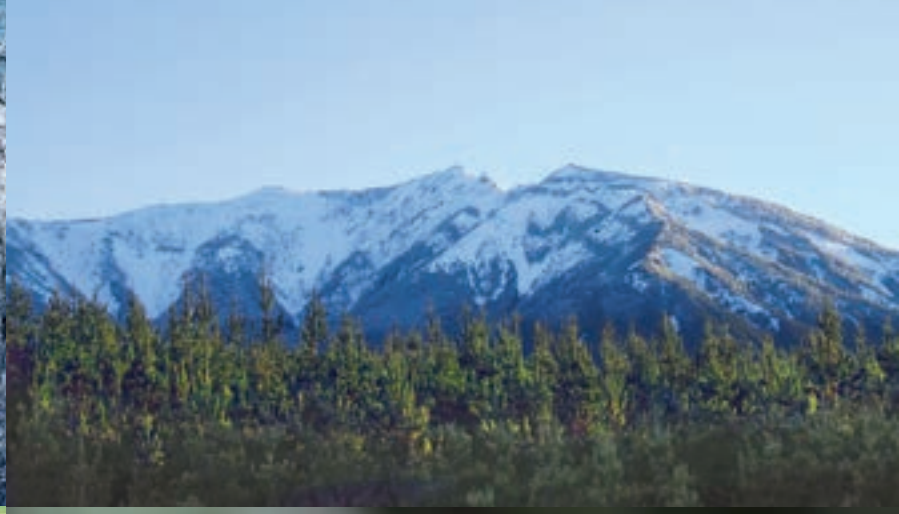
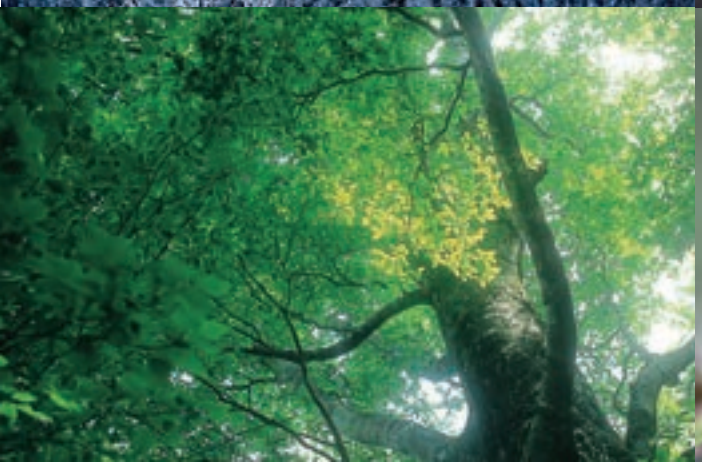
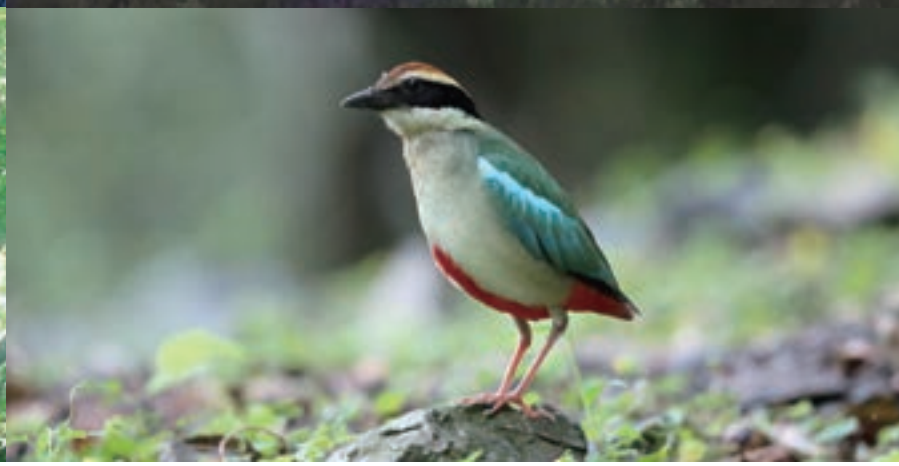





The Oji Group Integrated Report 2020

Fiscal year ended March 2020



Management Philosophy

Creation of Innovative Value

Contribution to the Future and the World

Harmony with Nature and Society

Untiring self-transformation, challenging manufacturing,
strategic business model creation, and innovation.
In a world that is constantly changing, the Oji Group aims
to create innovative value in the global arena.



OJI
Beyond the Boundaries

Slogan

“Beyond the Boundaries”

This slogan expresses the Oji Group’s commitment to actively go beyond the “boundaries” of business domains, countries, and the respective capabilities of individual employees with the aim of contributing to the future, society, and the world as well as the determination of all Group members to maximize corporate value as a truly global company.

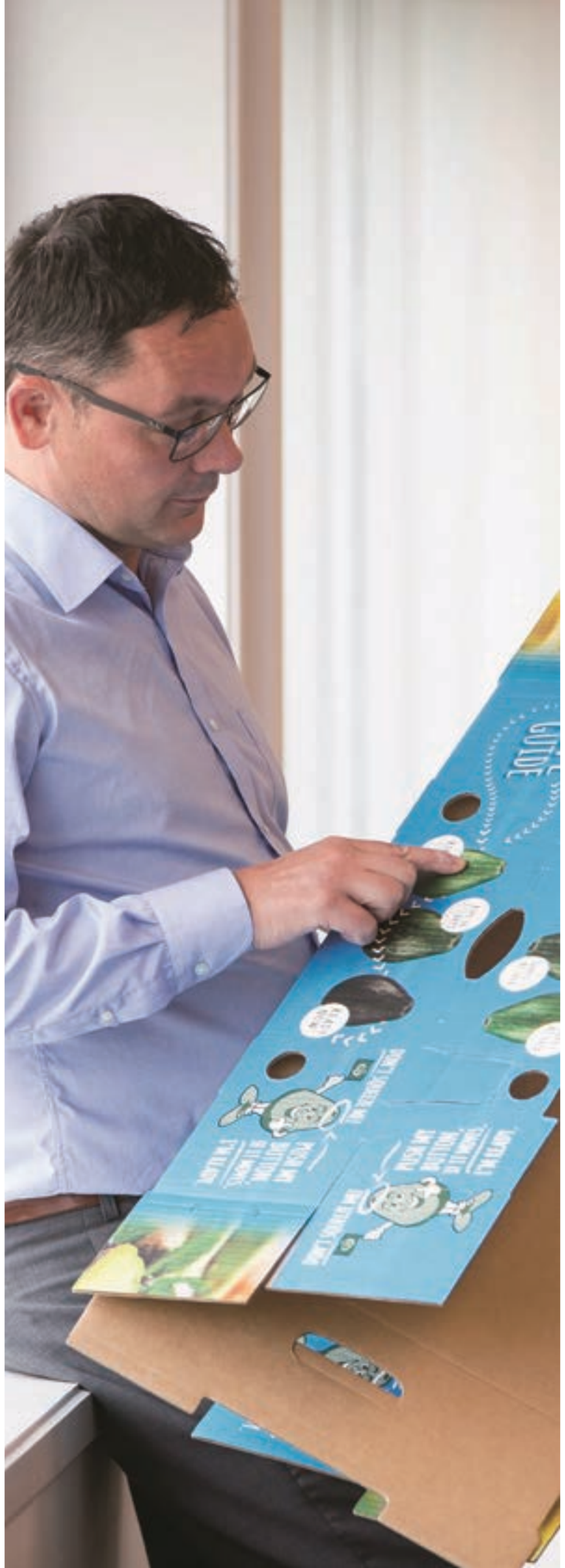
Creation of Innovative Value

Innovation is essential for the Oji Group to make a big leap forward. Changes must take place in the research and technological development leading up to revolutionary new products. At the same time, our organizational systems and the behaviors of each and every employee need to be transformed. We will promote “challenging manufacturing” based on novel ideas and fulfill society’s latent needs.



Contribution to the Future and the World

The Oji Group comprises a diverse range of businesses. We have grown into a global corporate group, with an overseas sales ratio of around 30%. The Group will continue to provide innovative value to all countries, regions and societies and create a new future through proactive global expansion in Asian and other countries.



Harmony with Nature and Society

Sustainable resource circulation based on forest resources is the foundation of the Oji Group. We will advance our initiatives such that the business activities themselves contribute to a sustainable society. The initiatives include using vast areas of company-owned forest in and outside Japan for multiple purposes, and seeking measures to reduce the environmental burden at manufacturing sites.



Photo by João Rabelo

We publish the Oji Group Integrated Report. This report presents both financial and non-financial information in an easy-to-understand manner so as to deepen investors' and other stakeholders' understanding of the Group. This fiscal year's report was compiled in such a way that provides narratives and makes it easier to understand. We have also established a "Sustainability Report (online)" section on our website. The web page and the Integrated Report complement each other.

The society and the global environment surrounding us now stand at a crossroads due to a combination of existing issues, such as climate change and marine plastic litter, and the impact of COVID-19 that emerged this fiscal year. Under these circumstances, Oji Holdings, operating a sustainable paper manufacturing business since our foundation, with forest resources as the core of our business, has held numerous discussions by obtaining internal and external cooperation to sincerely and carefully communicate what new values can be created, and how we can contribute to social safety and security and the global environment.

We hope that the Oji Group Integrated Report will help you understand more about the Oji Group and our initiative to fulfill our mission to continue innovating to implement our business activities that contribute to advancing our society, with a view toward the future, through deeper communication with stakeholders.

Editorial Policies

When preparing this Report, and reference was made to the following. Additionally, the report is structured in relation to the 10 principles in four areas found in the United Nations Global Compact.

- International Integrated Reporting Framework (International Integrated Reporting Council)
- GRI Standard (Global Reporting Initiative)
- Guidance for Collaborative Value Creation (Ministry of Economy, Trade and Industry)

Ensuring Reliability

To ensure the reliability of this report, FY2019 figures marked with a star (★) have been assured in accordance with the International Standard for Assurance Engagements (ISAE) 3000 and ISAE 3410 by KPMG AZSA Sustainability Co., Ltd.

