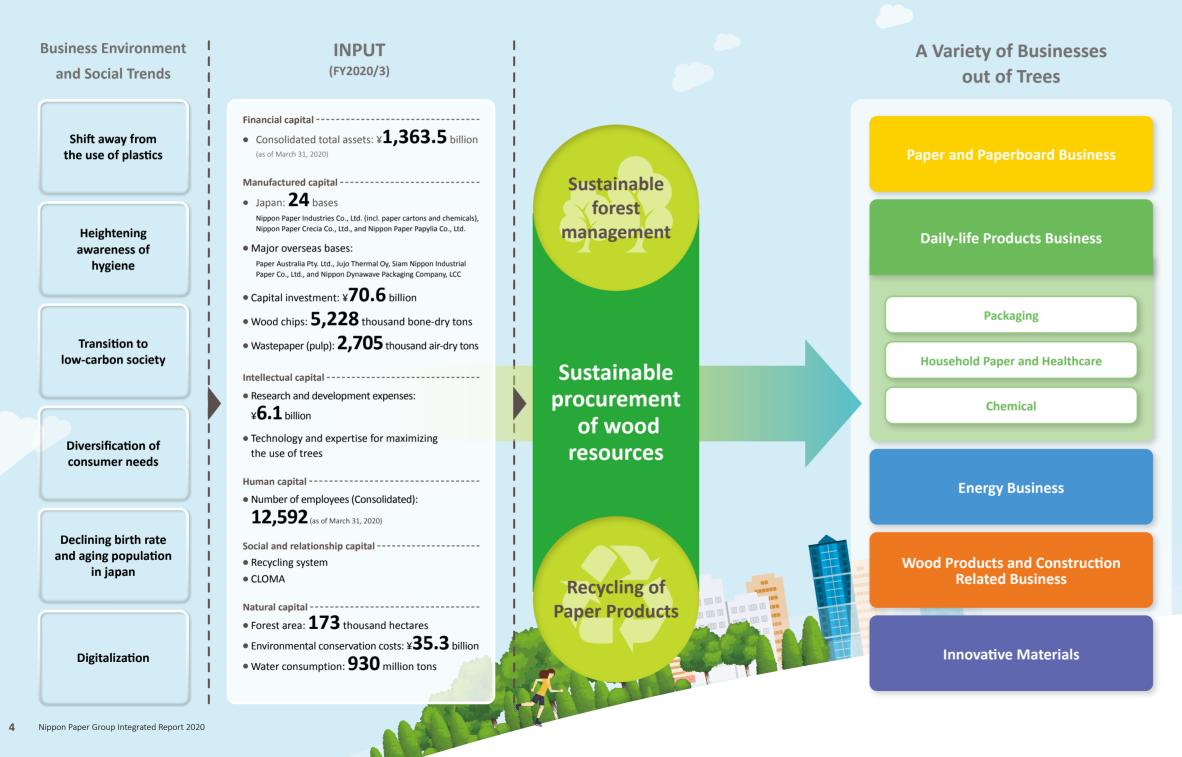
## The Nippon Paper Group's Value Creation Process



### **OUTPUT/OUTCOME** (FY2020/3)

101

Financial capital		
• Net sales: ¥ <b>1,043.9</b> billion		
• Operating income: ¥ <b>35.0</b> billion		
• ROE: <b>3.7</b> %		
Debt/equity ratio: 1.75 times		
• EBITDA: ¥97.7 billion		
Manufactured capital		
• Paper, household paper: 4,023 thousand tons		
Paperboard: 2,044 thousand tons		
Chemical products: 100 thousand tons		
Intellectual capital		
<ul> <li>Developed Lamina<sup>®</sup> heat-sealable paper</li> </ul>		
<ul> <li>Commercialized SPOPS<sup>®</sup> replaceable containers</li> </ul>		
Human capital		
Frequency rate of occupational		
accidents requiring time off from work: <b>0.79</b>		
(Nippon Paper Group, including affiliated companies)		
<ul> <li>Rate of annual paid leave taken: 74.4% (consolidated Group companies in Japan)</li> </ul>		
• Percentage of female employees in management: 2.70% (consolidated Group companies in Japan)		
Social and relationship capital		
• Individual meetings with investors: <b>136</b> times		
<ul> <li>Risk communication with local residents: 26 times</li> </ul>		
Natural capital		
<ul> <li>Volume of greenhouse gas emissions:</li> </ul>		
6.26 million tons of CO <sub>2</sub> *		
• Final disposal of waste: <b>141</b> thousand bone-dry tons		
* Scope: Consolidated and non-consolidated Group companies in Japan subject to		
* scope: Consolidated and non-consolidated Group companies in Japan subject to the Act on Rationalizing Energy Use		



