know-how



Key Products

- CNF
- High-performance cellulose (CMC) for lithium-ion batteries
- Biomass fuels



The Nippon Paper Group at a Glance



Other businesses

Main Products and Services

Warehousing and logistics

Leisure facilities operation

- Ski resorts
- Bowling alleys

Ratio of Net Sales

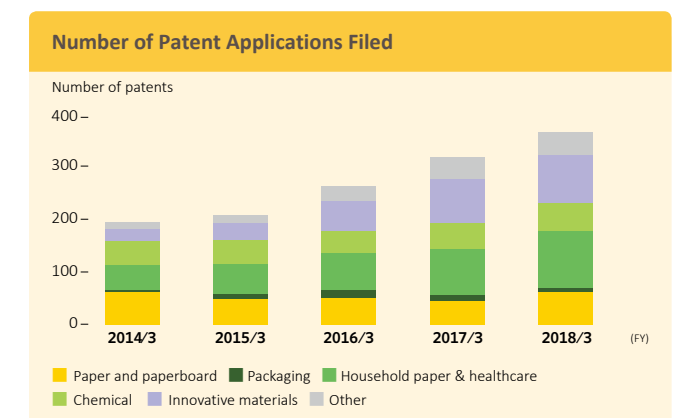
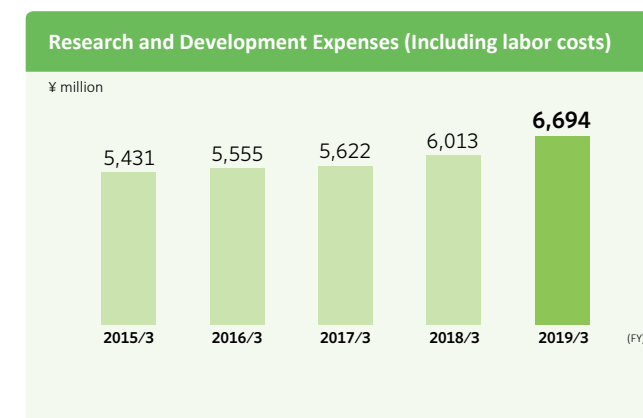
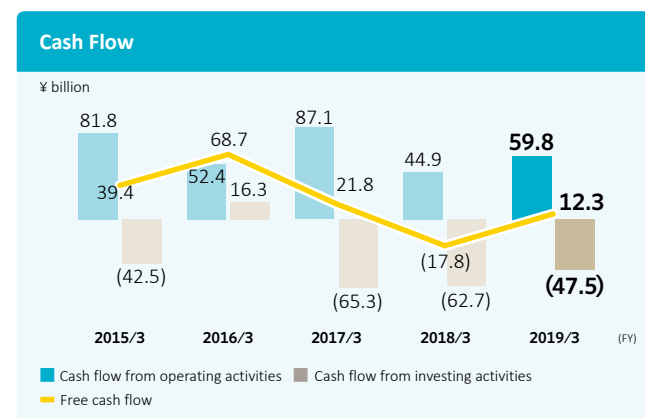
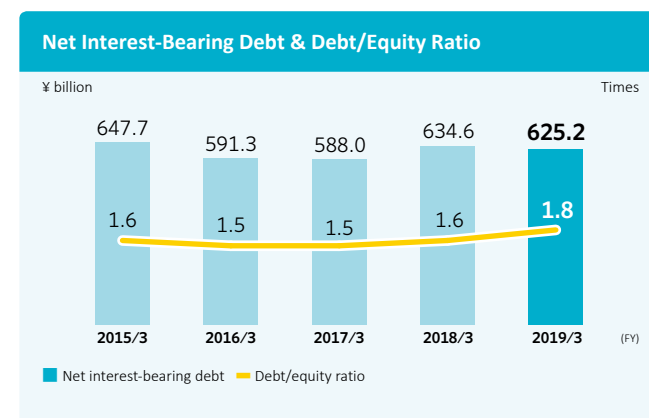
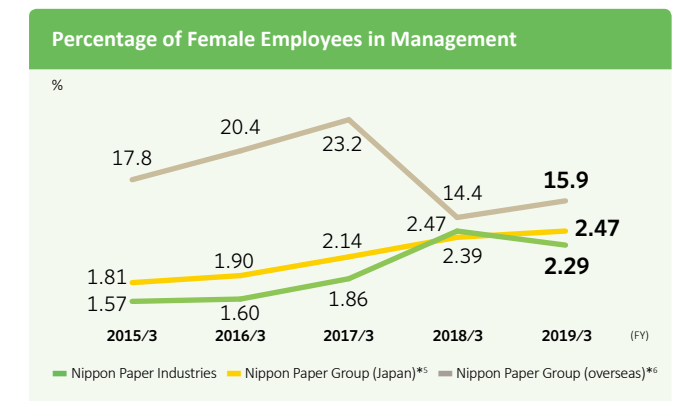
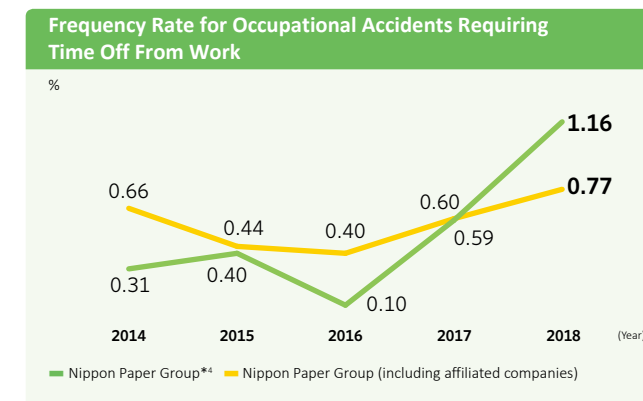
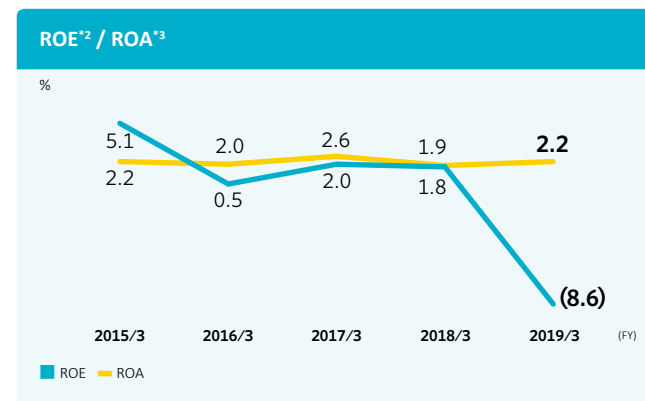
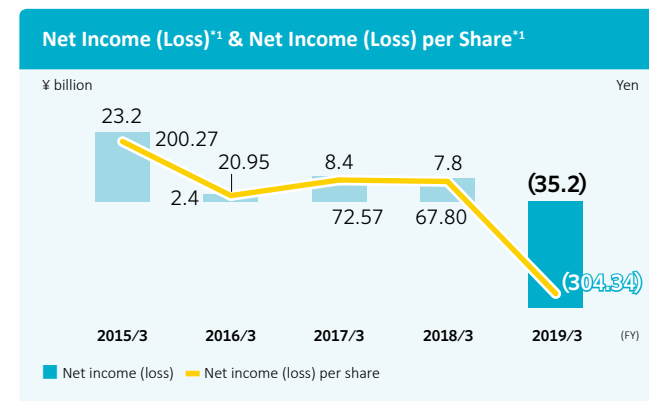
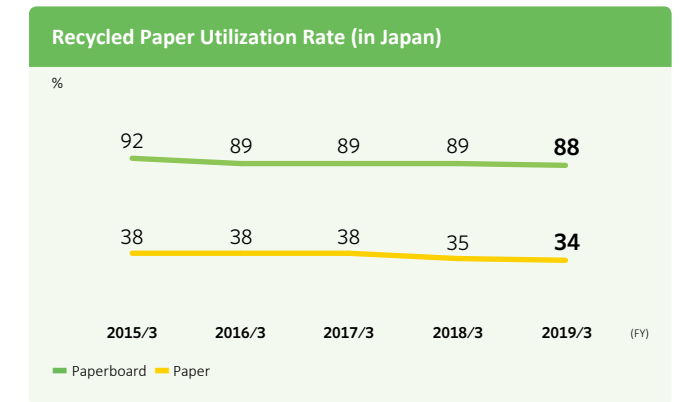
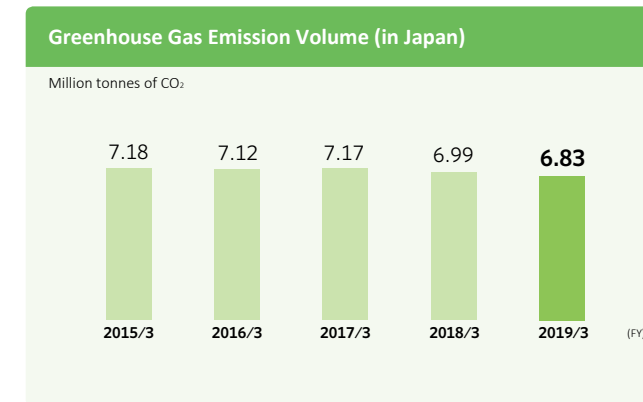
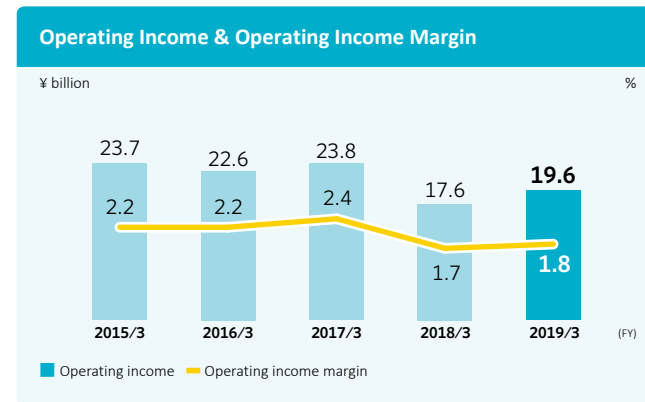
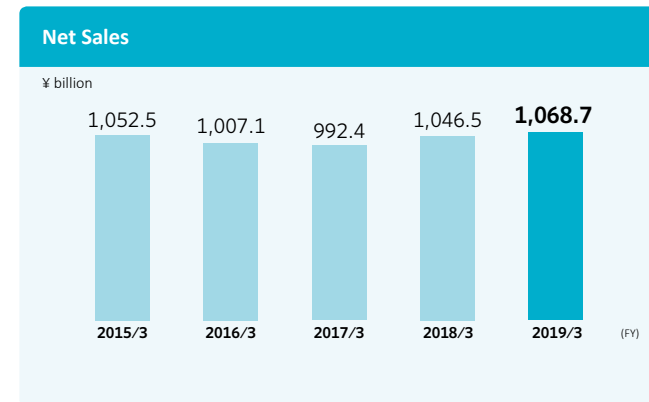
3.0%

Net Sales and Operating Income

| | 2017/3 | 2018/3 | 2019/3 (FY) |
|-------------------------|--------|--------|-------------|
| Net sales | 30.9 | 31.7 | 32.5 |
| Operating income | 2.9 | 3.3 | 3.3 |
| Operating income margin | 9.4% | 10.4% | 10.2% |

* Segment sales and operating income for FY2017/3 are simplified estimates as the segment classification was changed on April 1, 2018.

Financial & Non-Financial Highlights



*1 Profit (loss) attributable to owners of parent

*2 Return on equity (ROE) = Profit (loss) attributable to owners of parent / [Average of beginning and end of year (Shareholders' equity + Accumulated other comprehensive income)] × 100

*3 Return on assets (ROA) = (Ordinary income + Interest expense) / Total assets × 100

*4 Manufacturing offices belonging to Nippon Paper Industries Co., Ltd., Nippon Paper Crecia Co., Ltd., Nippon Paper Industries Papyrus Co., Ltd., and Nippon Paper Liquid Package Product Co., Ltd.

*5 Figures are for the Nippon Paper Group's consolidated companies in Japan.

*6 Includes all managers of sections and higher level organizational units as of December 31 each year.

Message from the Chairman

Under our new management team,
we will ramp up our efforts to
transform our business structure
and mutually unify the
Group companies as one.

Fumio Manoshiro
Chairman & Director
Nippon Paper Industries Co., Ltd.



Launch of Our New Management Team

I am reporting as Chairman & Director, having been newly elected at the Ordinary General Meeting of Shareholders held in June 2019 and approved by the Board of Directors, alongside the newly elected President and Representative Director, Mr. Toru Nozawa.

In FY2019/3, the first year of our Sixth Medium-Term Business Plan, the reorganization of production structure progressed on schedule, and we made multiple decisions related to investments in promising growth areas such as packaging, household paper products and healthcare products, and chemical products. These investments to date are showing steady results, and I am convinced that now the proper preparations have been made for Group growth. I came to the conclusion that the Company should have a new leader as I realized the time was right to refresh the management team and swiftly transform our business structure.

Mr. Nozawa has many years of finance and accounting experience, which has made him highly proficient at making precise readings of actual trends at the front lines of businesses from a financial perspective. Top management has limited opportunities to make direct judgments on site or to assess

local materials, and therefore his abilities are indispensable for leading our Group, and this is what I hold in high regard. I believe he will steer the Group by making full use of the leadership he exerted during his five years as General Manager of the Corporate Planning Division, in which he demonstrated a breadth of knowledge and foresight and gained the trust of those around him.

My Mission as Chairman & Director

While the role of business execution has been assigned to Mr. Nozawa, my mission is to take a supervisory perspective over management to strengthen governance and increase unification in the Group by strongly connecting management to the front lines.

The Company has worked continuously to strengthen its governance system, which includes adopting an executive officer system and introducing outside directors in FY2014/3. Moreover, while establishing our new management, we have taken another step to make steady improvements, increasing the number of outside directors by one to a total of three. As the Chairman of the Board of Directors, and someone who has willfully withdrawn representation rights, I will realize the transparent separation of management oversight and business execution to maintain higher objectivity of the Board of Directors, which will further strengthen governance.

In 2015, we officially stated our corporate philosophy, driven by the belief that in order to become a Group that is trusted by and necessary to society in the future, we need to clarify our significance as a Group and share it with each employee. I am proud that under our slogan, “Shaping the future with trees,” we squarely face the challenges that stand in the way of a sustainable society. As pervasive as our philosophy is throughout the Group, top management will continue to frequently visit our mills and training facilities and instill the essence of it among our employees through comprehensive communication.

As we continue to face a challenging business environment, I will closely work with Mr. Nozawa to further accelerate our efforts, and thereby achieve sustainable growth for the Group as a whole. I ask all of our stakeholders for their further understanding and support.

A handwritten signature in black ink, appearing to read 'F. Manoshiro', with a long horizontal line extending to the right.

Chairman & Director
Nippon Paper Industries Co., Ltd.

We will swiftly forge ahead with measures under the Sixth Medium-Term Business Plan toward achieving our operating income target of ¥50 billion as quickly as possible.

Toru Nozawa
President and Representative Director
Nippon Paper Industries Co., Ltd.

My name is Toru Nozawa and I was recently appointed President and Representative Director of Nippon Paper Industries Co., Ltd. After entering the Company in 1981, I dedicated 33 years to its financial areas and then undertook corporate planning duties, including formulation of the medium-term business plan, as the General Manager of the Corporate Planning Division for five years. We will steadily work to “reorganize the production structure of the paper business and make maximum use of in-house facilities” and “expand business in growth areas and achieve early commercialization of new businesses,” the two themes adopted under our Sixth Medium-Term Business Plan. Through these efforts and by advancing the transformation of our business structure, we will accelerate growth of the entire Nippon Paper Group.

01 Review of FY2019/3

In FY2019/3, the first year of the Sixth Medium-Term Business Plan, we recorded net sales of ¥1,068.7 billion and operating income of ¥19.6 billion. While we realized improvements in both ends from the previous year, we were not able to reach our operating income target of ¥25 billion as a result of the price hike in raw materials and decrease in sales volume of paper, which did not live up to our expectations. The paper and paperboard business in particular has continued to face severe business conditions, with an operating deficit for two years in a row. In addition, production structure reorganization costs, impairment loss in the newsprint business, and allowance for environmental costs recognized as a part of total extraordinary loss resulted in a significant loss attributable to owners of parent of ¥35.2 billion in FY2019/3.

We have determined that addressing the costs associated with reorganizing the production structure of the paper business and the impairment loss of the newsprint business are necessary for the Company to continue to grow in the future. While FY2019/3 was a year for steady implementation of sturdy measures toward future growth, in FY2020/3 we will make concerted efforts to drive our business performance upward.

FY2019/3 Consolidated Financial Results and Sixth Medium-Term Business Plan Operating Targets (FY2021/3)

| | FY2018/3 Results | FY2019/3 Results | FY2021/3 Targets |
|---------------------|------------------|------------------|-------------------|
| Net sales | ¥1,046.5 billion | ¥1,068.7 billion | ¥1,115.0 billion |
| Operating income | ¥17.6 billion | ¥19.6 billion | ¥47.0 billion |
| Ordinary income | ¥18.6 billion | ¥23.9 billion | — |
| Net income (loss)*1 | ¥7.8 billion | ¥(35.2) billion | — |
| EBITDA*2 | ¥78.1 billion | ¥82.5 billion | ¥110.0 billion |
| Debt/equity ratio | 1.61 times | 1.76 times | 1.5 times or less |
| ROA | 1.9% | 2.2% | 3.8% |
| ROE | 1.8% | (8.6)% | At least 5% |

*1 Profit (loss) attributable to owners of parent
*2 EBITDA = Operating income + interest income + dividend income + depreciation

02 Reorganizing the Production Structure of the Paper Business

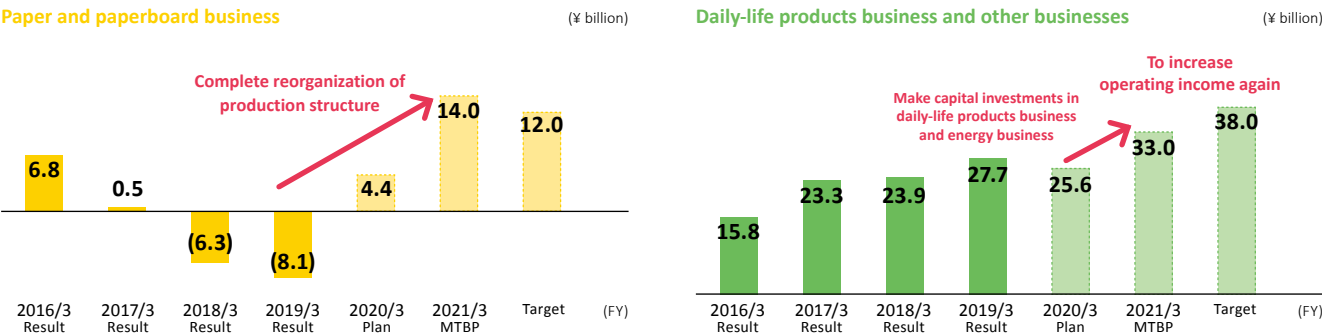
Our ultimate goal for FY2020/3 is to finish reorganizing the production structure of the paper business. Through this reorganization, we will achieve lower fixed costs and higher machine utilization rates, adjusting the business structure to the annually declining demand in order to boost our competitiveness. This restructuring will reduce our annual paper production capacity by 760 thousand tonnes as a result of shutting down eight paper machines and two coating machines, moves we expect will lead to a ¥11 billion improvement in operating income for the paper business. While gaining the understanding of our customers, we will rebalance product grades across our production sites and complete the shutdown of machinery on schedule with the aim of moving the paper and paperboard business back into the black.

03 Our Initiatives in Growth Areas

The Group has identified the packaging, household paper and healthcare, chemical, energy, and wood products businesses as its five growth areas and each business is demonstrating steady growth. In the daily-life products business, we have decided to invest in increasing the capacity of our packaging, household paper products and healthcare products, and chemical businesses in preparation for the anticipated increase in demand going forward. FY2020/3 will be a year of preparation for advancing our construction work aimed at boosting production capacity in order to ensure that our capital investments come to fruition according to plan from FY2021/3.

Progress in Enhancing Competitiveness of Existing Businesses and Transforming Business Structure

Operating Income (Loss) by Business Segment



The energy business made its expected contributions to operating income through the stable operations of the biomass co-firing power generation facility of Nippon Paper Ishinomaki Energy Center, which commenced operations in March 2018. At the Hokkaido Mill (Yufutsu), we decided to utilize its land and facilities as well as the technologies and know-how cultivated through its paper production for the establishment of the Yufutsu biomass power generation business. The business will commence operations in January 2023. The biomass power generation business is also under consideration for the Iwakuni Mill (Yamaguchi) as well. We will pursue stable, long-term growth in operating income by forging ahead with the establishment of the biomass power generation business in which we can fully leverage the Group's capabilities.

In the wood products and construction related business, we see the potential for synergy with the energy business and biomass fuel sourcing. We will accelerate the expansion of our biomass fuel business centered on Nippon Paper Lumber Co., Ltd., which handles a significant volume of domestic lumber products and has developed a robust network for the collection of wood chips.

04 The Potential of Innovative Materials

Early commercialization and development of applications that leverage the functions and features of CELLENPIA®, a cellulose nanofiber (CNF) product, SHIELDPLUS®, Minerpa®, and other innovative materials are our matters of priority at the moment.

CELLENPIA® is being gradually adopted in the use of food and cosmetic products. The Company's strengths lie in its ability to create various CNFs, such as TEMPO-oxidized CNFs, carboxymethylated CNFs, and CNF-reinforced plastic. By simply making small adjustments or changes to its process, it is possible to generate CNFs with completely different features. Going forward, we will expand the lineup of CNFs and offer finer solutions that cater to the needs of customers.


SHIELDPLUS® products, which are paper products with moisture- and oxygen-barrier properties, have received extraordinary reviews since their release in 2017. We sense the trend toward reviewing the value of paper products due to marine plastic pollution, and we want SHIELDPLUS® to contribute to the creation of a sustainable society by developing good applications together with our customers who understand the merits and value of paper. The day when using less plastics will change our daily lives is still down the line, but the Olympic and Paralympic Games Tokyo 2020 is a tremendous opportunity for us to let people around the globe know what kinds of paper materials and packaging are used in Japan. We will do our utmost to put various products on the market to take advantage of the opportunity presented by Tokyo 2020.

05 The Driving Force behind Group Growth

The Group's human resources are the valuable assets and the driving force behind its ongoing initiatives toward continuous growth. All of our highly skilled employees challenge each and every task in earnest. They are also fully aware of the spirit of Challenge, Fairness, and Teamwork—the values included in the Group Mission. Going forward, I would like to emphasize the importance in awareness of timeliness. My desire is to establish an organization that promotes the active participation of women and allows our employees to further exhibit their individual strengths and fully utilizes the abilities of our employees, who have a diverse sense of values.

On top of that, we produce a wide range of wood pulp and create not only paper products but also chemicals and various other products from different types of wood pulp. These are our great strengths and the accumulation of these technological capabilities is the key to our growth going forward.

Moreover, we will continue to take a cautious approach to environment- and safety-related matters in order to fulfill our corporate social responsibilities. We have to take additional measures from a safety perspective, aiming for zero occupational accidents. From an environmental point of view, it is imperative to complete PCB disposal. Through the management team's strict management of and communication with the mill managers, department managers, section managers, and section chiefs, we will desperately instill a sense of environmental protection and safety awareness in every employee.



**We will contribute to the creation of
a sustainable society through the realization
of our Group Mission.**

06 Realizing the Group Mission

Our corporate philosophy states that “The Nippon Paper Group aims to contribute to better living and cultural progress everywhere it does business.” The paperboard business and growth businesses are contributing to materialize “better living” while the paper business is working to realize “cultural progress.” By successfully operating these wood-based businesses, we believe that we can constantly offer new value and contribute to the creation of a sustainable society. The realization of this Group Mission represents exactly what the Group is trying to achieve.

I believe the companies that can survive are the ones that proactively contribute to the creation of a sustainable society, an urgent challenge for humankind. The Company participates in the United Nations Global Compact and supports the 10 principles covering the four fields of human rights, labor, environment, and anti-corruption.

07 Message to Stakeholders

My No. 1 priority is to reach our operating income target of ¥50 billion, the goal we set out to achieve, as quickly as possible. We believe that this target is imperative for achieving stable growth and for providing returns that meet the expectations of shareholders, business partners, employees, and all other stakeholders. Meanwhile, due to the Company's large amount of debt, we will remain carefully observant of financial discipline.

We constantly revert to our Group Mission and let every employee come up with fresh ideas as a Group toward its realization. Ultimately, I want to evolve Nippon Paper into a corporate group that offers a diverse lineup of products and businesses to the extent where the kind of products Nippon Paper produces and specializes in will not be so obvious anymore.

I ask all of our stakeholders, including shareholders and investors, for your continued understanding and support going forward.



President and Representative Director
Nippon Paper Industries Co., Ltd.

Paper Business

Our Vision

Amid declining demand, we will pursue new paper-related possibilities and applications while establishing a stable profit structure.

Kazumori Fukushima
Senior Managing Executive Officer
General Manager
Printing Paper Sales Division
Nippon Paper Industries Co., Ltd.

