

A Brief Look at the Nippon Paper Group

Scale of Business

(as of March 31, 2021)

Consolidated total assets

¥1,547.3 billion

Net sales

¥1,007.3 billion
(FY2021/3)

Operating income

¥19.2 billion
(FY2021/3)Number of employees
(consolidated)**16,156**

Diverse Businesses and Products

Paper and
Paperboard

Packaging

Household Paper
and Healthcare

Chemical

New Materials
(Cellulose nanofiber, etc.)

Energy

Wood Products and
Construction-Related

Leisure, etc.

Managed Forest Area

(as of December 31, 2020)

Approx. **170,000** hectares

(Domestic Company-owned forests)

Approx. **90,000** hectares /Approx. **400** locations

(Overseas afforested areas)

Approx. **80,000** hectares

Number of Group Companies

(as of March 31, 2021)

Total

161

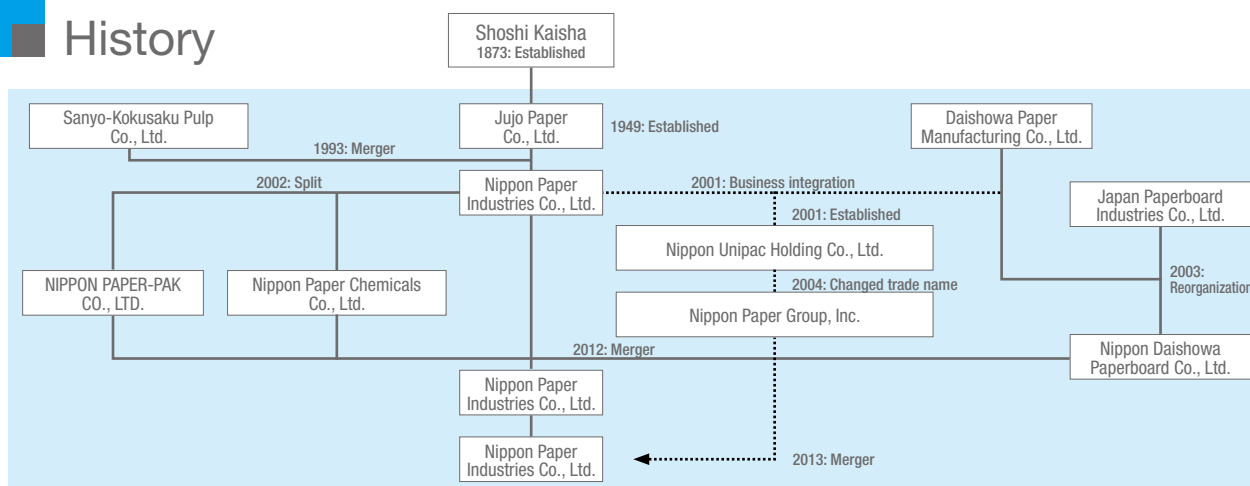
(Domestic affiliated companies)

118

(Overseas affiliated companies)

43

History



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

Value

Challenge, Fairness, Teamwork

Slogan

Shaping the Future with Trees ~ Nippon Paper Group ~

Constantly creating new value and contributing to better living and cultural progress, as a comprehensive biomass company shaping the future with trees.

Over many years, we have nurtured trees, made paper, and offered a wide range of products that support people's lives and culture.

We have managed forests in an appropriate manner, and pursued a variety of businesses by fully utilizing wood resources out of sustainably managed forests. Those businesses address social issues such as global warming and depletion of resources on Earth, and contribute to running a sustainable society.

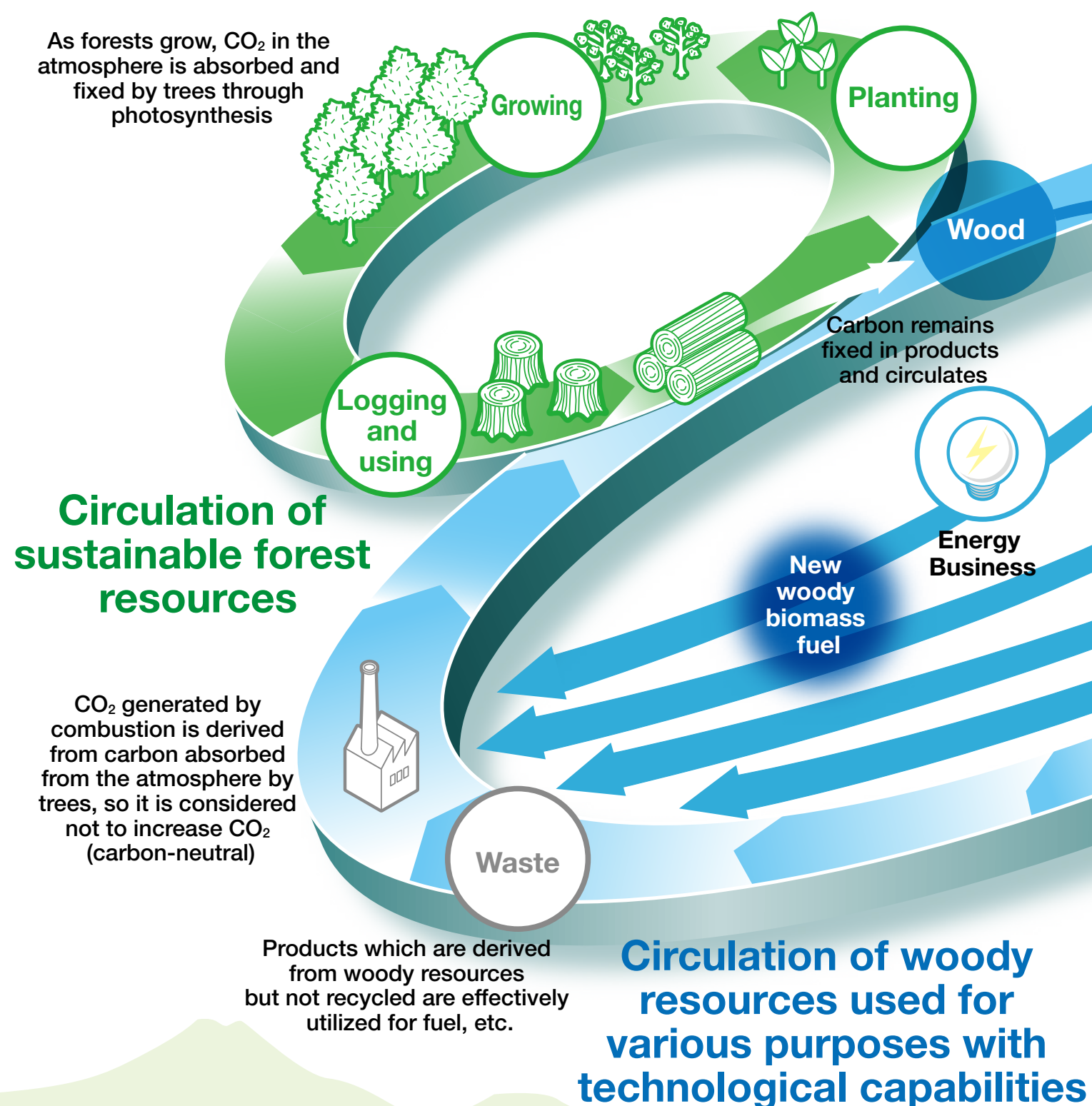
Going forward, we will continue to provide a wide range of products and services that make the most of the outstanding properties of wood, as we strive to maximize the value of sustainable forest resources for the future.