**Business Model** 

## The Characteristics of Wood Resources

The Nippon Paper Group strives to realize a sustainable society while engaging in business activities with its sights set on the long term. With this in mind, the Group must be fully committed to building a resource-circulating society.

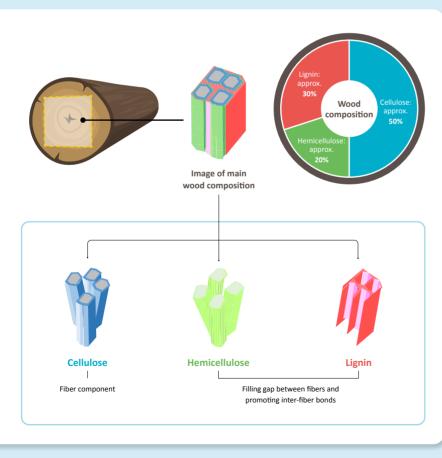
Guided by its slogan of "shaping the future with trees," the Group continues to expand its business on the strength of its technological capabilities that maximize the use of woody biomass.

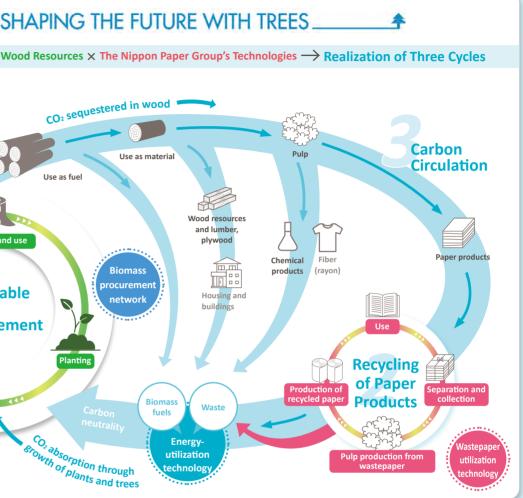
Trees are renewable resources that they can be planted and nurtured. In addition, the carbon sequestered within trees through photosynthesis is utilized themselves as raw material and remains sequestered upon processing into wood resources, paper, and other products. While the burning of such products releases CO<sub>2</sub>, this is essentially offset by the absorption of CO<sub>2</sub> by trees from the atmosphere (carbon neutral).

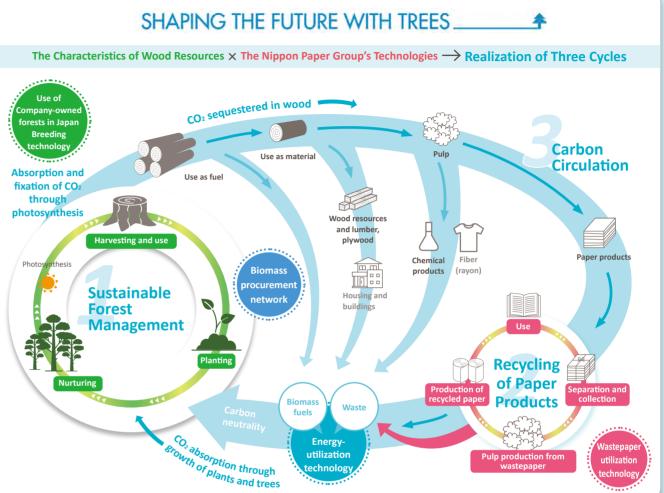
Over the years, the Group has accumulated a wealth of technologies and know-how on the use of forests in Japan and overseas as a sustainable resource. The Group has also cultivated technologies that fully utilize wood components, allow for sophisticated recycling, and offer unique breeding capabilities. Looking ahead, the Group will continue to develop technologies that leverage the characteristics of wood resources as a part of our efforts to promote resource recycling.