Scope of Coverage of this Report

In general, this report covers Oji Holdings, 189 consolidated subsidiaries, and 24 equity-method affiliates (as of March 31, 2020). In cases where coverage differs, this is indicated.

Reporting Period

The reporting period is from April 1, 2019 to March 31, 2020. With the exception of numerical data, however, activities carried out from and after April 2020 are also referenced.

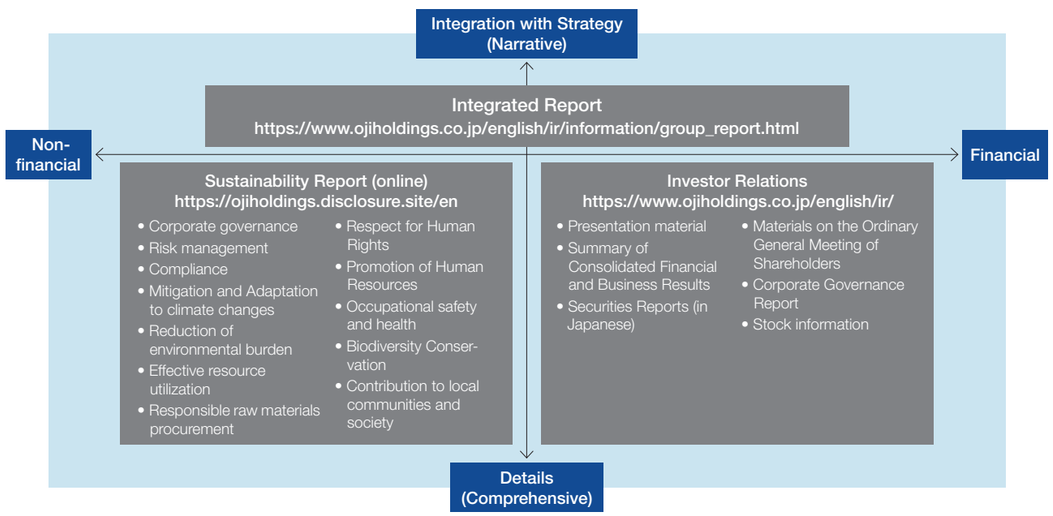
Disclaimer Regarding Forecasts and Other Forward-looking Statements

Forecasts and other forward-looking statements in this report represent projections by Oji Holdings based on information available at the time of publication and reasonable judgments and therefore contain uncertainties. Actual results may differ substantially due to various factors.

This Report is Printed on Forest Certified Paper

This report uses OK Top Kote Matt N EF paper (cover: 157.0 g/m^2; text: 104.7g/m^2) manufactured by Oji Paper, an Oji Group company. The report is printed on FSC™ forest certified paper made from resources harvested from responsibly-managed forests (FSC™ C014119).

Communication Map



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Photos on the Cover

① Yubari mountain forest (Hokkaido)
② Kaweka mountain forest (New Zealand)
③ Rubeshibe mountain forest (Hokkaido)
④ A fairy pitta
⑤ Tomakomai mountain forest (Hokkaido)

Evaluation from Society

FTSE Blossom Japan Index
Oji was selected for FTSE Blossom Japan Index, one of the ESG indexes selected by Government Pension Investment Fund (GPIF), in September 2019. (Scope: Oji Holdings)

FTSE4Good Index Series
Oji was selected for FTSE4Good Index Series, an ESG index established by FTSE Russell, in September 2019. (Scope: Oji Holdings)

SOMPO Sustainability Index
Oji was selected in June 2019 for SOMPO Sustainability Index, which is used for SOMPO Sustainable Investment, an investment product of Sompo Asset Management Co., Ltd. (Scope: Oji Holdings)

S&P/JPX Carbon Efficient Index
Oji has been selected for S&P/JPX Carbon Efficient Index in September 2018. Constituents of the index are selected with a focus on companies' disclosure of environmental information and carbon emissions per sales. (Scope: Oji Holdings)

SUSTAINA ESG AWARDS 2020
Oji won the gold award in the Pulp and Paper category of the SUSTAINA ESG AWARDS 2020 in September 2020. The award program honors companies that are actively engaged in ESG initiatives. (Scope: Oji Holdings)

MSCI Japan Empowering Women (WIN) Index
Oji has been selected since June 2017 for MSCI Japan Empowering Women (WIN) Index, an ESG index established by MSCI Inc. (Scope: Oji Holdings)

"Eruboshi" certification received pursuant to the Act on Promotion of Women's Participation and Advancement in the Worksite
On December 21, 2017, Oji Holdings was granted "Eruboshi" (Grade 3, the top grade) company certification by the Minister of Health, Labour and Welfare in recognition of its efforts to promote women's participation and career advancement. (Scope: Oji Holdings)

FY2017 "Nadeshiko Brand"
On March 22, 2018, Oji was designated by the Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange as "Nadeshiko Brand" companies as enterprises that are outstanding in terms of encouraging the empowerment of women in the worksite. (Scope: Oji Holdings and Oji Management Office)

JPX Nikkei Index 400
Oji has been selected for JPX Nikkei Index 400 since August 2014. The stock price index comprises stocks that meet the requirements of global investment standards and are attractive to investors. (Scope: Oji Holdings)

Since its founding in 1873, the Oji Group has been growing through the expansion of business fields. While keeping abreast of the trends of the times, we have tackled changing social needs and evolved our business structure. In recent years, aiming for contribution to a sustainable society, we have been actively rolling out the technologies cultivated in our domestic business to the global market.

1873 Birth of the Modern Paper Manufacturing Industry

The origin of the Oji Group dates back to the establishment of Shoshi Kaisya, a paper manufacturing company by Eiichi Shibusawa, the founder of the modern Japanese economy.



From Shibusawa Memorial Museum Collection

Shibusawa advocated that "paper and printing businesses are the source of civilization." He held on to his great ambition to supply domestic paper.

1910 Establishment of Domestic Supply Structure

We established the Tomakomai Mill in a fishing village in Hokkaido, which had abundant resources such as forests and water as well as vast and flat land, which are required for paper manufacturing, and started producing newsprint.



We worked on unimaginably difficult construction such as building a latest hydroelectric power plant at Waterfall Nassou on the undeveloped shore of Lake Shikotsu.

1950s Efforts toward New Technologies

With a view to producing high-quality paper quickly and in large quantities, we turned to a continuous digester, which was unproven at the time but highly productive. We introduced the equipment at the Kasugai Mill.



Tomakomai Mill for newsprint and Kasugai Mill for woodfree paper contributed to our growth. Kasugai Mill even became a pioneer of urban factories.

1970s Changing Lifestyles and Diversification of Paper

Demand for paper was only growing, and people started to have high expectations for the material, which found its way into products other than newsprint and printing paper.



Paper materials such as boxboard, thermal paper, and household paper have come to play an active role in various situations that support daily life.

1990s Response to Environmental Issues

Attention was drawn to issues that are directly related to people's lives, such as resource saving, energy saving, and urban waste treatment.



Light-weighted newsprint became common, and in the household paper field, we succeeded in volume reduction of tissue paper cartons. In addition, due to advances in recovered paper utilization technology, the recovered paper utilization ratio exceeded 50%.

2000s Shift in the Business Structure

Paper production volume has been declining since 2008.
This unprecedented crisis created an opportunity for shifts in the business structure.



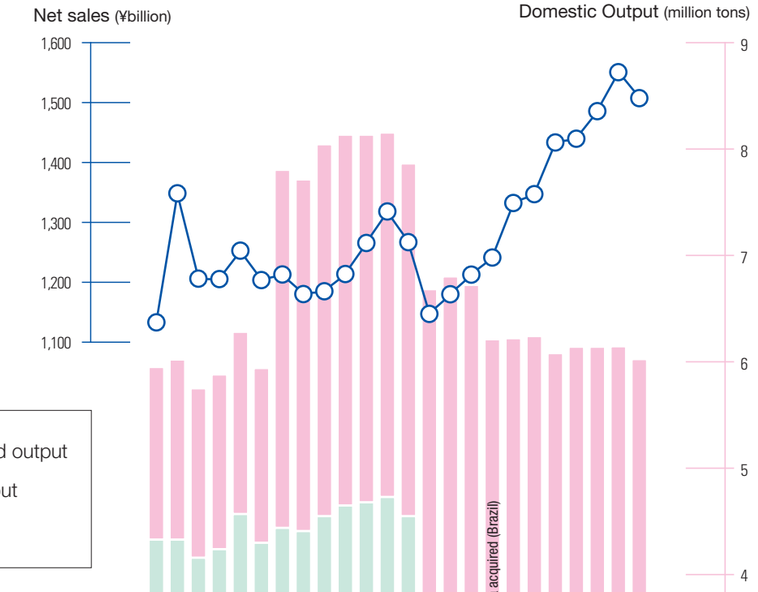
Demand for paperboard as a packaging material was strong. The production ratio of paper and paperboard gradually changed.

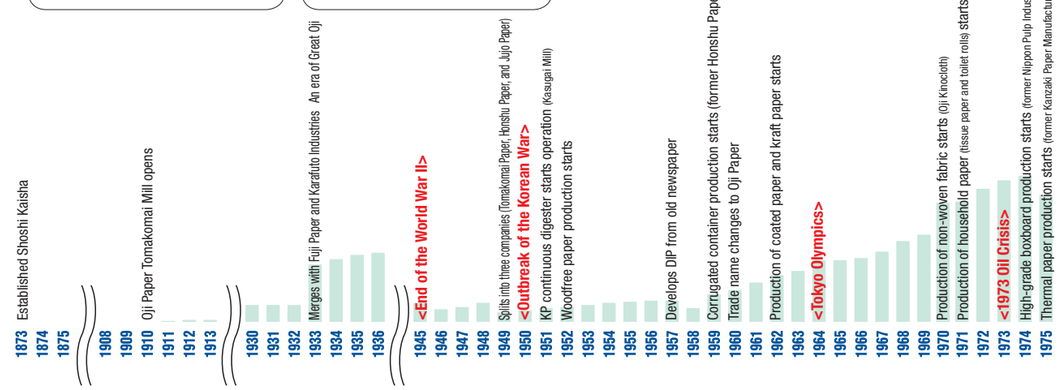
2010s Further Global Deployment

We actively developed the overseas business with a focus on Southeast Asia.
The overseas sales ratio reached approximately 30%.