Shaping the Future with Trees



Through Circulation of Woody Resources

Realizing a Carbon-Neutral Business Model



A Comprehensive Biomass Company “Shaping the Future with Trees”

The Nippon Paper Group is a company group that consists of multiple businesses which generate stable profits and realize better living and cultural progress. It achieves this by using diverse technologies and know-how to maximize the use of renewable woody resources. This provides a wide range of products that help form a circulation-oriented society, supporting profit growth.

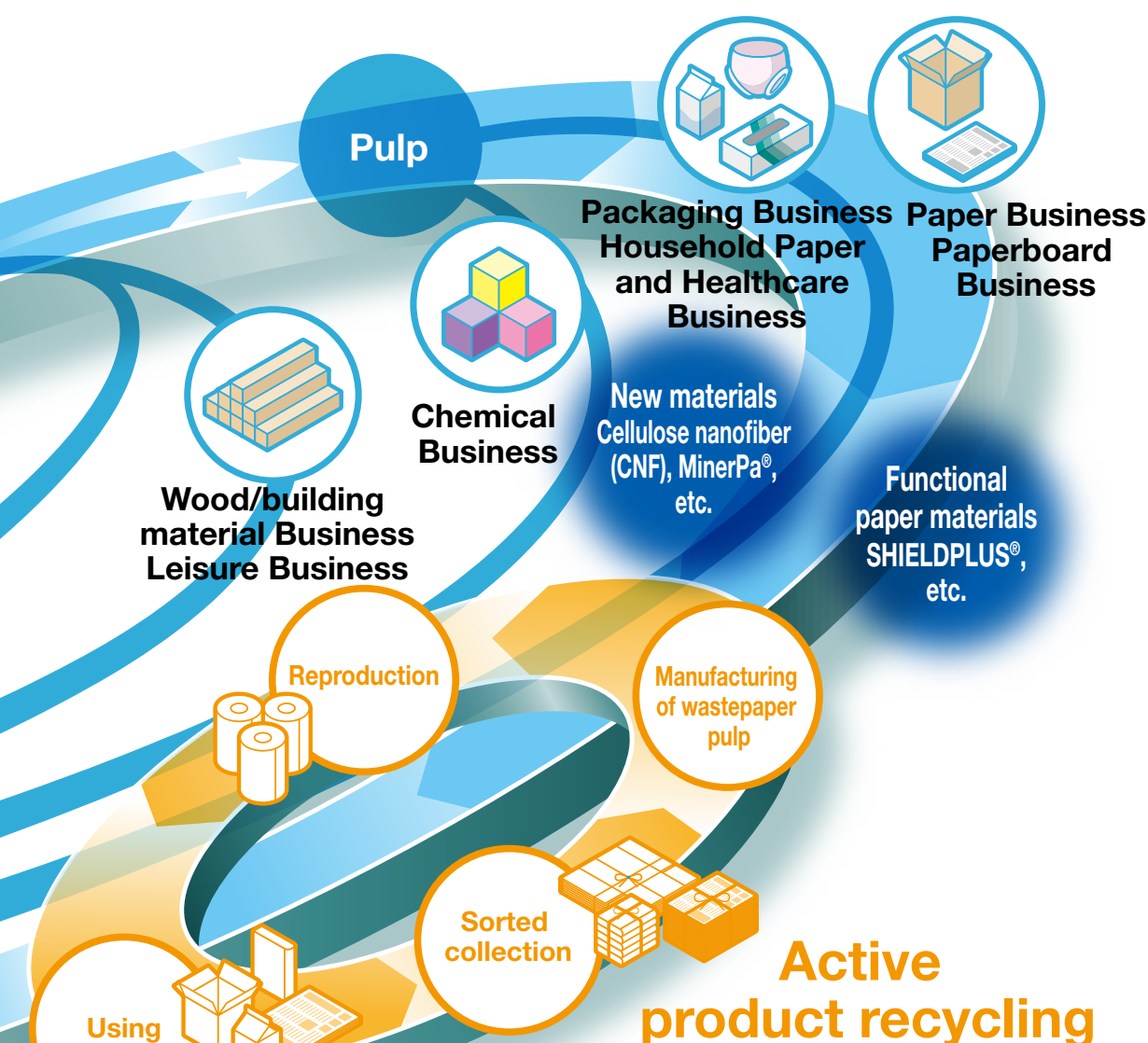
CNF
<https://www.nipponpapergroup.com/english/products/cnf/>



MinerPa®
[https://www.nipponpapergroup.com/research/organize/minerpa/\(Japanese only\)](https://www.nipponpapergroup.com/research/organize/minerpa/(Japanese%20only))



SHIELDPLUS®
<https://www.nipponpapergroup.com/english/products/shieldplus/>



• Outcomes from a series of mergers and integrations

Proven record
in research
and development

Group companies
with diverse
know-how

Human resources
with advanced
skills

• Compliance and high ethical standards

Important Management Issues (Materiality) to Realize the Group Mission

Nippon Paper Group's Materiality

The world has reached a turning point where such matters as climate change problems and infectious disease pandemics have forced changes on society. Domestic demand for paper had continued on a downward trend for structural reasons, but the decline has been further significantly accelerated by COVID-19.

Responding to change, and in order to realize its Group Mission, Nippon Paper Industries has formulated the 2030VISION, which outlines its goals for the next 10 years and the management tasks required to achieve them. In the process of formulating the 2030VISION, the Company discussed management issues that meet four requirements of the Vision in the Group Mission and summarized them as materiality of the Group.

| Mission | The Nippon Paper Group aims to contribute to better living and cultural progress everywhere it does business. | | |
|---------|---|--|--|
| Vision | Meet These Requirements and Be a Corporate Group Permanently Needed by Society | Nippon Paper Group's Materiality | Reason for Selection |
| | 1 Drive social sustainability through our business | Achieve the following through the value chain: <ul style="list-style-type: none">● Response to climate change● Utilization of sustainable forest resources● Preservation of biodiversity● Promotion of resource circulation● Reduction of environmental burden● Respect for human rights | The Nippon Paper Group clearly states in the 2030VISION that it will implement sustainable growth as "a comprehensive biomass company shaping the future with trees." The Company is rolling out diverse businesses using the Nippon Paper Group's forest resources as a foundation. As the environment is closely related to society and the economy, the Company believes that it is necessary to tackle the issues listed here throughout the entire value chain. |
| | 2 Delight our customers | <ul style="list-style-type: none">● Response to changes in the social environment (consideration for the environment, healthcare, etc.)● Stable supply of products, enhance safety | Customers' needs change as society changes. The stable supply of products needed by society and the assurance of product safety and quality are issues that a manufacturing company naturally should address. |
| | 3 Instill pride in employees | <ul style="list-style-type: none">● Realization of diverse work styles● Active participation of diverse human resources● Promotion of occupational safety and health | Flexible working styles are expected to support the growth of society and the economy. The Company believes that it is necessary for the Group to create a workplace where diverse human resources can maximize their ability to create value, as well as to realize diverse work. |
| | 4 Give back to society | In addition to business growth achieved through activities 1 to 3 above, the Group will realize the following: <ul style="list-style-type: none">● Enhancement of governance● Communication with stakeholders● Coexistence with local communities and society | To contribute to building a sustainable society, generating stable profits from business is crucial, and doing that requires stronger governance. In addition, dialogue with stakeholders in various forms leads to corporate growth and the Group believes this will realize harmonious living together with communities and society. |

Formula-tion Process



Dialogue with an expert

Materiality aiming to balance social issues related to forest resources and economy

The process of building management materiality based on the Group Mission was rational and my impression was that it was a sincere, grounded effort. I think there was nothing untoward about the way the material issues were identified. In particular, protecting and recovering ecosystems, including forest resources, are urgent global issues and there is an extremely large interest in them, so I expect the Company to provide information

steadily on how it is benefitting from ecosystems and how it impacts the ecosystems in its business. The Company also needs to recognize that environmental, social and economic factors are interrelated and integrated, and pay more attention to issues related to society and people. While addressing materiality going forward, it would be desirable for the Company to have dialogue with a variety of stakeholders.