## Maximizing the Use of **Woody Biomass**

Trees consist of three main components: cellulose, hemicellulose, and lignin. The Nippon Paper Group has accumulated technologies for wood processing, pulping, papermaking and coating, biochemical, and power generation that utilize woody biomass in a gradual and appropriate manner. In general, cellulose and hemicellulose are utilized as raw material for pulp while lignin is used as biomass fuel. These components are also utilized in a variety of biochemical products. (See pages 42-45.)







#### The Characteristics of Wood Resources

#### Renewable Resources

The Nippon Paper Group procures wood resources by conducting sustainable forest management.

The sustainable management of our 173 thousand hectares of forest resources worldwide entails repeated planting and nurturing of trees upon harvesting.

#### Biodegradability

When discarded, wood fiber can be decomposed by microorganisms and other means and returned to nature.

Guided by its slogan of "let paper do what it can do," the Group will continue to help alleviate environmental burden through its production of paper-based products, which consist of wood fiber.

#### Recyclabilitv

Paper products can be recycled after use, through collection, separation, and wood fiber extraction.

Nippon Paper Industries utilizes collected and separated newsprint, magazines, containerboards, and paper cartons after use as raw materials, and recycles them to make paper.

#### CO<sub>2</sub> Absorption and Fixation

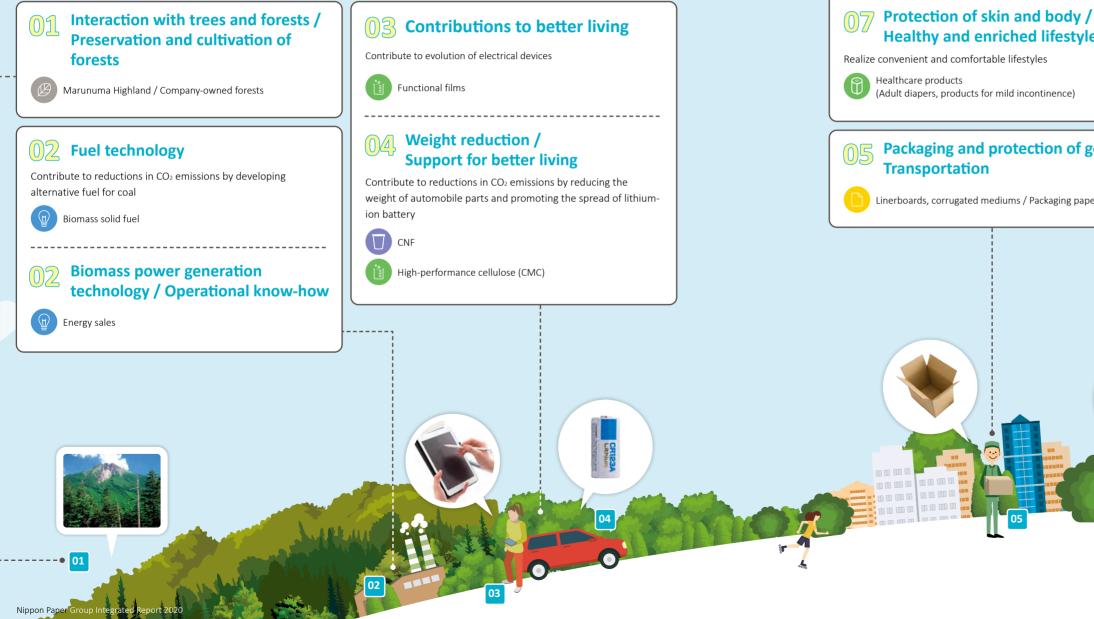
During photosynthesis, trees absorb CO<sub>2</sub> from the atmosphere and release oxygen while storing carbon. Provided that it is not burned, this carbon will remain sequestered.

Through the use of our unique breeding technology, the Company is proceeding with measures to increase the amount of CO<sub>2</sub> absorption and fixation.