Our Strengths

- Technological capabilities for creating new products
- Production bases and sales (distribution) network throughout Japan
- A broad product lineup

Our Challenges

- Increasing cost competitiveness of commoditized products
- Sales price stabilization
- Adjusting production, logistics, and inventory systems to small lot production for a variety of products

Our Opportunities

- Increasing prevalence of digital printing and growth in printer outsourcing
- Rising prevalence of cross-media advertising and publishing
- Shift from plastics to paper products

Our Threats

- Reduced circulation of print media
- Shift to electronic media
- Rising logistics unit costs



Printing paper



Business communication paper

FY2019/3 Performance and Challenges

Commencing Efforts to Reorganize the Production Structure of the Paper Business and Realizing Price Revisions as Planned

In FY2019/3, the paper market continued to contract, mainly due to the reduced circulation of newspapers and magazines and sluggish demand for printed advertisements.

Facing an increasing gap between supply and demand, which resulted from stagnating demand over the long term, and sluggish market conditions, it was an urgent task for us to drastically improve our profit structure. Under these circumstances, we commenced efforts to reorganize our production structure with the aim of optimizing our production activities in anticipation of decreasing demand and reducing fixed costs and other expenses. Then, our competitors made announcements to close and convert their facilities one after the other, leading to significant improvements in the supply–demand balance, particularly in printing paper. In regard to the newsprint business, we recorded an impairment loss on fixed assets as we continued to face difficult conditions in our business environment.

In light of the soaring raw material prices and logistics costs, we also pursued efforts to revise the prices of business communication paper and newsprint. We announced these price revisions in November 2018 and made an early settlement, allowing us to reap the benefits, mainly in the fourth quarter. We were also able to revise the price of newsprint. For export products, we gradually revised prices from the start of the fiscal year thanks to increased demands in the overseas market. However, because the sharp rise in raw material prices occurred before the effect of price revisions was realized, we posted unfavorable results in terms of profit.

The production structure reorganization is progressing as planned. However, due to our lineup of numerous business communication and industrial paper products customized for our individual customers, we need to be particularly cautious in confirming quality levels. For newsprint, which is used every day, we need to not only confirm quality but also ensure a stable supply on a daily basis. In order not to inconvenience our customers, we are bringing together all of our technological capabilities and will move forward toward successfully completing the reorganization.

Future Strategies

Focus on Realizing the Effects of Our Production Structure Reorganization and Stabilizing Market Conditions

Since the domestic paper market is expected to continue to contract, we will implement two major initiatives to secure stable profits.

The first is to thoroughly realize cost-reducing effects through production structure reorganization. In addition to cutting fixed costs, we must improve efficiency in a variety of other areas. While our abundant product lineup is one of our strengths, after completing the reorganization, we will need to adapt larger facilities to small lot production for a wide variety of products in an effective manner. We will search for an optimal balance between production efficiency, distribution efficiency, and inventory turnover as we strive to reduce our overall costs.

The second is to achieve market stability. To do this, we must take every measure possible to maintain a sound balance between supply and demand, such as promoting a shift to exports and producing profitable products as necessary, while closely observing the market conditions in both Japan and overseas.

We do not anticipate growth in demand for newsprint and printing paper in both overseas and domestic markets. However, we do expect solid demand for business communication paper and industrial paper, such as labels and packaging paper. As awareness of marine plastic pollution grows around the world, we will expand our sales of paper for packaging materials on a global basis.

Paperboard Business

Our Vision

We will accurately capture users’ needs and meet increasing demand for containerboard through unique, differentiated products.

Satoru Muto
President
Nippon Tokai Industrial Paper Supply Co., Ltd.

Our Strengths

- Well-balanced deployment of mills across Japan
- Possession of linerboard machines using self-manufactured softwood kraft pulp
- Substantial research and development capabilities
- Long-standing relationships of trust with containerbox manufacturers and end users
- Sales capabilities to quickly propose solutions

Our Challenges

- Price maintenance
- Securing sales volume
- Reduction of sales cost

Our Opportunities

- Expected growth in demand for containerboard in Japan
- Exports to high-growth Asian markets
- Development of new products using new materials

Our Threats

- Sluggish market growth due to economic deceleration
- Soaring raw material and fuel prices
- Increasing logistics costs
- Deterioration of supply–demand balance



Containerboards

● **FY2019/3 Performance and Challenges**
Realizing Price Revisions as Planned Even in the Face of Soaring Raw Material and Fuel Prices

In FY2019/3, with regard to domestic sales of containerboard, our mainstay product, sales to end users who selected us as their designated supplier were up, while sales to through-process manufacturers and small and medium-sized containerbox manufacturers were down. Exports were solid due to the rise in demand for containerboard in Asia, particularly in China.

In terms of profit, we faced very difficult conditions due to the soaring prices of raw materials and fuel, such as wastepaper, which started in summer 2018. We announced price revisions in October 2018. These revisions were well received by our customers, as we

had hoped. To address increasing logistics costs, we are leveraging our favorably located production bases across Japan to maximize logistics efficiency. Moving forward, we will strive to establish an optimal sales structure through such efforts as reviewing appropriate inventory levels at each production site and consumption area.

In the paperboard business, profits are impacted greatly by price fluctuations of waste containerboard, a key raw material. In addition, we are seeing a trend among competitors to increase their containerboard capacity. We must reinforce our business structure to secure stable profit on a sustainable basis, even when the prices of raw materials drastically fluctuate or when there is an oversupply of paperboards.

● **Future Strategies**
Aim to Enter the E-Commerce Field and Developing New Products

Striving to maintain a stable supply of containerboards, we will promote a broad range of initiatives to be the preferred choice of customers. Specifically, we will thoroughly analyze our customers’ preferences and pursue optimal product lineups to meet every customer’s needs. Regarding domestic sales, under the assumption that we will be able to maintain our revised selling prices, we will focus on incorporating the steadily rising demand for the e-commerce field. Through such efforts, we will expand sales to end users. By utilizing our meticulous delivery response, one of our great strengths, we will promote sales activities with an awareness of being a trusted partner to our customers.

For exports, we will move forward with efforts while monitoring the balance between supply and demand in Japan. For example, we will continue to conduct sales emphasizing regular customers in Southeast Asia. At the same time, we will strive to acquire new users and establish an agile export structure.

We have positioned the development of new products that ascertain the shift from plastic to paper products around the world as an important strategy going forward. Developing new containerboard is also an urgent task. Under our Group research and development structure, we will create new products with added value and new features through consistent development, production, and sales activities. In these ways, we will leverage our strengths as a specialized containerboard manufacturer. The entire Group will come together to ensure the success of these efforts.

Packaging Business

Our Vision

We will build our liquid packaging business into a world-class business.

Yasuhito Obayashi
Executive Officer
General Manager
Paper-Pak Sales Division
Nippon Paper Industries Co., Ltd.

Our Strengths

- Japan's largest total system supplier for liquid packaging cartons with an eye on global markets

Our Challenges

- Development and sale of next-generation liquid packaging cartons and filling machines
- Development of environmentally friendly barrier packaging leveraging Group strengths

Our Opportunities

- Increased use of paper cartons for high-value-added beverages such as functional beverages that contain solid particles and long fibers
- Shift from plastic materials to environmentally friendly paper cartons

Our Threats

- Intense competition due to entry of other companies into paper carton market
- Contraction of domestic beverage market due to declining of birthrate and aging population, etc.



New-shape cartons with closures



NSATOM® (product in development)

● FY2019/3 Performance and Challenges

Increasing Revenue through Expanding Sales of Paper Cartons with Attached Closures and Filling Machines

In FY2019/3, despite the impact of natural disasters such as the torrential rains in western Japan and the earthquake in Hokkaido, sales in the packaging business increased 8% year on year. This increase was due to various factors, including the launch of new-shape milk cartons with closures, increased sales of fruit juice cartons with closures and tea cartons, expanded carton exports, and higher sales of filling machines. We were also able to steadily expand our domestic share in the field of chilled liquid packaging cartons.

Operating income declined compared with FY2018/3 as a result of the rising prices of such raw materials as base paper and ink. Continuing on from the previous fiscal year, the price of base paper increased significantly. In addition, profit was impacted by rising costs of environmentally friendly ink, higher resin prices, and increased transportation costs. Meanwhile, in our production department, we achieved positive results such as improvement in the yield rate, promotion of preventive maintenance, and reduction of downtime.

In September 2018, we announced the development of NSATOM®, the world's first multi-functional aseptic filling machines and uniquely

shaped paper packaging with closures. These machines and packaging are capable of handling solid particles, long fibers, and high-viscous products. The filling machines also enable preventive maintenance through remote operation using IoT, while maintaining highly clean conditions. Although we intend to launch NSATOM® from FY2020/3 onward, we have already received a large number of inquiries from customers. We also simultaneously announced UPN-SEC14S, a state-of-the-art, high-speed chilled filling machine. In addition to being highly sanitary, UPN-SEC14S can attach closures to the cartons and can make use of IoT. We have been receiving a high level of unit orders for this new product.

Meanwhile, overseas, Nippon Dynawave Packaging Co., which handles liquid packaging boards in North America, realized steady growth in sales volumes by leveraging the strength of its stable customer base and supported by the positive impact of increased global demand for beverage cartons. In addition, in March 2019, we acquired 70% of shares in TS Plastics Sdn. Bhd. (TSP), a flexible packaging company in Malaysia. Drawing on the insight TSP has developed in the field of flexible packaging, we will work to expand our businesses in Asia, where the economy continues to develop. At the same time, TSP will develop paper packaging products to serve as the base for the Group's increased focus on paper.

● Future Strategies

Aim to Increase Sales by 30% through a Production and Sales Structure That Addresses Market Needs

Under the Sixth Medium-Term Business Plan, the trend of shifting to paper products, which has resulted from the growing issue of marine plastic pollution presents a major business opportunity. On the other hand, competition has been intensifying in the container market due in part to diversifying consumer trends and the declining birthrate and aging population.

In the field of chilled packaging, we have been developing paper cartons with closures, which are highly convenient, and commenced sales of such cartons for beverages and milk, our mainstay applications. Our chilled filling machines, as previously mentioned, attach closures to the paper cartons and realize world-leading levels of cleanliness, functionality, and ease of operation. Many of our customers are making use of these filling machines, promoting the shift toward our new cartons.

Also, in the field of aseptic packaging, we are thoroughly analyzing customer needs and are gradually moving forward with the development of NSATOM®, an aseptic filling system for paper packaging that is expected to help replace plastic and metal containers with paper cartons. Production of NSATOM® is slated to commence within FY2020/3.

Moving forward, we anticipate an increase in functional beverages and shorter product life cycles at convenience stores. In response to these changes, we will build a structure that enables the production of various products in small lots. We will also provide paper containers and filling machines in accordance with customer needs.

Additionally, we will step up efforts in human resources development, working to nurture talented people who can do business globally. At the same time, to address the issue of increasing workloads, we will promote efforts to reduce work burden by introducing a new system and transitioning to AI. In the container market, where innovation is constantly in demand, we are making concerted efforts across all departments to increase sales by 30% by FY2021/3, the final year of the Sixth Medium-Term Business Plan, compared with FY2018/3.

Household Paper and Healthcare Business

Our Vision

We will provide valuable products and brands that contribute to healthy and clean lifestyles.

Kazufumi Yamasaki
President and Representative Director
Nippon Paper Crecia Co., Ltd.

Our Strengths

- Beloved and trusted brands
- Highly competitive mills
- Differentiated, unique products
- Healthcare products that utilize CNF

Our Challenges

- Return of household product prices to appropriate levels
- Use more pulp procured within the Group
- Prompt launch of new production facilities
- Enhancement of logistics efficiency

Our Opportunities

- Inbound demand (overseas tourists visiting Japan for the Olympic and Paralympic Games Tokyo 2020)
- Aging population
- Rapidly growing e-commerce market
- Demand for replacing imported tissues with domestic tissue products to compensate for decline in such imports

Our Threats

- Oligopoly of pulp suppliers in South America
- Facility expansion and reinforcement by competitors
- Intense competition in growing healthcare market
- Soaring logistics costs



SCOTTIE® Four-roll, triple-length “flower pack”



“KLEENEX® Lotion Tissues HADA URURU soft pack 110 pull”



“Poise® Hada Care Pad”



“Hada Care Acty®”

● FY2019/3 Performance and Challenges

Realizing Record-High Sales and Returning Prices to Appropriate Levels

In FY2019/3, consumption volumes of household paper products and shipping volumes among domestic manufacturers were solid. However, imported volume of lower-priced household paper drastically decreased in Japan due to a price hike announced by overseas suppliers, resulting in a strong sense of scarcity from the start of 2019.

In May 2018, paper machine No. 1 at Group company Crecia-Kasuga Co., Ltd. commenced operations, thereby expanding our production capacity. However, sales volume also increased thanks to inbound demand, and we continued to find ourselves in a situation where it was difficult to meet demand.

In the healthcare business, as we anticipate the insufficient supply to continue due to a favorable sales environment, we decided to invest in two processing machines, which began operation in May 2019.

Despite achieving record-high sales, operating income declined 50% compared with the previous fiscal year, as profit was significantly affected by rising pulp prices and higher logistics costs. We made the announcement to revise prices at the start of FY2019/3. However, as we were not able to revise prices to the degree we had hoped, we have been carrying out additional revisions since spring 2019 in an effort to address rising costs.

In terms of new products, “KLEENEX® Lotion Tissues HADA URURU Soft Pack,” which was launched in 2018, received a high evaluation from the market. Additionally, sales of our unique, differentiated products “SCOTTIE® Four-roll, triple-length flower pack,” “Poise® Hada Care Pad,” and “Hada Care Acty®” were solid. Going forward, we will continue to strengthen our product development.

● Future Strategies

Strengthen Our Supply Structure in Accordance with the Expanding Household Paper Product and Healthcare Market

As the supply–demand situation for household paper products is currently tightening in Japan, there continues to be a sense of tissue shortage at stores. The main cause behind this scarcity is the decline in supply, which resulted from such factors as the decrease in imported tissues and operational incidents at other domestic manufacturers. In FY2020/3, we anticipate a rush of purchasing prior to the consumption tax hike, and the current supply shortage will likely persist.

To strengthen our production capacity, we decided to establish a second paper machine at Crecia-Kasuga, which is expected to begin operations in June 2020. At the same time, we will build a processing structure consisting of four mills in an effort to establish a proper balance between supply and demand for facial tissues, toilet paper rolls, paper towels, and commercial products. By doing so, we will help eliminate supply shortages of tissues in the market. We will also

complete the price revisions we are currently implementing and continue with efforts to strengthen our brand communication. In these ways, we will reinforce our business foundation.

In the healthcare business, amid market expansion brought about by the aging population, our sales continue to expand at a rate that outpaces market growth. Leveraging the two newly installed processing machines of the Kyoto Mill, we will strive to respond to demand increases in the future.

From a cost perspective, there are still concerns over high pulp prices due to the oligopoly of pulp suppliers in South America, and logistics prices are rising due to the shortage of transporters. Responding to these issues is therefore an urgent task for us. For pulp procurement, we are leveraging our Group strengths to expand the use of pulp supplied by Nippon Paper Industries. For logistics, we will introduce pallet-based distribution for household products, which were previously transported through loading and unloading by hand. Through this effort, we will enhance the efficiency of our transportation operations.

Chemical Business

Our Vision

We will provide unique products in global niche markets.

Yozo Igarashi
Executive Officer
General Manager
Chemical Sales Division
Nippon Paper Industries Co., Ltd.

Our Strengths

- A diverse lineup of wood-based products
- A group of unique products in niche markets

Our Challenges

- Enhancement of cost competitiveness of pulp products
- Development of applications for yeast culture products and increasing their sales
- Development of applications for wood-based products

Our Opportunities

- Growth in demand for renewable resources due to re-evaluation of their value
- Growth of global automobile market
- Increase in demand for textiles with rise in global population
- Shift toward making plastic parts out of mono-materials
- Rise in demand for high-performance films

Our Threats

- Shrinking Japanese market
- Sharply rising raw material prices
- Incursion of overseas manufacturers



Example of carboxymethyl cellulose application



Example of functional coating resin application

● FY2019/3 Performance and Challenges

Strong Demand for High-Performance Cellulose (CMC) for Lithium-Ion Batteries

The Chemical Business comprises five product groups: dissolving pulp, a raw material for rayon, cellophane, and acetate; cellulose-derived products; chemical products made of wood materials; functional coating resins that are incorporated into paints and inks to serve as adhesion promoters for polyolefin materials; and functional films with different functions depending on coating formulations.

In FY2019/3, both sales and profit declined partly due to the impact of rising raw material and fuel prices. In dissolving pulp, demand for rayon use was robust, but the torrential rain in western Japan forced us to reduce production, leading to reduced sales. In

functional films, sales volume of hard coated film, launched in 2017 for organic light-emitting diode (OLED) displays, was down year on year. The sales volume of lignin, which is used in civil engineering or as a binder agent, decreased slightly. Sales of functional coating resins, on the other hand, were robust thanks to expanding worldwide automotive markets. The sales volume of carboxymethyl cellulose (CMC), a water-soluble polymer made of pulp, also increased for use in lithium-ion batteries. Sales of Stevia sweetener to leading soft drink manufacturers were steady.

Looking ahead, we will introduce measures for improving earnings of dissolving pulp. We also aim to stabilize production and promote sales for high-value-added applications.

● Future Strategies

Expand Sales of Unique Wood-Derived Products in Global Niche Markets

We are aiming to expand earnings by providing unique products in global niche markets and building trusted relationships with our customers, leading to the creation of new businesses.

One of our strengths lies in the fact that many of the products we offer are made from wood—a renewable material. We differentiate dissolving pulp, one of our wood-derived products, by maintaining its high quality to meet customers’ needs. Lignin, the main constituent of the cooking liquor produced in the pulping process, is broadly used as an adhesive. We also apply our proprietary technologies to modify lignin and offer it for use in a wide range of fields as a high-performance dispersant.

Demand increased for functional coating resins as adhesion promoters for polypropylene (PP) substrates, which are employed on external automotive components to reduce vehicle weight. We also anticipate greater demand for use in inks. The shift toward plastic

parts made of mono-materials is progressing, which is more attractive from a simple recycling perspective. We anticipate increased demand for functional resins as an indispensable ingredient for reinforcing adhesion between PP substrates and ink layers.

We have decided to build a new facility to boost CMC capacity at the Gotsu Mill. We plan to invest ¥4.7 billion and the new facility is slated to begin operations in November 2020. We aim to shift toward high-value-added, high-quality product areas where demand is likely to grow, such as for use in food products and lithium-ion batteries.

As the flat-panel display market continues to grow, we intend to expand sales of our functional films by accurately grasping customers’ needs and expanding our product lineup.

We will develop new high-performance products through our proprietary technologies. At the same time, we will strive to ensure stable operation at our production sites to meet demand growth and aim to expand overseas sales.

Energy Business

Our Vision

We will generate stable, long-term earnings by expanding businesses utilizing renewable energy.

Mitsuhiro Sugino
Executive Officer
General Manager
Energy Business Division
Nippon Paper Industries Co., Ltd.

Our Strengths

- Power generation technology developed through paper manufacturing
- Power generation capacity of 2,000 MW
- Bases in favorable locations throughout Japan
- Global procurement network for wood resources and knowledge of biomass fuel

Our Challenges

- Establishment of biomass co-firing technology at a higher biomass ratio
- Ongoing promotion of power generation and fuel businesses
- Stabilization and strengthening of existing electric power generation business

Our Opportunities

- Feed-in tariff (FIT) fixed-price system to promote renewable energy
- Global CO₂ emission control standards

Our Threats

- Soaring prices of biomass fuel
- Falling sales prices of electricity
- Changes in energy systems according to government policy



Ishinomaki Hibarino power plant



Yufutsu biomass mono-firing electric power generation plant (rendered image of completion)

● FY2019/3 Performance and Challenges

Contributing to Earnings through the Nippon Paper Ishinomaki Energy Center

The Company revised its reportable segments in FY2019/3, and as a result, the Energy Business has been newly classified as a separate segment. This business possesses the Ishinomaki Hibarino Power Plant and other facilities and includes the sale of surplus energy produced at the in-house facilities of each mill. In addition to Ishinomaki, we operate exclusive facilities such as the Akita wind power generation facility, the Otake solar power generation facility, the Komatsushima solar power generation facility, the Yatsushiro biomass generation facility, the Kushiro thermal power generation facility, and the Suzukawa thermal power generation facility.

The Ishinomaki Hibarino Power Plant, operated by Nippon Paper Ishinomaki Energy Center Ltd., began commercial operation as a biomass co-firing power generation facility (149 MW) in March 2018. As performance was extremely stable throughout the year, the plant contributed substantially to earnings of this segment (sales of ¥36.2 billion and operating income of ¥7.9 billion). For fuel, the plant employs unused wood materials from the Tohoku region, chiefly in Miyagi Prefecture, as well as wood pellets procured in North America and Asia. Moving forward, we aim to further increase the biomass ratio.

Meanwhile, the number of large biomass power generation facilities is growing in Japan and Europe. The limited supply of biomass fuel is pushing up its prices. We will strive to stabilize procurement of biomass fuel by diversifying our suppliers.

● Future Strategies

Ensure Stable, Long-Term Earnings Focused on the Biomass Mono-Firing Business

We endeavor to reinforce earnings through the stable operation of our existing electric power generation business and the ongoing sale of surplus electricity generated at our in-house facilities. Given the growing global demand for use of renewable energy, we will leverage our ability to source and utilize wood materials to develop new power generation and fuel businesses.

While we are striving to heighten the biomass ratio in terms of fuel and maintain stable operation at the Ishinomaki Hibarino power plant, our priority is on meeting the Sixth Medium-Term Business Plan's target of ¥7.5 billion in operating income as well as considering new renewable energy generation facilities that would help us realize a higher operating income target of ¥10.0 billion. In May 2019, we approved a large-scale project to build another electric power generation facility on the site of the Hokkaido Mill (Yufutsu). Specifically, this will be a biomass mono-firing facility that can generate 74.95 MW,

and we will run it together with Sojitz Corporation. The construction of this facility is slated to commence in March 2020 and operations are scheduled to start in January 2023. We will mainly utilize wood-chips and palm kernel shell (PKS) from overseas as well as unused domestic wood. Furthermore, we are also considering a biomass power generation facility at the Iwakuni Mill.

Through a series of pilot tests, we have been accumulating know-how and technology to effectively utilize several biomass fuels. Taking these advantages into account, we are now working to commercially succeed in the biomass energy business.

Amid the growing global call to reduce CO₂ emissions and a changing resource-procurement situation, the external environment surrounding the Energy Business is experiencing drastic changes. We are striving to respond appropriately to the national government's energy policy and are undertaking initiatives to ensure stable, long-term earnings in the biomass energy business by drawing on the strengths of the Company.

Wood Products and Construction Related Business



Kunihiro Hayama
President and Representative Director
Nippon Paper Lumber Co., Ltd.

Our Vision

We will firmly entrench our position as the leading provider of domestic lumber by volume.

| | |
|--|---|
| <p>Our Strengths</p> <ul style="list-style-type: none">• Leading procurement network and infrastructure for paper materials and domestic lumber in Japan• Ownership of 90 thousand hectares of domestic forestland | <p>Our Challenges</p> <ul style="list-style-type: none">• Securing of domestic lumber and expansion of sales channels in order to increase sales• Establishment of a procurement network to address increased demand for woody fuel |
| <p>Our Opportunities</p> <ul style="list-style-type: none">• Growth in demand for domestic lumber based on the Forest and Forestry Revitalization Plan• Growing demand for woody fuel in line with increase in biomass boilers | <p>Our Threats</p> <ul style="list-style-type: none">• Decrease in number of housing starts due to falling birthrate and aging society• Impact of rise in electric power producers on procurement of raw materials and fuel for paper manufacturing |

● FY2019/3 Performance and Challenges

Solid Performance Based on Stable Market for Wood Products

In FY2019/3, the number of housing starts rose slightly year on year, due in part to demand ahead of the scheduled consumption tax hike. Wood products such as timber and lumber—our mainstay business area—benefited from firm demand for plywood and stable market conditions throughout the year, leading to solid segment sales and income. The collection volume of domestic raw materials for paper-making fell, affected by the rising demand for woody fuel used in biomass power generation, which itself is increasing in use.

● Future Strategies

Concentrate on Growing the Domestic Materials Business and Expanding Supplies of Woody Fuel

The outlook for this business remains uncertain, due to concerns that demand would fall off following the October 2019 consumption tax hike. The operating environment is also affected by such factors as shrinking housing demand stemming from a falling birthrate and aging society and the shrinking paper market.

Going forward, we will focus on initiatives involving the growth of businesses that leverage our strength in domestic wood materials and increase the supply of woody fuel used in biomass power generation. In domestic wood materials, by leveraging our existing infrastructure and expertise, we will strive to diversify our procurement sources. To expand our supply of woody fuel, we will build a network for procuring unused resources and make a full-fledged move to provide fuel to new electric power producers. In addition, we will continue working to ensure the stable procurement of palm kernel shells (PKS) by nurturing overseas suppliers.

Other Businesses



Distribution business

Leisure business

● FY2019/3 Performance and Challenges / Future Strategies

Focus on Ensuring Transport Capacity to Build a Stable Logistics System

In FY2019/3, the distribution business experienced rising personnel and fuel costs. Under this severe operating environment, we are striving to secure transport capacity, including by responding to a shortage of truck drivers, in order to build a stable logistics system.

In the future, we intend to expand earnings by sharing operational information among such Group companies as NIPPON PAPER LOGISTICS, Nanko Unyu, and Kyokushin Transport; deepening cooperation across a broad region to facilitate the efficient transportation of Group products; and incorporating products from outside the Group. We will also employ different measures, such as pursuing joint logistics with other companies in our industry and building a logistics system that takes business continuity planning into account.