We have newly established corrugated container and folding carton factories in Malaysia, Cambodia and India, among other countries, to meet vigorous local demand.





Oji HD Corporation

Industrial Materials COMPANY

P.38

Main businesses

Containerboard and corrugated containers business,
Boxboard and folding cartons business,
Packaging papers and paper bags business,
Household paper business,
Disposable diaper business





©Yanase FTN

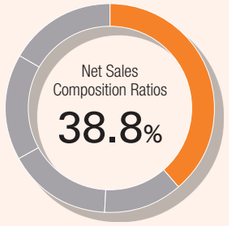
Affiliated companies

Domestic
43 companies

Overseas
44 companies

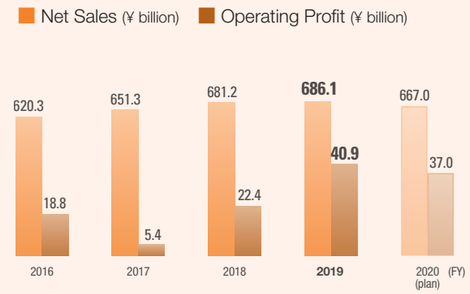
Domestic 1 companies
Overseas 8 companies

Earning structure



Net Sales
¥ 686.1 billion

Operating Profit
¥ 40.9 billion



Household and Consumer Products COMPANY

P.41

Functional Materials COMPANY

P.44

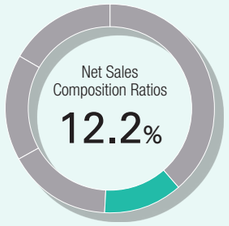
Specialty paper business, Thermal paper business,
Adhesive products business, Film business





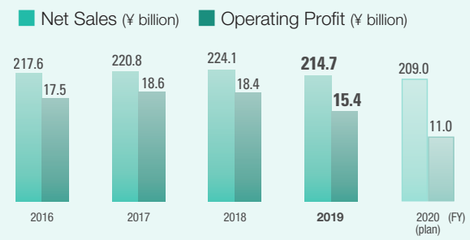
Domestic
10 companies

Overseas
13 companies



Net Sales
¥ 214.7 billion

Operating Profit
¥ 15.4 billion



Forest Resources and Environment Marketing COMPANY

P.48

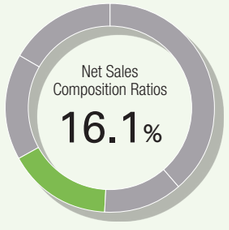
Pulp business, Energy business, Plantation and lumber processing businesses, Starch and Sweetener Products Business





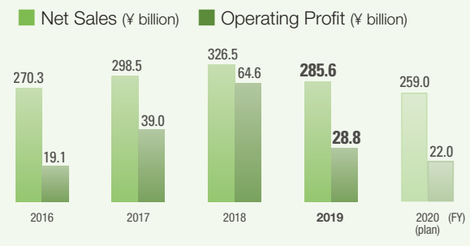
Domestic
15 companies

Overseas
16 companies



Net Sales
¥ 285.6 billion

Operating Profit
¥ 28.8 billion



Printing and Communications Media COMPANY

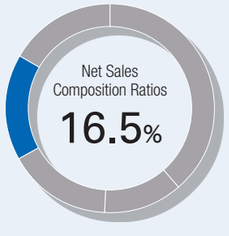
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Newsprint business,
Printing, publication, communications paper business



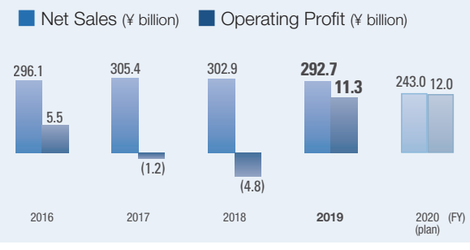
Domestic
7 companies

Overseas
1 companies



Net Sales
¥ 292.7 billion

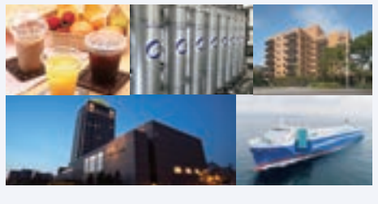
Operating Profit
¥ 11.3 billion



Corporate Management Group and Shared Service Companies

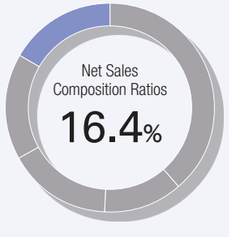
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Real estate, Engineering, Trading, Logistics, etc.



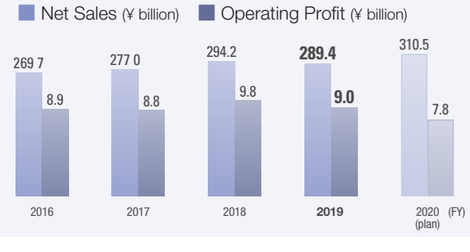
Domestic
15 companies

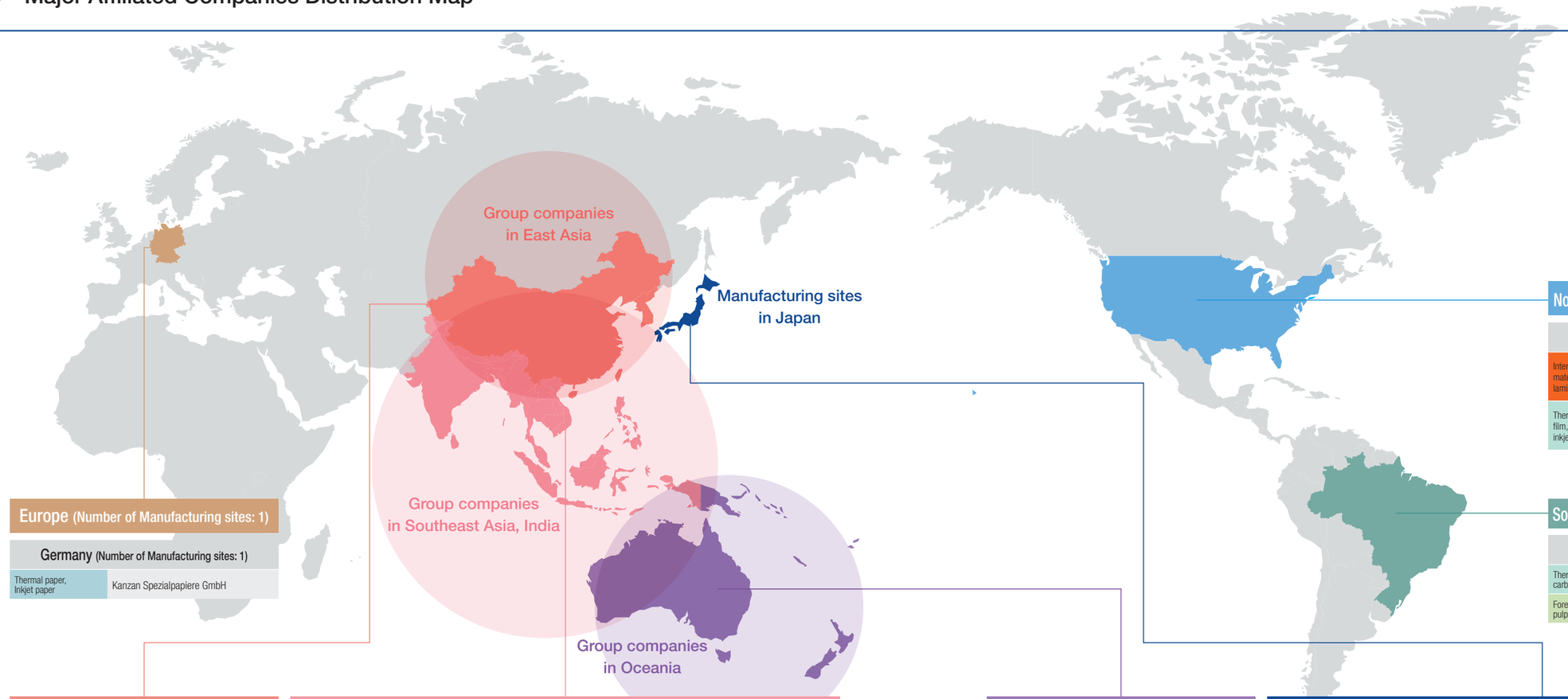
Overseas
16 companies



Net Sales
¥ 289.4 billion

Operating Profit
¥ 9.0 billion





Europe (Number of Manufacturing sites: 1)

Germany (Number of Manufacturing sites: 1)

Thermal paper, Inkjet paper	Kanzan Spezialpapiere GmbH

North America (Number of Manufacturing sites: 2)

America (Number of Manufacturing sites: 2)

Interior automotive material, laminating	Oji Intertech, Inc.
Thermal paper, film, inkjet paper	Kanzaki Specialty Papers, Inc.

South America (Number of Manufacturing sites: 2)

Brazil (Number of Manufacturing sites: 2)

Thermal paper, carbonless paper	Oji Papéis Especiais Ltda.
Forest plantation, pulp	Celulose Nipo-Brasileira S.A.

Group companies in East Asia (Number of Manufacturing sites: 10)

China (Number of Manufacturing sites: 8)

Regional headquarters	Oji Paper Management (Shanghai) Co., Ltd.
Heavy-duty corrugated containers	Suzhou Oji Packaging Co., Ltd.
Corrugated containers	Dalian Mori Mitsui Packaging Co,. Ltd.
Heavy-duty corrugated containers	Cheng Yuang Paper Business Co,. Ltd.
Paper bags	Oji Packaging (Shanghai) Co., Ltd.
Filter	Kunshan Oji Filter Co., Ltd.
Cut and processed products of dry pulp non-woven fabric, thermal paper, and specialty paper	Oji Kinocloth (Shanghai) Co., Ltd.
Decorative paper	Sunshine Oji (Shouguang) Specialty Paper Ltd.
Sales	Oji Paper International Trading (Shanghai) Co., Ltd.
Household paper, disposable diapers	Jiangsu Oji Paper Co., Ltd.
Pulp	
Coated paper, wood-free paper	

Korea (Number of Manufacturing sites: 2)

Heavy-duty corrugated containers	Oji Interpack Korea Ltd.