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Business Model
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## Value Provided by the Nippon Paper Group

In accordance with its Group Mission, the Nippon Paper Group strives to provide universal value by way of cultural progress and value that enriches lifestyles toward better living. The following are some of the values we provide to global society from the perspectives of cultural progress and better living.



# **Healthy and enriched lifestyles** Realize convenient and comfortable lifestyles Healthcare products (Adult diapers, products for mild incontinence) Packaging and protection of goods / **Transportation** Linerboards, corrugated mediums / Packaging paper

Preservation of quality /

Provide environment-friendly packaging

SHIELDPLUS<sup>®</sup> / Lamina<sup>®</sup>

New-shape cartons with closures

**Reduction of single-use plastics** 

06

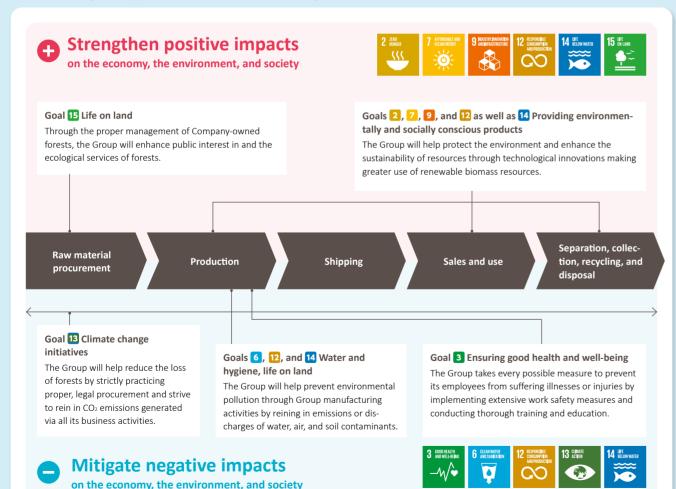


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## **SDG** Initiatives

Defined as "development that fulfills the hopes of current and future generations," sustainable development entails the commitment of all individuals and organizations, including companies, to work toward the achievement of the Sustainable Development Goals (SDGs), a set of goals adopted by the United Nations in 2015 that addresses economic, social, and environmental issues. The Nippon Paper Group has identified impacts at each stage of its value chain on achieving the objectives of the SDGs. While striving to realize the Group Mission, the Group will strengthen the positive impacts while mitigating the negative impacts.

Positive and Negative Impacts in Our Value Chain on Realizing the SDGs

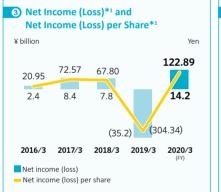




engage in themes relevant to the four components of the vision under the Group Mission identifies with the aim of the SDGs, "building a sustainable society."

## **Financial and Non-Financial Highlights**

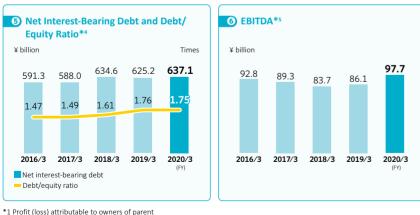








\*2 Return on equity (ROE) = Profit (loss) attributable to owners of parent / [Average of beginning and end of year (Shareholders' equity + Accumulated other comprehensive income)] × 100



#### Net Sales

• Net sales in the Paper and Paperboard Business declined ¥32.1 billion due to lower domestic demand and a sluggish export market.

• Revenue in the Daily-life Products Business increased ¥8.9 billion on the back of brisk results in the Household Paper and Healthcare Business.

#### 2 Operating Income & Operating Income Margin

• Operating income in the Paper and Paperboard Business shifted upward, climbing ¥14.6 billion. owing to the maintenance of revised prices and the realization of effects from the reorganization of its production structure.

#### Net Income (Loss) & Net Income (Loss) per Share

 Profit (loss) attributable to owners of parent turned positive mainly due to the absence of loss on reorganization of production structure and other extraordinary losses recorded in FY2019/3.

#### A ROE / ROA

 ROE increased behind the upturn in profit (loss) attributable to owners of parent.