Masao Seki
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Sustainability Department
Sompo Japan Insurance Inc.
Professor, School of Business
Administration, Meiji University

Contribution to SDGs through Materiality

The Nippon Paper Group, “a comprehensive biomass company shaping the future with trees,” promotes sustainability management that pursues both social and environmental sustainability and its future corporate growth by looking ahead to 2050 and enhancing activities to fulfill its corporate social responsibilities. The Nippon Paper Group’s aim under the Group Mission “to contribute to better living and cultural progress everywhere it

does business” is in harmony with the SDGs philosophy of “leave no one behind.” By promoting sustainability management, the Group will address the themes of activities, that meet the four requirements of the Vision to realize the Group Mission, as materiality. By solving these material issues the Company will contribute to achieving the SDGs aiming to build a sustainable society by 2030.

Material Issues Contributing to the SDGs

| Vision | | Key Issues and SDGs |
|--------|--|--|
| 1 | Drive social sustainability through our business | <p>Achieve the following through the value chain</p> <ul style="list-style-type: none"> • Response to climate change • Preservation of biodiversity • Reduction of environmental burden • Utilization of sustainable forest resources • Promotion of resource circulation • Respect for human rights      |
| 2 | Delight our customers | <ul style="list-style-type: none"> • Response to changes in the social environment • Stable supply of products, enhance safety      |
| 3 | Instill pride in employees | <ul style="list-style-type: none"> • Realization of diverse work styles • Active participation of diverse human resources • Promotion of occupational safety and health     |
| 4 | Give back to society | <p>In addition to business growth achieved through activities 1 to 3 above, the Group will realize the following:</p> <ul style="list-style-type: none"> • Enhancement of governance • Communication with stakeholders • Coexistence with local communities and society   |

Get to Know the Nippon Paper Group

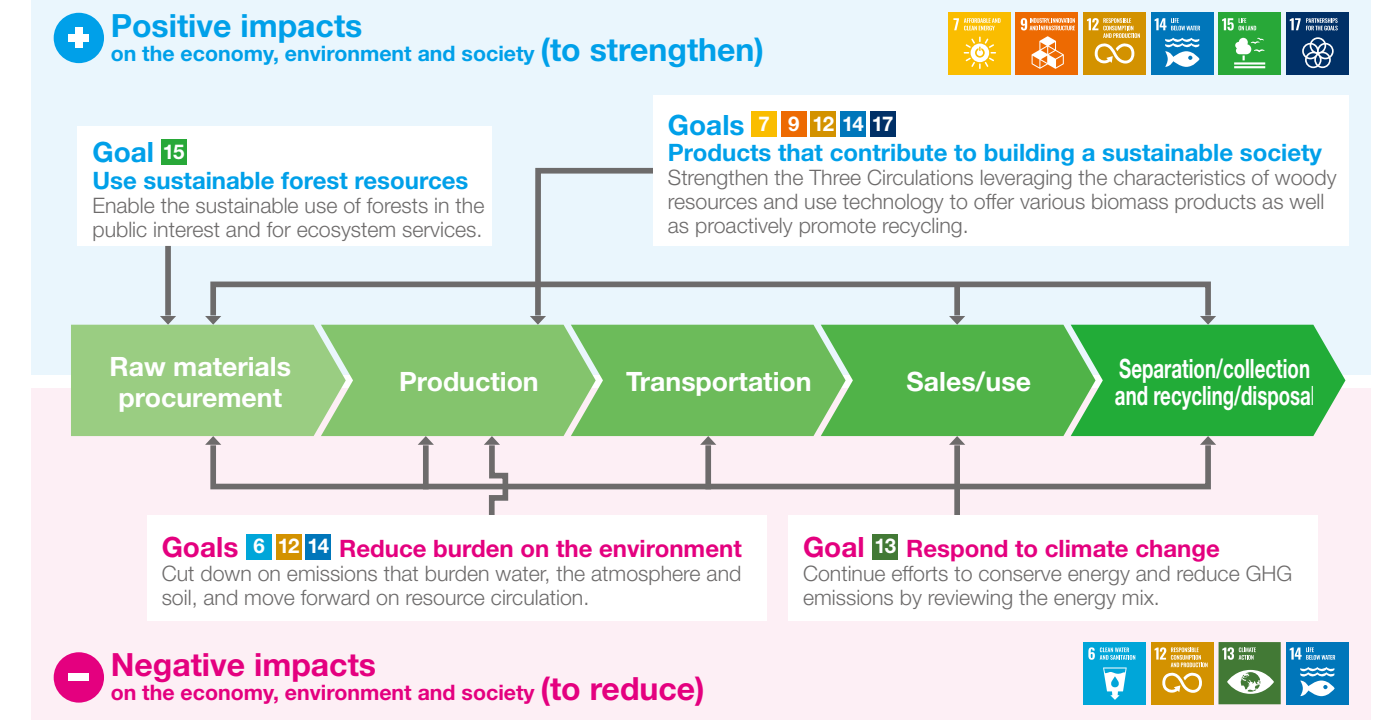
More Profitable

More Reliable

Data Section








The Nippon Paper Group sorts out the impact on the SDGs that occurs at each stage of the value chain. These overlap with SDGs related to the material issues to realize the Group Mission. Going forward, the Company will continue to work on strengthening positive impacts and strive to reduce negative influences.

Positive and Negative Impacts on the SDGs in the Value Chain



Utilizing Nippon Paper Industries' Originality to Contribute to the SDGs Cellulose Nanofiber

Nippon Paper Industries has developed manufacturing technologies for cellulose nanofiber (CNF), a biomass material using tree fibers, and is moving forward on a wide array of practical applications. This enables contributing to the SDGs as “a comprehensive biomass company shaping the future with trees.”

| | | |
|---|--|---|
|  | <ul style="list-style-type: none"> • CNF has various functions as a plant-based material. Nippon Paper Industries is moving forward in partnership with users on developing applications where CNF can display its diverse features. • The Company's reinforced resin is being used in the Ministry of the Environment's NCV (Nano Cellulose Vehicle) Project aiming to reduce weight in cars, and advances are being made in expanding uses by providing samples. • The Company is participating in a project subsidized by the New Energy and Industrial Technology Development Organization (NEDO) to commercialize CNF as early as possible, and is advancing development together with manufacturers such as Ube Industries, Ltd. and Sumitomo Rubber Industries, Ltd. |  |
|  | <ul style="list-style-type: none"> • Procurement of woody resources is made from forests with sustainable management. | |
|   | <ul style="list-style-type: none"> • A biomass material with little burden on the environment related to production and disposal. • When added to food it retains moisture and extends the shelf life of food (reduces food loss). • CNF-reinforced resin has outstanding recyclability and raises expectations of reducing waste products. | <p>Products that contribute to building a sustainable society (Japanese only)</p>  |
|  | <ul style="list-style-type: none"> • Enables switching away from using fossil-based additives. • Enhances strength when added to resin, helps reduce weight and is expected to cut CO₂ emissions from vehicles. | |

The Nippon Paper Group's Value Creation Story

—Sustainable growth as a comprehensive biomass company

Get to Know the
Nippon Paper Group

More Profitable

More Reliable

Data Section

As a comprehensive biomass company shaping the future with trees, the Group will create integrated economic and social value and achieve sustainable growth by maximizing the management resources it possesses and largely solidifying the Three Circulations leveraging the characteristics of woody resources. As a result, it will realize its mission to contribute to better living and cultural progress everywhere it does business.