Group companies in East Asia (Number of Manufacturing sites: 41)

Malaysia (Number of Manufacturing sites: 16)

Regional headquarters	Oji Asia Packaging Sdn. Bhd.
Regional headquarters	Oji Asia Management Sdn. Bhd.
Containerboard, corrugated containers	GSPP Group
Containerboard, corrugated containers, plastic bags	Harta Packaging Group
Corrugated containers	United Kotak Bhd.
Disposable diapers	People & Grit (M) Sdn. Bhd.
Disposable diapers	Oji Asia Household Product Sdn. Bhd.
Label printing & converting	Hyper-Region Labels Sdn. Bhd.
Thermal paper & carbonless paper printing & converting	Tele-Paper (M) Sdn. Bhd.

Cambodia (Number of Manufacturing sites: 3)

Corrugated containers, plastic bags	Harta Packaging Group

Myanmar (Number of Manufacturing sites: 2)

Corrugated containers	Oji GS Packaging (Yangon) Co., Ltd.
Packaging materials	Oji Myanmar Packaging Co., Ltd.

India (Number of Manufacturing sites: 4)

Corrugated containers	Oji India Packaging Pvt. Ltd.
Heavy-duty corrugated containers	Oji Interpack India Pvt. Ltd.

Thailand (Number of Manufacturing sites: 5)

Corrugated containers, folding cartons	S.Pack & Print Public Co., Ltd.
Heavy-duty corrugated containers	Union and Oji Interpack Co., Ltd.
Carbonless paper, thermal paper	Oji Paper (Thailand) Ltd.
Adhesive paper, release paper	Oji Label (Thailand) Ltd.

Vietnam (Number of Manufacturing sites: 9)

Corrugated containers	Ojitex (Vietnam) Co., Ltd.
Corrugated containers	Ojitex Haiphong Co., Ltd.
Paper bags	Japan Paper Technology (VN) Co., Ltd.
Paper bags	Japan Paper Technology Dong Nai (VN) Co., Ltd.
Folding cartons	United Packaging Co., Ltd.
Forest plantation	Quy Nhon Plantation Forest Co. of Vietnam Ltd.
Sales	Oji Forest Products Vietnam Co., Ltd.

Indonesia (Number of Manufacturing sites: 2)

Disposable diapers	PT Oji Indo Makmur Perkasa
Sales	PT Indo Oji Sukses Pratama
Forest plantation, woodchips, woodpellets	PT Korintiga Hutani

Group companies in Oceania (Number of Manufacturing sites: 16)

Australia (Number of Manufacturing sites: 6)

Corrugated containers paper cups	Oji Fibre Solutions
Forest plantation	Green Triangle Plantation Forest Co. of Australia Pty. Ltd.
Forest plantation	Albany Plantation Forest Co. of Australia Pty. Ltd.
Woodchips	Albany Plantation Export Co., Pty. Ltd.

New Zealand (Number of Manufacturing sites: 10)

Containerboard, corrugated containers, paper bags	Oji Fibre Solutions
Pulp	
Forest plantation, pulp, lumber business	Pan Pac Forest Products Ltd.
Lumber business	Pan Pac Forest Products (Otago) Ltd.
Forest plantation	Southland Plantation Forest Co. of New Zealand Ltd.

Manufacturing sites in Japan (Number of Manufacturing sites: 102)

Company management	Oji industrial Materials Management Co., Ltd.
Containerboard, boxboard, packaging papers	Oji Materia Co., Ltd.
Corrugated containers	Oji Container Co., Ltd.
	Morishigo Co., Ltd.
Folding cartons	Oji Packaging Co., Ltd.
Paper bags	Oji Seitai Co., Ltd.
Household papers, disposable diapers	Oji Nepia Co., Ltd.
Company management	Oji Functional Materials Progressing Center Inc.
Specialty paper, films	Oji F-Tex Co., Ltd.
Themal paper	Oji Imaging Media Co., Ltd.
Adhesive products	Oji Tac Co., Ltd.
Adhesive products, medical	New Tac Kasei Co., Ltd.
Non-woven fabeic	Oji Kinocloth Co., Ltd.
Printing, processing, packaging materials	Chuetsu Co., Ltd.
Company management	Oji Green Resources Co., Ltd.
Woodchips, lumber business etc.	Oji Forest & Products Co., Ltd.
Energy	Oji Green Energy Shiranuka Co., Ltd.
Energy	Oji Green Energy Ebetsu Co., Ltd.
Energy	Oji Green Energy Nichinan Co., Ltd.
Energy	MPM Oji Eco-Energy Co., Ltd.
Newsprint, printing and publication paper, communications paper	Oji Paper Co., Ltd.

① Listed only for major affiliated companies (As of March 31, 2020)

② Production bases do not include sales companies and tree planting

List of Affiliated Companies pp.104-105

Industrial Materials Business　Household and Consumer Products Business　Functional Materials Business
Forest Resources and Environment Marketing Business　Printing and Communication Media Business
Other Businesses (Company management, Regional headquarters, Sales)

Financial Highlights

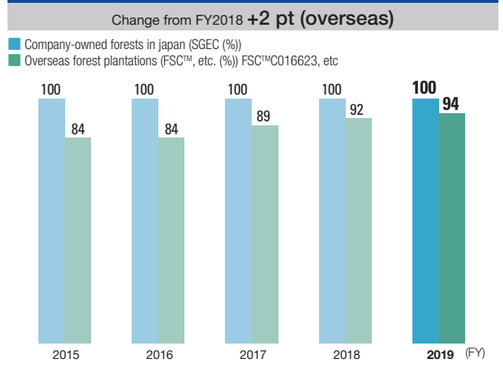
Segment		FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
Overseas sales ratio	(%)	7.8	9.7	10.6	16.7	20.3	22.8	27.8	28.2	31.0	32.0	**29.9**
Operating profit	(¥billion)	73.7	65.4	53.8	43.5	57.3	43.9	72.0	70.2	70.8	110.2	**106.1**
Profit per share	(¥)	25.18	24.92	22.46	21.91	32.01	15.71	12.86	40.74	36.64	52.52	**58.78**
Free cash flows	(¥billion)	89.4	25.7	38.3	29.2	42.1	(74.6)	84.8	117.2	49.2	74.0	**59.7**
Net D/E ratio	(times)	1.6	1.7	1.6	1.4	1.1	1.0	1.0	0.8	0.7	0.7	**0.6**
Return on equity (ROE)	(%)	5.8	5.6	5.0	4.6	5.9	2.6	2.1	6.7	5.6	7.7	**8.5**
Capital investment, etc.	(¥billion)	83.0	77.1	54.7	70.1	76.7	80.1	57.4	57.9	69.3	62.1	**97.5**
Dividend per share	(¥)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	12.0	**14.0**

Non-financial Highlights

Forest certification acquisition rate

Japan: 100%, Overseas: 94%

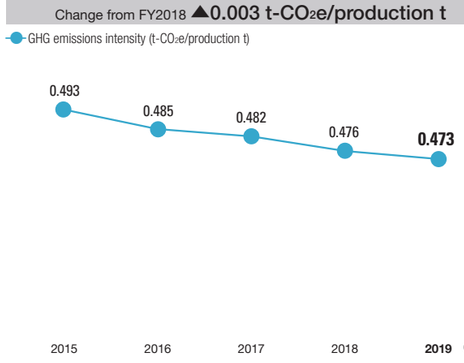
Change from FY2018 **+2 pt (overseas)**



GHG* emissions intensity

0.473 t-CO_2e/production t

Change from FY2018 **▲0.003 t-CO_2e/production t**

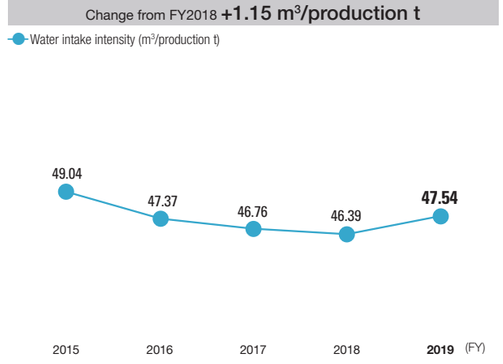


*Greenhouse Gas

Water intake intensity

47.54 m³/production t

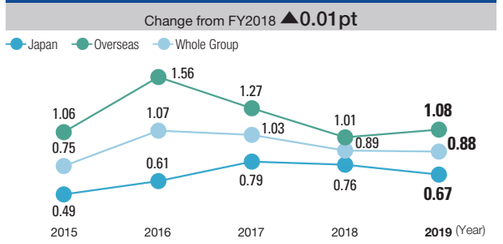
Change from FY2018 **+1.15 m³/production t**



Lost Time Injury Freguency Rate* (LTIFR)

0.88

Change from FY2018 **▲0.01pt**

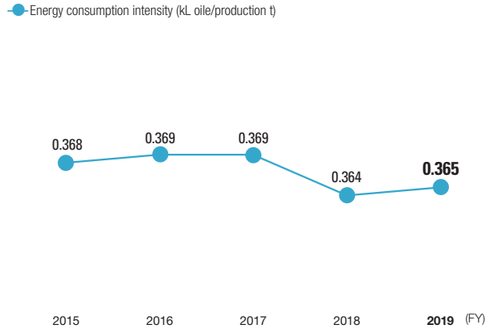


*(1) Covered period: January 1 to December 31
(2) The frequency rate is an indicator of the frequency of occupational accidents as the number of fatalities and injuries (fatal accidents and accidents resulting in at least one day of lost work) caused by occupational accidents per one million working hours.
Lost time injury frequency rate (LTIFR) = (Number of occupational accident casualties ÷ Total working hours) × 1,000,000
(3) Total working hours are calculated based on the number of group company employees (regular employees and temporary/non-regular employees) as of the end of September every year, assuming the annual working hours per person is 2,000 hours.
(4) Unlike the figures in previous years, the frequency ratio calculation of each year shown in the graph above is adjusted retroactively to also include accidents at overseas group companies that are not determined to be at the level of accidents accompanied by injuries with lost work days in Japan.