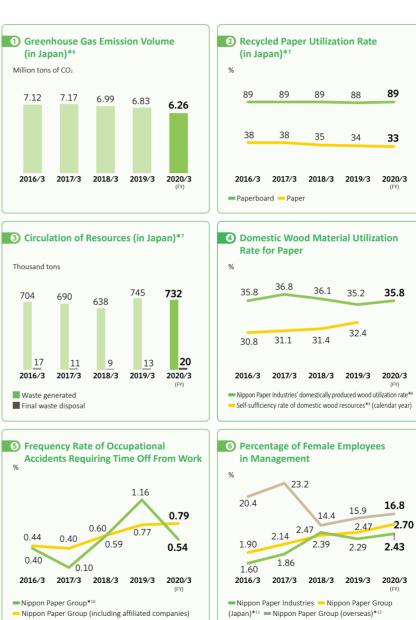
#### S Net Interest-Bearing Debt & Debt/ Equity Ratio

 Net interest-bearing debt is projected to rise in FY2021/3 as a result of the increase in loans pavable stemming from the acquisition of Orora Limited's paperboard and fiber based packaging business in Australia and New Zealand.

#### 6 EBITDA

• EBITDA increased ¥11.6 billion owing to an improvement in operating income, despite a decline in depreciation.

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\*6 Scope: Consolidated and non-consolidated Group companies in Japan subject to the Act on Rationalizing Energy Use \*7 Scope: Domestic companies among environment-related organizations specified in Sustainability Report 2020 \*8 Data includes scrap wood and wood chips of domestic mills \*9 Source: "Wood Supply/Demand Chart," Forestry Agency

7.12

704

17

0.44

0 40

\*5 EBITDA = Operating income + Depreciation + Interest income + Dividend income + Amortization of goodwill

#### \*10 Aggregate data for the manufacturing offices belonging to Nippon Paper Industries Co., Ltd., Nippon Paper Crecia Co., Ltd., Nippon Paper Papylia Co., Ltd., and Nippon Paper Liquid Package Product Co., Ltd. \*11 Aggregate data for consolidated Group companies in Japan \*12 All managers of sections or higher (including department managers and section managers)

#### \_\_\_\_\_ Greenhouse Gas Emission Volume (in Japan)

• Surpassed the targets of Green Action Plan 2020 thanks to systematic energy-saving investments and promotion of fuel conversion

#### **2** Recycled Paper Utilization Rate (in Japan)

 Established a closed-loop system and development of application technology for difficult-to-recycle paper amid the challenging environment for procurement of wastepaper

#### **B** Circulation of Resources (in Japan)

 Revised production process and promoted efforts to utilize ashes from boiler combustion in construction materials

#### Domestic Wood Material Utilization Rate for Paper

- · Utilized domestic wood materials by leveraging our procurement network
- Continue to actively utilize domestic wood materials

#### **6** Frequency Rate of Occupational Accidents **Requiring Time Off From Work**

- One serious accident occurred
- Formulated medium-term management plan centered on safety initiatives and created disasterprevention framework

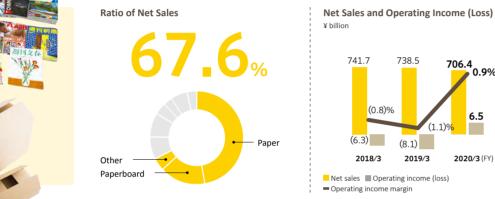
#### **6** Percentage of Female Employees in Management

• Aim to double the number of female managers by FY2021/3 through measures to expand the number of female employees in the work place

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## The Nippon Paper Group at a Glance

Net sales **Operating income** ¥35.0 billion ¥1,043.9 billion FY2020/3 Results Paper and Paperboard Business



**Business Overview** 

#### **Paper Business**

- Main Products and Services
- Newsprint 
   Printing paper 
   Business communication paper
- Industrial paper
   Specialty paper
   Functional paper

The Paper Business suffered a decline in net sales owing to lower circulation of newspapers and sluggish demand for printed advertisements, which led to a reduction in sales volume. Meanwhile, the reorganization of our production structure, including the shutdown of eight paper machines, was completed according to plan. We also reaped the benefits of both cost reductions and price revisions, which we implemented in 2019. These factors led to the recording of operating income in FY2020/3, compared with an operating loss in the previous fiscal year. As for our overseas subsidiaries, Paper Australia Pty. Ltd. and Jujo Thermal Oy both recorded a decline in operating income on the back of lower sales volume.