Medium- to long-term business opportunities and risks

Medium- to long-term opportunities

- Population increase and economic growth in developing countries
- Shift to a low-carbon society
- Increased consumer awareness of health and hygiene
- Rise of e-commerce

anticipated by the Group

Medium- to long-term risks

- Digital transformation
- Declining birth rate and aging population in Japan
- Increase in natural disasters
- Trends in environmental laws and regulations

Input

» Consolidated employees

16,156
(as of Mar. 31, 2021)

» Group companies

161
(as of Mar. 31, 2021)

» Managed forest area

Approx. **170,000** hectares total
(as of Dec. 31, 2020)
(Domestic Company-owned forests)

Approx. **90,000** hectares
(Overseas afforested areas)

Approx. **80,000** hectares

» Total assets

¥1,547.3 billion (as of Mar. 31, 2021)

» Net sales

¥1,007.3 billion (FY2021/3)

Strengths

» Research and development results

Research and development expenses:

¥6.2 billion (FY2021/3)

Patents held:

1,459
(as of Mar. 31, 2021)

» Group companies with diverse know-how

» Human resources with advanced skills

» Supply chain for procurement of woody materials

Basic Policies of the Group's 2030VISION

- (1) Reallocate management resources to growing businesses
- (2) Respond to rapid changes in the social landscape such as CO₂ reduction and environmental issues

Amplifying
the foundation of
value creation

Three Circulations Leveraging the Characteristics of Woody Resources (P.4-5)

Initiatives for important issues
(materiality) to realize its mission
and contribute to the SDGs

Creation of
value

Return of
value

Value provided by the Group

Economic value (FY2031/3 targets)

» Net sales

¥1,300.0 billion
(Daily-Life Products Business: 50% or more)

» Overseas sales ratio

30% or more

» Operating income margin of the Daily-Life Products Business

7% or more

» ROE

8.0% or more

Social value

» Realizing a carbon-neutral society

» Realizing a circulation-oriented society

» New utilization of woody resources through innovation

» Maximizing the value of forests

Mission

Contribute to better living and cultural progress everywhere it does business



Customers



Business partners



Shareholders and investors



Employees



Local communities



Global environment







Profit returns and contributions

to stakeholders

* Applies to Nippon Paper Industries Co., Ltd., Nippon Paper Papylia Co., Ltd., Nippon Paper Crecia Co., Ltd., Flowric Co., Ltd., Nippon Paper Lumber Co., Ltd., Sakurai Co., Ltd. and Akita Jujo Chemical Co., Ltd.

Value Provided by the Nippon Paper Group

By working on its 2030VISION, the Nippon Paper Group will continue to grow and expand profits, while pursuing sustainable management that contributes to building a sustainable society, with an eye to realizing a carbon-neutral society in 2050.

| | Current Management Resources (as of March 31, 2021) | Strategies for Enhancing Management Resources |
|---|--|--|
|  Financial capital | <ul style="list-style-type: none"> Consolidated total assets: ¥1,547.3 billion Net sales: ¥1,007.3 billion (FY2021/3) | <ul style="list-style-type: none"> Reallocate management resources to and invest in growing businesses Allocate about 80% of strategic investments of ¥350.0 billion through FY2031/3 to growing businesses, and earmark ¥52.0 billion for environmental initiatives |
|  Intellectual capital | <ul style="list-style-type: none"> Research and development expenses: ¥6.2 billion (FY2021/3) Number of patents held*: 1,459 <small>* Applies to Nippon Paper Industries Co., Ltd., Nippon Paper Papyrus Co., Ltd., Nippon Paper Creca Co., Ltd., Flowric Co., Ltd., Nippon Paper Lumber Co., Ltd., Sakurai Co., Ltd. and Akita Jujo Chemicals Co., Ltd.</small> | <ul style="list-style-type: none"> Revise business promotion framework (external collaboration) Commercialize new businesses early on Strengthen ties with external research and development institutions such as other companies and universities, and establish manufacturing technologies for new materials |
|  Human capital | <ul style="list-style-type: none"> Number of employees (consolidated): 16,156 | <ul style="list-style-type: none"> Promote diversity and human resource development Reallocate human resources Promote business structure transformation by fully harnessing the potential of diverse human resources |
|  Manufactured capital | <ul style="list-style-type: none"> Number of Group companies: 161 | <ul style="list-style-type: none"> Reallocate management resources to and invest in growing businesses Closely examine and rightsize the production structure for foundation businesses Fully utilize the Group's resources (land, equipment, etc.) anticipating increased demand in growing businesses |
|  Social and relationship capital | <ul style="list-style-type: none"> Diverse customer base | <ul style="list-style-type: none"> Partnerships with customers Achieve early commercialization of new businesses utilizing the customer base built via extensive business operations |
|  Natural capital | <ul style="list-style-type: none"> Initiatives to utilize woody resources and reduce environmental impacts | <ul style="list-style-type: none"> Balance business growth and contributions to establishing a circulating society that fully utilizes woody resources Realize a carbon-neutral business model by strengthening the Three Circulations |

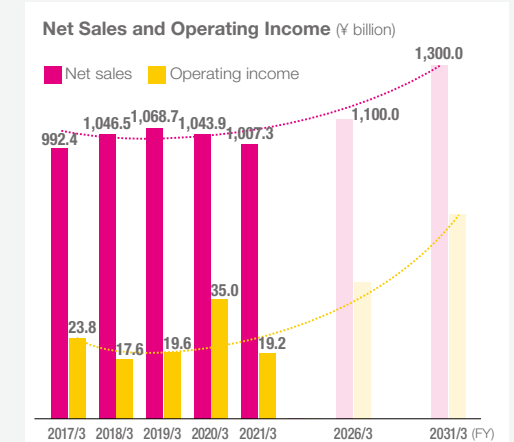
Creating Economic Value

01▶ Continually Creating Economic Value via Business Activities

The Nippon Paper Group has continued to practice sound management and create economic value, even with a volatile external environment marked by changes in market conditions and demand for products.

During its Sixth Medium-Term Business Plan, which spanned three years starting from FY2019/3, the Group was significantly affected by COVID-19. Nevertheless, it made steady progress working on two themes: 1) reorganize the production structure of the Paper Business and make maximum use of in-house facilities and 2) expand businesses in growth areas and achieve early commercialization of new businesses.