● FY2019/3 Performance and Challenges / Future Strategies

Bolstering the Appeal of Marunuma Highland and Developing New Businesses

In FY2019/3, the leisure business was affected by early snowmelt, which shortened spring ski season operations, and the unusually sweltering weather reduced the number of visitors to golf driving ranges. However, sales were on a par with the previous year through higher revenues from café renovations.

We plan to expand our facilities at Marunuma Highland to boost its appeal as a resort area. Consequently, we expect to increase the number of visitors and sales per visitor.

In addition, we will strive to augment sales by developing new businesses such as chiropractic and osteopathic clinics in Tokyo and Kyushu.

SDG Initiatives

We will link the resolution of social issues with value creation.

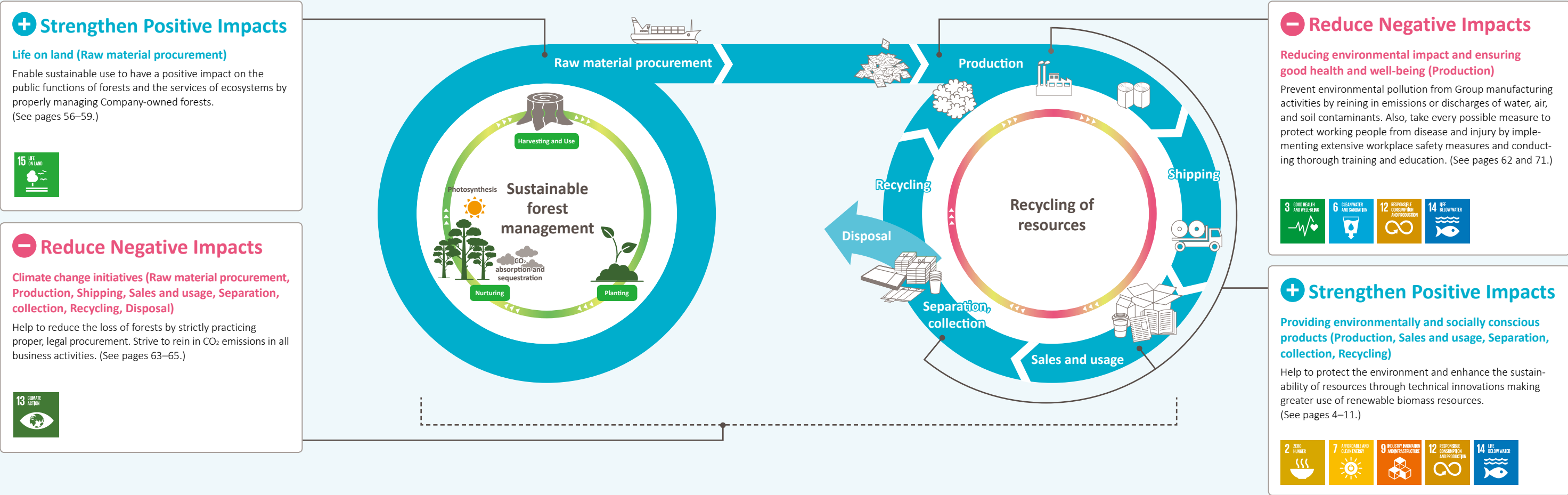
In keeping with its mission of “to contribute to better living and cultural progress everywhere it does business,” the Nippon Paper Group is working throughout the value chain to achieve the Sustainable Development Goals (SDGs)* and strengthen its positive impacts on achieving this objective and reduce its negative impacts.

* Sustainable Development Goals: A set of 17 goals adopted by the United Nations as priorities to be addressed on a global scale by 2030.



Given its business model that leverages the characteristics of wood resources (see pages 4–11), the Nippon Paper Group believes it can leverage its dual-cycle value chain to make major contributions toward realizing the SDGs listed below and minimize the negative impact of its business activities toward that goal. Because of its economic, environmental, and social impact, these SDGs have particular relevance for the Nippon Paper Group, and we are contributing to their realization through our business activities.

The SDGs with Particular Relevance for the Nippon Paper Group



Research and Development

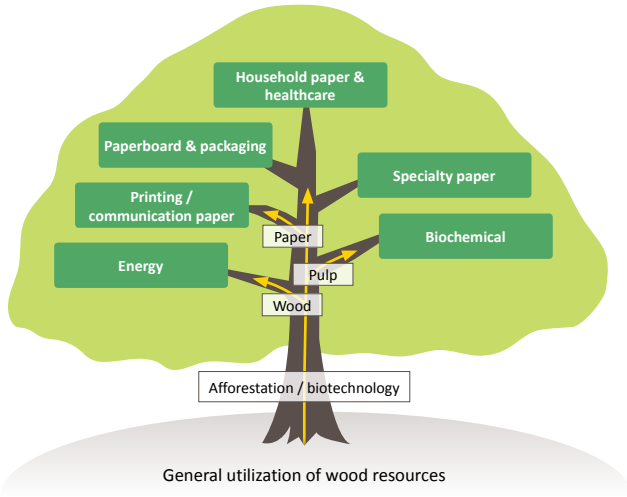
Basic Stance

As a comprehensive biomass company shaping the future with trees, we will strive to gain further momentum with the transformation of our business structure and the enhancement of competitiveness of existing businesses. To that end, we will make maximum use of the Nippon Paper Group’s research resources and forge ahead with research and development based on the following three key initiatives.

- ① Expand businesses in growth areas and achieve early commercialization of new businesses
- ② Strengthen profitability of existing businesses
- ③ Implement intellectual property strategies early and effectively

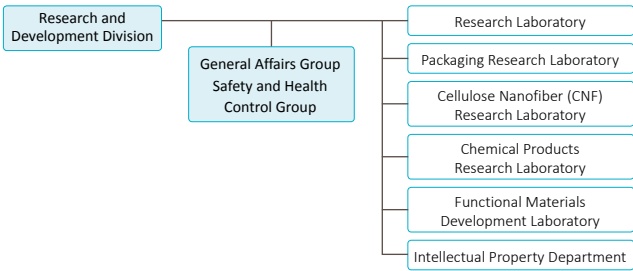
R&D System and Key Initiatives

The Nippon Paper Group conducts its diverse research and development activities in the areas of afforested land, wood products, paper and pulp, and biomass use while drawing on its unique technologies cultivated to date and promoting efficient research and development throughout its business from raw materials to products and recycling.



Nippon Paper Industries’ Research and Development Division consists of the Research Laboratory, Packaging Research Laboratory, Cellulose Nanofiber (CNF) Research Laboratory, Chemical Products Research Laboratory, Functional Materials Development Laboratory, and Intellectual Property Department. We have established the Containerboard Research Laboratory within the Research Laboratory as part of our efforts to develop highly functional containerboards. In addition, we have collaborated with Nippon Paper Crecia’s Healthcare Research Institute and Nippon Paper Papylia’s Research & Development Center to maximize the use of our research assets.

Organization Structure of Nippon Paper Industries’ Research and Development Division



Accelerating the Transformation of Our Business Structure

Through the sharing of weekly reports across research and development centers and conducting periodic meetings together, Nippon Paper Industries is working to continue to cultivate its technologies and introduce them to other sectors as well as speeding up the pace of its research and development activities.

With our Group companies, we conduct joint research by selecting research themes on a periodic basis. As for organizations outside of

the Group, we conduct joint research on useful technology with universities, national projects, companies, and public research institutions, and promote open innovation based on partnerships with industry, government, and academia. We are working to commercialize our useful technology and developed products as early as possible through the establishment of projects by the New Product Development Committee.

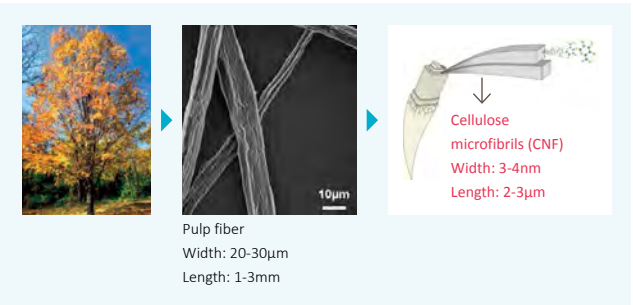
Solidifying Our Intellectual Property Base

The Intellectual Property Department of Nippon Paper Industries is strengthening the intellectual property base of the entire Group through the discovery of new ideas, promotion of patent applications, and the development of patent networks for important technology.

Key R&D Themes

① CELLENPIA® cellulose nanofiber (CNF)

CNF is a cutting-edge biomass resource generated by finely breaking fiber from wood into nano size.

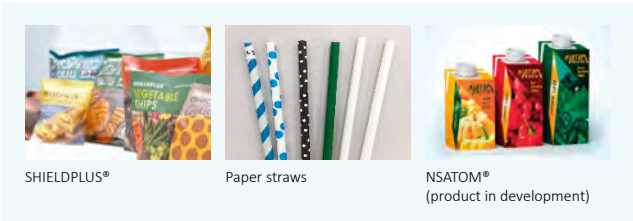


Nippon Paper Industries has established a technology for the mass production of TEMPO-oxidized CNF by incorporating a technology developed at Tokyo University. Also, by combining the healthcare-related technology of Group company Nippon Paper Crecia, we succeeded in launching the world’s first diaper with extra-deodorizing functions utilizing CNF.

Moreover, by applying the unique technologies of the Company’s chemical business into CNF, we aim to widen its use in food additives, which are used to maintain the stickiness of food and retain their shape, and cosmetics additives, which stabilize emulsions and dispersion.

② Aim of using less plastic and more paper

Paper is an environmentally friendly material that is renewable and has superior recyclable and biodegradable features. Guided by our slogan of “let paper do what it can do,” we are making concerted efforts to broaden our domains for paper.



For example, by applying its water coating technology cultivated over the years on paper, the Company is moving ahead with the development of the SHIELDPLUS® series of packaging materials with barrier properties, which performs on a par with the variety of barrier-film options available.

③ Development of new functional material

Through applying its unique technology, in 2017 the Company developed MinerPa® as a functional material with densely bonded inorganic particles on the surface of cellulose fiber. This allows us to provide new materials with the different features (deodorizing, antibacterial, flame-retardancy, antiviral, etc.) of inorganic materials based on wood pulp. We will actively move forward with our search for promising business areas and our rapid development of applications for commercialization.

Special Feature:

Initiatives to Expand Our Paper Business

The ongoing issue of marine plastic pollution has been receiving growing attention in recent years. Accordingly, demand for environmentally friendly materials that are reusable and biodegradable has been growing worldwide. Guided by its slogan of “let paper do what it can do,” the Nippon Paper Group is moving ahead with efforts to “paperise” toward resolving the various issues facing society.

The domestic market for plastic products has generated approximately ¥4.2 trillion,*¹ of which plastic packaging and containers account for nearly ¥1.6 trillion.*² In line with the needs of society, we will transition to paper that is renewable and highly recyclable and biodegradable, with the aim of expanding our paper business.

^{*1} Plastic Products Statistics (2017), Ministry of Economy, Trade and Industry
^{*2} Statistics on the Scale of Japanese Packaging Industry in 2017, Japan Packaging Institute

Product Development toward Expanding the Paper Business

- Paper bags
- Paper cups
- SHIELDPLUS® barrier packaging material
- Heat sealable adhesive paper and paperboards
- Biodegradable and bioplastic products
- Paper cartons
- SPOPS® replaceable containers
- Paper straws
- Paper trays
- Functional cardboard paper
- Paper packaging

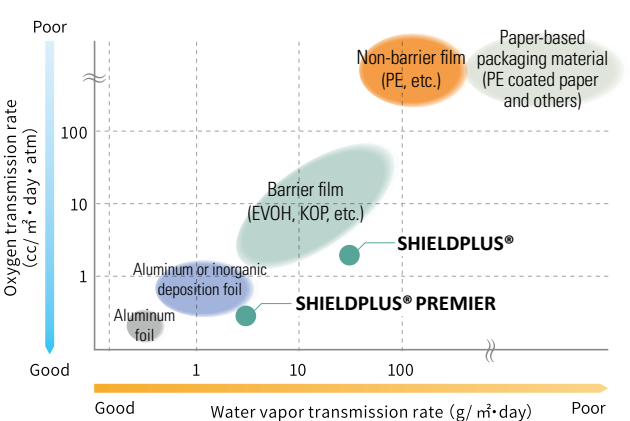


Deploying the SHIELDPLUS® Series

Commencing Supplies of SHIELDPLUS® PREMIER

In April 2019, Nippon Paper Industries began supplying samples of its new product line SHIELDPLUS® PREMIER. SHIELDPLUS® PREMIER offers greater protection against moisture and was developed for the SHIELDPLUS® series, which incorporates barrier properties into paper. Going forward, we will accelerate the roll out of SHIELDPLUS® PREMIER to a wide variety of applications for food packaging, and seek to develop its application for a range of industries other than packaging.

Comparison of Oxygen and Water Vapor Barrier Properties



Expanding to European Markets

The Company has embarked on discussions on the production of the SHIELDPLUS® series at its Group company Jujo Thermal Oy (Finland). We are advancing our marketing efforts in Europe, and look to establish a presence in the environmentally conscious European market for the SHIELDPLUS® series.

Expanding to Asian Markets

In March 2019, Nippon Paper Industries acquired a 70% stake in TS Plastics Sdn. Bhd. (hereinafter, TSP), which specializes in flexible packaging materials for the Malaysian market.

Founded on TSP’s more than 20 years of technological know-how and customer base cultivated through its flexible packaging business, Nippon Paper Industries will fully leverage its technological development capabilities and the Group’s sales network in order to expand into the highly thriving Asian market. By establishing TSP as a hub for rolling out our “paperising” efforts in Asia, we will actively strive to develop new “paper” packaging materials to accompany our SHIELDPLUS® series.

Development of “NSATOM®,” a New Aseptic Filling System for Paper Packaging

Nippon Paper Industries and Shikoku Kakoki Co., Ltd. have developed “NSATOM®,” an aseptic filling system for paper packaging based on new concepts that supports filling involving particles, long fibers, and high viscosity, and allows for ambient distribution. The two companies will introduce “NSATOM®” to the market in FY2020/3.

In the beverage market, consumers have become increasingly health-conscious. They favor beverages whose contents have a genuine texture and demand products that include particles, long fibers, and high viscosity. Moreover, demand for packages that are easy to carry around has been growing due to the diversifying lifestyles and consumption situations of consumers.

The newly developed “NSATOM®” satisfies these needs as the world’s first aseptic filling system for paper packaging in ambient distribution that contributes to better hygiene with 6 log reduction*³ and automated cleaning of filling sections. Amid the worldwide trend for shifting away from the use of plastic, we will widely propose these paper packages as an alternative to plastic-based packages.

^{*3} Log reduction is a figure indicating the sterilizing ability of packaging materials needed for aseptic filling. With commercial aseptic filling, the global standard is at least 5 log reduction while a more stringent standard of at least 6 log reduction is required in Japan.



Examples of Sales Activities



Paper straws that are “soft on the mouth”



Nagaraen's crackers wrapped in SHIELDPLUS®'s flexible packaging

CSR Materiality at the Nippon Paper Group

CSR Materiality Items

| ISO 26000 Core Subjects | Materiality | Related Pages |
|---|--|--|
| Organizational Governance, Fair Operating Practices (Management Responsibility) | <ul style="list-style-type: none">Thorough complianceDialogue with stakeholders | P. 53 — |
| The Environment (Forest Management, Raw Material Procurement, and Environmental Responsibility) | <ul style="list-style-type: none">Sustainable procurement of raw materialsClimate change initiativesReduction of environmental impactsPreserving biodiversity | P. 56–59 P. 63–65 P. 62 P. 63 |
| Consumer Issues (Responsibility to Customers) | <ul style="list-style-type: none">Enhancement of product safetyEnhancement of product value | P. 66–67 P. 42–43 |
| Human Rights, Labor Practices (Human Rights, Employment and Labor Responsibility) | <ul style="list-style-type: none">Occupational safety and healthCreation of a vigorous organization | P. 71 P. 69–70 |
| Community Involvement and Development (Responsibility to Communities) | <ul style="list-style-type: none">Coexistence with local communities and society at large | P. 72 |

The Nippon Paper Group, working from a foundation of sustainable forest management, contributes to better living and cultural progress as a comprehensive biomass company that recycles and makes full use of renewable wood resources.

Proper sustainable forest management promotes the preservation of biodiversity and helps to fight global warming. And use of wood resources increases the amount of CO₂ sequestered throughout society and helps to prevent resource depletion.

The Group, which is creating new products and expanding its business as a comprehensive biomass company, manages and cultivates expansive forests and owns large-scale production sites. We, therefore, have a significant impact on local communities and the people who work there. Coexisting with these communities, as well as reducing environmental impacts and securing the safety and health of our employees at each site, therefore, are critical to our sustainability.

Moreover, the opinions of our stakeholders serve as a valuable opportunity to grasp issues that are important for our coexistence and sustainable growth with society.

Therefore, the materiality items noted above are of particular importance among our initiatives to address CSR. These materiality items are identified through investigation based on stakeholder opinions, then finalized by the head of the Group’s CSR Division.

For details regarding the Company’s CSR activities, please visit the CSR section of its website.

CSR site

<https://www.nipponpapergroup.com/english/csr/>

Corporate Governance

Basic Stance

Based on its corporate philosophy of “to contribute to better living and cultural progress around the world,” the Nippon Paper Group established its Corporate Governance Policy in November 2015. The Company has also determined guidelines for its basic stance related to corporate governance. These policy and guidelines are aimed at achieving sustainable growth and medium- to long-term increases in corporate value for the Nippon Paper Group in ways that are consistent with the Group Mission.

Our highest management priority is to achieve even greater transparency toward shareholders and other stakeholders and engage in fair business practices. The Company has adopted an executive officer system and is working to strengthen the oversight function of its Board of Directors to ensure the separation of business execution and management oversight. In addition, as the leader of the Nippon Paper Group, the Company is implementing growth strategies, monitoring businesses under its control, and promoting compliance. Furthermore, the Company is acting in accordance with all of the fundamental principles of Japan’s Corporate Governance Code.

Corporate Governance Policy

https://www.nipponpapergroup.com/english/ir/governance/governance_policy/E-CGP_20151105.pdf

Initiatives for Strengthening Corporate Governance

| | |
|----------|--|
| FY2007/3 | <ul style="list-style-type: none">Formulated the Basic Policy for Establishing the Internal Control SystemShortened director terms to one year, from two |
| FY2014/3 | <ul style="list-style-type: none">Adopted an executive officer systemBegan appointing independent outside directors |
| FY2016/3 | <ul style="list-style-type: none">Established the Corporate Governance PolicyBegan evaluating the effectiveness of the Board of Directors |
| FY2017/3 | <ul style="list-style-type: none">Established the Personnel & Remuneration Advisory CommitteeIncreased the number of independent outside directors to two |
| FY2020/3 | <ul style="list-style-type: none">Increased the number of independent outside directors to threeIntroduced “Board Benefit Trust” as a stock compensation system |

Corporate Governance Structure

Board of Directors

The Board of Directors of Nippon Paper Industries determines basic policies for the management of the Company and the Nippon Paper Group, matters related to stipulations in laws, regulations, and the Articles of Incorporation of the Company, and other important managerial matters. The Board also supervises the business execution of the Group.

The Company’s Board of Directors is composed of six directors, who are familiar with the Nippon Paper Group’s businesses, and three independent outside directors. One outside director is a legal expert, another has experience in corporate management after serving as a government official, and the other has practical working experience at accounting firms and tax accountant corporations. They are expected to supervise and advise in their objective capacity on the execution of duties of the Company’s directors by utilizing their specialized expertise and experience, wide knowledge, and international awareness.

Management Execution Committee

In principle, the Management Execution Committee of Nippon Paper Industries meets once a week to deliberate on important management related matters such as matters under the authority of the President. Membership of the said committee is basically composed of the President and other directors (excluding outside directors) and general managers who do not serve as directors.

In addition, the meetings of the Management Execution Committee, held once a month, are attended by outside directors and general managers of the Company’s mills in order to share information on monthly financial results among the management.

Corporate Governance

Group Management Strategy Committee

Nippon Paper Industries’ Group Management Strategy Committee meets as necessary to deliberate on management strategies by business segment and other important matters related to the Group. Membership of the committee is composed of the Company management and presidents of major companies of the Nippon Paper Group.

Statutory Auditors and Board of Statutory Auditors

The statutory auditors of Nippon Paper Industries attend important meetings such as meetings of the Board of Directors, the Management Execution Committee, and the Management Strategy Committee, strictly supervise directors’ business execution, and strictly audit the Company’s overall business activities to ensure their legality and fairness.

The Board of Statutory Auditors presides over the Nippon Paper Group Statutory Auditor Liaison Committee and holds meetings regularly to discuss audit policies and methods and exchange information with corporate auditors at each Group company to reinforce the alliance and audit functions of the Group.

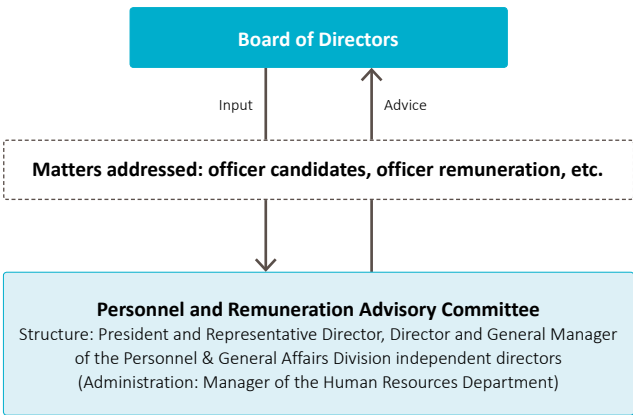
Management Audit Office

Nippon Paper Industries’ Management Audit Office, which is directly under the President’s control, conducts an internal audit of the Company and each Group company and a comprehensive evaluation of the maintenance and operation of the internal control system as it relates to financial reporting. The internal audits are conducted in terms of legality and appropriateness from fair and independent perspectives.

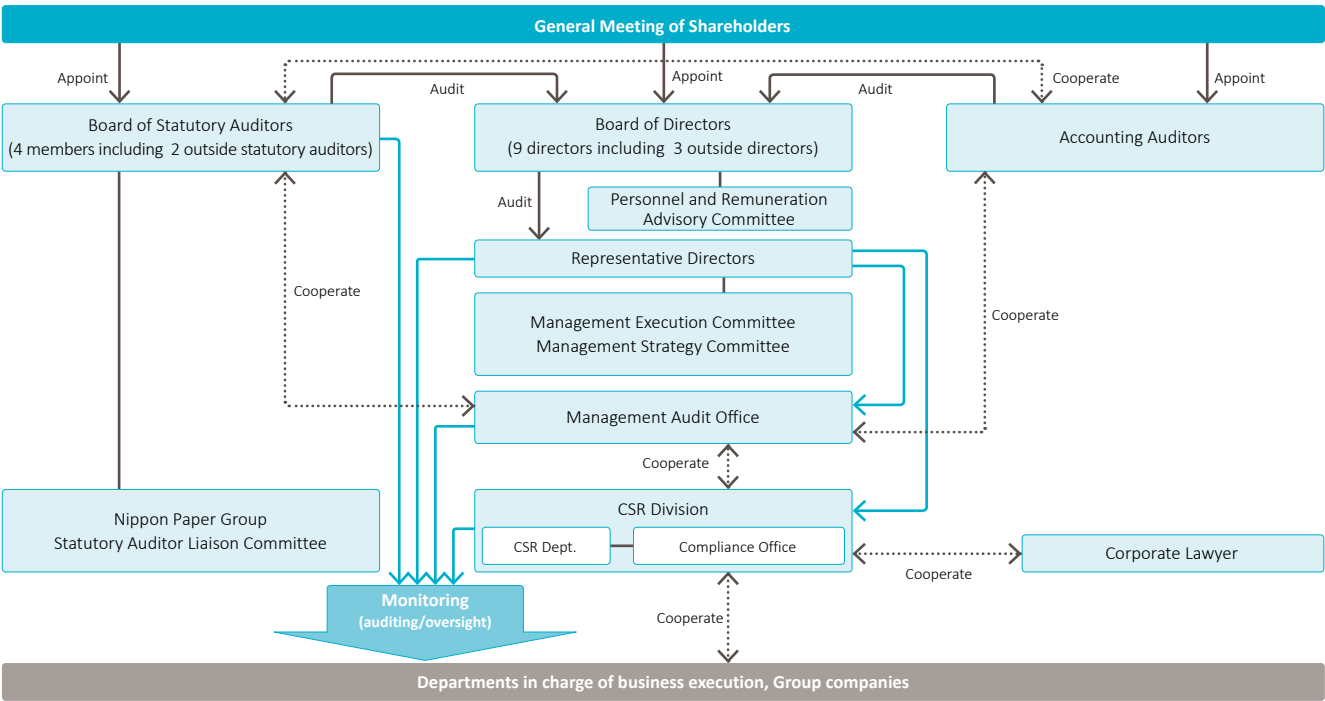
Personnel and Remuneration Advisory Committee

The Personnel and Remuneration Advisory Committee of Nippon Paper Industries receives inquiries from the Board of Directors on matters such as the selection process, qualifications, and reasons for nomination of director and statutory auditor candidates, the criteria for determining the independence of independent outside officers, and the remuneration system for directors and statutory auditors. The committee responds to such inquiries after considering their appropriateness and taking into account its assessment of the Company’s business performance and other factors. The committee comprises the President and Representative Director, who serves as the chairman, the Director and General Manager of the Personnel & General Affairs Division, and outside directors.