Energy consumption intensity

0.365 kL oile*/production t

Change from FY2018 **+0.001 kL oile/production t**

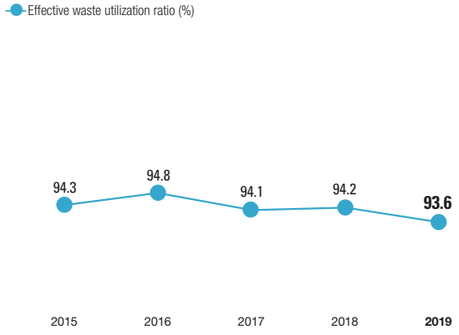


*Energy amount converted to crude oil value

Effective waste utilization ratio

93.6%

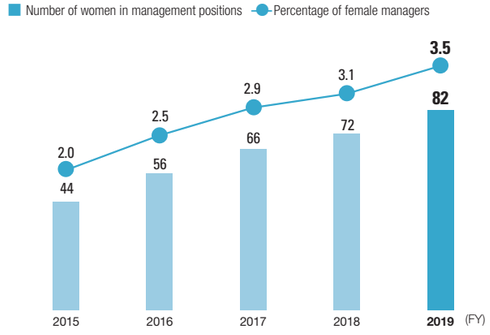
Change from FY2018 **▲0.6pt**



Percentage of female managers (16 Oji Group companies in Japan)

3.5%

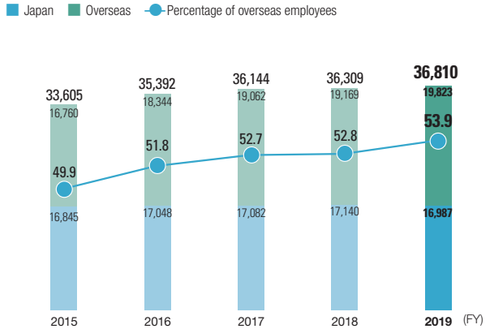
Change from FY2018 **+0.4pt**



Number of employees (excluding temporary employees)

36,810

Change from FY2018 **+501(overseas +654)**



The Oji Group's Vision for a Sustainable Society

Masatoshi Kaku

Representative Director of the Board,
President and Group CEO



As we face a challenging year, amid dramatic changes in the world around us, I would like to look back on the path the Oji Group has taken to get where we are today, and present my opinion on our path into the future.

The Oji Group will continue to progress, with the commitment to contributing to the building of a sustainable society through the enhancement of corporate value.

I. Introduction

I would like to begin by expressing my deepest condolences for those who have lost their lives as a result of COVID-19 and their bereaved families, and my earnest sympathies for those currently battling the disease. I would also like to express my respect for the officials and healthcare workers who are making every effort to prevent the spread of the infection.

These hardships have helped all of us realize how precious our normal lives, which we used to take for granted, are and that a company is an entity that lives in harmony with society. At the Oji Group, we will do our utmost to fulfill our role, doing our part to bring this pandemic under control as soon as possible. We are utilizing our expertise, and have decided to increase production of masks and non-woven fabric used in isolation gowns. We also sell many products that play a vital part in maintaining everyday life, such as health and sanitary products including tissue paper and toilet paper, the corrugated containers and folding carton products that support logistic services, and newsprint to convey information. We will ensure the continuation of production activities, while thoroughly implementing measures to prevent infection, and strive to provide society with a little peace of mind.

II. Sustainable Growth as a Corporate Group Required by Society

The Oji Group's DNA passed down since our founding while responding to social change

The origins of the Oji Group can be found in 1873, when Eiichi Shibusawa established Shoshi Kaisha with the aim of developing the domestic paper manufacturing industry. He was committed to supporting social and economic development in Meiji Era Japan through the proliferation of books and newspapers to raise the level of knowledge of the public. Today, we engage in a wide range of businesses, including printing and communications paper and newsprint in the Printing and Communications Media Business that draws upon the roots, as well as packaging materials such as corrugated containers, household paper, and disposable diapers in the Household and Industrial Materials Businesses, specialty paper, thermal paper, adhesive paper, and film products in the Functional Materials Business, plantation forest maintenance and management, the manufacture and sale of pulp, and the supply of electricity utilizing renewable energy in the Forest Resources and Environment Marketing Business. Besides, our businesses have expanded globally. During our long history, spanning 150 years, we have greatly expanded our business domains and geographical spread. There is one way of thinking, however, that we have always emphasized in our management and business operations: our founding spirit.

We are the successors to the philosophy of "unity of economy and morality" advocated by Eiichi Shibusawa, who is our founder and deemed the father of the modern Japanese economy. Even as the business world is going global and approaches to work styles and management are diversifying, we value our corporate social responsibility based on the philosophy.

Enhancing corporate value and contributing to a sustainable society through the three facets of our management philosophy

Our **management philosophy** upholds the **"Creation of Innovative Value," "Contribution to the Future and the World,"** and **"Harmony with Nature and Society."** Just keeping the tradition alive will not lead us to increase corporate value in a constantly changing society. We believe that by realizing the concept of "challenging manufacturing" to fulfill both present and future needs, our technology and experience cultivated over the years can keep supporting people's lives into the future in various forms. In order to continue to bring "innovative value" to society in anticipation of changing needs of society, we will embrace change (transformation) and demonstrate our ability to tackle hardships inherited from the forerunners who have overcome the economic turmoil throughout history.

Management Philosophy

"Creation of Innovative Value"
Promptly detect changes in values across broad fields of society and strive to offer "innovative value" that fulfill society's latent needs by promoting "challenging manufacturing" based on novel ideas.

"Contribution to the Future and the World"
Continue to be a global enterprise that provides "innovative value" to all countries, regions, and creating a new future.

"Harmony with Nature and Society"
Actively address environmental problems and contribute to the realization of a sustainable society for the sake of continual existence and flourishing with nature and the Earth.



The corporate group image expressed by the slogan “Beyond the Boundaries”

With its history spanning 150 years, the Oji Group is often regarded as a “long-established, traditional paper company.” In reality, “transformation” has always been a key part of our history. I would like to take this opportunity to look back on one of the great transformations we have undergone in recent years: our transition to a pure holding company structure in 2012.

From the early 2000s, the business environment gradually began to change due to factors such as Japan’s aging population and declining birth rate, the development of information and communications technology, and the rise of imported paper. It was transformed dramatically through the global financial crisis in 2008. In particular, the supply-demand structure in paper manufacturing, one of our main businesses, underwent profound change, which forced us to reconsider the structure of our organization on the premise that the market would shrink. In 2012, we transitioned to a holding company structure, with the aim of clearly demonstrating, both within and outside the Oji Group, our strategy and policy of pushing forward strongly with business restructuring. Our **new slogan “Beyond the Boundaries”** was created in tandem with the transition. It expresses our determination to move forward into the future as a truly global company by actively going beyond various “boundaries” including business domains, national territories, and the individual abilities of our employees, to contribute broadly to society and the world. The Oji Group has made a fresh start, sharing with its employees and other stakeholders the positive attitude that it is willing to take on the challenge of overcoming old customs and mindsets to confront the changes in the business environment.

III. Changes in the Oji Group’s Environment, Medium- to Long-Term Outlook and Challenges

Management direction from the transition to a holding company structure through the FY2016–2018 Medium-term Management Plan

The transition to a holding company structure prompted us to launch full-fledged efforts to break away from the business structure that was overdependent on domestic demand of papermaking and other businesses. In response to the shrinking market of the domestic Printing and Communications Media Business, we have pursued the optimal manufacturing system, generated cash flows and management resources, and reallocated them to other promising businesses and growth areas overseas. These initiatives have finally started to bear fruit. In FY2018, the final year of the previous medium-term management plan, we not only achieved our long sought-after target of consolidated operating profit of 100 billion yen, but also firmly established a structure to bring in profit from overseas, raising the overseas sales ratio, which had been less than 10.0% in FY2010, to as high as 32.0%. We also achieved our targets for reducing interest-bearing debts with room to spare, building a financial foundation for our next growth strategy.

■ Performance Indicator Targets Under the FY2019–2021 Medium-term Management Plan

- Consolidated operating profit: At least **150** billion yen (maintain stable operating profit of more than 100 billion yen)
- Overseas sales ratio: **40**% (with a target of more than 50% in the short term)
- ROE: **10.0**%
- Net D/E ratio: **Maintain current status** * FY2018 result: 0.7 times
- Market capitalization: At least **1** trillion yen

Goals of the FY2019–2021 Medium-term Management Plan

The Oji Group ended the previous medium-term management plan in FY2018 with consolidated operating profit of over 100 billion yen. On the other hand, we identified three issues as challenges for continued growth. Firstly, greater-than-expected shrinkage of the Japanese market deteriorated the utilization ratio of manufacturing facilities, and reduced our domestic business’ earnings capacity. Secondly, we should expand the overseas business, especially in the growing Southeast Asian and Indian markets. Specifically, we need to strengthen vertical integration from upstream raw materials to downstream conversion in the corrugated container business, and reinforce the local production systems in the disposable diaper business. Thirdly, in response to the shrinking paper market, we need to develop the third core material that will lead to the building of a sustainable society, and swiftly commercialize it. Doing so requires that we further hone our core technology cultivated through papermaking.

Under the current medium-term management plan spanning the three years from FY2019 to FY2021 launched last year, we set forth three pillars of the fundamental policy - **“1. Profitability Improvement of Domestic Business,” “2. Expansion of Overseas Business,”** and **“3. Promotion of Innovation,”** - to aim for **“Contribution to a Sustainable Society.”**

Regarding **“1. Profitability Improvement of Domestic Business,”** we positioned the rebuilding of our domestic business as a top priority. At a time when the overseas business faces a slowdown, albeit temporarily, it is not enough for the domestic business to simply secure cash flow through thorough cost reduction measures taken in the past. To generate cash flow more actively, we will take the efforts one step further. Concretely, we will (1) rebuild the manufacturing system in a fundamental way, (2) streamline the business by partnering with Mitsubishi Paper Mills and other companies, and (3) focus management resources on promising businesses whose demand is expected to stay firm. The recovery and improvement of the earnings capacity of the domestic business has become an urgent task.