Especially with regard to the latter, the Group completed capital investments in growth areas almost exactly as planned, and acquired Orora Limited's paperboard and fiber-based packaging business in Australia and New Zealand as part of initiatives to pave the way for growth.



02▶ Striving for Better Living and Cultural Progress via Profit Growth

The Nippon Paper Group will continue to work to enhance its corporate value with sustainable profit growth, expanding business through growth investments that lead to solutions to environmental issues.

Under its Medium-Term Business Plan 2025 launched in May 2021, the Group aims to achieve net sales of ¥1,100.0 billion in FY2026/3 and operating income of ¥40.0 billion or more at an early stage. With the basic strategy of accelerating the transformation of the business structure, the Group will shift from foundation businesses to growing businesses with a greater sense of urgency than before. That will require grasping global trends, including changes in lifestyles due to COVID-19 and the shift from plastics to paper, and capturing the waves in demand. The Group has set a strategic investment budget of ¥350.0 billion for the next 10 years. It plans to use ¥210.0 billion of that during the period of Medium-Term Business Plan 2025, emphasizing investment in the first five years. It will proactively invest in growth to achieve sustainable growth.

Additionally, the Group earmarked ¥52.0 billion for environmental investment under the 2030VISION. With steps being taken worldwide to reduce greenhouse gas emissions, environmental investments are not backward looking. Rather, the Group believes that actively investing to help solve environmental issues will contribute to its sustainable growth.

The Group's Vision for 2030 is to be a comprehensive biomass company shaping the future with trees. Bolstering profitability will be vital to achieving sustainable growth as a comprehensive biomass company. Temporary losses could arise as the Paper Business's production structure is optimized. However, the Group will also prioritize and implement strategic investment in such growth domains as the Packaging, Household Paper and Healthcare, and Chemical Businesses. By putting itself firmly on a growth trajectory, the Group aims to enhance its corporate value and realize its mission to contribute to better living and cultural progress everywhere it does business.

For details, please see "Message from the Executive Officer Responsible for Finance" on pages 27–31. ▶

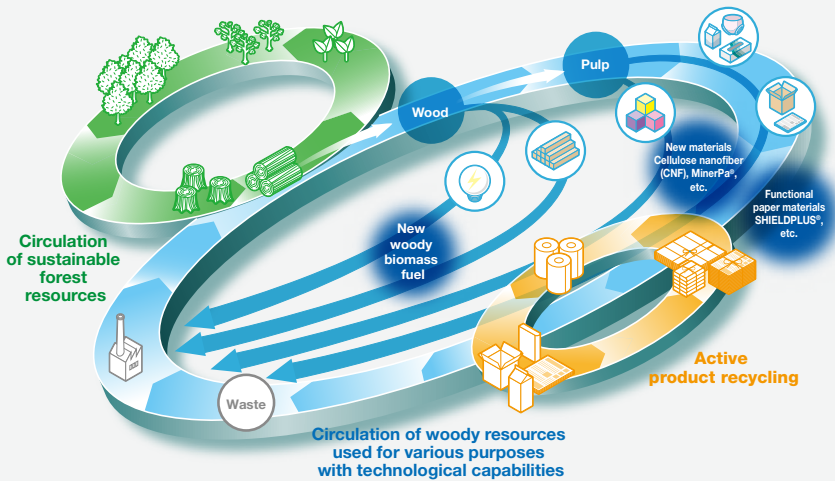
Creating Social Value

01▶ Helping Build a Circulating Society

To contribute to the establishment of a sustainable society, the Nippon Paper Group is strengthening its initiatives to expand the use of woody resources through resource circulation.

In its 2030VISION, the Group clarified its business model to expand and solidify the Three Circulations leveraging the characteristics of woody resources to both grow its business and help build a resource-circulating society. Its technological capabilities, marked by a robust research and development track record underpinned by the diverse human resources and extensive know-how of Group companies, will be central. Specifically, the Group will promote the circulation of forest resources through alliances with other companies, universities, research institutions, and so forth. It will also employ its technological capabilities to develop products that utilize an array of woody resources, and provide a wide range of eco-friendly products to realize circulation of woody resources. Moreover, the Group will actively work on product recycling to encourage the reuse of wastepaper and recycling throughout society, starting with the utilization of hard-to-recycle wastepaper, to create a carbon cycle based on forest resources in society as a whole.

Carbon-Neutral Business Model



02▶ Addressing Climate Change

The Nippon Paper Group has long worked to reduce greenhouse gas (GHG) emissions. Additionally, it established addressing climate change as a priority task in its 2030VISION, and expressed its support for the Task Force on Climate-Related Financial Disclosure (TCFD) recommendations in April 2021. Moving ahead, it will strengthen such initiatives in line with the TCFD recommendations.

The Group consumes a lot of energy and water during production processes. By revising its energy mix while continuing to work to conserve energy, it aims to reduce GHG emissions generated from production processes by 45% in FY2031/3 compared with FY2014/3. Furthermore, it will enhance the functions of its forests, such as CO₂ absorption and biodiversity protection, and maximize their value, while expanding biomass products through increased productivity in its forests to advance establishment of a carbon-neutral society.



Forests where productivity has greatly improved (L: 2005, R: 2020) (Amapá Florestal e Celulose S.A., Brazil)

03▶ Customer Trust and Expectations

The Nippon Paper Group works to steadily provide safe, quality products and services that help form a sustainable society. The Group also strives to be a company that is selected by customers by actively communicating with customers on a regular basis, accurately understanding their needs, and earning their trust. Moreover, it will utilize the partnerships it has built with customers to date through a multitude of business activities to commercialize new businesses.



Sumitomo Rubber Industries, Ltd.'s brand of tires that uses CELLENPIA®

04▶ Hiring and Training Employees

The Nippon Paper Group will change dramatically in the process of transforming its business structure as a comprehensive biomass company shaping the future with trees. While promoting diversity and employee-friendly workplaces and policies, the Group will raise the value of its human resources by working to foster personnel who push for changes. Along with appropriately repositioning personnel in line with growth strategies, the Group will realize the full potential of diverse human resources with varied personalities to raise employee engagement and tie that to its sustainable growth.



Training for new hires

05▶ Coexisting in Mutual Prosperity with Local Communities

The Nippon Paper Group is helping to shape a circulating society by providing products and services that make the most of woody resources, a sustainable raw material. Forest resources are therefore critical to the Group. Through procurement from external parties, the Group employs robust supply chain management to practice sustainable raw material procurement, and engages in environmentally and societally friendly initiatives, such as dialogue with stakeholders. Moreover, the Group does not regard the forests it owns as just a source for woody resources. It also works to balance and maintain the public interest and multifaceted functions of forests, including preserving biodiversity.

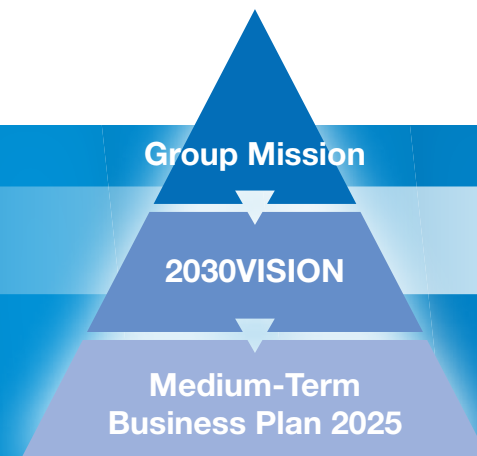


Blakiston's fish owl living in the Company's forests
Photo courtesy of the Wild Bird Society of Japan

For details, please see "More Reliable" on pages 57–92.