Structure and Functions of the Personnel and Remuneration Advisory Committee



Corporate Governance Structure (As of July 1, 2019)



Corporate Governance Summary (As of July 1, 2019)

| | |
|---|---|
| Type of Organization | Company with a Board of Statutory Auditors |
| Chairman of Board of Directors | Fumio Manoshiro |
| Number of Directors | 9 (including 3 outside directors) |
| Number of Statutory Auditors | 4 (including 2 outside statutory auditors) |
| Appointment of Independent Officers | 5 (3 outside directors and 2 outside statutory auditors) |
| Board of Directors’ Meetings in FY2019/3 | Number of meetings: 13 |
| | Average rate of attendance by directors: 99.1% (outside directors: 100%) |
| | Average rate of attendance by statutory auditors: 98.1% (outside statutory auditors: 96.2%) |
| Board of Statutory Auditors’ Meetings in FY2019/3 | Number of meetings: 14 |
| | Average rate of attendance by statutory auditors: 100% |
| Independent Accounting Auditor | Ernst & Young ShinNihon LLC |

Corporate Governance

Independent Officers

The Company designates as independent officer, all outside officers who meet the requirements for an independent officer. When appointing candidates for outside director and outside statutory auditor, the Company judges their independence by taking into consideration whether they satisfy the independence criteria

provided by the Tokyo Stock Exchange and the requirements for externality (having not served as director, employee, etc. of the Company and its subsidiaries in the past) provided for by laws/ regulations, in addition to considering the existence of any conflict of interests with general shareholders.

| Outside Directors | |
|----------------------------|--|
| Yoshimitsu Aoyama | Mr. Aoyama has been engaged in research and guidance in the area of law at the University of Tokyo, etc. for many years. In addition, he acted as Vice President of the University of Tokyo and Chairman of the Legislative Council of the Ministry of Justice. Although he has never been engaged in corporate management directly, he is expected to supervise and advise from an objective perspective on legal compliance and execution of duties of the Company's other directors using his specialized knowledge and experience accumulated as a legal professional. |
| Makoto Fujioka | Mr. Fujioka was Assistant Vice-Minister of the Ministry of International Trade and Industry (currently the Ministry of Economy, Trade and Industry) and Ambassador Extraordinary and Plenipotentiary stationed in the United Arab Emirates. He has also acted as an executive of a private company. He is expected to supervise and advise from an objective perspective on the execution of duties of the Company's other directors using his wide knowledge and international awareness gained through his experience in both the public and private sectors. |
| Yoko Hatta | Although Ms. Hatta has never been engaged in corporate management directly, it is expected that she will draw on her broad work experience at international accounting firms and considerable expertise in international tax practices, etc. and her experience as an outside statutory auditor of the Company (from June 2016 to June 2019) to supervise and advise from an objective perspective on the execution of duties by the Company's other directors. |
| Outside Statutory Auditors | |
| Seiichi Fusamura | Although Mr. Fusamura has never been engaged in corporate management directly, the Company deems that he will utilize the abundant experience and extensive knowledge he has accumulated as a legal professional in a judicial organization to act as an auditor of the Company. |
| Nanako Aono | The Company determines that Ms. Aono's experience in serving as a director and statutory auditor at private sector companies in a wide range of fields and the extensive knowledge she has accumulated as a certified public accountant will enable her to audit the execution of business activities by the Company's directors from an independent and objective perspective and contribute to improving the soundness and transparency of the Company's management. |

Evaluation of Effectiveness of the Board of Directors

To continuously strengthen its functions, the Company's Board of Directors has been conducting self-evaluations of its effectiveness since FY2016/3.
Once per year, the Secretariat of the Board of Directors conducts a

survey of the directors and statutory auditors regarding management and the discussions held at its meetings. The Board of Directors analyzes and evaluates its effectiveness and works toward improvement based on the results thereof.

Outline of Results of Analysis and Evaluation in FY2019/3

Current Status

As a result of conducting self-evaluations in the form of providing questionnaires to each director and statutory auditor on the effectiveness of the Board of Directors, the Board of Directors made a current-state evaluation and identified issues to be improved in relation to FY2019/3 as follows. After conducting the current-state evaluation from the five viewpoints of “Composition of the Board of Directors,” “Agenda items to be submitted to the Board of Directors’ Meetings,” “Conduct of Board of Directors’ Meetings,” “Training of directors and statutory auditors,” and “Information provision to and support system for outside directors,” the Board of Directors found that efforts based on each principle of the Corporate Governance Code had been progressing continuously and were broadly appropriate on the whole. Particularly in terms of “Conduct of Board of Directors’ Meetings,” the Board of Directors simplified explanations and provided materials in graph form, mainly for business performance reports, to make them easier to understand.

Compensation for Directors

The Board of Directors decides compensation for directors after receiving a report from the Personnel and Remuneration Advisory Committee (page 46).

Monthly Compensation

Base monthly compensation for directors shall be decided according to his/her job responsibilities in the Company. Of that, 70% shall be fixed and the remaining 30% shall be paid with increases or decreases based on the preceding business year's business performance.

As a standard, 60% of the performance evaluation is based on non-consolidated results (year-on-year increase/decrease in net sales, ordinary income, and ROA), while 40% is based on the Group's consolidated performance (the degree to which net sales, operating income, and ROA meet Medium-Term Business Plan targets). The Company does not provide bonuses or retirement benefits. In addition, a certain amount of the monthly compensation will be allocated to the acquisition of the Company's shares through contributions to the executive shareholding association. The acquired shares will continue to be held during the director's tenure in the Company.

Regarding outside directors and outside statutory auditors, monthly compensation shall be fixed. In light of their responsibilities, contributions to the executive shareholding association are on a voluntary basis.

Areas for Improvement

As an issue to focus on improving in FY2020/3, the Board of Directors highlighted strengthening support to facilitate the activities of outside officers. The Board of Directors will make an effort to provide briefings to outside directors on important matters with explanations of the deliberation process, potential risks, etc. that take into account the needs of outside officers. The Board of Directors will enhance the content of the minutes taken at Board of Directors’ Meetings to better reflect details of discussions. With regard to industry information and in-house meeting documents, the Board of Directors will provide files of past information and documents as reference material to offices of outside officers, in addition to distributing hard copies.

| Total Amount of Remuneration, Etc. for Directors and Statutory Auditors for FY2019/3*1 | | |
|--|----------------------|------------------------------------|
| Category | Number of executives | Total amount of remuneration, etc. |
| Directors | 10*2 | ¥362 million |
| Statutory auditors | 5*2 | ¥56 million |

*1 Figures are rounded down to the nearest million yen.
*2 Includes one director and one statutory auditor who resigned during FY2019/3.

Introduction of Stock Compensation Plan (from FY2020/3)

The Company has introduced Board Benefit Trust (BBT) as a stock compensation plan. The objective of BBT is to further clarify the link between the compensation provided to directors and the Company's share value and thereby increase directors’ motivation to contribute to improving the Company's medium- to long-term performance and increasing its corporate value by sharing the benefits and risks associated with share price fluctuations with shareholders. (This resolution was approved at the 95th Ordinary General Meeting of Shareholders held on June 27, 2019.)

Corporate Governance

(Reference) Overview of Internal Director Compensation (from FY2020/3)

| | Fixed Compensation | Performance-Based Compensation | Board Benefit Trust (from FY2020/3) |
|-----------------------|---|--|---|
| Method | Cash payment | | Points granted |
| Payment Allowance | ¥7 million per year | | 25,000 points per year (1 point = 1 share) |
| Payment Period | Monthly (no bonuses or retirement benefits) | | Director resignation (cumulative points are converted to shares) |
| Calculation Method | Determined according to their respective responsibilities in the Company, with 70% of the amount to be paid as a fixed amount | Determined according to their respective responsibilities in the Company, with 30% of the amount to be varied depending on the business results of the preceding fiscal year | Points to be granted based on directors' respective positions |
| Performance Standards | — | 60%: non-consolidated performance (net sales, ordinary income, ROA) 40%: consolidated performance (net sales, operating income, ROA) | — |
| Others | Fixed amount contributed to Nippon Paper Industries Directors' Shareholding Association | | — |

Note: Monthly compensation is fixed for outside directors and corporate auditors.

Cultivation of Successors to the President and Directors

Successors to the President

Nippon Paper Industries cultivates candidates for succession to President by placing them in increasingly important roles as directors, executive officers, and other important executive positions. Personnel matters related to directors and executive officers who are future presidential candidates are deliberated by the Personnel and Remuneration Advisory Committee, which is an advisory body that reports to the Board of Directors. Upon receiving this report, the Board of Directors screens and deliberates the report, and then decides on candidates.

Through this process, the Board of Directors supervises the cultivation of candidates to become the next President in a systematic and ongoing manner.

The process for appointment and dismissal of the President is the same as the decision on candidates for directors, in that the Personnel and Remuneration Advisory Committee conducts a review and submits a report based on consultations with the Board of Directors.

Cultivation of Director Candidates

From the standpoint of securing human resources capable of managing the Company in the future, we make a point of exposing employees—particularly those in career-track positions—to various positions and rotation to different offices. We also make an effort to appoint employees as early as possible to positions as managers and other important posts and positions in which they assist management, such as the top management of affiliated companies and overseas subsidiaries. In this manner, we strive to develop a robust base of employees with highly sophisticated expertise and work experience, cultivating them for selection as the next generation of director candidates.

Policy for Training Directors

To support directors' execution of duties, the Company provides directors with information on matters necessary for their roles and functions (such as economic conditions, industry trends, legal compliance, corporate governance, finance and accounting) on an ongoing basis. We also ensure opportunities to participate in external training based on the desires of individual directors.

Message from an Outside Director—“Evaluation of Effectiveness of the Board of Directors”



Yoshimitsu Aoyama
Outside Director

Methods for Assessing Effectiveness of the Board of Directors

Since FY2016/3, Nippon Paper Industries has been conducting questionnaires each year with all directors and statutory auditors (currently 13 members in total) to enhance the effectiveness of the meetings of the Board of Directors. The results of these questionnaires are compiled and reported at the Board of Directors' Meetings and any issues identified as a result are used toward improvements in the following fiscal year.

The evaluation of the effectiveness of the Board of Directors conducted by the Company is a so-called institutional evaluation that takes into account the Board of Directors' Meetings as a whole. The most recent survey, conducted in January 2019, consisted of a total of 18 items, including 13 items applicable to all members regarding the composition of the Board of Directors, agenda items to be submitted to the Board of Directors' Meetings, conduct of Board of Directors' Meetings, and training of directors and statutory auditors, as well as five items

concerning outside directors. The responses were based on a four-step rating system including “adequate,” “slightly adequate,” “not so adequate,” and “inadequate,” and all members were encouraged to freely express their opinions.

Answers to Questionnaire

For this questionnaire, I responded to all 18 items, with “adequate” for eight items, “fairly adequate” for seven items, and “not so adequate” for three items, and offered my assessment on a number of these.

My “not so adequate” responses were for the three items of “the composition of the Board of Directors (including diversity),” “timing of submission of reports to the Board of Directors' Meetings,” and “content of minutes taken at Board of Directors' Meetings,” and my assessments included “improvements need to be made with the current situation whereby all nine directors are male,” “the reports should be reviewed prior to the Board of Directors' Meetings,” and “the minutes should include not only the resolutions but also details on the type of discussions that were conducted for important matters.”

Improvements Based on Questionnaire Results

The other officers also offered their candid responses to the questionnaire and its results were compiled and reported at the Board of Directors' Meeting held in March 2019. Moreover, “strengthening support to facilitate the activities of outside directors” was put forth as an issue to improve on in FY2020/3 and, accordingly, the provision of briefings

that take into account the needs of outside directors, improved content of minutes taken at Board of Directors' Meetings, and the provision of more information and documents were declared as the three points for improvement to be taken. On a different note, one female director and one female statutory auditor were appointed at the Company's General Meeting of Shareholders held in June 2019. This has resulted in a better gender balance with six internal directors and three outside directors (of whom, one female director) and two internal statutory auditors and two outside statutory auditors (of whom, one female statutory auditor).

Future Issues

In these ways, the Company strives to enhance the effectiveness of the Board of Directors by reviewing the results of the questionnaire on a yearly basis. Though this is just a personal opinion on my part, in addition to institutional evaluations, the Company should consider introducing functional evaluations that assess the various functions to be fulfilled by the Board of Directors, such as management planning, management strategies, compliance, risk management, sustainability, nomination and compensation of directors, and succession planning for top management. In addition, I believe the Company would benefit from having a reputable external organization evaluate the effectiveness of its Board of Directors from an outside perspective once every few years.

Risk Management

Risk Management Structure

Regarding risks associated with the execution of the Nippon Paper Group’s business, the necessary regulations and guidelines have been established at each division according to the contents of each risk, including legal compliance, corporate ethics, safety and disaster prevention, product safety, environmental conservation, human rights, and labor standards. Further, we will work to prevent risks through measures such as education and training based on manuals, and, in the event that such risks occur, we have in place a necessary structure that minimizes the losses resulting from these risks, and prevents losses incurred by the Group from expanding through the integration of the entire Group. For instance, in November 2017

Nippon Paper Industries Co., Ltd. formulated its Basic Policy on Prevention of Bribery to Public Officials and Group Basic Policy on Compliance with Competition Laws. In addition, through the preparation of its action guidelines and conducting employee training, the Company is working to strengthen and enhance its risk management structure. Moreover, to further its risk management activities throughout the entire Group, the Nippon Paper Group has established its Environment Committee, Safety and Disaster Prevention Committee, and Product Safety Committee. Each committee is chaired by a member of management and has in place a framework for sharing important information.

Risk Management Initiatives

Addressing Risks from Natural Disasters (Nippon Paper Industries headquarters and individual mills)

The Nippon Paper Group, having learned much from past natural disasters, is developing practical guidelines for addressing natural disaster risks. Working from these guidelines, each mill and plant has examined its natural disaster response measures and revised its disaster response manual. For its part, Nippon Paper Industries, in preparation for a major disaster that could disable its headquarters, has established a backup facility that could immediately take over headquarters functions. The backup facility was set up in preparation for a major disaster could



Backup facility (Kita-ku, Tokyo)

necessitate emergency response to such duties as confirming the safety status of employees and the status of each company, accounting and payment duties, client response, and mill production plans.

Business Continuity Management System (Nippon Paper Industries Co., Ltd. Paper-Pak Sales Division)

Nippon Paper Industries’ Paper-Pak Sales Division has developed its own business continuity guidelines and established its own management system, so that it can maintain production even in times of emergency. The division is moving ahead with the selection of priority items for emergencies and procurement of key raw materials from multiple manufacturers. It has also diversified its production across multiple production sites to lower its disaster risk exposure.

Emergency Manuals (Newsprint)

Newspapers are a highly public information medium, so the need for the stable supply of newsprint is especially strong. The paper industry, therefore, has prepared regional emergency manuals for use when supply operations cannot be conducted in the usual manner. In the event of a disruption to communication and transportation systems as a result of a major disaster, paper companies follow these manuals to ensure the smooth supply of newsprint.

Compliance

→ Please refer to the following website
https://www.nipponpapergroup.com/english/csr/npg_csrr2019_e_management.pdf#page=8

Basic Stance

The Nippon Paper Group has formulated “The Nippon Paper Group’s Action Charter,” which states that “We shall abide by the letter and the spirit of laws and regulations, and comply with the highest ethical standards and social codes of conduct, both in Japan and abroad.” Based on this charter, the Nippon Paper Group also believes that “Compliance goes beyond laws and regulations to include decency, common sense, customs, and other rules and ‘social norms’ that are expected by society in general, and we are called upon to respond to the expectations and trust of society.” Based on this understanding, we strive to raise awareness through compliance training, and we endeavor to conduct our business activities in compliance with laws, regulations, and social norms.

The Nippon Paper Group’s Action Charter

1. We shall pursue a sustainable growth for the future to contribute to society through our business activities.
2. We shall abide by the letter and the spirit of laws and regulations, and comply with the highest ethical standards and social codes of conduct, both in Japan and abroad.
3. We shall conduct our business in a fair, transparent and liberal manner.
4. We shall win the trust of customers through the development and provision of socially useful and safe products and services.
5. We shall disclose corporate information positively and fairly to all stakeholders of the Group.
6. We shall actively address environmental issues, and shall endeavor to conserve and enhance the environmental state of our planet.
7. We shall maintain consistency between corporate development and the personal contentment of individual employees, and create a company filled with dream and hope.

Compliance Structure

The CSR Division of Nippon Paper Industries Co., Ltd. serves as a facilitator and driving force behind efforts to achieve and reinforce understanding of compliance throughout the Nippon Paper Group. Each Group company appoints a person to be in charge of compliance within its organization, and Nippon Paper Industries’ Compliance

Office actively hosts Group Compliance Liaison Meetings to provide all employees in charge of compliance with information on important policies and measures, opportunities to share information, and advice on education and training activities.

Group Internal Whistleblower System

The Nippon Paper Group has established a helpline system to allow any employee of the Group to provide direct notification of, or seek advice outside the chain-of-command on, any action in the workplace that could violate laws, social norms, or corporate ethics. The Compliance Office located within Nippon Paper Industries’ CSR Department serves as a point of contact within the Group. We have also established points of contact outside the Group for use by employees as appropriate. The helpline system guarantees the privacy of whistleblowers and takes steps to ensure that they do not suffer due to the reporting of questionable activity or seeking advice.

| Number of Reportings to Helpline | | | |
|----------------------------------|----------|----------|----------|
| FY2016/3 | FY2017/3 | FY2018/3 | FY2019/3 |
| 19 | 11 | 32 | 33 |

Directors and Statutory Auditors (As of June 27, 2019)

Directors



Fumio Manoshiro
Chairman and Director

Number of Company Shares Held
26,707 shares

Brief History
1953 Born
1975 Joined Jujo Paper Co., Ltd.
2006 Appointed Director, NPI
2014 Appointed President and Representative Director, NPI
2019 Appointed Chairman and Director, NPI (current position)



Toru Nozawa
President and Representative Director

Number of Company Shares Held
9,594 shares

Brief History
1959 Born
1981 Joined Jujo Paper Co., Ltd.
2014 Appointed Director, NPI
2019 Appointed President and Representative Director, NPI (current position)

Responsibilities and Important Positions

- Chief Executive Officer



Yoko Hatta
Outside Director

Number of Company Shares Held
0 shares

Brief History
1952 Born
1997 Partner, KPMG LLP New York Office
2002 Partner, KPMG Peat Marwick Tax Corporation (currently KPMG Tax Corporation) (until 2014)
2008 Auditor, International Christian University (current position)
2015 Outside Statutory Auditor, Kobayashi Pharmaceutical Co., Ltd. (current position)
2016 Outside Auditor, IHI Corporation (current position)
Appointed Outside Statutory Auditor, NPI (until 2019)
2019 Appointed Outside Director, NPI (current position)

Important Positions

- Auditor, International Christian University
- Outside Statutory Auditor, Kobayashi Pharmaceutical Co., Ltd.
- Outside Auditor, IHI Corporation



Kazufumi Yamasaki
Executive Vice President and Representative Director

Number of Company Shares Held
19,200 shares

Brief History
1955 Born
1980 Joined Sanyo-Kokusaku Pulp Co., Ltd.
2010 Appointed Director, NPI
2017 Appointed Executive Vice President and Representative Director, NPI (current position)

Responsibilities and Important Positions

- Executive Vice President
- President and Representative Director, Nippon Paper Crecia Co., Ltd.



Akihiro Utsumi
Director

Number of Company Shares Held
9,239 shares

Brief History
1956 Born
1979 Joined Jujo Paper Co., Ltd.
2015 Appointed Director, NPI (current position)

Responsibilities and Important Positions

- Senior Managing Executive Officer
- General Manager, Personnel & General Affairs Division

Statutory Auditors



Hirofumi Fujimori
Statutory Auditor

Number of Company Shares Held
9,402 shares

Brief History
1955 Born
1987 Joined Sanyo-Kokusaku Pulp Co., Ltd.
2015 Appointed Director, NPI
2018 Appointed Statutory Auditor, NPI (current position)

Important Positions

- Statutory Auditor, Nippon Paper Crecia Co., Ltd.



Kazunari Tatsu
Statutory Auditor

Number of Company Shares Held
626 shares

Brief History
1960 Born
1983 Joined Jujo Paper Co., Ltd.
2019 Appointed Statutory Auditor, NPI (current position)

Important Positions

- Statutory Auditor, NP Trading Co., Ltd.



Takeo Konno
Director

Number of Company Shares Held
8,222 shares

Brief History
1957 Born
1981 Joined Jujo Paper Co., Ltd.
2018 Appointed Director, NPI (current position)

Responsibilities and Important Positions

- Managing Executive Officer
- General Manager, Sales Management & Planning Division
- President, Nippon Paper Logistics Co., Ltd.



Masanobu Iizuka
Director

Number of Company Shares Held
4,426 shares

Brief History
1960 Born
1984 Joined Jujo Paper Co., Ltd.
2019 Appointed Director, NPI (current position)

Responsibilities and Important Positions

- Executive Officer, General Manager of Corporate Planning Division, in charge of subsidiaries and affiliated companies
- Director, Nippon Paper Crecia Co., Ltd.
- Outside Director, Lintec Corporation



Seiichi Fusamura
Outside Statutory Auditor

Number of Company Shares Held
0 shares

Brief History
1947 Born
1971 Assistant Judge, Kyoto District Court
1998 Director-General of Judicial System and Research Dept., Minister's Secretariat, Ministry of Justice
2001 Director-General, the Civil Affairs Bureau, Ministry of Justice
2006 President, Saitama District Court
2009 Chief Justice, Sendai High Court
2011 Chief Justice, Nagoya High Court
2012 Appointed Statutory Auditor, NPI (current position)
Registered as attorney (Daini Tokyo Bar Association)
2013 Chairman, Public Security Examination Commission (current position)
Chairman, Bureau of Labor Relations Commission, Tokyo Metropolitan Government (current position)

Important Positions

- Chairman, Public Security Examination Commission
- Chairman, Bureau of Labor Relations Commission, Tokyo Metropolitan Government



Nanako Aono
Outside Statutory Auditor

Number of Company Shares Held
0 shares

Brief History
1962 Born
1995 Joined Chuo Aoyama Audit Corporation
2005 Director of BUSICOM Co., Ltd. (now OAG BUSICOM Co., Ltd.)
2008 Outside Audit & Supervisory Board Member, DUSKIN CO., LTD. (until 2016)
2010 Representative Director and President, GEN Co., Ltd. (current position)
2017 Outside Corporate Auditor, MISUMI Group Inc. (current position)
2019 Appointed Outside Statutory Auditor, NPI (current position)

Important Positions

- Representative Director and President, GEN Co., Ltd.
- Outside Corporate Auditor, MISUMI Group Inc.



Yoshimitsu Aoyama
Outside Director

Number of Company Shares Held
0 shares

Brief History
1939 Born
1999 Vice President, The University of Tokyo
2007 Chairman, Legislative Council, Ministry of Justice (until 2011)
2009 Head Director, Public Interest Incorporated Foundation "Automotive Dispute Resolution Center" (current position)
2013 Appointed Outside Director, NPI (current position)
2018 Representative Director, The Japan International Dispute Resolution Center (current position)

Important Positions

- Chairman, Public Interest Incorporated Foundation "Automotive Dispute Resolution Center"
- Chairman, The Japan International Dispute Resolution Center



Makoto Fujioka
Outside Director

Number of Company Shares Held
1,000 shares

Brief History
1950 Born
1996 Deputy Director-General for Trade and Economy, Ministry of Economy, Trade and Industry (then the Ministry of International Trade and Industry)
2001 Ambassador extraordinary and plenipotentiary to the United Arab Emirates
2013 Director, Executive Vice President, and Senior Executive Officer, Nippon Light Metal Co., Ltd. (until 2015)
2015 Senior Director, Japan Association for Chemical Innovation
2016 Outside Director, Eagle Industry Co., Ltd. (current position)
Outside Director, NOK CORPORATION (current position)
Appointed Outside Director, NPI (current position)

Important Positions

- Senior Director, Japan Association for Chemical Innovation
- Outside Director, Eagle Industry Co., Ltd.
- Outside Director, NOK CORPORATION

* The above "Number of Company Shares Held" is as of March 31, 2019, and includes shares held by the Nippon Paper Industries Directors' Shareholding Association.

Procurement of Raw Materials

→ Please refer to the following website
https://www.nipponpapergroup.com/english/csr/npg_csrr2019_e_procurement.pdf

Basic Stance

The Nippon Paper Group is engaged primarily in the manufacture of paper products, the raw materials for which include wood chips, wastepaper, and other wood resources. To ensure the long-term sustainability and growth of our business, we have created a system for the ongoing procurement of woody biomass generated through sustainable forest management.

In 2005, we established our Philosophy and Basic Policy Concerning Raw Materials Procurement. Based on this philosophy and basic policy, we use supply-chain management to practice sustainable raw material procurement. Moreover, we promote dialogue with stakeholders with the intention of taking our environmentally and socially conscious raw material procurement to greater heights.