With respect to **“2. Expansion of Overseas Business,”** there can be no doubt that it is overseas markets that are growing. Our policy is to target growth regions and growth fields in particular, and continue to expand our investment mainly in Asia and Oceania. More precisely, we seek organic business expansion from existing bases primarily in (1) the packaging business in Southeast Asia, India and Oceania, (2) the disposable diaper business in Southeast Asia and China, (3) the thermal paper business

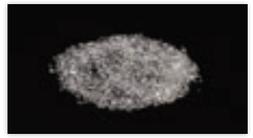
worldwide, and (4) the pulp business worldwide. At the same time, we will pursue synergy not only within a business but also across different businesses and bases, to improve profitability.

With regard to **"3. Promotion of Innovation,"** we will further sharpen the technologies cultivated through the paper manufacturing business. This initiative is aimed at accelerating the development of innovative new materials and products that potentially support the sustained growth of the Oji Group and become a source of revenue in the next generation. In addition to (1) cellulose nano-fiber and (2) medical products made from wood hemicellulose, which we expect to have an enormous potential, we will accurately address the needs of the times and seek business opportunities in (3) biomass plastic, (4) paper alternatives to plastic, and (5) next-generation packaging solutions, areas that are drawing attention as countermeasures to environmental and other social issues.

During the three-year period of the plan, the Oji Group will offer society a variety of value through business operations based on the above three fundamental policies in management, thereby contributing to achieving the Sustainable Development Goals (SDGs). The Group will also lay the firm foundation for the businesses to become a corporate group that constantly earns annual consolidated operating profit of over 100 billion yen.









Anticipated opportunities and risks from the spread of COVID-19, and our social responsibility

In this way, the FY2019–2021 Medium-term Management Plan was launched. Over the past year, we have seen signs of transformation in the business environment that could be comparable to, or perhaps far greater than, the drastic changes that occurred in the wake of the global financial crisis in 2008. The global COVID-19 pandemic has altered people's lifestyles. This transformation is not simply a temporary aberration, but is becoming the norm. This trend can be both a threat and an opportunity for us, and holds key to our future business operations. We will respond swiftly and appropriately to such changes.

The domestic business has witnessed a dramatic decline in demand for newsprint and printing and communications paper, due to changes in modes of consumption such as growth in stay-at-home demand and a sharp drop in inbound demand. The demand had been declining before the pandemic due to changes in communication methods, and in the context of so-called "new lifestyle," we cannot expect the demand to recover. Meanwhile, the corrugated containers business, household paper business, and some other businesses is growing in importance, and they are forecast to remain strong into the future. For better or worse, the COVID-19 pandemic has highlighted the direction of "selection and concentration" that we should take. It goes without saying that we must respond more promptly and accurately than ever before.

In the overseas business as well, we cannot deny the possibility of experiencing unanticipated hardship amid increasing uncertainty over global situations. While expanding the business fields and geographical spread through the business restructuring, we have built up a structure that allows bases to complement one another to generate stable profits for the Oji Group as a whole. We now feel the necessity to devote even more energy to accelerating these efforts.

Many of the Oji Group's products find application in our daily life. We will continue to ensure stable supply of these products.

IV. Current Progress on Management Strategy, Future Outlook and Response

I would now like to review our performance in FY2019, the first year of the FY2019–2021 Medium-term Management Plan, and present an overview of the outlook for the second year, FY2020.

1st Year of the 3-Year Medium-term Management Plan

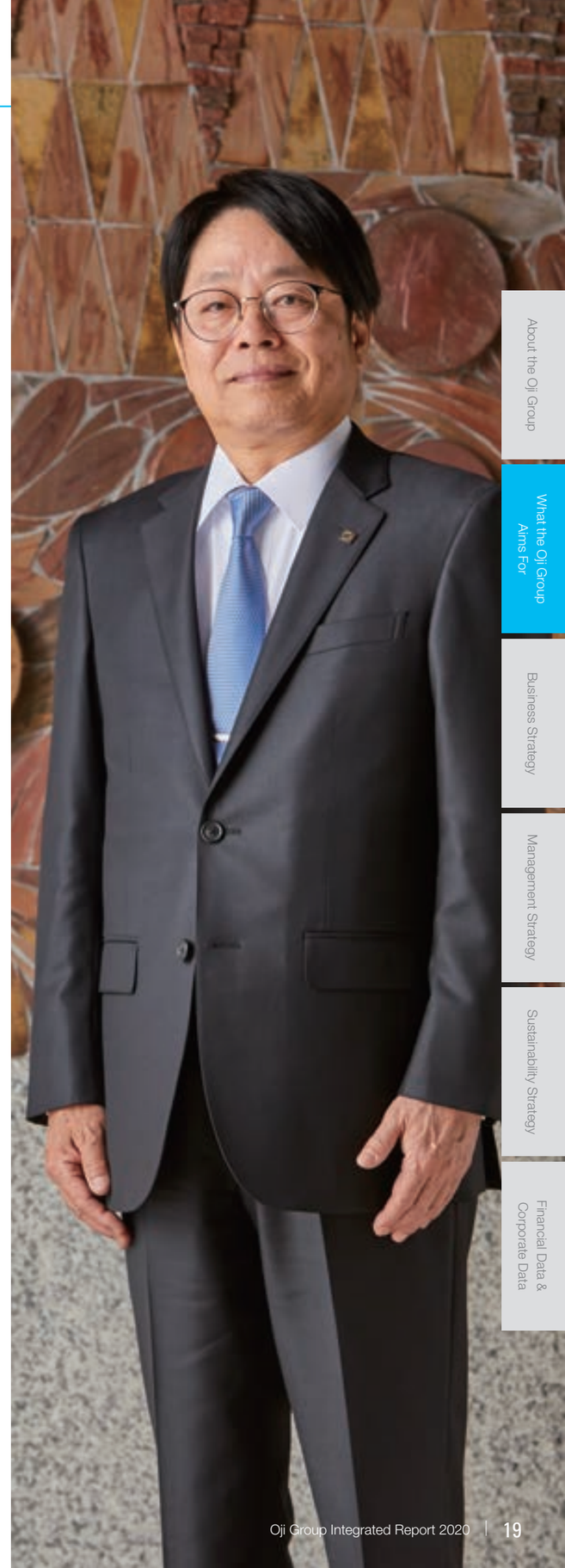
Review of FY2019

Consolidated net sales in FY2019 decreased 2.8% year-on-year to 1,507.6 billion yen. Operating profit decreased 3.7% year-on-year to 106.1 billion yen. The domestic business more than doubled its profit year-on-year, due to successful profit measures such as product price adjustments and cost reductions, but the overseas business suffered the weakening of the pulp market, which had been buoyant in the previous fiscal year. Ordinary profit declined 14.4% year-on-year to 101.3 billion yen. Profit attributable to owners of parent increased 11.9% year-on-year to 58.2 billion yen due to the recognition of a large-scale asset impairment in the previous fiscal year, hitting a record for a second consecutive year. The overseas sales ratio decreased 2.1 percentage points to 29.9%, ROE increased 0.8 percentage points to 8.5%, and the net D/E ratio decreased 0.1 points to 0.6 times.

2nd Year of the 3-Year Medium-term Management Plan

Outlook for FY2020

For FY2020, we anticipate net sales of 1,400 billion yen, down 7.1% year-on-year, and operating profit of 90 billion yen, down 15.2% year-on-year. Maintaining a stable consolidated operating profit of 100 billion yen is one of the targets of the medium-term management plan, and I deeply regret having to present this outlook, which falls below the target. The outlook is based on the assumption that the COVID-19 pandemic will cause net sales and operating profit to decrease by 67 billion yen (43 billion yen in Japan, 24 billion yen overseas) and 22 billion yen (13 billion yen in Japan, 9 billion yen overseas), respectively. In the domestic business, demand is expected to decline primarily for printing and communications paper, newsprint, specialty paper, and boxboard. In the overseas business, sales is forecast to fall due to the impact of temporary shutdowns mainly in China, Southeast Asia and New Zealand. With regard to other metrics, we forecast ordinary profit of 80 billion yen, a decrease of 21.0% year-on-year, and profit attributable to owners of parent of 50 billion yen, down 14.1% year-on-year. The overseas sales ratio and ROE are projected to drop 1.5 percentage points each to 28.4% and 7.0%, respectively. The net D/E ratio is predicted to remain unchanged at 0.6 times.



Medium-term management plan: Progress and future outlook of each fundamental policy

The above-mentioned impact of the COVID-19 crisis has manifested itself in the outlook for FY2020. Without the impact, operating profit for FY2020 would be higher year-on-year. This shows that our efforts are steadily producing results. We cannot leave ourselves at the mercy of outside events. The Oji Group will move forward step by step with initiatives in the management strategy, to make the best out of this situation.

The policy of **"1. Profitability Improvement of Domestic Business"** comprises (1) establishment of the optimal manufacturing system, (2) partnership with Mitsubishi Paper Mills, and (3) concentration of management resources on promising businesses. And there is more to come in each of these three initiatives. Regarding (1) establishment of the optimal manufacturing system, we have reached the stage of implementing specific plans formulated in FY2019. We will shut down, convert and transfer the manufacturing equipment at Oji Paper, Oji Materia and Oji F-Tex, with a view to strengthening cost competitiveness over the medium to long term and increasing cash flows. Under the initiative of (2) partnership with Mitsubishi Paper Mills, a joint venture of household paper and biomass power generation businesses commenced operation in FY2019. In July 2020, we completed the transfer of carbonless paper manufacturing and sale to Mitsubishi Paper Mills. We will continue to seek the ideal form of a comprehensive partnership in pursuit of mutual interests of both parties to maximize the synergy. The initiative of (3) concentration of management resources on promising businesses, has already presented tangible progress: a new corrugated container plant in Funabashi City, Chiba Prefecture, one of the largest in Japan, and a new household paper (toilet roll) converter at the Edogawa Mill, Tokyo, were put into operation in FY2020. Both facilities have reinforced the supply system that covers the Kanto region, a major consumption area. We will continue to grow our businesses including the packaging business, household paper business, and renewable energy business.