Nippon Paper Group's 2030VISION and Medium-Term Business Plan 2025

The Nippon Paper Group established the 2030VISION as a guideline that clarifies its goals for 2030 and business challenges to realize the Group Mission. It established Medium-Term Business Plan 2025 as an action plan for the next five years to realize the 2030VISION.



2030VISION

Vision for 2030

Realize sustainable growth as a comprehensive biomass company shaping the future with trees

FY2019/3–FY2021/3

> Sixth Medium-Term Business Plan Priority Tasks

Complete reorganization of the production structure
Expand continuously in growth areas
Promptly achieve EBITDA of ¥100.0 billion

> FY2021/3 Results

| | |
|--------------------------------|------------------|
| Net sales | ¥1,007.3 billion |
| Operating income | ¥19.2 billion |
| EBITDA | ¥86.9 billion |
| Adjusted net debt/equity ratio | 1.86 times |
| ROE | 0.8% |

FY2022/3–FY2026/3 Accelerate business transformation

> Medium-Term Business Plan 2025 Priority Tasks

Reallocate management resources to growing businesses
Accelerate enhancing profitability of new businesses
Reinforce competitiveness of foundation businesses

> Medium-Term Business Plan 2025 Targets

| | | |
|-------------------|-------------------|-----------------------|
| Net sales | FY2026/3 | ¥1,100.0 billion |
| Operating income | At an early stage | ¥40.0 billion or more |
| EBITDA | Stably | ¥100.0 billion |
| Debt/equity ratio | FY2026/3 | 1.5 to 1.6 times |
| ROE | FY2026/3 | 5.0% or more |

> Targets by Business Segment

| | Net Sales | Operating Income |
|--|------------------|------------------|
| Paper and Paperboard | ¥490.0 billion | ¥5.0 billion |
| Daily-Life Products | ¥460.0 billion | ¥27.5 billion |
| Of which, new business | ¥15.0 billion | ¥2.0 billion |
| Energy | ¥45.0 billion | ¥4.0 billion |
| Wood Products and Construction-Related | ¥75.0 billion | ¥6.5 billion |
| Other | ¥30.0 billion | ¥2.0 billion |
| Energy conversion | — | ¥(5.0)billion |
| | ¥1,100.0 billion | ¥40.0 billion |

FY2027/3–FY2031/3 Expand business domains through new and growing businesses

> 2030VISION Basic Policy

Reallocate management resources to growing businesses

- Continue to invest in and reallocate human resources to growing businesses
- Ensure new businesses and new materials make an early positive contribution
- Rightsize the production structure of foundation businesses to maintain competitiveness
- Expand in overseas markets

Respond to rapid changes in the social landscape such as CO₂ reductions and other environmental issues

- Review the energy mix
- Pursue a green strategy (maximize value of forest resources)

> FY2031/3 Targets

| | | |
|--|--|---|
| Net sales ¥1,300.0 billion | Of which, Daily-Life Products Business | 50% or more (including ¥65.0 billion from new businesses) |
| | Overseas sales ratio | 30% or more |
| Operating income margin for Daily-Life Products Business | | 7% or more |
| ROE | | 8.0% or more |
| GHG emissions (Scope 1+2) | | 45% reduction (vs. FY2014/3) |

> Strategic Investment (10 years from FY2022/3 to FY2031/3)

| | |
|-----------------------|--|
| Total: ¥350.0 billion | • About 80% for investments in growing businesses |
| | • Amount for investments in environmental initiatives: ¥52.0 billion |

Growing businesses

Businesses to drive the Group's growth, with an eye on 2030

- Packaging (including industrial paper, paperboard and containerboard), Household Paper and Healthcare, Chemical, Energy, and Wood Products and Construction-Related Businesses

New businesses

Businesses to be developed through new market cultivation and other measures beyond existing business domains

- Cellulose nanofiber, SHIELDPLUS®, Lamina®, MinerPa®, Biocomposite™ etc.

Foundation businesses

Businesses to support the growth of growing businesses and new businesses in multiple ways, including cash perspectives

- Newsprint, printing and business communication paper, construction-related, logistics, leisure, and other



Toru Nozawa

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

Aiming to Build a Sustainable Society and Strengthen Profitability toward 2030

Transforming Business with Medium- and Long-Term Viewpoints

In May 2021, Nippon Paper Industries Co., Ltd. announced its 2030VISION. To achieve our Group Mission, our goal for 2030 is to realize sustainable growth as a comprehensive biomass company shaping the future with trees. This vision articulates our determination to transform the Nippon Paper Group into a streamlined and lean enterprise that can generate solid profits while addressing a wide range of societal demands, as we make steady strides toward our goal for 2030.

Definition of a Comprehensive Biomass Company

In formulating our goal for 2030, we held internal discussions on what it means to be a comprehensive biomass company. As a result of these discussions, we settled on the following definition of a comprehensive biomass company: "A company group that consists of multiple businesses which generate stable profits and realize better living and cultural progress. It achieves this by using diverse technologies and know-how to maximize the use of renewable woody resources. This provides a wide range of products that help form a circulation-oriented society, supporting profit growth." This definition describes the essence of the comprehensive biomass company we aspire to become. I believe that this image of a comprehensive biomass company is one that our stakeholders can wholeheartedly embrace as a worthy goal for the 2030VISION.

Convinced Our Target Direction Is Right

The Group is now entering a period of major upheaval unlike anything it has faced before. We are facing trends which are irreversible, such as a declining birthrate and aging population, and digitalization. For many years, demand in Japan for graphic paper, such as newsprint and printing paper, has continued to decrease without showing any signs of stopping. In 2020, the spread of COVID-19 caused the pace of decreasing demand to accelerate further.

Many people may still picture Nippon Paper Industries as a company engaged in the paper business. But as the environment surrounding the domestic paper business comes under increasing pressure, the Group has pushed ahead with the transformation of its business structure.

Looking back at the past five years, I would first like to discuss our overseas business expansion initiatives. In 2016, we acquired the liquid packaging board business of Weyerhaeuser Company, a major U.S. forestry company. In 2020, we acquired the packaging (cardboard) division of Orora Limited of Australia. Additionally, in Japan, we made capital investments to expand the Packaging, Household Paper and Healthcare, Chemical, and Energy Businesses.

Message from the President

As a result, we have altered the business portfolio, while keeping the amount of consolidated net sales unchanged. Previously, the share of the domestic Paper Business accounted for over 50% of consolidated net sales. Now, with firm growth in the Daily-Life Products Business, which has been a strategic area of focus, the share of the Paper Business has fallen below 40%. On the profit front, although we faced some challenging times, we managed to generate operating income of ¥35.0 billion in FY2020/3.

In FY2021/3, I believe that we could have delivered an even better performance had we not been impacted by COVID-19. Despite this, overall, I am convinced that our target direction is right. Lifestyles are rapidly changing, and new needs are emerging one after another. As these trends reshape the environment, I am starting to feel confident that the Nippon Paper Group can contribute to society through the value created by its wide range of businesses.

Medium-Term Business Plan Period Changed from Three to Five Years

Under the 2030VISION, we have adopted two basic policies: (1) reallocate management resources to growing businesses, primarily the Daily-Life Products Business; and (2) respond to rapid changes in the social landscape such as CO₂ reduction and other environmental issues.