Philosophy and Basic Policy Concerning Raw Materials Procurement
<https://www.nipponpapergroup.com/english/csr/policies/>

Philosophy and Basic Policy Concerning Raw Materials Procurement (Excerpt)
(formulated on October 5, 2005)

Philosophy
We are committed to establishing a reliable raw materials procurement system through global supply chain management in consideration of the environment and society.

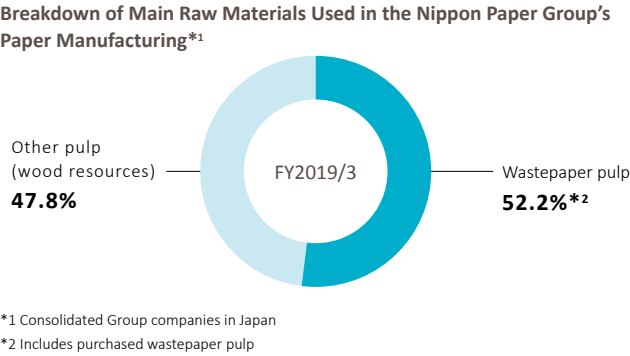
Basic Policy

1. Environmentally friendly raw materials procurement
 - (1) Procurement from forests under sustainable forest management
 - (2) Support the eradication of illegal logging
 - (3) Active use of recycled materials
 - (4) Compliance with relevant laws and regulations on chemical substances
 - (5) Build traceability systems
2. Socially aware raw materials procurement
 - Fair deals with suppliers and appropriate human rights and labor practices
3. Promotion of dialogues with stakeholders
 - Dialogues with stakeholders and proactive disclosure

Management of Suppliers

- Key Points in the Group's Procurement of Wood Resources**
- Sourcing from sustainable forests (sustainability)
 - Clearly identifying the origin of timber (traceability)
 - Maintaining full accountability (accountability)

More than 60% of the wood raw materials (chips) Nippon Paper Industries uses as paper material comes from overseas. To ensure the sound cultivation of domestic forests and encourage the active use of forests, we also promote the use of materials produced in Japan. As such, we are working to increase the percentage of domestically produced materials used in paper.



Geographic Breakdown of Wood Raw Materials (Chips) Procured by Nippon Paper Industries Co., Ltd. (FY2019/3) (Bone dry units, kt = kilotonnes)

| Overseas 65% (2,784 kt) | | Japan 35% (1,509 kt) | |
|-------------------------|----------------------|-----------------------|-----------------------|
| Hardwood 58% (2,500 kt) | Softwood 7% (284 kt) | Hardwood 13% (554 kt) | Softwood 22% (956 kt) |

In addition to suppliers in Japan and overseas, a number of people including local communities and government institutions are involved in the procurement of wood materials. Given this intersection with society and the environment, we believe it is important to create a sustainable supply chain while working with suppliers to take into consideration local forest ecosystems and communities, as well as occupational safety and health and other factors.

In addition to the legality of wood materials, we formulate and execute action plans for resource procurement that take into consideration human rights, labor, local communities, and the preservation of biodiversity.

Action Plan for Wood-Based Raw Material Procurement
https://www.nipponpapergroup.com/english/csr/download/action_plan_for_wood-based_raw_material_procurement.html

We have established enhancing the traceability of wood from overseas and the promoting trade association certifications for the legality of woodchips produced in Japan as the pillars of our activities. To ensure sustainability, each year we conduct surveys and interviews targeting our suppliers of materials overseas.

- Details of Supplier Surveys**
- Basic information on the forests from which materials were sourced
 - Status on obtaining forest certifications
 - Establishment of systems for implementing human rights and labor policies
 - Implementation of biodiversity efforts, etc.

In addition, we received annual forest certification audits and third-party verification through a due-diligence system for verifying legality under the Clean Wood Act, which was introduced in Japan in 2017. In FY2019/3, all of the wood raw materials we used for paper were approved under forest certification systems (including controlled material and controlled wood).

Nippon Paper Industries' Action Plans for Procurement of Wood Resources

| | |
|----------------------|---|
| Procurement in Japan | 410 chip suppliers, 4 pulp suppliers (implemented for all suppliers) |
| Procurement overseas | 24 chip suppliers, 10 pulp suppliers (implemented for all suppliers) |

Initiatives for Procuring Stable Supplies of Wastepaper

Recycled wastepaper comprises more than half of the raw materials used by the Nippon Paper Group.

Wastepaper is a “star student” of recycling. In Japan, wastepaper is an indispensable resource, comprising more than half of the raw materials used in the Japanese papermaking sector. Working for many years with the wastepaper industry, the Nippon Paper Group has built up a system for the steady procurement of

wastepaper. While maintaining this stable supply structure, we are prompting a shift toward paper in light of recently mounting concerns over plastic pollution. We are using this hidden urban resource, which includes such items as used paper cups, to build a new circle of recycling, helping to maintain and expand the recycling system.

Procurement of Raw Materials

Sustainable Forest Management

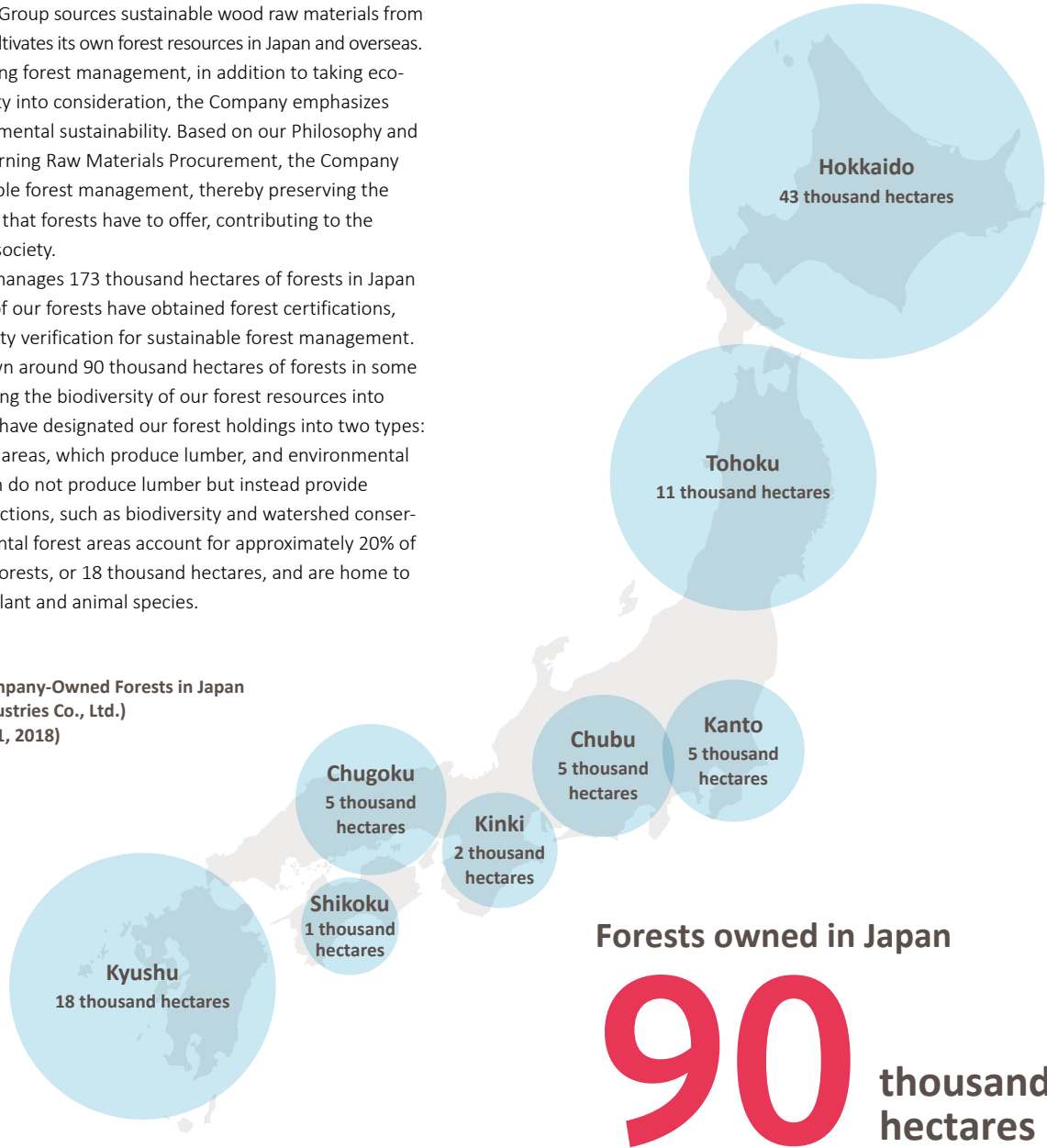
The Nippon Paper Group sources sustainable wood raw materials from third parties and cultivates its own forest resources in Japan and overseas.

When conducting forest management, in addition to taking economic sustainability into consideration, the Company emphasizes social and environmental sustainability. Based on our Philosophy and Basic Policy Concerning Raw Materials Procurement, the Company conducts sustainable forest management, thereby preserving the multiple functions that forests have to offer, contributing to the environment and society.

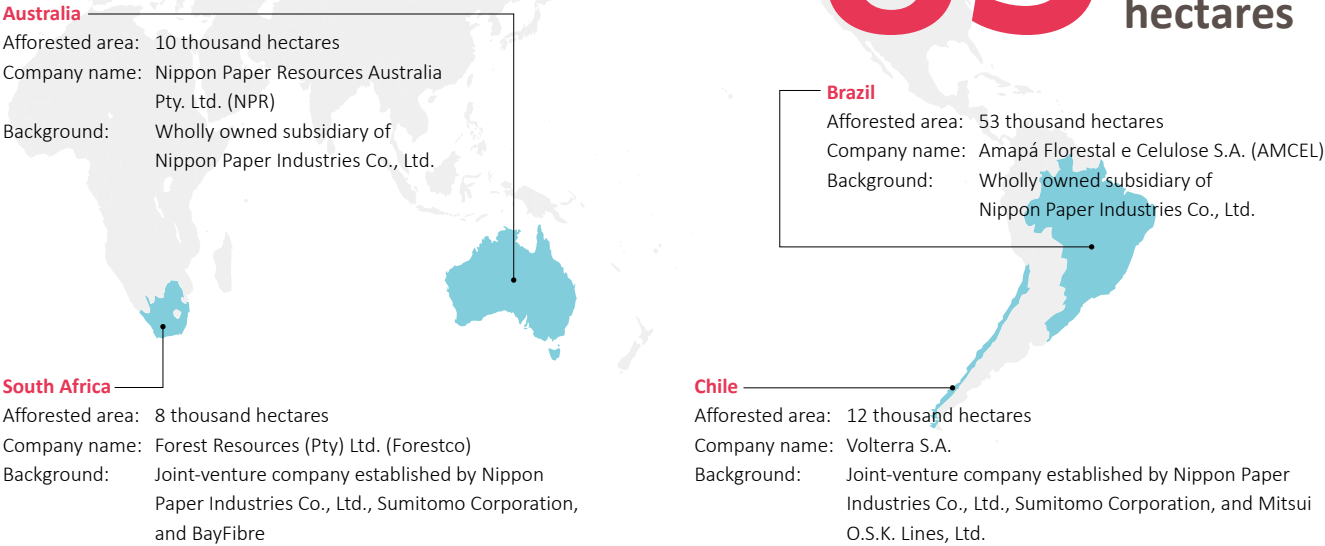
The Company manages 173 thousand hectares of forests in Japan and overseas. All of our forests have obtained forest certifications, receiving third-party verification for sustainable forest management.

In Japan, we own around 90 thousand hectares of forests in some 400 locations. Taking the biodiversity of our forest resources into consideration, we have designated our forest holdings into two types: commercial forest areas, which produce lumber, and environmental forest areas, which do not produce lumber but instead provide environmental functions, such as biodiversity and watershed conservation. Environmental forest areas account for approximately 20% of Company-owned forests, or 18 thousand hectares, and are home to a wide variety of plant and animal species.

Distribution of Company-Owned Forests in Japan
(Nippon Paper Industries Co., Ltd.)
(As of December 31, 2018)



Overview of Overseas Forests
under Nippon Paper Group Management
(As of December 31, 2018)



The Company currently oversees 83 thousand hectares of afforested areas in Brazil, Chile, Australia, and South Africa. These forests produce resources and ensure a steady supply of wood raw materials for the Nippon Paper Group.

In afforested regions overseas, when using forest resources we take into consideration the cultures and traditions of each region, as well as local communities, the natural environment, and ecosystems. Considerable effort is also placed on promoting educational activities and creating employment opportunities within local communities.

Examples of Our Efforts to Coexist with Local Communities in Afforested Regions Overseas and Preserve Biodiversity

- Protection of aboriginal sites discovered on forested land in Australia
- Preservation of habitat for and distribution of herbs grown in Company-owned forests in Chile to local residents for use
- Holding of annual training sessions at an afforestation operating company in Brazil on topics of interest to local residents related to work or daily life
- Conducting of biodiversity surveys in protected areas established at properties belonging to afforestation operating companies in Chile and Brazil

Environment

→ Please refer to the following website
https://www.nipponpapergroup.com/english/csr/npg_csrr2019_e_environment.pdf

Basic Stance

The Nippon Paper Group promotes the effective use of trees, a renewable resource, and supplies a wide range of products and services to society. However, such corporate activities consume large amounts of energy and water. We believe that one of the major responsibilities of a company is to lessen the environmental impact of such activities, and thereby work to resolve global warming and other social issues.

To help build a sustainable, recycling-oriented society, the Nippon Paper Group acts in accordance with The Nippon Paper Group Environmental Charter to conduct activities throughout the entire value chain with consideration for the environment.

The Nippon Paper Group Environmental Charter
(Established on March 30, 2001, and revised on March 30, 2007)

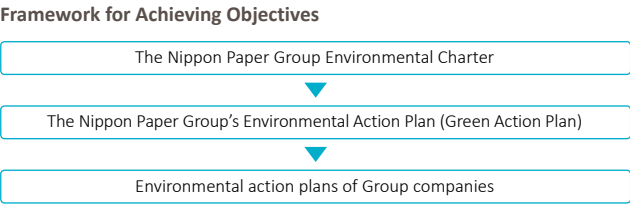
Philosophy
The Nippon Paper Group is committed to helping preserve the global environment over the long term and contributing to the development of a recycling based society by carrying out its corporate activities in recognition of the importance of biodiversity.

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

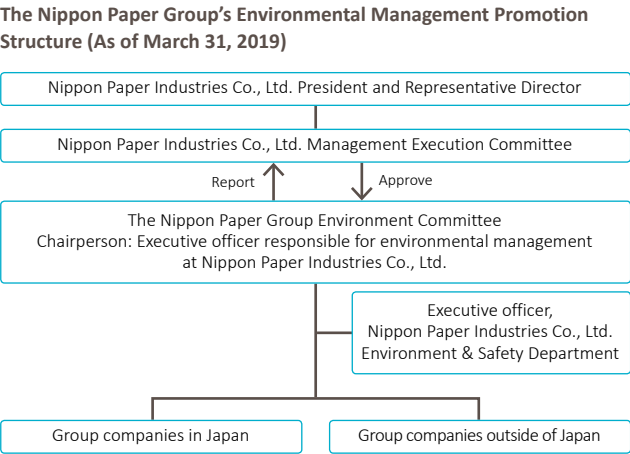
Environmental Action Plan (Green Action Plan)

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. Each Group company has established its own specific environmental action plan to reflect its own business circumstances based on the GAP. Their efforts are enhancing our ability to accomplish the GAP.



Environmental Management Promotion Structure

The Management Execution Committee (MEC) makes environmental strategy decisions for the Nippon Paper Group, and leads the Group's environmental activities. The Environmental Charter constitutes the environmental management principles of individual Group companies. The Nippon Paper Group Environment Committee manages progress in implementing the charter's philosophy and policies under the Environmental Action Plan and reports to the MEC. The MEC makes decisions on Companywide policies related to environmental issues and new initiatives to lead the Group's environmental activities and promote ongoing improvement.



Enhancing Our Environmental Management Systems

The Nippon Paper Group has introduced environmental management systems that meet the standards of certifying bodies such as ISO 14001 and Eco Action 21 as a measure to promote environmental management. The acquisition rate of ISO 14001 certification at major production bases of Nippon Paper Industries Co., Ltd. and consolidated subsidiaries is 71%.

In addition, environmental audits are conducted by the Environment & Safety Department at each Group company based on guidelines issued by the Japanese government. By observing complex

production processes from a unique perspective, confirming legal compliance, and identifying problems, we are working to avoid environmental law violations and accidents in a preventative manner. Furthermore, we are working to strengthen the systems by having Group companies conduct environmental audits among one another.

Conditions Regarding ISO 14001 and Eco-Action 21 Certifications

https://www.nipponpapergroup.com/english/csr/2019.3_ISO14001_e.pdf

The Nippon Paper Group Environmental Action Plan (Green Action Plan 2020) Progress Report (Excerpt) –

Global Warming Countermeasures

Target: Reduce greenhouse gas emissions by 10% compared with FY2014/3*

Progress: Reduced greenhouse gas emissions by 6.2% compared with FY2014/3

Volume of Greenhouse Gas Emissions
Million t-CO₂

Period Covered by Green Action Plan 2020

| Fiscal Year | Volume of Greenhouse Gas Emissions (Million t-CO ₂) |
|-------------|---|
| 2014/3 | 7.28 |
| 2015/3 | 7.18 |
| 2016/3 | 7.12 |
| 2017/3 | 7.17 |
| 2018/3 | 6.99 |
| 2019/3 | 6.83 |
| 2021/3 (FY) | 6.55 |

(Base fiscal year) (Target fiscal year)

Recycling of Resources

Target: Increase waste recycling rate to at least 98%*

Progress: Achieved waste recycling rate of 98.2%

Waste Generated and Final Disposal Volume
1,000t

| Fiscal Year | Waste generated (1,000t) | Final waste disposal (1,000t) |
|-------------|--------------------------|-------------------------------|
| 2015/3 | 762 | 14 |
| 2016/3 | 704 | 17 |
| 2017/3 | 690 | 11 |
| 2018/3 | 638 | 9 |
| 2019/3 (FY) | 745 | 13 |

■ Waste generated ■ Final waste disposal

Protection and Development of Forest Resources

Target: Maintain forest certifications for all proprietary forests, both domestically and internationally

Progress: Maintained certification for 90 thousand hectares of Company-owned forests in Japan and 83 thousand hectares overseas

Development of Eco-Friendly Technologies and Products

Target: Reduce environmental load through provision of eco-friendly products and services

Progress: Promoted shift to paper packaging to address marine plastic pollution. Began sales of paper straws from April 2019

* Production sites in Japan

Environment

Reduction of Environmental Impacts

It is impossible to completely eliminate the environmental impacts of the business activities that lead to the supply of our products and services. Nevertheless, we believe that companies can contribute to the building of a sustainable society through continuous efforts to minimize these impacts.

When manufacturing products, energy and water are used, greenhouse gases and other air pollutants are generated from boiler combustion, and drainage containing water pollutants and waste are generated from production processes. To minimize its negative environmental impacts, the Nippon Paper Group uses equipment and technologies that reduce the amount of these substances released into the environment.

Key Environmental Data
https://www.nipponpapergroup.com/english/csr/2019_DATA_SECTION_e.pdf

Response to Feedback and Complaints

The Nippon Paper Group receives complaints and inquiries via its website and at each of its mills. In addition, the Group also holds risk communication meetings and employs an environmental monitoring system that encourages input from local residents. The Group reflects this feedback in its efforts to reduce environmental impact.

When a complaint is received, we move swiftly to determine possible causes, and implement emergency and permanent measures. We also explain to the person who lodged the complaint the cause of the complaint in question and our actions to resolve the situation to ensure his/her satisfaction with our approach.

Environment-Related Complaints (FY2019/3)

| Matter of complaint | Number of complaints | Complaint | Number of complaints |
|-------------------------|----------------------|-----------|----------------------|
| Noise | 5 | Vibration | 0 |
| Dust and mist dispersal | 9 | Smoke | 0 |
| Odor | 0 | Other | 2 |
| Total: 16 | | | |

Controlling Chemical Substances

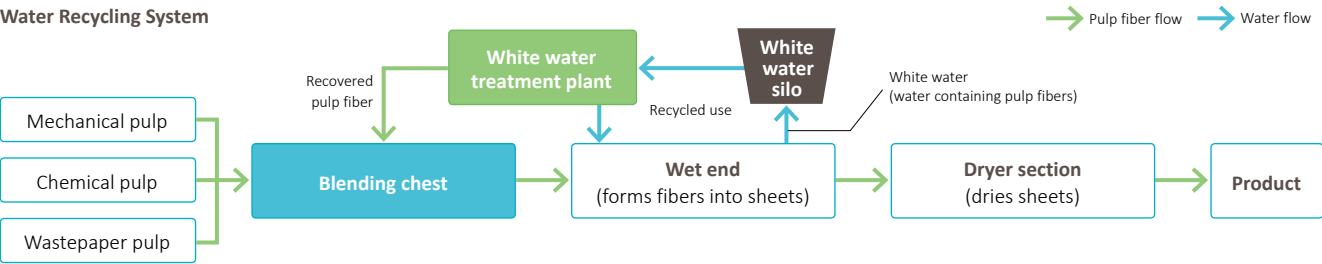
The Nippon Paper Group examines the chemical substances it uses in its production processes in accordance with its Chemical Substance Management Guidelines. We do this in exercising risk management to monitor how much of these substances are used and released into the environment. We disclose our release and transfer of PRTR*-controlled substances to local stakeholders through risk communication at each of our mills and other production sites.

* The Pollutant Release and Transfer Register (PRTR) is a system for monitoring the movement of chemical substances posing risks to human health or ecosystems. Under the PRTR system, businesses track the amounts of chemicals released into the environment or transferred to other business locations and report this information to government authorities.

Amount of Release and Transfer of Substances Subject to PRTR Law
https://www.nipponpapergroup.com/english/csr/2019.3_PRTR_e.pdf

Effective Use of Water Resources

The manufacture of paper requires large amounts of water. The Nippon Paper Group’s papermaking process efficiently and effectively uses water resources, which are a form of natural capital. One example is the wet end of the papermaking process, in which pulp fiber is dispersed in water to eventually create thin sheets. The “white water” generated from this process, which contains very fine pulp fibers, is recovered and recycled into the papermaking process.



Preserving Biodiversity

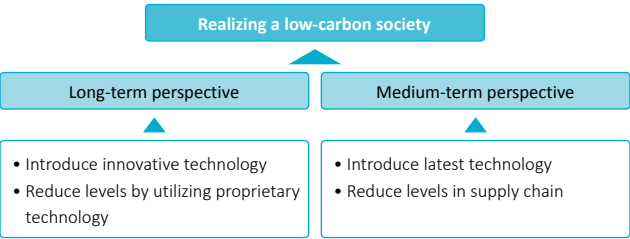
The business activities of the Nippon Paper Group entail the cultivation and utilization of forests and, therefore, have an inherently significant and wide-ranging impact on forest biodiversity. We recognize that the sustainable use of forests is an ongoing concern as a matter fundamental to our existence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

In pursuing sustainable forest management, 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
<https://www.nipponpapergroup.com/english/csr/policies/>

Initiatives to Mitigate Climate Change

The problem of climate change is tied to a high degree of uncertainty, and proves to be a difficult task requiring long-term commitment. To realize a low-carbon society, the Nippon Paper Group is taking a variety of angles that include both a medium-term perspective for steadily reducing greenhouse gases and a long-term perspective for more ambitious approaches to reducing emissions.



Environment

Risks and Opportunities Related to Climate Change

In order to grow as a company while keeping pace with the Paris Agreement and the national policy against global warming—a problem that is expected to become increasingly dire in the future—we are looking into approaches from various perspectives in order to mitigate the risks while seizing the opportunities presented by climate change.

Risks

- Efficiency of raw material procurement may be negatively affected by possible delays in tree growth or tree death caused by storms, droughts, and other meteorological disasters stemming from climate change
- Financial performance may be negatively affected by ongoing carbon pricing, emissions trading system, and introduction of other factors

Opportunities

- As renewable energy becomes more prevalent, opportunities for our power generation-related businesses (woody biomass, etc.) will expand.
- The growing social movement toward forest protection will raise the value of our products that use only sustainable wood resources.

Medium-Term Initiatives

The Nippon Paper Group has established its medium-term Environmental Action Plan—Green Action Plan—under which the Group is working to reduce greenhouse gases and meet reduction targets that are set in five-year intervals.

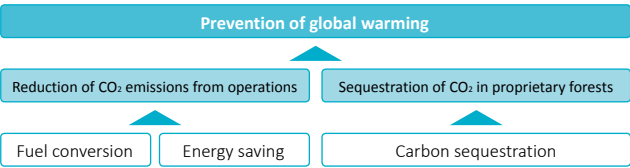
Long-Term Initiatives

To realize a low-carbon society, we must achieve significant reductions in greenhouse gases. The Nippon Paper Group will continue to take active steps to increase production efficiency and develop and introduce new technology to this end. Looking at the long term, we will incorporate innovative technologies to reduce emissions and take on challenges that contribute to reducing greenhouse gases and realizing a low-carbon society. In addition to reducing emissions from each Group company through their respective production and distribution processes, we will contribute to the reduction of greenhouse gases across society by providing cellulose nanofibers and other new materials.

The Three Pillars to Achieving Our Goal

To achieve the objectives of our Environmental Action Plan—Green Action Plan 2020—we are (1) converting to non-fossil energy, (2) conserving energy in each of our production and logistics processes, and (3) managing proprietary forests properly to ensure CO₂ absorption/sequestration, all of which will reduce greenhouse gas emissions across every stage of our value chain.