"2. Expansion of Overseas Business" is also progressing apace. Regarding (1) the packaging business in Southeast Asia, India and Oceania, a new containerboard facility in Malaysia will come on line in 2021. In addition to strengthening the manufacturing of cost competitive base paper, we are building corrugated container converting base one after another in each country. FY2019 saw the commencement of operation at the fifth facility in Vietnam, the third in Cambodia, and the fourth in India. In FY2020, our first facility in Indonesia will begin operation. In FY2021, our fourth facility in New Zealand is set to relocate and start running with state-of-the-art machines. We will seek to steadily capture the growing demand for corrugated containers, and increase our market share. Regarding (2) the disposable diaper business in Southeast Asia and China, a proprietary plant in Indonesia went into operation in FY2019. In FY2020 we will endeavor to expand production by adding converters and integrating manufacturing bases in Malaysia. In China, we have been strengthening e-commerce sales of "Made in Japan" products. In (3) the thermal paper business, the Oji Group has decided to expand and reinforce its facilities in Brazil to double the production capacity, in response to vigorous demand seen in South America. While maintaining the 85% market share in Brazil, we aim to expand our share in Latin America as a whole. Furthermore, we will develop the thermal paper business globally in the U.S., Germany, Thailand and Japan. For (4) the pulp business, we are striving to build a business foundation to keep securing stable profits, even as the business environment becomes increasingly harsh. We are working on profitability improvement. Such efforts include active investment in Brazil to update the manufacturing facilities, and in New Zealand to convert production varieties.

"3. Promotion of Innovation" is progressing as follows: we are advancing initiatives on (1) cellulose nano-fiber by leveraging our proprietary technologies to develop the use of the material and commercialize it, in collaboration with over 100 clients in and outside Japan. For example, cellulose nano-fiber has already found use in cosmetics and table tennis rackets. We aim to expand its utilization in materials for construction and civil engineering. Going forward, the Oji Group will continue to explore new applications. We will also further accelerate the development of (2) medical products made from wood hemicellulose, (3) biomass plastic, (4) paper alternatives to plastic, and (5) next-generation packaging solutions.

V. Fulfilling the "Contribution to a Sustainable Society"

So far, I have discussed the Oji Group's DNA, management philosophy, slogan, and management strategy. Collectively, these are a roadmap for enhancing corporate value and contributing to building a sustainable society. On the other hand, we must not forget the Oji Group's



"safety, environment and compliance" and "human resources" initiatives, which form the basis for all of the efforts mentioned above.

The "safety, environment and compliance" is the cornerstone for corporate survival, as one small misstep in this realm could ruin the relationship of trust with society that the Oji Group has built up until now. With regard to "safety," we are working to raise employees' awareness that their safety, health and happiness are a prerequisite for maintaining the Group's manufacturing activities. I have always kept in mind the mission of ensuring that "employees who come to work healthy in the morning go back home healthy at the end of the day," and inculcated the importance of proactively undertaking safety activities and protecting precious lives. In terms of the "environment," we continue focusing our energy on maintaining zero environmental incidents and zero product liability incidents. At the same time, we will protect and make good use of the Oji Forests in Japan and overseas, thereby offering solutions to environmental problems that draw global attention. The Oji Group's definition of "compliance" goes beyond the narrow sense of conformity with laws and regulations; the term also encompasses social norms, corporate ethics, and other general rules in society to abide by. Based on this idea, we are encouraging all officers and employees to be fully aware of "sound common sense," "sensitivity to immorality" and "courage to take action" and engage in business activities that cater to stakeholders' trust. Positioning the "safety, environment and compliance" as the most critical matter that prevails over all of our businesses, we will work on this matter attentively.

A company is its people, as the saying goes. At the Oji Group, it is not only a company itself but people within it, or its employees, that produce changes and execute the management strategies. Our business is premised on employees' insight into social changes, willpower and flexibility to embrace change, diversity and creativity to generate outside-the-box ideas, expertise needed to execute strategy and capability to play an active role globally. Human resources are the most indispensable factor in corporate management. We need to help the employees hone their abilities, and foster a culture that enables them to demonstrate their potential to the fullest. To this end, the Oji Group will focus on human resources initiatives including human resources development, working style reforms and promotion of diversity.

VI. Building Relationships with Stakeholders

Last but not least, I would like to send a message to all our stakeholders.

Oji Holdings intends to develop into a truly global enterprise, so as to continue co-existing with society and pioneering a future of the society. To do so, we will constantly take the challenges of transformation. We will make every effort to meet your needs and expectations. I look forward to your continued understanding and support.

The **sustainable business model** (resource circulation throughout the value chain) forms the foundation of the Oji Group. The Group will identify **material issues** through the **core competencies** that underpin the foundation, create social and economic value through business activities based on the risks and opportunities recognized in these issues, and contribute to a sustainable society.

Social Issues, Megatrends and Global Goals

- Climate change
- Natural disasters
- Resource depletion
- A sense of crisis in safety, security and health
- Environmental pollution (issues such as marine plastic litter)
- Increase in health-consciousness with greater longevity

SUSTAINABLE DEVELOPMENT GOALS

Management Philosophy

Sustainable Business Model

Resource circulation throughout the value chain

p.24

Core Competencies

p.24

Five Core Competencies Centered on Sustainable Forest Resources

- Global expansion of manufacturing that supports lives and industry
- Sustainable forest management
- Utilization of renewable resources
- Development of new materials derived from wood fiber
- Application of fundamental paper manufacturing technologies

Material Issues

p.28

ESG Perspective

- Mitigation and adaptation to climate change
- Sustainable forest management
- Responsible raw materials procurement
- Stable supply of safe and secure products
- Reduction of environmental burdens
- Effective resource utilization
- Respect for human rights
- Ensuring worksite safety and health
- Inclusion & diversity

Business Perspective

- Profitability improvement of domestic business
- Expansion of overseas business
- Promotion of innovation

Risks and Opportunities

p.28

FY2019–2021 Medium-term Management Plan

p.30

Business Strategy

p.38

- Household and Industrial Materials Businesses
- Functional Materials Business
- Forest Resources and Environment Marketing Business
- Printing and Communications Media Business
- Other businesses

Appropriate Utilization of Management Resources

Human capital	Human Resource Measures (pp. 92–94)
Intellectual capital	Promotion of Innovation (pp. 32–37)
Natural capital	Sustainable Forest Resources (pp. 26–27)
Manufactured capital	List of Affiliated Companies (pp. 104–105)
Financial capital	Financial Data Highlights (pp. 98–99)
Social & relationship capital	Responsible Raw Materials Procurement (p. 86)

Solve social issues

Social impact

Products









Impact on the Oji Group

Increase capital

Provide value to society

Mitigate climate change

Reduce environmental burden

Provide products vital to everyday life

Realize a society with healthy longevity



Contribute to a sustainable society

Enhance corporate value

FY2019-2021 Medium-term Management Plan Performance Indicator Targets

Consolidated operating profit

150 billion yen or more

(maintain stable operating profit of more than 100 billion yen)

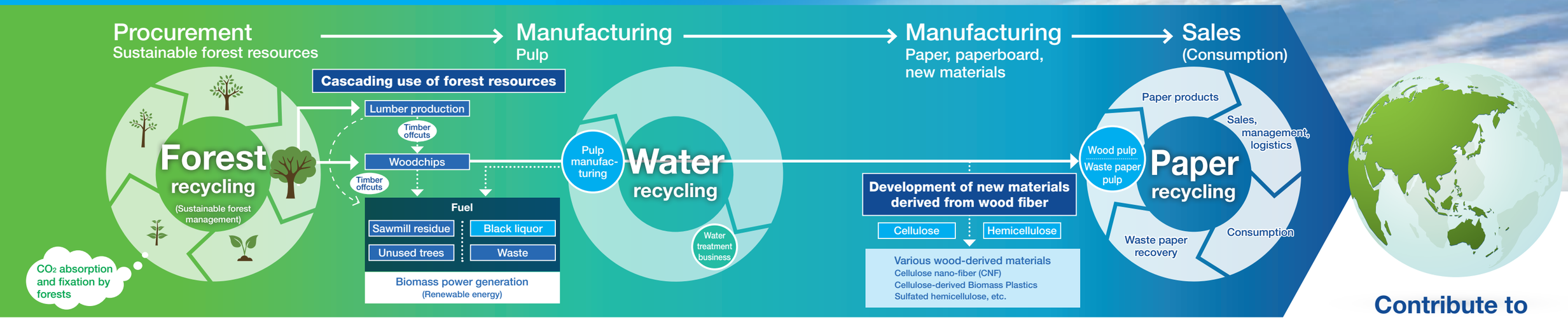
Overseas sales ratio

40%

(with a target of more than 50% in the short term)

Sustainable business model
“Resource circulation throughout the value chain”

The Oji Group is working to ensure that its businesses contribute to a sustainable society, through the global expansion of its sustainable business model: “resource circulation throughout the value chain.” This sustainable business model is supported by five core competencies centered on sustainable forest resources.



Core Competencies Five core competencies centered on sustainable forest resources

1 Global Expansion of Manufacturing that Supports Lives and Industry	Global expansion of the packaging business, primarily corrugated containers, the household paper business, the disposable diaper business, the thermal paper business, and the pulp business
2 Sustainable Forest Management	Practicing environmentally, economically and socially friendly sustainable forest management, through maintaining and managing 190,000 hectares of company-owned forests, the largest private holding in Japan, and developing the forest plantation business that handles 250,000 hectares of forest plantations in six countries overseas
3 Utilization of Renewable Resources	Paper recycling, which accounts for around 60 percent of paper-making raw materials; water recycling by reusing water taken in through the pulp, paper and paperboard manufacturing processes
4 Development of New Materials Derived from Wood Fiber	Cellulose nano-fiber (CNF), cellulose-derived biomass plastic, medical products made from wood hemicellulose
5 Application of Fundamental Paper Manufacturing Technologies	Developing the biomass power generation business and the broader renewable energy business; the water treatment business such as industrial water production and industrial wastewater treatment

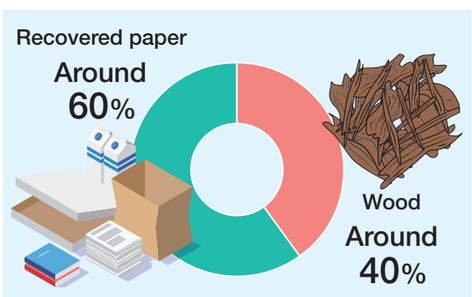
A Sustainable Business Model that Creates and Circulates Resources

Approximately 60 percent of the raw material used in paper is recovered paper, and the remaining 40 percent comes from woods. Both recovered paper and trees are renewable resources, coming from forest resources.