Guided by the former policy, we will expand growing businesses, such as the Packaging, Household Paper and Healthcare, Chemical, and Energy Businesses, as we rapidly commercialize new materials. Meanwhile, we do not foresee a

recovery of demand in the Paper Business going forward. Even so, we believe that it is still crucial to aim to secure the business's profits.

Based on the latter policy, we will reduce greenhouse gas emissions in the production process as we head toward 2030. In anticipation of the future over the next 10 years, we have set a target of achieving a 45% reduction in greenhouse gas emissions compared with FY2014/3. Specifically, we will reduce the usage of coal and use fuels such as waste and woody biomass, in addition to making steadfast efforts to address energy savings. Alongside this, we will take a close look at new technologies that will be implemented in society, and consider ways to make use of them, along with closely monitoring social trends and the government's energy policies. Moreover, the Group has excellent technologies related to woody biomass. By fully harnessing those technological capabilities, we will proactively move forward with the development of new biomass fuels.

Together with the 2030VISION, the Group has also formulated Medium-Term Business Plan 2025.

Although the periods of the Group's medium-term business plans were previously set at three years, we have decided to set the plan's period at five years for this new medium-term business plan. The five years covered by the plan correspond to the first five years of the 2030VISION.

There are several reasons why we changed the period of the medium-term business plan from three to five years.

The first reason is that we must firmly address declining demand for paper in Japan. Until now, we have reorganized the production structure based on projections of demand three years in the future. However, in reality, the decline in demand

Relationship between the 2030VISION and Medium-Term Business Plan 2025



has progressed faster than our projections. Consequently, we have been left saddled with a fixed cost burden from capital investments associated with our production reorganization. Considering these facts, in order to carry out fundamental measures over a long period of time, we drew up our Vision for the Group 10 years from now and devised a long-term plan to achieve it. Based on that plan, we decided to clearly define what we should accomplish in the 5 years covering the first half of the 10-year period.

The second reason is that it will take a period of five years for the specific achievements of business transformation to become evident. In hindsight, we see that implementing business transformation requires speedy but thoughtful initiatives with a forward-thinking mindset. This was the case, for example, when we reinforced the containerboard business through a business alliance with Tokushu Tokai Paper Co., Ltd., and withdrew from the paper business, shifting to the household paper business at our Fuji Mill. This perspective also led us to determine that a five-year period for the medium-term business plan would be preferable.

Building a Streamlined and Lean Enterprise by Accelerating the Transformation of the Business Structure

The main thrust of Medium-Term Business Plan 2025, which covers the first 5 years of the 10-year period of the 2030VISION, is to dramatically accelerate the transformation of our business structure and improve our profitability at the earliest opportunity.

The Group seeks to grow as an enterprise as it addresses a

diverse array of demands from society, including reducing greenhouse gas emissions. To do so, we will, of course, need to generate profits as an enterprise. Under our Medium-Term Business Plan 2025, we have set a target of achieving operating income of ¥40.0 billion or more at an early stage.

Additionally, operating income in the Daily-Life Products Business was ¥7.9 billion in FY2021/3. In FY2026/3, we will increase the operating income of this business to ¥27.5 billion, with ¥15.0 billion of this amount coming from growth in the overseas business. Increasing the earnings of Opal in Australia will be key to our success. In FY2021/3, Opal posted a downturn in its performance due to the impact of COVID-19. Worsening relations between Australia and China are also a potential concern. However, we believe the recovery of the cardboard business is a matter of time, so we are not concerned about the outlook. On the contrary, the creation of a company that seamlessly integrates the process from production of containerboards to cardboard boxes in the Australian and New Zealand markets will provide the latitude to reduce costs. We expect to see broadening opportunities in the future.

In Japan, we will continue to make capital investments in the Paper-Pak, Household Paper and Healthcare, and Chemical Businesses. Additionally, we newly established the Biomass Material Business Division to accelerate the growth of new materials businesses, such as cellulose nanofiber. We will focus on deepening collaboration with companies and research institutions, identifying user needs, and increasing sales. Through these efforts, I am strongly determined to transform the Group into an enterprise with a streamlined and lean operating structure.

Medium-Term Business Plan (MTBP) 2025: Operating Income by Segment

| | (¥ billion) | |
|--|------------------|-------------------|
| | FY2021/3 Results | MTBP 2025 Targets |
| Paper and Paperboard | 2.5 | 5.0 |
| Daily-Life Products | 7.9 | 27.5 |
| Energy | 6.9 | 4.0 |
| Wood Products and Construction-Related | 6.5 | 6.5 |
| Others*1 | (4.6) | 2.0 |
| Energy conversion*2 | — | (5.0) |
| Total | 19.2 | 40.0 |

(Breakdown of profit increase)
Overseas:
Approx. +¥15.0 billion
Domestic:
Approx. +¥5.0 billion

*1 FY2021/3 results include ¥6.0 billion in acquisition-related expenses for the Australian and New Zealand businesses of Orora Limited's packaging division.
*2 Energy conversion incorporates increased costs due to fuel conversion away from coal. It does not reflect projections of the impact of carbon pricing.

“We will build an environmentally friendly business model with the Three Circulations serving as the driver for sustainable growth.”

Aiming to be a Comprehensive Biomass Company that Transforms Woody Resources into Value

As I have said occasionally, although Nippon Paper Industries contains the word “paper” in its name, I would like to make Nippon Paper Industries into a company that explores many different businesses not limited to paper. That is the type of company I would like to create.

In the 2030VISION, we clearly articulated our goal to be achieved in 2030 with respect to the direction of the Group's business development as follows: “Realize sustainable growth as a comprehensive biomass company shaping the future with trees.” Along with this, we announced the Three Circulations and described each one in detail. In essence, we will boldly and rapidly implement the following the Three Circulations: (1) Circulation of sustainable forest resources; (2) Circulation of woody resources used for various purposes with technological capabilities; and (3) Active product recycling. Such actions will harness the circulation of woody resources and spur our growth as an enterprise. I am proud of this business model that skillfully makes use of environmentally friendly resources because it is unprecedented and unique in comparison to the business models of other companies.

The Three Circulations: The Driver for Sustainable Growth

The first one is the circulation of forest resources, which are the foundation of the Group's business. The Company owns forests, so if it replants the trees it cuts down for use as resources, it can replenish and revive its forests.

In their growth process, trees absorb CO₂ from the air and fix carbon in their biomass. The Group possesses the technologies needed to create a wide range of products using wood as raw materials. It converts woody resources into a variety of products, such as food packaging, and makes these products widely available to society. In the process, carbon remains fixed in those products without releasing CO₂ into the atmosphere. On top of this, even when products are incinerated after being used, the total amount of CO₂ in the atmosphere does not increase.

Another strength of the Group is its technology for recycling pulp. The Group recycles not only newsprint, printing paper, cardboard and paper cartons, but also paper cups that had

previously not been recycled.

In these ways, properly implementing the Three Circulations will pave the way for the sustainable use of woody resources and for building an environmentally friendly, circulation-oriented society. With heightened environmental awareness among consumers, we believe that the Three Circulations will serve as the driver for the Group's sustainable growth.

Promoting a Green Strategy

Having said that, at this time, we fully acknowledge that the Group releases large amounts of CO₂ during its manufacturing processes which makes some stakeholders take a critical view of the Group.