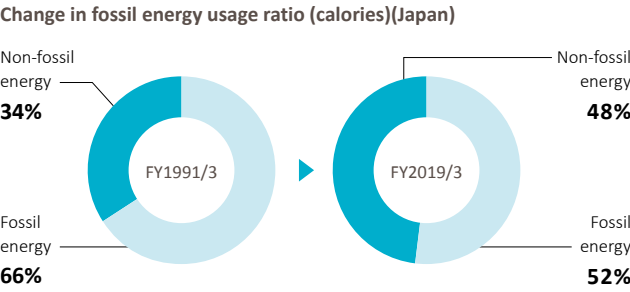
The Nippon Paper Group’s Environmental Initiatives



Fuel Conversion Initiatives

The Nippon Paper Group actively applies woody biomass fuel from sources such as black liquor (generated in the pulp production process) and construction waste. The amount consumed accounts for up to 5%* of non-fossil energy (excluding nuclear and hydroelectric power) used in Japan. In addition, the Group is actively promoting the use of waste fuel, having installed boilers capable of burning used tires and other waste fuels and equipment that solidifies these wastes into fuel.

As a result of energy-saving activities and fuel conversion, the Group’s fossil energy usage ratio (in terms of heating value) in Japan fell to 52% in FY2019/3, compared with 66% in FY1991/3.



* Estimate by Nippon Paper Industries based on *Primary Energy Trends in Domestic Energy Supply for Fiscal 2017* reported by Agency for Natural Resources and Energy

Development of Alternative Fuel for Coal

As trees absorb CO₂ from the atmosphere, the burning of woody biomass fuel does not result in any net impact on atmospheric CO₂—woody biomass fuel, in other words, is carbon neutral.

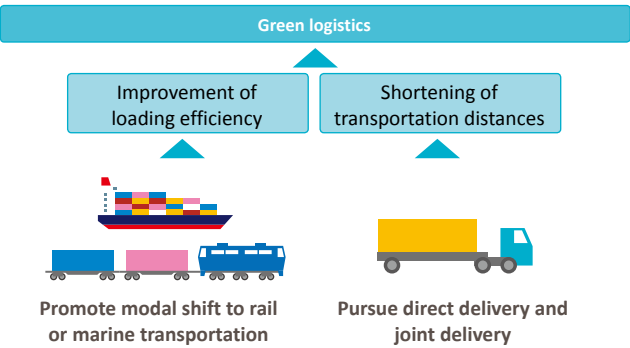
Nippon Paper Industries is developing torrefaction technology as a method for turning biomass solid fuel into an alternative to coal for thermal power generation. This approach is the product of the Company’s wealth of afforestation, forest management, and woody biomass collection experience.

Torrefaction technology uses relatively low heat to carbonize woody biomass. This produces fuel that retains most of the pre-processing heating value, offers good grindability, and is sufficiently water-resistant for outside storage. Woody biomass fuel produced through torrefaction technology can be used as a substitute for coal in firing existing thermal power plants and, therefore, help to reduce greenhouse gases.

Energy Efficiency in Logistics

The Nippon Paper Group makes efforts to promote green logistics, based mainly on the two core initiatives of improving its loading efficiency and shortening transportation distances.

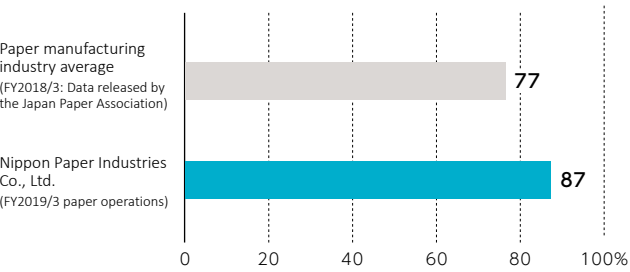
Logistics-Related Initiatives



The Nippon Paper Group is advancing its use of modal shift transport, which reduces CO₂ emissions from long-distance shipping. We are doing this by using mainly rail and domestic marine transport to move large volumes of cargo with every trip. At 87% in FY2019/3, Nippon Paper Industries continues to maintain a high modal shift rate*.

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

Comparison of Modal Shift Rates



Absorbing and Sequestering CO₂ through Proper Management of Company-Owned Forests

CO₂ in the atmosphere is absorbed and sequestered through proper management of forests and utilization of trees.

As trees grow, they absorb and sequester CO₂ from the atmosphere. As a result, trees are often called “carbon storehouses.” The Nippon Paper Group owns 173 thousand hectares of forest in Japan and overseas. Through proper management of these forests, from the perspective of sustainability, the Group maintains the CO₂ absorption and sequestration capabilities of its trees.

These forests continuously sequester approximately 32 million tonnes of CO₂.

Customer Trust

→ Please refer to the following website
https://www.nipponpapergroup.com/english/csr/npg_csrr2019_e_customer.pdf

Basic Stance

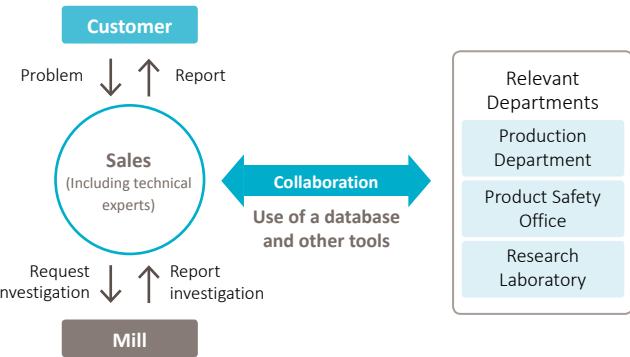
The Nippon Paper Group offers a diverse lineup of products and services, such as paper, healthcare, and chemical products, derived from wood resources that are indispensable to daily life. We will continue to maintain the trust of customers by identifying their needs, ensuring quality and safety, and providing stable supplies of our products.

Quality Control

The Group’s quality control process is conducted in a manner that tailors to the characteristics of its products and services.

For example, the paper and paperboard business has a system in place whereby as part of the printing and manufacturing process, service engineers (SE)—technical staff in charge of paper production—visit the sites where our paper is being used and acquire feedback directly from customers. In the case of a product defect, a member of the sales division in charge of engineering acts as a point of contact with the customer. The issue is handled swiftly through the use of a database containing details on quality-related accidents as well as through the cooperation of mills and head office divisions.

Product Defect Response System (Paper and paperboard business)



The Paper-Pak Sales Division strives to achieve quality improvements by holding quality-related meetings and conducting product safety audits for its liquid package carton producer, Nippon Paper Liquid Package Product Co., Ltd. once a year as well as through the sharing of material issues related to food safety.



Product safety audits conducted by the Paper-Pak Sales Division

Moreover, Nippon Paper Crecia Co., Ltd., which supplies products to individual customers, prints contact details regarding its Customer Service Office on all of its products, as well as providing online advisory services on its website.



Customer Service Office

Stable Product Supply

The Nippon Paper Group is committed to providing stable supplies of its products by steadily procuring raw materials and maintaining and upgrading its mills on a systematic basis. Moreover, the sales and production departments have collaborated to establish a flexible and efficient production plan that allows us to manage inventory in an optimal manner and provide stable supplies of our products to customers.

Example Initiative for Stabilizing Operations

The paper and pulp industry is a typical example of the process industry, and the stable operation of equipment is directly linked to the stable supply and quality of its products. Nippon Paper and Nippon Paper Unitec Co., LTD. joined forces to develop the “e-musen junkai® (e-wireless patrol)” system, a remote monitoring system that detects abnormal signs from machinery

equipment through a wireless sensor. Through this technology, we are able to actively prevent equipment problems from occurring and stabilize operations.

In addition to rolling out this system to all of our domestic mills and working aggressively to promote sales outside of the Group, we have commenced sales in Thailand from 2019.

“e-musen junkai®” (e-wireless patrol) system webpage (Japanese only) <https://www.sakurai.co.jp/landing/e-musen/index.html>

Efforts on Product Safety

The Nippon Paper Group makes concerted efforts to continue to improve the safety of its products in line with its Philosophy and Basic Policy on Product Safety, in pursuit of quality that will continue to earn the trust of customers.

The Group has established the Nippon Paper Group Product Safety Committee, which is chaired by the General Manager of Nippon Paper Industries Co., Ltd.’s Technical & Engineering Division. The committee oversees all activities concerning product safety, including deliberating and determining important matters concerning product safety policies and activities.

Under the Product Safety Committee, the Group has established the Product Safety Subcommittee to monitor and manage activities at each Group company. Drawing on information and the exchange of opinions between Group companies, the subcommittee also deliberates optimal responses to matters of concern and submits its findings to the Product Safety Committee. In addition, each Group company establishes its own product safety committee and implements activities to promote product safety.

Acting in compliance with laws, including Japanese laws such as the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, PRTR Law, and Food Sanitation Act, the Group

works to ensure product safety by employing management approaches adapted to the characteristics of particular operations and products.

Further, in line with the Basic Guidelines for Management of Product Safety, the Company has established a product safety risk management system for new products to be launched that cannot be managed under the current system.

Product Safety Management System



* Nippon Paper Industries Co., Ltd., Nippon Paper Crecia Co., Ltd., Nippon Paper Papyrus Co., Ltd., Nippon Paper Lumber Co., Ltd., Nippon Seitai Corporation, NP Trading Co., Ltd., Nippon Paper Development Co., Ltd., Akita Jujo Chemicals Co., Ltd. (As of March 31, 2019)

Philosophy and Basic Policy on Product Safety
<https://www.nipponpapergroup.com/english/csr/policies/>

Respect for Human Rights

→ Please refer to the following website
https://www.nipponpapergroup.com/english/csr/npg_csrr2019_e_humanrights.pdf#page=2

Basic Stance

As put forth in the UN Guiding Principles on Business and Human Rights, companies are obligated to bear responsibility for human rights. In recent years, human rights issues have borne an increasing impact on business.

The Nippon Paper Group formulated its Philosophy and Basic Policy on Human Rights, Employment and Labor in 2004. In line with this philosophy and basic policy, we are working to respect human rights not only within the Company, but throughout the entire value chain.

Philosophy and Basic Policy on Human Rights, Employment and Labor

<https://www.nipponpapergroup.com/english/csr/policies/>

Initiatives on Respect for Human Rights

In 2014, Nippon Paper Industries met with Amnesty International Japan to share opinions. As a product of this meeting, we embarked on the examination of human rights conditions at subcontractors in Japan and at overseas chip suppliers from 2015. Based on our examination results, we are working toward improvements by employing PDCA cycles while continuing our dialogue with Amnesty International Japan.

Assessing Human Rights Issues at Affiliated Companies in Japan

Since 2015, Nippon Paper Industries has been conducting surveys on human rights issues at its affiliated companies in Japan, with emphasis on ensuring compliance with labor and safety laws and regulations. The results of these surveys are provided to the human resources managers of each mill, and used to consider ways for improvement.

Concern for Human Rights across the Supply Chain

Concern for human rights and labor across the entire supply chain is clearly defined in the Nippon Paper Group’s Philosophy and Basic Policy Concerning Raw Materials Procurement. The Group audits suppliers through surveys and conducts interviews with them regarding these concerns (see pages 56–57). In addition, in FY2019/3 employees responsible for procurement performed on-site inspections of suppliers in Vietnam and Chile. These were supplemented with interviews covering matters such as health, hygiene, safety, disaster preparedness, and local environmental concerns.

In managing forests, the Group devotes significant attention to protecting the culture and traditions of residents in each region of its afforestation operations overseas.

Inspections of Suppliers in Vietnam (Excerpt)



Confirmation of garbage collection points



Confirmation of truck driver rest areas



Confirmation of first aid supplies



Confirmation of work safety (helmet use, etc.)

Human Resources

→ Please refer to the following website
https://www.nipponpapergroup.com/english/csr/npg_csrr2019_e_humanrights.pdf#page=8

Basic Stance

The Nippon Paper Group aims to be a dynamic organization where each of its diverse human resources—the driving force behind corporate activities—has a high sense of ethics and exceptional capabilities, and can fully demonstrate those capabilities.

Our Vision for Human Resources Development

The Nippon Paper Group emphasizes the values of Challenge, Fairness, and Teamwork in its Group Mission. Furthermore, initiatives under the Sixth Medium-Term Business Plan are pursued under two themes: to reorganize the production structure of the paper business and make maximum use of in-house facilities; and expand business in growth areas and commercialize new businesses early on.

We are also working to strengthen the cultivation of leaders who push for these changes. When hiring employees, we look for people with the ability to keep taking on new challenges, the ability to make fair judgments and act accordingly, the ability to work in a team and incorporate surrounding personnel, and the mental fortitude to overcome hardships. To develop employees into leaders, we are working to enhance our human resources development system to create “autonomous human resources” who can determine how to approach a challenge and then take action to overcome it, while also seeking new challenges from a global perspective.

Our Leader Development System

We cultivate managerial-track employees through a mix of on-the-job training, scheduled transfers, and off-the-job training (stratified education and optional training).

Scheduled rotation to internal and external departments as well as affiliated companies fosters the ability to see matters from a wide variety of perspectives without being tied to a single one. Our off-the-job training is a career development program that provides stratified education prior to managerial appointments while also comprising a dispatch system to overseas bases. After employees are appointed to managerial positions, we also provide training at the time of appointment and promotion and offer elective training for cultivating candidates for executive positions.

Initiatives Aimed at Developing Human Resources

The Nippon Paper Group supports employee self-development and voluntary skill acquisition through means such as Group training, distance learning, and rewards for acquiring professional qualifications. In addition, stratified education, such as that for new hires and new managers, is conducted jointly by Group members to promote the development of employees throughout the Group. And training is pursued from a broad perspective; stratified education at mills, for example, is conducted not just for each mill but together with neighboring mills.



Internal training session

Human Resources

Promoting Diversity

Our Stance on Promoting Diversity

The Nippon Paper Group works to promote diversity in line with its view that the creation of workplaces wherein a wide range of people can express their individuality is essential to the continuous development of a company.

Efforts to Promote the Advancement of Women

The need for organizational invigoration and to secure human resources against the backdrop of a declining birthrate are indicative of the growing importance for providing women with opportunities to succeed in the workplace. In working to create an environment that enables women to advance their careers, in April 2016 Nippon Paper Industries Co., Ltd. established its Action Plan Based on the Act on Promotion of Women’s Participation and Advancement in the Workplace.

Action Plan Based on the Act on Promotion of Women’s Participation and Advancement in the Workplace
(Adopted by Nippon Paper Industries Co., Ltd. in April 2016)

- 1. Have women account for at least 25% of new graduate hires for career-track positions.
- 2. For career-track female employees hired 8 to 12 fiscal years ago,* achieve an average continuous employment rate that is at least 80% that of men.
- 3. To expand the range of roles performed by women at production sites, identify issues that could arise with the assignment of women to each workplace, consider solutions to these issues, and develop concrete plans for the workplaces to which women will be assigned.

* Women who joined the Company between FY2005/3 and FY2009/3.

Occupational Safety and Health

→ Please refer to the following website
https://www.nipponpapergroup.com/english/csr/npg_csrr2019_e_humanrights.pdf#page=4

Basic Stance

We cannot expect workplaces to be completely free of risk. For that reason, it is imperative that we continue to work to discover and reduce risks on a daily basis. Moreover, striving to maintain and improve the health of employees and build a pleasant and comfortable workplace is critical for honoring the trust of our employees and engaging in sound management. Based on this awareness, we established a labor safety and health system under our Philosophy and

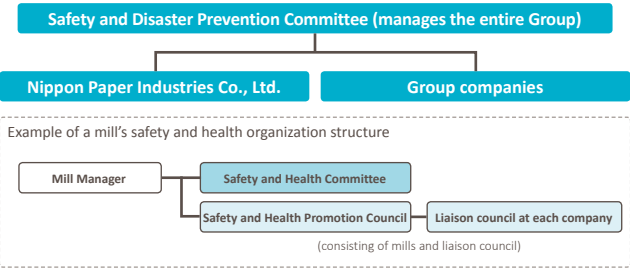
Basic Policy on Safety and Health Measures and all employees and members of management unite as one to engage in efforts to ensure occupational safety and disaster preparedness.

Philosophy and Basic Policy on Safety and Health Measures
<https://www.nipponpapergroup.com/english/csr/policies/>

Occupational Safety and Health Assurance System

The Safety and Disaster Prevention Committee, which works to ensure the safety and disaster preparedness of the entire Company, constantly works to prevent accidents and provide safe, pleasant working environments throughout the Group.
At Nippon Paper Industries Co., Ltd., we hold a labor and management occupational safety and health meeting once a year with the members in charge of safety and health assurance at the head office, mills, and labor unions; a safety and health assurance leaders’ meeting twice a year with the members in charge of safety at the head office and mills; and a meeting of General Managers at Safety & Environmental Control Departments once a year in order to discuss and formulate safety and health assurance policies, the annual occupational safety and health management plan, and measures related to safety and health for the entire Group. In addition, we have in place separate safety and health committees and safety and health promotion councils at each of our mills and business sites.

The Company has also set up and stipulated a communication system whereby in the case of a disaster, communication can be maintained between the mills and the head office as well as with the respective departments within the head office. In this way, we have put in place a framework that enables critical information to be shared with the Safety and Disaster Prevention Committee and management.



Occupational Safety and Health Management System

In 2009, the Group established its own occupational safety and health management system (NPSS*) in order to continuously pursue occupational safety and health management activities at the organization level. Within the NPSS we have incorporated specific, continuous, and voluntary activities into a health and safety assurance plan for each mill and business site that are in line with the Group’s

policies and measures on safety and health assurance. The NPSS is helping improve occupational health and safety standards by preventing labor-related accidents, improving employee health, and providing a comfortable and pleasant work environment.

* Nippon Paper Occupational Safety and Health Management System

Coexistence with Local Communities and Society

→ Please refer to the following website
https://www.nipponpapergroup.com/english/csr/npg_csrr2019_e_communities.pdf

Basic Stance and Promotion System

The Nippon Paper Group cultivates and manages large forests and has a large-scale production base, bestowing upon the Group a strong influence on the region and local workers. Therefore, coexistence with local communities is essential to the sustainability of the Group.

As a member of society, the Group strives to contribute to the development of society as a whole. Accordingly, we will continue to provide indispensable products while adding to our list of activities that protect the environment, develop culture, and build local communities. These efforts contribute to building trust with society and lead to corporate activities that can be conducted in harmony with local communities.

Social contribution activities are conducted throughout the Group centered on Nippon Paper Industries’ CSR Division. The mills and Group companies conduct a variety of their own activities as well so that they too can exist in harmony with local communities and society.

Philosophy and Principles for Social Contribution Activities
<https://www.nipponpapergroup.com/english/csr/policies/>

The Nippon Paper Group’s Main Social Contribution Activities (Japanese only)
<https://www.nipponpapergroup.com/csr/society/activity/>

Marunuma Highland Tree-Planting 2019

Nippon Paper Industries is advancing initiatives aimed at leaving thriving forests for future generations. As part of this effort, the Company has been holding yearly tree-planting activities at its Sugenuma Forest (Marunuma Highland) in Gunma Prefecture since May 2010. The eighth iteration of this activity—the Marunuma Highland Tree Planting 2019—took place in May 2019. The number of participants, mainly from Tokyo, came to about 90 in all, and included those from both inside and outside of the Nippon Paper Group.

Under the guidance of the event staff, participants used hoes to plant a total of 350 seedlings for five different types of trees, including beech and mizunara oak.



Participants planting trees

Conducting the Annual School of Friendship for Forests and Paper

The School of Friendship for Forests and Paper is a hands-on course on the natural environment utilizing forests (approximately 90,000 hectares) owned by Nippon Paper Industries in Japan. With the aim of introducing participants to the beauty and abundance of forests owned by the company, the school is also an opportunity to experience the connection between forests and paper, an essential item for everyday life. This initiative was first launched in the Sugenuma Forest of Gunma Prefecture in October 2006. As of FY2019/3, the school has been conducted 23 times, for a total of 767 participants, including parents and children, and students from local schools.

Since FY2008/3, the Toyono School of Friendship for Forests and Paper has been held annually at Nippon Paper Industries’ Toyono Forest in Kumamoto Prefecture. Organized mainly by the Company’s Yatsushiro Mill, particular emphasis is placed on activities deeply rooted in the local community.



Children listening to staff instructions

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Financial Section

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Six-Year Financial Summary

Nippon Paper Industries Co., Ltd. and Consolidated Subsidiaries
Fiscal Years Ended March 31

| | Millions of yen | | | | | Thousands of U.S. dollars* | |
|--|-----------------|------------|------------|------------|------------|----------------------------|---------------|
| | FY2014/3 | FY2015/3 | FY2016/3 | FY2017/3 | FY2018/3 | FY2019/3 | FY2019/3 |
| Fiscal year | | | | | | | |
| Net sales | ¥1,081,277 | ¥1,052,491 | ¥1,007,097 | ¥992,428 | ¥1,046,499 | ¥1,068,703 | \$9,627,955 |
| Cost of sales | 844,603 | 825,576 | 800,185 | 787,464 | 846,109 | 871,218 | 7,848,811 |
| Operating income | 28,536 | 23,656 | 22,623 | 23,764 | 17,613 | 19,615 | 176,712 |
| Ordinary income | 28,188 | 23,204 | 17,123 | 26,994 | 18,649 | 23,901 | 215,324 |
| Profit (loss) attributable to owners of parent | 22,770 | 23,183 | 2,424 | 8,399 | 7,847 | (35,220) | (317,297) |
| Capital investment | 47,162 | 48,518 | 46,899 | 51,289 | 72,765 | 60,338 | 543,586 |
| Depreciation | 63,181 | 61,374 | 57,672 | 55,083 | 57,892 | 60,422 | 544,342 |
| Free cash flow | 50,902 | 39,363 | 68,689 | 21,809 | (17,787) | 12,299 | 110,802 |
| End of fiscal year | | | | | | | |
| Total assets | ¥1,480,894 | ¥1,495,622 | ¥1,390,918 | ¥1,388,885 | ¥1,429,892 | ¥1,390,814 | \$12,529,856 |
| Total current assets | 505,417 | 484,498 | 502,912 | 486,205 | 490,479 | 515,407 | 4,643,306 |
| Total property, plant and equipment | 729,179 | 715,406 | 669,298 | 686,813 | 717,927 | 677,613 | 6,104,622 |
| Other noncurrent assets | 246,297 | 295,716 | 218,707 | 215,867 | 221,484 | 197,792 | 1,781,910 |
| Total liabilities | 1,054,309 | 1,005,881 | 966,233 | 953,974 | 986,493 | 995,470 | 8,968,198 |
| Total net assets | 426,584 | 489,740 | 424,685 | 434,911 | 443,398 | 395,343 | 3,561,649 |
| Interest-bearing debt | 775,597 | 731,834 | 703,831 | 678,504 | 693,562 | 688,703 | 6,204,532 |
| Per share data | | | | | | Yen | U.S. dollars* |
| Profit (loss) attributable to owners of parent | ¥ 196.67 | ¥ 200.27 | ¥ 20.95 | ¥ 72.57 | ¥ 67.80 | ¥ (304.34) | \$ (2.74) |
| Net assets | 3,652.76 | 4,198.10 | 3,645.87 | 3,714.63 | 3,776.26 | 3,328.28 | 29.98 |
| Cash dividends | 40.00 | 50.00 | 60.00 | 60.00 | 60.00 | 30.00 | 0.27 |
| Ratios and number of employees | | | | | | % | |
| Operating income margin | 2.6% | 2.2% | 2.2% | 2.4% | 1.7% | 1.8% | |
| Net profit (loss) margin | 2.1 | 2.2 | 0.2 | 0.8 | 0.7 | (3.3) | |
| Equity ratio | 28.6 | 32.5 | 30.3 | 31.0 | 30.6 | 27.7 | |
| Return on equity (ROE) | 5.6 | 5.1 | 0.5 | 2.0 | 1.8 | (8.6) | |
| Return on invested capital (ROIC) | 3.3 | 2.8 | 2.4 | 3.2 | 2.3 | 2.9 | |
| Return on assets (ROA) | 2.7 | 2.2 | 2.0 | 2.6 | 1.9 | 2.2 | |
| Debt/equity ratio (times) | 1.7 | 1.6 | 1.5 | 1.5 | 1.6 | 1.8 | |
| Number of employees | 13,107 | 12,771 | 11,741 | 13,057 | 12,881 | 12,943 | |

* Amounts in U.S. dollars are included solely for convenience and are translated at the rate of ¥111 = US\$1.00, the approximate rate of exchange on March 31, 2019.

- Interest-bearing debt = Short-term borrowings + Long-term debt
- Free cash flow = Cash flows from operating activities + Cash flows from investing activities
- Return on equity (ROE) = Profit (loss) attributable to owners of parent / [Average of beginning and end of year (Shareholders' equity + Accumulated other comprehensive income)] × 100
- Return on invested capital (ROIC) = (Ordinary income + Interest expense) / (Year-end shareholders' equity + Year-end accumulated other comprehensive income + Year-end balance of interest-bearing debt) × 100
- Return on assets (ROA) = (Ordinary income + Interest expense) / Total assets × 100
- Debt/equity ratio = (Interest-bearing debt – Cash and deposits) / Shareholders' equity

Financial Overview

Financial Position

Consolidated total assets at the end of FY2019/3 were ¥1,390.8 billion, a decrease of ¥39.0 billion from ¥1,429.8 billion at the end of FY2018/3. The fall was mainly due to a ¥40.3 billion decline in property, plant and equipment, attributable to such factors as the reorganization of the paper business production structure and the posting of an impairment loss in the newsprint business, as well as a ¥19.3 billion decrease in investments in securities. This reduction stemmed from the sale of shares in Daishowa-Marubeni International Ltd., an overseas equity-method affiliate. Notes and accounts receivable–trade, on the other hand, rose ¥13.9 billion.