#### **Paperboard Business**

Main Products and Services • Containerboards • White paperboards

The Paperboard Business saw its sales volume fall in FY2020/3 due to a range of factors, including a setback in the delivery of fruits and vegetables, crops, and other products stemming from weather-related issues in Japan, such as lack of sunlight and the impact of typhoons. A slowdown in demand in China and other Asian countries also contributed to the reduction in sales volume. On the contrary, operating income improved over the previous fiscal year by virtue of our success in maintaining prices at the levels they were set at in 2018.

738 5

(8.1)

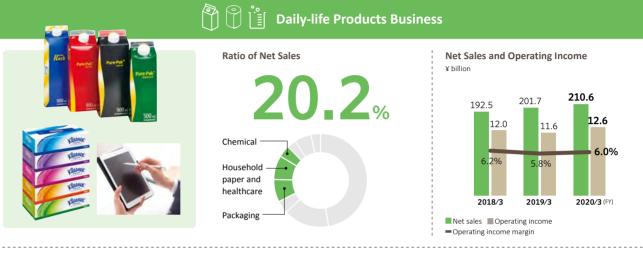
2019/3

(0.8)%

706.4

0.9%

2020/3 (FY)



#### **Business Overview**

#### Packaging Business

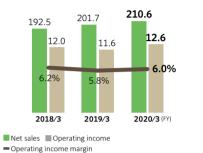
#### Main Products and Services

- Liquid packaging boards
- Liquid packaging cartons

The sales volume of liquid cartons in Japan deteriorated due to the stagnation of the beverage market caused by unfavorable weather conditions in the summer, as well as to a decline in demand for milk cartons used in school lunches owing to the impact of COVID-19. However, we improved our sales of filling machines, helping us increase both net sales and operating income in FY2020/3. Overseas, Nippon Dynawave Packaging Company, LLC recorded declines in both net sales and operating income because of reduced shipments to the Chinese market, due to factors including the ongoing U.S.-China trade dispute and the impact of maintenance shutdown.

The sales volume of household paper products rose in FY2020/3 due to solid demand for such products as facial tissues and toilet paper rolls and to the impact of COVID-19. We also posted higher sales volume for healthcare products thanks to growing demand for adult diapers and products for mild incontinence attributable to Japan's aging society. Regarding household paper and healthcare products, we saw the benefits of installing new equipment in 2018 in the form of an expansion in production capacity, in addition to the benefits of price revisions. These benefits enabled us to improve both net sales and operating income year on year.

Net Sales and Operating Income ¥ billion



**Household Paper and Healthcare Business** Main Products and Services

• Facial tissues • Toilet paper rolls

• Products for mild incontinence

• Adult diapers

#### **Chemical Business**

#### Main Products and Services

- Dissolving pulp Cellulose products
- Chemical products
- Functional coating resin products
- Functional films

Falling demand for dissolving pulp in China and other overseas markets led to a decline in sales volume year on year. As for chemical products, however, sales of functional coating resin for film ink performed favorably overseas. Functional film sales increased domestically owing to brisk sales for small and medium-sized displays. As a result, we saw a year-on-year decrease in net sales overall, with operating income also falling in the wake of the weakening overseas market for dissolving pulp.

#### The Nippon Paper Group at a Glance

## **Group Strategy**



Review of Fifth Medium- Term Business Plan (FY2016/3-FY2018/3)	<ul> <li>Key Themes</li> <li><b>1. Enhance the con</b> Maintain stable quality</li> <li><b>2. Transform our be</b> Expand business in grow</li> </ul>
	Themes
Sixth Medium-Term	<ul> <li>Reorganize the and make maxin</li> <li>Expand business commercializati</li> </ul>
Business Plan	Priority Tasks
(FY2019/3-FY2021/3)	Complete reorganization of production structure
	FY2021/3 Targets
	Net sales
	<b>¥1,115.0</b> billio
	Debt/equity ratio
	<b>1.5</b> times or less
Next Medium-Term Business Plan (FY2022/3—)	

#### mpetitiveness of existing businesses

and operation and slash costs

owth areas and create new businesses