As you know, the international community has been making stronger calls for society to become carbon-free, and circumstances in Japan have also changed dramatically. In October 2020, the Japanese government declared that Japan would become carbon-neutral by 2050. I believe it is fair to say that this declaration has drastically transformed the world.

Against this backdrop, the Company currently uses coal as the main source of its manufacturing energy. Considering these circumstances, we discussed how to reduce greenhouse gas emissions and formulated specific numerical targets in the 2030VISION. To achieve these targets, we will steadily implement various measures.

Additionally, as part of the 2030VISION, we formulated a green strategy for the Group. The strategy, which is closely intertwined with the Three Circulations, calls for pursuing the maximization of forest value and the expansion of biomass products.

The Group owns approximately 170,000 hectares of forest resources in Japan and abroad. Based on those forest resources, we have a proven track record of enhancing forest productivity. To this end, we have carried out selective breeding using genome data and increased the planting of tree seedlings leveraging tree grafting technologies.

In addition, we will develop a diverse array of biomass products and promote their use in society. As a result, the social value that comes from the ability of woody resources to fix and circulate carbon will likely garner more and more attention. In

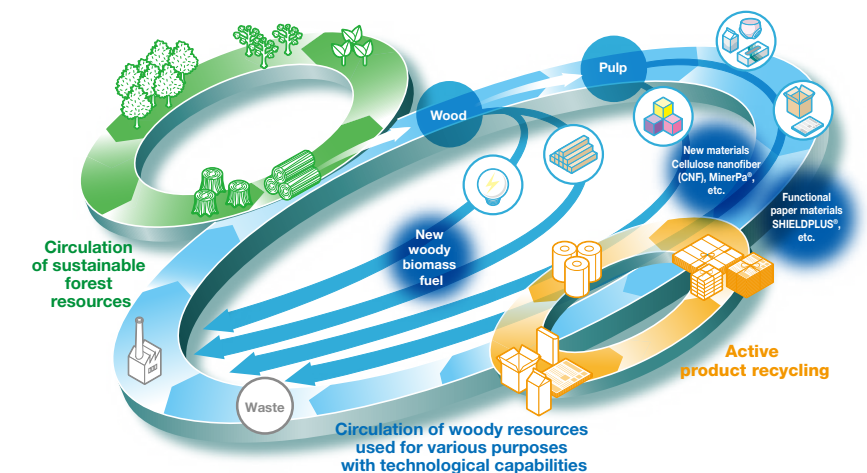


this manner, Nippon Paper Industries' efforts to strengthen its business platform and efforts by society as a whole to achieve carbon neutrality are aligned in the same direction. This is what makes the Group truly unique.

Meanwhile, to achieve these goals, we would like the rules for quantifying value, including the calculation of the CO₂ absorption amount by forests and the CO₂ fixation amount by biomass products, to be standardized. Going forward, it is expected that there will be a move to reassess the value of forests on a global basis. In the process, we hope to be actively involved in the development of shared frameworks.

Business Development as a Comprehensive Biomass Company

Carbon-Neutral Business Model



My Mission: Contributing to Society through Business and Generating Profits

The critical factor for realizing the 2030VISION will be human resources. It will be extremely crucial to determine how we will have our more than 15,000 employees on a consolidated basis work successfully under the Group's growth strategy.

At Nippon Paper Industries' Fuji Mill, the shift from the paper business to the household paper business has steadily gotten on track. The success of this business transformation was partly attributable to changes in the business environment, specifically to heightened demand for household paper. However, I believe that the greatest factor behind this success was that employees who had up until that point been working in paper manufacturing were wholeheartedly willing to work in household paper manufacturing and fully demonstrated their abilities in this new area.

This means that in order to achieve a transformation of the business structure, employees with a high degree of loyalty to the Group must proactively tackle challenges in new fields and make efforts actively.

The recruiting environment is becoming increasingly severe due to a declining birthrate and an aging population, along with a continuing decrease in the working-age population. In this environment, employees will need to shift to workplaces in new fields and work successfully. I believe this shift will provide an ideal way of harnessing the full potential of our human resources.

The reallocation of human resources, as set forth in the 2030VISION, refers to such shifts in workplaces based on employees' strong loyalty to the Group. I am convinced that these efforts will guide the transformation of our business structure to success.

Engagement is crucial to increasing the number of highly loyal employees.

I believe that engagement is created when employees grow together with the Company. That is why it is important to develop an environment where employees can truly feel satisfied with working at the Group, and to develop frameworks such as HR

■ Goal to Be Achieved in 2030

Realize sustainable growth as a comprehensive biomass company shaping the future with trees

Definition of a comprehensive biomass company



A company group that consists of multiple businesses which generate stable profits and realize better living and cultural progress. It achieves this by using diverse technologies and know-how to maximize the use of renewable woody resources. This provides a wide range of products that help form a circulation-oriented society, supporting profit growth

policies encompassing working conditions and remuneration. Based on this belief, as president, I will work in good faith to accomplish those priorities.

Responding to Demands to Strengthen Governance

Strengthening governance is also crucial, in addition to decarbonization and human resources. The utilization of outside directors is often noted as a key priority which the Company is proud to say it has firmly addressed.

Outside directors represent one-third of the Company's Board of Directors. As an officer responsible for business execution, I make a point of listening frequently to the opinions of outside directors on a wide range of matters. I have created many opportunities for discussion every month, including attending the Group Management Strategy Committee. Furthermore, the Company holds meetings between outside directors and institutional investors. These meetings have been well received by investors for being a unique initiative seldom carried out by other companies.

Additionally, the Company endorsed the Task Force on Climate-related Financial Disclosures (TCFD) in April 2021. The Company will strive to provide appropriate climate change-related disclosures as a key management issue under the supervision of the Board of Directors. This initiative will also play a pivotal role in strengthening the Company's corporate governance.

Looking ahead, we will carry out effective corporate governance in response to increasingly stringent demands from society. That will pave the way for reducing the business risks faced by the Company. Accordingly, we will conduct effective corporate governance from the standpoint of ensuring our growth as a business enterprise.

Contribute to Society to Lay the Groundwork for Profit Growth

Looking ahead, as I have said before, it will be essential to incorporate ESG-related issues into the Company's growth strategy. In 2004, the Company signed the UN Global Compact and declared its support for the Ten Principles covering four areas. We also pushed ahead with CSR management. In the 2030VISION, we clearly articulated our commitment to the promotion of sustainability management. We have also addressed SDGs. In the 2030VISION, we have linked materialities and the SDGs with efforts to realize the Group Mission as our starting point.

To be honest, many of the business activities that we have undertaken over many years contribute to building a sustainable society. Going forward, we will work to address materialities under the 2030VISION with a view to realizing the Group Mission. We believe that these efforts will pave the way for achieving the SDGs.

As a business enterprise, it is absolutely imperative that we contribute to society through business and generate profits. This is also crucial for realizing a sustainable society. From this standpoint, I would like to share my views once again on what we mean by "a comprehensive biomass company shaping the future with trees," which is our goal to be achieved in 2030, as clearly stated in the 2030VISION.

We are determined to realize a carbon-neutral business model through the Three Circulations and drive profit growth as a comprehensive biomass company. This year will mark the start of these efforts. I look forward to making this journey toward 2030 together with all our stakeholders.

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