Total liabilities increased ¥8.9 billion from ¥986.4 billion at the end of FY2018/3, to ¥995.4 billion. The main reason was the new discovery of polychlorinated biphenyl (PCB) waste being stored by the Company and the ensuing posting of an allowance for environmental costs as processing expenses.

Total net assets decreased ¥48.0 billion from ¥443.3 billion at the end of FY2018/3, to ¥395.3 billion. This was mainly caused by a decrease in retained earnings due to the posting of net loss attributable to owners of the parent, as well as a decline in translation adjustments due to yen appreciation.

As a result, the equity ratio decreased to 27.7% from 30.6% at the end of FY2018/3.

Cash Flows

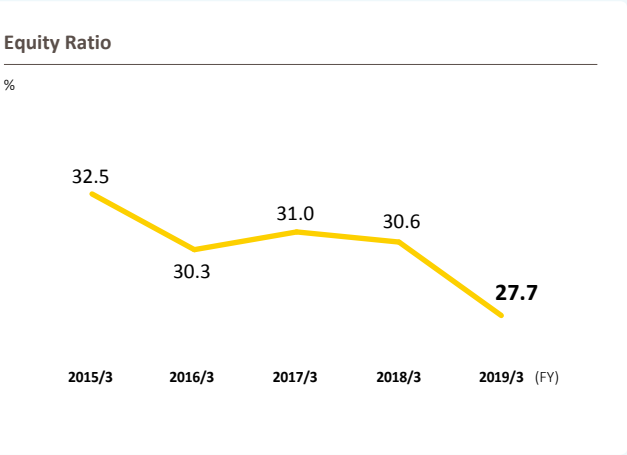
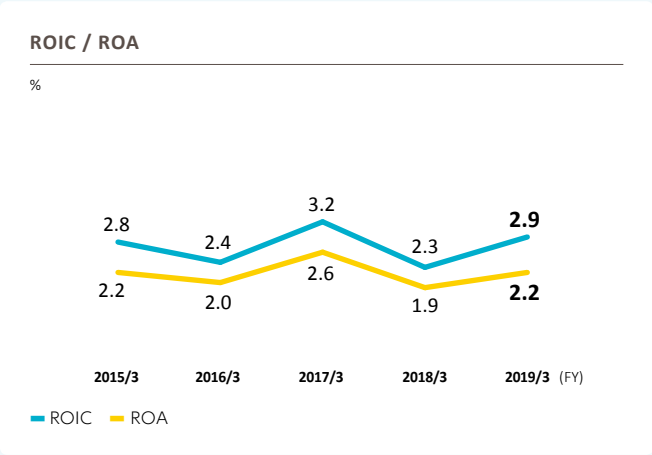
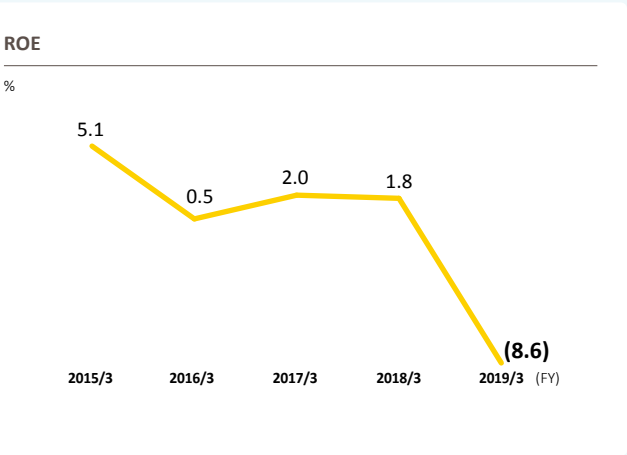
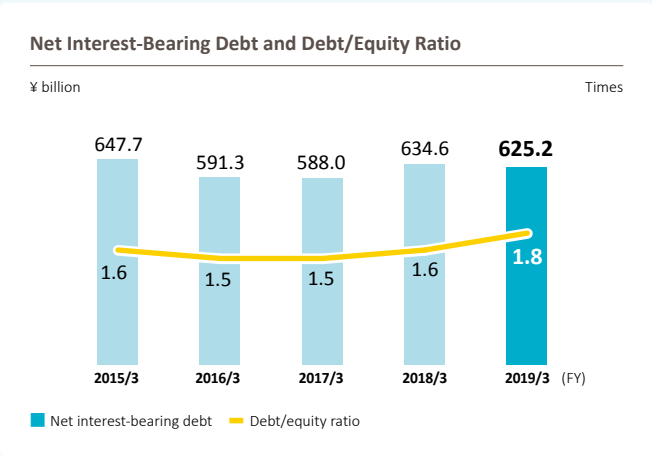
Consolidated cash and cash equivalents (“cash”) increased ¥4.4 billion compared with the end of FY2018/3, to ¥63.4 billion at the end of FY2019/3.

Net cash provided by operating activities increased ¥14.8 billion from FY2018/3, to ¥59.7 billion. The main factors were depreciation of ¥60.4 billion and net cash outflows of ¥22.7 billion due to changes in working capital (total changes in receivables, inventories, and payables).

Net cash used in investing activities decreased ¥15.2 billion from FY2018/3, to ¥47.4 billion. The main factors behind this result were ¥72.0 billion in purchases of noncurrent assets and ¥22.5 billion in proceeds from sales of investment securities.

Net cash used in financing activities decreased ¥5.8 billion from FY2018/3, to ¥6.7 billion, mainly reflecting cash dividends paid.

Trends in the Nippon Paper Group’s cash flow indicators are presented below.



Cash Flow Indicators

| | 2015/3 | 2016/3 | 2017/3 | 2018/3 | 2019/3 |
|---|--------|--------|--------|--------|--------|
| Equity ratio (%) | 32.5 | 30.3 | 31.0 | 30.6 | 27.7 |
| Equity ratio based on market capitalization (%) | 14.0 | 16.7 | 16.7 | 16.0 | 19.0 |
| Interest-bearing debt / Cash flow (times) | 8.9 | 13.4 | 7.8 | 15.4 | 11.5 |
| Interest coverage ratio (times) | 7.7 | 5.3 | 9.5 | 5.8 | 7.9 |

Notes:

- All indicators are calculated based on consolidated financial figures.
- Market capitalization is calculated by multiplying the closing share price at year-end by the number of shares outstanding at year-end, not including treasury shares.
- Calculations that include operating cash flow use cash flow from operating activities as recorded in the consolidated statements of cash flows. Interest-bearing debt includes all liabilities recorded on the consolidated balance sheets on which the Company is paying interest. Calculations that include interest paid use interest expense as recorded in the consolidated statements of cash flows.

- Equity ratio = (Year-end shareholders’ equity + Year-end accumulated other comprehensive income) / Year-end total assets × 100
- Equity ratio based on market capitalization = Market capitalization / Year-end total assets × 100
- Interest-bearing debt / Cash flow = Interest-bearing debt / Operating cash flow
- Interest coverage ratio = Operating cash flow / Interest paid

Business and Other Risk Factors

The Nippon Paper Group has identified the following factors as risks that could affect its business performance and financial position:

Product Demand and Market Conditions

The Nippon Paper Group engages in its mainstay paper and paperboard business, livelihood-related business, energy business, and wood products and construction related business. The Group is at risk of fluctuations in demand for its products and product prices in the context of economic conditions and other factors. Such fluctuations could affect the Group’s business performance and financial position.

Manufacturing Conditions

The Nippon Paper Group’s production activity is based on the estimated demand and production capacity of existing facilities. The Group carries out regular preventive inspections and other maintenance checks, but is at risk of a reduction in supply capability due to fires, accidents, and other problems occurring at facilities, and interruptions in procurement, as well as the delivery of raw materials and fuel. Such fluctuations could affect the Group’s business performance and financial position.

Foreign Exchange

The Nippon Paper Group is at risk of foreign exchange rate fluctuations associated with import and export transactions. Because the Group’s imports of raw materials and fuel such as wood chips, waste paper, heavy oil, coal, and chemicals, exceed its product exports, yen depreciation against the U.S. dollar has a negative impact on business performance. The Group hedges against this risk by means such as forward contracts.

Raw Material and Fuel Prices

The Nippon Paper Group purchases raw materials and fuel such as wood chips, waste paper, heavy oil, coal, and chemicals to manufacture and sell products including paper, pulp, and others. The Group is thus at risk of input price fluctuations in domestic and international markets. Such fluctuations could affect the Group’s business performance and financial position.

Stock Prices

The Nippon Paper Group holds marketable shares in partner and affiliated companies and is thus at risk of share price fluctuations that could affect the Group’s business performance and financial position. Such fluctuations could also affect retirement benefit expenses because of their impact on pension assets.

Interest Rates

The Nippon Paper Group is at risk of interest rate fluctuations affecting its interest expense regarding interest-bearing debt, etc. Such fluctuations could affect the Group’s business performance and financial position.

Overseas Business

The Nippon Paper Group manufactures pulp and paper and operates forestry plantations and other businesses in North America, South America, Scandinavia, China, Southeast Asia, Australia, and other overseas locations. Although the Group takes the utmost care to minimize overseas business risk, unforeseen circumstances in those locations could affect the Group’s business performance and financial position.

Litigation

The Nippon Paper Group takes the utmost care to comply with laws and regulations in the course of doing business, but is nonetheless at risk of litigation associated with criminal or civil affairs, taxation, antitrust law, product liability law, intellectual property rights, and environmental and labor issues. As a result, such litigation could affect the Group’s business performance and financial position.

Impairment of Fixed Assets

The Nippon Paper Group owns fixed assets such as production facilities and land and is at risk of a decline in the value of these assets, which could affect the Group’s business performance and financial position.

Natural Disasters

In the wake of major natural disasters, including earthquakes, occurring near production and sales sites, the Nippon Paper Group’s performance and financial position could be negatively affected by unanticipated costs associated with repairing damage to production equipment or facilities and distribution infrastructure, as well as opportunity losses from production shutdowns and damage to products, merchandise, and raw materials.

Credit Risk

The Nippon Paper Group takes care to limit its credit risk, but tardy or uncollectible receivables due to deterioration in the financial condition or bankruptcy of customers could affect the Group’s business performance and financial position.

Environment-Related Legal Risk

The Group is obligated to apply environment-related regulations in the course of doing business. Revisions and amendments to such regulations could limit production activities and result in additional costs, affecting the Group’s operating performance and financial condition.

Other Risks Associated with Changes in Business Conditions, etc.

The Nippon Paper Group is subject to the risk of changes in business and economic conditions and other similar circumstances arising from contingencies, which could affect the Group’s business performance and financial position.

Consolidated Financial Statements

Consolidated Balance Sheets

As of March 31, 2018 and 2019

| | | Millions of yen | Thousands of U.S. dollars |
|--|-------------|-----------------|---------------------------|
| | FY2018/3 | FY2019/3 | FY2019/3 |
| Assets | | | |
| Current assets | | | |
| Cash and deposits | ¥ 59,003 | ¥ 63,455 | \$ 571,667 |
| Notes and accounts receivable–trade | 220,766 | 234,671 | 2,114,153 |
| Merchandise and finished goods | 82,180 | 87,025 | 784,009 |
| Work in process | 17,176 | 20,518 | 184,847 |
| Raw materials and supplies | 66,541 | 70,351 | 633,793 |
| Other | 45,323 | 39,933 | 359,757 |
| Allowance for doubtful receivables | (511) | (550) | (4,955) |
| Total current assets | 490,479 | 515,407 | 4,643,306 |
| Noncurrent assets | | | |
| Property, plant and equipment | | | |
| Buildings and structures | 499,132 | 504,094 | 4,541,387 |
| Accumulated depreciation | (360,867) | (368,097) | (3,316,189) |
| Buildings and structures, net | 138,264 | 135,997 | 1,225,198 |
| Machinery, equipment and vehicles | 2,224,884 | 2,217,462 | 19,977,135 |
| Accumulated depreciation | (1,912,493) | (1,930,080) | (17,388,108) |
| Machinery, equipment and vehicles, net | 312,390 | 287,382 | 2,589,027 |
| Land | 218,318 | 199,435 | 1,796,712 |
| Mountain forests and plantations | 27,508 | 26,146 | 235,550 |
| Construction in progress | 15,721 | 22,096 | 199,063 |
| Other | 45,823 | 47,230 | 425,495 |
| Accumulated depreciation | (40,099) | (40,674) | (366,432) |
| Other, net | 5,724 | 6,555 | 59,054 |
| Total property, plant and equipment | 717,927 | 677,613 | 6,104,622 |
| Intangible assets | 13,868 | 11,137 | 100,333 |
| Investments and other assets | | | |
| Investments in securities | 178,550 | 159,198 | 1,434,216 |
| Net defined benefit assets | 6,048 | 6,215 | 55,991 |
| Deferred tax assets | 5,508 | 4,492 | 40,468 |
| Other | 18,034 | 17,452 | 157,225 |
| Allowance for doubtful receivables | (524) | (703) | (6,333) |
| Total investments and other assets | 207,616 | 186,655 | 1,681,577 |
| Total noncurrent assets | 939,412 | 875,406 | 7,886,541 |
| Total assets | ¥ 1,429,892 | ¥ 1,390,814 | \$ 12,529,856 |

| | | Millions of yen | Thousands of U.S. dollars |
|---|------------|-----------------|---------------------------|
| | FY2018/3 | FY2019/3 | FY2019/3 |
| Liabilities | | | |
| Current liabilities | | | |
| Notes and account payable–trade | ¥ 142,275 | ¥ 145,132 | \$ 1,307,495 |
| Short-term loans payable | 288,063 | 224,227 | 2,020,063 |
| Current portion of bonds | — | 10,000 | 90,090 |
| Accrued income taxes | 1,968 | 5,156 | 46,450 |
| Other | 97,409 | 93,349 | 840,982 |
| Total current liabilities | 529,717 | 477,866 | 4,305,099 |
| Long-term liabilities | | | |
| Bonds payable | 60,000 | 50,000 | 450,450 |
| Long-term loans payable | 343,334 | 401,474 | 3,616,883 |
| Deferred tax liability | 29,565 | 27,600 | 248,649 |
| Allowance for environmental costs | 314 | 14,780 | 133,153 |
| Net defined benefit liability | 12,925 | 13,776 | 124,108 |
| Other | 10,635 | 9,970 | 89,820 |
| Total long-term liabilities | 456,776 | 517,603 | 4,663,090 |
| Total liabilities | 986,493 | 995,470 | 8,968,198 |
| Net assets | | | |
| Shareholders' equity | | | |
| Common stock | 104,873 | 104,873 | 944,802 |
| Capital surplus | 216,420 | 216,414 | 1,949,676 |
| Retained earnings | 73,506 | 35,265 | 317,703 |
| Treasury stock, at cost | (1,414) | (1,427) | (12,856) |
| Total shareholders' equity | 393,386 | 355,125 | 3,199,324 |
| Accumulated other comprehensive income | | | |
| Net unrealized holding gain on other securities | 23,243 | 21,274 | 191,658 |
| Net deferred gain (loss) on hedges | (1,566) | (2,283) | (20,568) |
| Translation adjustments | 23,338 | 15,419 | 138,910 |
| Remeasurements of defined benefit plans | (1,376) | (4,377) | (39,432) |
| Total accumulated other comprehensive income | 43,638 | 30,033 | 270,568 |
| Non-controlling interests | 6,373 | 10,184 | 91,748 |
| Total net assets | 443,398 | 395,343 | 3,561,649 |
| Total liabilities and net assets | ¥1,429,892 | ¥1,390,814 | \$12,529,856 |

Consolidated Financial Statements

Consolidated Statements of Operations

Fiscal Years Ended March 31, 2018 and 2019

| | | Millions of yen | Thousands of U.S. dollars |
|--|------------|-----------------|---------------------------|
| | FY2018/3 | FY2019/3 | FY2019/3 |
| Net sales | ¥1,046,499 | ¥1,068,703 | \$9,627,955 |
| Cost of sales | 846,109 | 871,218 | 7,848,811 |
| Gross profit | 200,390 | 197,485 | 1,779,144 |
| Selling, general and administrative expenses | | | |
| Freightage related expenses | 66,670 | 66,169 | 596,117 |
| Sales related expenses | 53,429 | 49,571 | 446,586 |
| Salaries and allowances | 36,232 | 34,499 | 310,802 |
| Other | 26,444 | 27,629 | 248,910 |
| Total selling, general and administrative expenses | 182,776 | 177,870 | 1,602,432 |
| Operating income | 17,613 | 19,615 | 176,712 |
| Other income | | | |
| Interest income | 528 | 444 | 4,000 |
| Dividend income | 2,055 | 2,066 | 18,613 |
| Equity in earnings of affiliates | 5,731 | 10,641 | 95,865 |
| Commissioning electricity sales revenue | 2,709 | — | — |
| Other | 4,246 | 4,501 | 40,550 |
| Total other income | 15,271 | 17,655 | 159,054 |
| Other expenses | | | |
| Interest expenses | 7,826 | 7,391 | 66,586 |
| Foreign exchange losses | 838 | 1,707 | 15,378 |
| Commissioning costs | 2,448 | — | — |
| Other | 3,121 | 4,269 | 38,459 |
| Total other expenses | 14,235 | 13,368 | 120,432 |
| Ordinary income | 18,649 | 23,901 | 215,324 |
| Extraordinary income | | | |
| Gain on sales of investment securities | 2,414 | 3,106 | 27,982 |
| Gain on sales of property, plant and equipment | 2,637 | 1,987 | 17,901 |
| Gain on contribution of securities to retirement benefit trust | 6,923 | — | — |
| Other | 80 | 90 | 811 |
| Total extraordinary income | 12,055 | 5,185 | 46,712 |
| Extraordinary loss | | | |
| Loss on reorganization of production structure | — | 18,330 | 165,135 |
| Impairment loss | 4,797 | 14,252 | 128,396 |
| Provision for environmental measures | — | 13,700 | 123,423 |
| Loss on retirement of noncurrent assets | 2,433 | 2,088 | 18,811 |
| Other | 5,142 | 8,359 | 75,306 |
| Total extraordinary loss | 12,373 | 56,730 | 511,081 |
| Profit (loss) before income taxes | 18,332 | (27,644) | (249,045) |
| Income taxes—current | 1,106 | 4,454 | 40,126 |
| Income taxes—deferred | 10,430 | 644 | 5,802 |
| Total income taxes | 11,536 | 5,098 | 45,928 |
| Income (loss) before minority interests | 6,795 | (32,742) | (294,973) |
| Profit (loss) attribute able to non-controlling interests | (1,051) | 2,477 | 22,315 |
| Profit (loss) attributable to owners of parent | ¥ 7,847 | ¥ (35,220) | \$ (317,297) |

Consolidated Statements of Comprehensive Income

Fiscal Years Ended March 31, 2018 and 2019

| | | Millions of yen | Thousands of U.S. dollars |
|---|----------|-----------------|---------------------------|
| | FY2018/3 | FY2019/3 | FY2019/3 |
| Income (loss) before minority interests | ¥ 6,795 | ¥(32,742) | \$(294,973) |
| Other comprehensive income (loss) | | | |
| Net unrealized holding gain (loss) on other securities | 792 | (1,718) | (15,477) |
| Net deferred gain (loss) on hedges | (1,167) | (189) | (1,703) |
| Translation adjustments | 1,734 | (7,124) | (64,180) |
| Remeasurements of defined benefit plans, net of tax | 5,349 | (3,000) | (27,027) |
| Share of other comprehensive income of affiliates accounted for using the equity method | 1,781 | (1,062) | (9,568) |
| Total other comprehensive income (loss) | 8,489 | (13,096) | (117,982) |
| Comprehensive income (loss) | ¥15,285 | ¥(45,838) | \$(412,955) |
| (Details) | | | |
| Comprehensive income (loss) attributable to owners of parent | ¥16,255 | ¥(48,825) | \$(439,865) |
| Comprehensive income (loss) attributable to non-controlling interests | (970) | 2,986 | 26,901 |

Consolidated Financial Statements

Consolidated Statements of Changes in Net Assets

Fiscal Years Ended March 31, 2018 and 2019

| | Number of shares of issued common stock (Shares) | Shareholders' equity | | | | |
|--|--|----------------------|-----------------|-------------------|-------------------------|----------------------------|
| | | Common stock | Capital surplus | Retained earnings | Treasury stock, at cost | Total shareholders' equity |
| Balance at April 1, 2017 | 116,254,892 | ¥104,873 | ¥216,531 | ¥ 73,479 | ¥(1,398) | ¥393,486 |
| Changes of items during the period | | | | | | |
| Cash dividends paid | | | | (6,946) | | (6,946) |
| Profit attributable to owners of parent | | | | 7,847 | | 7,847 |
| Purchase of treasury stock | | | | | (18) | (18) |
| Disposition of treasury stock | | | (0) | | 1 | 1 |
| Changes in scope of consolidation | | | | (1,201) | | (1,201) |
| Change in scope of equity method | | | | 328 | | 328 |
| Change in ownership interest of parent due to transactions with non-controlling interests | | | (110) | | | (110) |
| Changes in items other than shareholders' equity, net | | | | | | |
| Total changes of items during the period | | | (110) | 27 | (16) | (100) |
| Balance at March 31, 2018 | 116,254,892 | ¥104,873 | ¥216,420 | ¥ 73,506 | ¥(1,414) | ¥393,386 |
| Balance at April 1, 2018 | 116,254,892 | ¥104,873 | ¥216,420 | ¥ 73,506 | ¥(1,414) | ¥393,386 |
| Changes of items during the period | | | | | | |
| Cash dividends paid | | | | (3,473) | | (3,473) |
| Profit (loss) attributable to owners of parent | | | | (35,220) | | (35,220) |
| Purchase of treasury stock | | | | | (13) | (13) |
| Disposition of treasury stock | | | (0) | | 0 | 0 |
| Changes in scope of consolidation | | | | 452 | | 452 |
| Change in ownership interest of parent due to transactions with non-controlling interests | | | | | 0 | 0 |
| Change in treasury stock due to changes in equity in affiliates accounted for by equity method | | | (6) | | | (6) |
| Changes in items other than shareholders' equity, net | | | | | | |
| Total changes of items during the period | | — | (6) | (38,240) | (13) | (38,260) |
| Balance at March 31, 2019 | 116,254,892 | ¥104,873 | ¥216,414 | ¥ 35,265 | ¥(1,427) | ¥355,125 |

| | Shareholders' equity | | | | |
|--|----------------------|-----------------|-------------------|-------------------------|----------------------------|
| | Common stock | Capital surplus | Retained earnings | Treasury stock, at cost | Total shareholders' equity |
| Balance at April 1, 2018 | \$944,802 | \$1,949,730 | \$ 662,216 | \$(12,739) | \$3,544,018 |
| Changes of items during the period | | | | | |
| Cash dividends paid | | | (31,288) | | (31,288) |
| Profit (loss) attributable to owners of parent | | | (317,297) | | (317,297) |
| Purchase of treasury stock | | | | (117) | (117) |
| Disposition of treasury stock | | (0) | | 0 | 0 |
| Changes in scope of consolidation | | | 4,072 | | 4,072 |
| Change in ownership interest of parent due to transactions with non-controlling interests | | | | 0 | 0 |
| Change in treasury stock due to changes in equity in affiliates accounted for by equity method | | (54) | | | (54) |
| Changes in items other than shareholders' equity, net | | | | | |
| Total changes of items during the period | — | (54) | (344,505) | (117) | (344,685) |
| Balance at March 31, 2019 | \$944,802 | \$1,949,676 | \$ 317,703 | \$(12,856) | \$3,199,324 |

| Millions of yen | | | | | | |
|---|------------------------------------|-------------------------|---|--|---------------------------|------------------|
| Accumulated other comprehensive income | | | | | Non-controlling interests | Total net assets |
| Net unrealized holding gain on other securities | Net deferred gain (loss) on hedges | Translation adjustments | Remeasurements of defined benefit plans, net of tax | Total accumulated other comprehensive income | | |
| ¥22,249 | ¥ 626 | ¥20,260 | ¥(6,702) | ¥ 36,434 | ¥ 4,990 | ¥434,911 |
| | | | | | | |
| | | | | | | (6,946) |
| | | | | | | 7,847 |
| | | | | | | (18) |
| | | | | | | 1 |
| | | | | | | (1,201) |
| | | | | | | 328 |
| | | | | | | (110) |
| 993 | (2,192) | 3,077 | 5,325 | 7,204 | 1,382 | 8,587 |
| 993 | (2,192) | 3,077 | 5,325 | 7,204 | 1,382 | 8,486 |
| ¥23,243 | ¥(1,566) | ¥23,338 | ¥(1,376) | ¥ 43,638 | ¥ 6,373 | ¥443,398 |
| ¥23,243 | ¥(1,566) | ¥23,338 | ¥(1,376) | ¥ 43,638 | ¥ 6,373 | ¥443,398 |
| | | | | | | |
| | | | | | | (3,473) |
| | | | | | | (35,220) |
| | | | | | | (13) |
| | | | | | | 0 |
| | | | | | | 452 |
| | | | | | | 0 |
| | | | | | | (6) |
| (1,968) | (717) | (7,918) | (3,000) | (13,605) | 3,811 | (9,793) |
| (1,968) | (717) | (7,918) | (3,000) | (13,605) | 3,811 | (48,054) |
| ¥21,274 | ¥(2,283) | ¥15,419 | ¥(4,377) | ¥ 30,033 | ¥10,184 | ¥395,343 |

| Thousands of U.S. dollars | | | | | | |
|---|------------------------------------|-------------------------|---|--|---------------------------|------------------|
| Accumulated other comprehensive income | | | | | Non-controlling interests | Total net assets |
| Net unrealized holding gain on other securities | Net deferred gain (loss) on hedges | Translation adjustments | Remeasurements of defined benefit plans, net of tax | Total accumulated other comprehensive income | | |
| \$209,396 | \$(14,108) | \$210,252 | \$(12,396) | \$ 393,135 | \$57,414 | \$3,994,577 |
| | | | | | | |
| | | | | | | (31,288) |
| | | | | | | (317,297) |
| | | | | | | (117) |
| | | | | | | 0 |
| | | | | | | 4,072 |
| | | | | | | 0 |
| | | | | | | (54) |
| (17,730) | (6,459) | (71,333) | (27,027) | (122,568) | 34,333 | (88,225) |
| (17,730) | (6,459) | (71,333) | (27,027) | (122,568) | 34,333 | (432,919) |
| \$191,658 | \$(20,568) | \$138,910 | \$(39,432) | \$ 270,568 | \$91,748 | \$3,561,649 |

Consolidated Financial Statements

Consolidated Statements of Cash Flows

Fiscal Years Ended March 31, 2018 and 2019

| | | Millions of yen | Thousands of U.S. dollars |
|--|----------|-----------------|---------------------------|
| | FY2018/3 | FY2019/3 | FY2019/3 |
| Operating activities | | | |
| Profit (loss) before income taxes | ¥ 18,332 | ¥(27,644) | \$(249,045) |
| Depreciation | 57,892 | 60,422 | 544,342 |
| Amortization of goodwill | 2,049 | 2,036 | 18,342 |
| Increase (decrease) in allowance for doubtful receivables | (143) | 100 | 901 |
| Increase (decrease) in net defined benefit liability | (1,822) | (3,763) | (33,901) |
| Increase (decrease) in allowance for environmental costs | (66) | 14,466 | 130,324 |
| Interest and dividend income | (2,583) | (2,511) | (22,622) |
| Interest expense | 7,826 | 7,391 | 66,586 |
| Equity in (earnings) losses of affiliates | (5,731) | (10,641) | (95,865) |
| Loss (gain) on foreign exchange | (216) | 2,673 | 24,081 |
| Loss (gain) on sales of investment securities | (2,414) | (3,106) | (27,982) |
| Loss (gain) on valuation of investment securities | 1,731 | 625 | 5,631 |
| Gain on contribution of securities to retirement benefit trust | (6,923) | — | — |
| Impairment loss | 4,797 | 14,252 | 128,396 |
| Loss on disposal of noncurrent assets | 2,433 | 2,088 | 18,811 |
| Loss on reorganization of production structure | — | 18,330 | 165,135 |
| Decrease (increase) in receivables | (19,641) | (13,594) | (122,468) |
| Decrease (increase) in inventories | (6,808) | (11,821) | (106,495) |
| Increase (decrease) in payables | 12,942 | 2,633 | 23,721 |
| Other | (1,755) | 7,824 | 70,486 |
| Subtotal | 59,896 | 59,761 | 538,387 |
| Interest and dividends received | 4,524 | 5,072 | 45,694 |
| Interest paid | (7,800) | (7,606) | (68,523) |
| Payments for supplementary retirement benefits | — | (389) | (3,505) |
| Income taxes paid | (11,677) | 2,923 | 26,333 |
| Net cash provided by (used in) operating activities | ¥ 44,944 | ¥ 59,760 | \$ 538,378 |

| | | Millions of yen | Thousands of U.S. dollars |
|--|-----------|-----------------|---------------------------|
| | FY2018/3 | FY2019/3 | FY2019/3 |
| Investing activities | | | |
| Purchases of noncurrent assets | ¥(67,981) | ¥(72,022) | \$ (648,847) |
| Proceeds from sales of noncurrent assets | 4,214 | 3,813 | 34,351 |
| Purchases of investments in other securities | (1,493) | (1,294) | (11,658) |
| Proceeds from sales of investments securities | 10,319 | 22,559 | 203,234 |
| Payments for business withdrawal | (6,890) | (90) | (811) |
| Decrease (increase) in short-term loans receivable | (150) | 413 | 3,721 |
| Payments of long-term loans receivable | (96) | (699) | (6,297) |
| Collection of long-term loans receivable | 132 | 130 | 1,171 |
| Other | (785) | (271) | (2,441) |
| Net cash provided by (used in) investing activities | (62,731) | (47,461) | (427,577) |
| Financing activities | | | |
| Increase (decrease) in short-term loans payable | (778) | (62,133) | (559,757) |
| Proceeds from long-term loans payable | 53,556 | 129,239 | 1,164,315 |
| Repayment of long-term loans payable | (58,396) | (70,030) | (630,901) |
| Proceeds from issuance of bonds | 10,000 | — | — |
| Redemption of bonds | (10,000) | — | — |
| Purchase of treasury shares | (18) | (13) | (117) |
| Proceeds from share issuance to non-controlling shareholders | 930 | 660 | 5,946 |
| Cash dividends paid | (6,939) | (3,480) | (31,351) |
| Dividends paid to non-controlling interests | (0) | (2) | (18) |
| Finance lease principal payments | (898) | (959) | (8,640) |
| Other | (3) | (0) | (0) |
| Net cash provided by (used in) financing activities | (12,548) | (6,720) | (60,541) |
| Effect of exchange rate changes on cash and cash equivalents | (1,305) | (1,135) | (10,225) |
| Increase (decrease) in cash and cash equivalents | (31,641) | 4,443 | 40,027 |
| Cash and cash equivalents at beginning of year | 90,514 | 59,003 | 531,559 |
| Increase due to inclusion of certain subsidiaries in consolidation | 130 | 8 | 72 |
| Cash and cash equivalents at end of period | ¥ 59,003 | ¥ 63,455 | \$ 571,667 |

Consolidated Subsidiaries and Equity-Method Affiliates

(As of March 31, 2019)

Consolidated Subsidiaries

| Paper and paperboard business | Capital or Investment (¥ million) | Location | Share of Voting Rights (%) |
|--|-----------------------------------|----------------------------|----------------------------|
| Nippon Tokai Industrial Paper Supply Co., Ltd. | 350 | Japan | 65.00 |
| Nippon Paper Papylia Co., Ltd. | 3,949 | Japan | 100.00 |
| Paper Australia Pty. Ltd. (and its seven subsidiaries) | (AUD1,000) 662,280 | Australia | 100.00 |
| Jujo Thermal Oy | (EUR1,000) 7,651 | Finland | 100.00 |
| Siam Nippon Industrial Paper Co., Ltd. | (THB1,000) 1,100,000 | Thailand | 55.00 |
| Daishowa North America Corporation | (CAD1,000) 165,800 | Canada | 100.00 |
| Nippon Paper Industries USA Co., Ltd. | (USD1,000) 53 | U.S.A. | 100.00 |
| NP Trading Co., Ltd. | 1,000 | Japan | 100.00 |
| Kitakami Paper Co., Ltd. | 300 | Japan | 99.85 |
| Kokuei Paper Co., Ltd. | 100 | Japan | 100.00 |
| SUN-OAK CO., LTD. | 75 | Japan | 100.00 |
| Dyna Wave Holding Asia | (HKD1,000) 1 | The British Cayman Islands | 100.00 |

| Daily-life products business | Capital or Investment (¥ million) | Location | Share of Voting Rights (%) |
|--|-----------------------------------|----------|----------------------------|
| Nippon Paper Crecia Co., Ltd. | 3,067 | Japan | 100.00 |
| Crecia-Kasuga Co., Ltd. | 450 | Japan | 80.00 |
| Nippon Dynawave Packaging Company, LCC | (USD1,000) 200,000 | U.S.A. | 100.00 |
| Flowric Co., Ltd. | 172 | Japan | 100.00 |
| Nippon Seitai Corporation | 424 | Japan | 100.00 |
| Kyoei Seitai K.K. | 40 | Japan | 60.19 |

| Energy business | Capital or Investment (¥ million) | Location | Share of Voting Rights (%) |
|--|-----------------------------------|----------|----------------------------|
| Nippon Paper Ishinomaki Energy Center Ltd. | 6,000 | Japan | 70.00 |

| Wood products and construction related business | Capital or Investment (¥ million) | Location | Share of Voting Rights (%) |
|--|-----------------------------------|-----------|----------------------------|
| Nippon Paper Lumber Co., Ltd. | 440 | Japan | 100.00 |
| N&E Co., Ltd. | 450 | Japan | 70.00 |
| Daishowa Uniboard Co., Ltd. | 490 | Japan | 100.00 |
| Nanei Co., Ltd. | 30 | Japan | 100.00 |
| Nichimoku Fancy Materials Co., Ltd. | 50 | Japan | 100.00 |
| Amapá Florestal e Celulose S.A. (and its one subsidiary) | (BRL1,000) 329,144 | Brazil | 100.00 |
| Nippon Paper Resources Australia Pty. Ltd. | (AUD1,000) 26,500 | Australia | 100.00 |
| IWAKUNI-KAIUN CO., LTD. | 20 | Japan | 100.00 |
| NIPPON PAPER UNITEC CO., LTD. | 40 | Japan | 100.00 |
| Kokusaku Kiko Co., Ltd. | 60 | Japan | 100.00 |
| Nippon Paper Ishinomaki Technology Co., Ltd. | 40 | Japan | 100.00 |

| Other businesses | Capital or Investment (¥ million) | Location | Share of Voting Rights (%) |
|------------------------------------|-----------------------------------|----------|----------------------------|
| Nippon Paper Logistics Co., Ltd. | 10 | Japan | 100.00 |
| NIPPON PAPER LOGISTICS CO., LTD. | 70 | Japan | 100.00 |
| Nanko Unyu Co., Ltd. | 160 | Japan | 100.00 |
| Kyokushin Transport Corporation | 80 | Japan | 100.00 |
| Sakurai Co., Ltd. | 120 | Japan | 54.77 |
| Hotoku Co., Ltd. | 25 | Japan | 100.00 |
| GAC CO., LTD. | 48 | Japan | 100.00 |
| Nippon Paper Development Co., Ltd. | 710 | Japan | 100.00 |

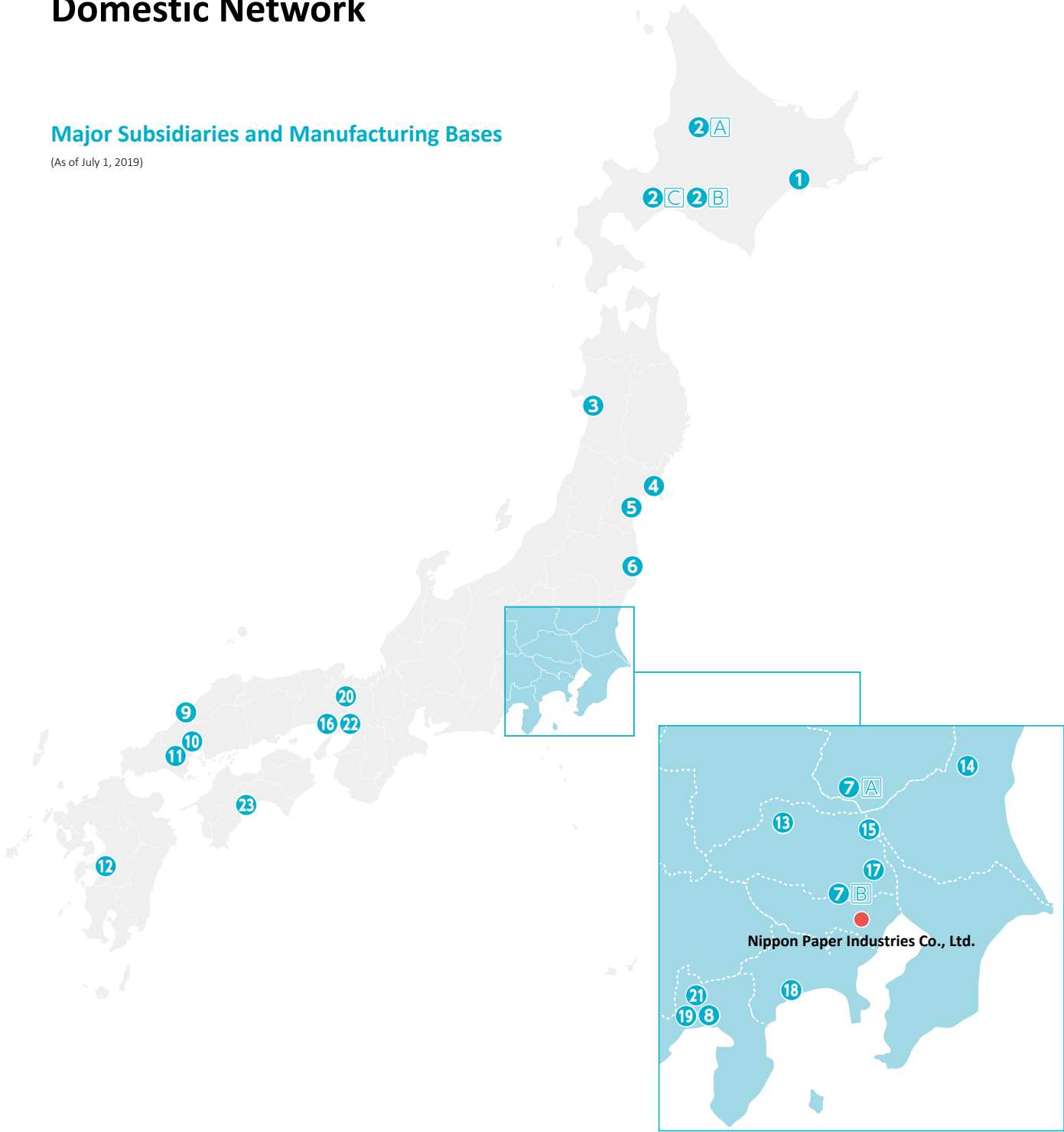
Equity-Method Affiliates

| | Capital or Investment (¥ million) | Location | Share of Voting Rights (%) |
|---|-----------------------------------|----------|----------------------------|
| Shin Tokai Paper Co., Ltd. | 3,135 | Japan | 35.00 |
| KYODO PAPER HOLDINGS CO., LTD. | 2,381 | Japan | 31.05 |
| Phoenix Pulp & Paper Public Company Ltd. | (THB1,000) 2,462,811 | Thailand | 30.00 |
| Daishowa Paper Converting Co., Ltd. | 235 | Japan | 44.68 |
| DIXIE JAPAN LTD. | 100 | Japan | 44.41 |
| Nippon Tokan Package Co., Ltd. | 700 | Japan | 45.00 |
| LINTEC Corporation | 23,220 | Japan | 30.98 |
| Nippon Paper Mega Solar Komatsushima, LLC | 1 | Japan | 50.00 |
| Suzukawa Energy Center Ltd. | 1,298 | Japan | 20.00 |
| CHIYODA SVAC CO., LTD. | 200 | Japan | 32.50 |

Domestic Network

Major Subsidiaries and Manufacturing Bases

(As of July 1, 2019)



Nippon Paper Industries Co., Ltd.
4-6, Kanda-Surugadai, Chiyoda-ku, Tokyo
101-0062, Japan
Tel: +81-3-6665-1111 Fax: +81-3-6665-0300

Nippon Paper Industries Co., Ltd.
Chemical Sales Division

Nippon Paper Liquid Package Product Co., Ltd.

Nippon Paper Crecia Co., Ltd.
4-6, Kanda-Surugadai, Chiyoda-ku, Tokyo
101-0062, Japan
Tel: +81-3-6665-5300 Fax: +81-3-6665-0370

Nippon Paper Papylia Co., Ltd.
4-6, Kanda-Surugadai, Chiyoda-ku, Tokyo
101-0062, Japan
Tel: +81-3-6665-5800 Fax: +81-3-3251-1878

NP Trading Co., Ltd.
4-6, Kanda-Surugadai, Chiyoda-ku, Tokyo
101-0062, Japan
Tel: +81-3-6665-7032

Nippon Paper Lumber Co., Ltd.
4-6, Kanda-Surugadai, Chiyoda-ku, Tokyo
101-0062, Japan
Tel: +81-3-6665-7500 Fax: +81-3-6665-0390

Nippon Paper Development Co., Ltd.
1-1-9, Horifune, Kita-ku, Tokyo
114-8555, Japan
Tel: +81-3-3914-6161 Fax: +81-3-3914-3706

- 1 Kushiro Mill (Hokkaido)
- 2 Hokkaido Mill (Hokkaido)
- 2A Asahikawa
- 2B Yufutsu
- 2C Shiraoi
- 3 Akita Mill (Akita)
- 4 Ishinomaki Mill (Miyagi)
- 5 Iwanuma Mill (Miyagi)
- 6 Nakoso Mill (Fukushima)
- 7 Kanto Mill (Tochigi / Saitama)
- 7A Ashikaga
- 7B Soka
- 8 Fuji Mill (Shizuoka)
- 9 Gotsu Mill (Shimane)
- 10 Otake Mill (Hiroshima)
- 11 Iwakuni Mill (Yamaguchi)
- 12 Yatsushiro Mill (Kumamoto)

- 13 Higashimatsuyama Mill (Saitama)

- 14 Ishioka Mill (Ibaraki)
- 15 Egawa Mill (Ibaraki)
- 16 Miki Mill (Hyogo)

- 17 Tokyo Mill (Saitama)
- 18 Kaisei Mill (Kanagawa)
- 19 Koyo Mill (Shizuoka)
- 20 Kyoto Mill (Kyoto)

- 21 Harada Mill (Shizuoka)
- 22 Suita Mill (Osaka)
- 23 Kochi Mill (Kochi)

Overseas Network

Major Overseas Subsidiaries and Affiliates (As of July 1, 2019)

Asia



- 1 Everwealth Paper Industries (Shanghai) Co., Ltd.
Shanghai, China
- 2 Nippon Paper Industries Trading (Shanghai) Co., Ltd.
Shanghai, China
- 3 Beijing Office
Beijing, China
- 4 Paper Products Marketing (Singapore) Pte. Ltd.
Singapore
- 5 Paper Products Marketing (Malaysia Branch) Pte. Ltd.
Selangor, Malaysia
- 6 Paper Products Marketing (Hong Kong) Ltd.
Hong Kong
- 7 Paper Products Marketing (Taiwan) Ltd.
Taipei, Taiwan
- 8 NP Trading Co., (H.K.) Ltd.
Hong Kong
- 9 NP Trading (Bangkok) Co., Ltd.
Bangkok, Thailand
- 10 NP INTERNATIONAL (S) PTE. LTD.
Singapore

- 11 Siam Nippon Industrial Paper Co., Ltd.
Ban Pong, Thailand
- 12 Ky Vy Corporation
Ho Chi Minh City, Vietnam
- 13 Nippon Paper Viet Hoa My JSC
Ho Chi Minh City, Vietnam
- 14 Nippon Paper Foodpac Pvt. Ltd.
Mumbai, India
- 15 TS Plastics Sdn. Bhd.
Perak, Malaysia

Oceania



- 1 Nippon Paper Resources Australia Pty. Ltd.
Mt Waverley, Victoria, Australia
- 2 Paper Australia Pty. Ltd.
Mt Waverley, Victoria, Australia
- 3 Paper Products Marketing Pty. Ltd.
Mt Waverley, Victoria, Australia

North and South America



- 1 Nippon Dynawave Packaging Co.
Longview, WA, U.S.A.
- 2 Daishowa North America Corporation
Vancouver, B.C., Canada
- 3 Paper Products Marketing (USA) Inc.
Portland, OR, U.S.A.
- 4 Volterra S.A.
Concepción, Chile
- 5 Amapá Florestal e Celulose S.A.
Santana, Amapá, Brazil

Europe



- 1 Jujo Thermal Oy
Kauttua, Finland
- 2 Paper Products Marketing Europe GmbH
Neuss, Germany

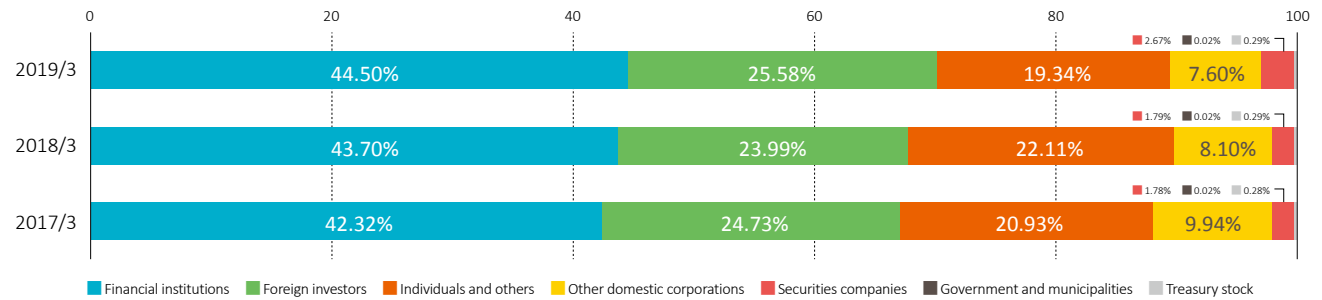
Company Profile / Stock Information (As of March 31, 2019)

| | |
|------------------------|---|
| Company Name | Nippon Paper Industries Co., Ltd. |
| Head Office | 4-6, Kanda-Surugadai, Chiyoda-ku, Tokyo 101-0062, Japan |
| Establishment | August 1, 1949 |
| Number of Employees | 5,671 non-consolidated 12,943 consolidated |
| Capital | ¥104,873 million |
| Shares | Number of shares authorized to be issued 300,000,000 shares Number of shares issued 116,254,892 shares (including 343,458 shares of treasury stock) |
| Number of Shareholders | 82,192 |

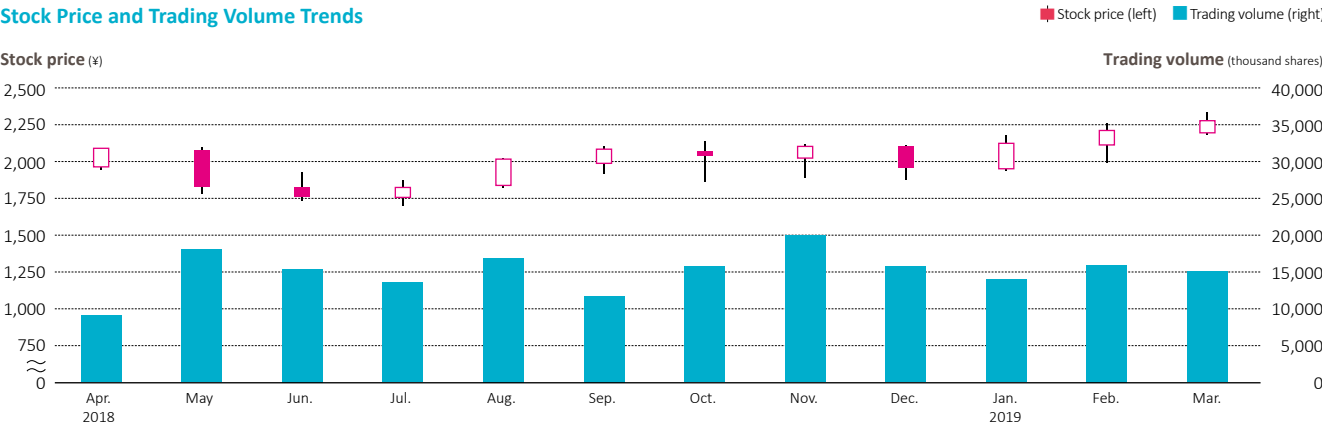
| Major Shareholders | Name | Shares Held | Shareholding Ratio (%)* |
|--------------------|--|-------------|-------------------------|
| | Ichigo Trust Pte. Ltd. | 11,739,700 | 10.13 |
| | Japan Trustee Services Bank, Ltd. (Trust Account) | 10,411,674 | 8.98 |
| | The Master Trust Bank of Japan, Ltd. (Trust Account) | 7,111,800 | 6.14 |
| | Mizuho Bank, Ltd. | 4,341,855 | 3.75 |
| | Nippon Paper Industries Co., Ltd. Employee Share Ownership | 3,039,229 | 2.62 |
| | Japan Trustee Services Bank, Ltd. (Trust Account 9) | 2,724,300 | 2.35 |
| | Nippon Life Insurance Company | 2,473,165 | 2.13 |
| | Mitsui Life Insurance Company Limited | 2,258,900 | 1.95 |
| | Sumitomo Mitsui Banking Corporation | 1,993,846 | 1.72 |
| | Japan Trustee Services Bank, Ltd. (Trust Account 5) | 1,840,400 | 1.59 |

* The shareholding ratio was calculated after deducting 343,458 shares of treasury stock.

Percentage of Shares Held by Shareholder Type



Stock Price and Trading Volume Trends



Overview of Our Disclosure System

This report contains a summary of information of particularly high importance on the corporate value of the Nippon Paper Group. More detailed information is provided on our website.