We use resources carefully, and ensure thorough resource circulation throughout the value chain so that our business development itself will contribute to building a sustainable society.

Specifically, we are engaged in three forms of recycling: “forest recycling” in which we practice sustainable forest management through growing, harvesting and planting trees; “water recycling” in which we reduce water consumption by circulating and reusing water in manufacturing processes and purify wastewater; and “paper recycling” in which we collect and recycle paper products.

We are also actively promoting the biomass power generation business and developing cellulose nano-fiber (CNF), biomass plastic and other new materials derived from wood fiber, so as to expand the sustainable business model.



Sustainable Forest Management

The Oji Group has valued the sustainability of forest resources since the 1910s. We positioned forest resources at the core of our sustainable business model and has put sustainable forest management into practice (pp. 24–25). We now own and manage forest plantations not only in Japan but also in nine regions of six countries outside Japan. Such forest plantations total 570,000 hectares. The portfolio comprises about 440,000 hectares of production forests primarily for producing forest products in consideration of environmental conservation, and about 130,000 hectares of conservation forests principally for preserving biodiversity and basins. In addition, we use the forest certification program to implement appropriate forest management in consideration of the environment, society and economy. The forest certification acquisition rates in FY2019 were 94% for overseas forest plantations and 100% for company-owned forests in Japan (pp. 72–73).

*In pursuit of sustainable forest management, a third-party organization certifies forests after examining whether they are managed in good condition according to the standard. The certification covers all types of forest, including production forests and environmentally protected forests. e.g.: FSC™ (FSC™C016623, etc.) and PEFC, etc.

Oji Forests..... 570,000 ha

Production forests..... 440,000 ha

Conservation forests..... 130,000 ha

Initiatives for Sustainable Forest Management

Country	Company	Established	Production forests (1,000 ha)	Conservation forests (1,000 ha)	Total (1,000 ha)
Brazil	CENIBRA	1973	146	123	269
New Zealand	Pan Pac	1971	35	0	35
	SPFL	1992	9	0	9
Indonesia	KTH	1998	37	6	43
Vietnam	QPFL	1995	9	0	9
Other (4 companies in Vietnam, Australia and China)		—	17	0	17
Overseas subtotal			253	129	382
Company-owned forests in Japan	–	1945	188	0	188
Group total			441	129	570



CENIBRA in Brazil: Production forest (left) and conservation forest (right)

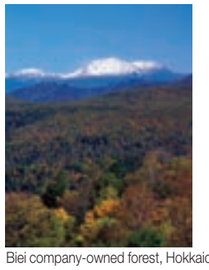
Production forests: forests primarily for producing forest products in consideration of environmental conservation.
Conservation forests: forests primarily for environmental conservation, including protecting biodiversity and basins.

Initiatives in Japan and Overseas

Company-owned Forests in Japan

The Group owns forests in approximately 650 locations throughout Japan, from Hokkaido to Kyushu. We plant fir, larch and Ezo spruce, among other species, in Hokkaido, and grows Japanese cedar and cypress in Honshu and southward. It takes over 60 years to harvest these trees. The harvested trees are processed into lumber and the residuals are used as raw materials for paper and wood-based fuel.

The Oji Group establishes collaborative relationships between people engaged in company forest management and users of lumber in each geographical region, and provides lumber, plywood, raw materials for paper, wood-based fuels, and other wood products to companies both inside and outside the Group. In this and other ways, we strives to revitalize Japan's forestry industry and ensure a stable supply of domestic lumber.



Biei company-owned forest, Hokkaido

Overseas Forest Plantations

The forest plantation business spans nine regions in six countries, which vary in climate and natural condition. For example, we grow hardwoods such as eucalyptus and acacia (harvestable in around 10 years), and softwoods such as radiata pine (harvestable in around 30 years), depending on the region. Hardwood is mainly used for pulp. Thinned softwood is used for pulp, while harvested softwood is used for lumber products. In raising seedlings, planting, silviculture, harvesting and other operations, staff members from the Group's business companies are joined by numerous local veterans, including subcontractors, who support sustainable forest management.



Pan Pac's Kaweka company-owned forest, New Zealand

Contribution to the Local Environment, Economy, and Society

Sustainable forest management requires a mutual understanding between forest plantation business operators and the local community. Also indispensable is their sharing of environmental, economic, and social benefits. To give an example of economic benefits, our overseas forest plantation companies have created over 15,000 jobs locally. Another such example is our technical training on planting and forest management provided to owners of small-scale forests (the area of forest plantations possessed by the owners is approximately 27,000 hectares at present). Further, the forest plantation business companies cooperate with local governments, NGOs, and civic groups in each region to create and share environmental and social benefits. Their activities include biodiversity conservation programs in environmentally protected forests, vocational and educational support in local communities, and medical assistance in areas that have poor access to medical services.

CENIBRA: Beekeeping activities and honey produced in the forest

Pan Pac: A brown kiwi chick

QPFL: Medical assistance

Contribution to Addressing Climate Change

The world is facing a plethora of problems attributable to climate change, such as extreme heat, heat waves, localized torrential rains, flooding, and subsequent reduction in agricultural production. These problems are also deeply connected with the reduction of forested area and forest degradation. Forests absorb and fix CO_2 in the atmosphere. The Oji Group therefore believes that sustainable forest management is an effective means of tackling climate change.

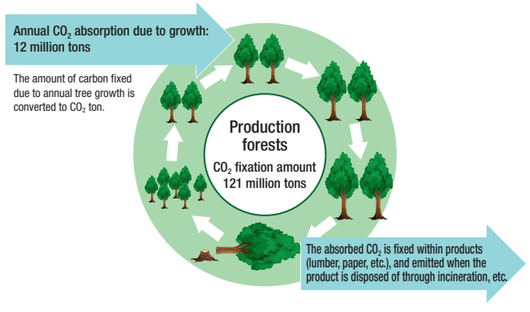
As a result of sustainable forest management by the Oji Group, the CO_2 fixation amount at the end of FY2019 was 135 million tons, comprising 121 million tons in 440,000 hectares of production forests, and 14 million tons in 130,000 hectares of conservation forests. The annual amount of CO_2 absorbed due to tree growth in FY2019 totaled 12 million tons.

The Oji Group will continue to increase CO_2 absorption and fixation amounts, while maintaining and utilizing sustainable forest resources, to help address climate change issues.

Production forests CO_2 fixation amount
121 million tons (FY2019)

Equivalent to the annual CO_2 emissions of around
13 million people in Japan

Calculated on the basis of annual total per capita emissions (total emissions volume from industry, transport and households) in Japan of 8.9t.





Pan Pac's forest plantation, New Zealand



Rubeshibe company-owned forest in Hokkaido

Material Issues, Risks, and Opportunities

The Oji Group has identified material issues that have significant impacts on our sustainable business model, clarified risks and opportunities from the perspectives of business and ESG, and developed measures for response and value creation.

Process for identifying material issues

1. Identify core competencies
2. Clarify possible material issues
3. Assess and analyze material issues in company with external organizations
4. Assess and approve validity at a Management Meeting

Material issues analysis map



Risks from Business Perspective

Securities Reports:
https://www.ojiholdings.co.jp/ir/library/security.html (available only in Japanese)

Material Issues	Major Risks	Main Countermeasures against Major Risks
Profitability improvement of domestic business Expansion of overseas business Promotion of innovation	Risks associated with climate change	● See “Mitigation of and adaptation to climate change” in the ESG Perspective section p.29
	Risks associated with pandemic	● The Group Emergency Headquarters to confirm the safety of employees, grasp damage situation, and take measures to continue supplying products to our customers ● Review continuously of the BCP, promote digital transformation, etc. to minimize the impact on business activities ● Establish the Group Emergency Headquarters and the Group Disaster Control Office in the event of a disaster ● Minimize the impact on business activities ● Maintain a certain level of liquidity on hand by accumulating cash and deposits in addition to commitment line contracts with our banks
	Structural changes arising from development of innovation	● Secure cash flows by restructuring the production system of shrinking businesses, making efficient capital investment, etc. ● Expand the portfolio by investing in growth fields in Japan and overseas and allocating resources to development of new material product ● Take measures for working style reforms and diversity promotion
	Risks arising from fluctuations in demand	● Reinforce the business foundation and secure cost competitiveness through cost reduction and development of new businesses and new products (Strengthen product development capabilities through integrated management of materials and processing, develop new products such as paper alternatives to plastic containers, functional paper with new properties, etc.)
	Risks associated with changes in international market conditions	● A dedicated department responsible for Group-wide procurement strategies ● Stabilize procurement through stronger relationships with suppliers ● Stabilize procurement of recoverd paper through maintaining the paper recycling system and strengthening relationships with related companies
	Risks associated with overseas business	● Gather information on political, economic, and social conditions of neighboring countries by our regional headquarters ● Expand business to a wide variety of countries to diversify risks ● Develop our business using joint ventures with leading local companies to improve our information gathering ability, save our investment amount, and lower risks ● Mitigate financial risks by utilizing group financing and derivatives
	Risks of disasters, etc.	● Formulate a BCP and continuously review it ● Establish the Group Emergency Headquarters and the Group Disaster Control Office in the event of a disaster ● Set voluntary management standards that are stricter than the environmental regulatory standards ● Establish safety and health management structures
	Risks associated with laws and regulations, etc.	● Thoroughly disseminate the “Oji Group Corporate Code of Conduct” and the “Oji Group Behavior Standard” at domestic and overseas sites
	Risks associated with lawsuits, etc.	● Prevent disputes through discussion with business partners and clarification of contract details ● Build a system to respond to lawsuits in collaboration with law firms
	Risks associated with product liabilities	● Ensure quality design and manufacturing in compliance with relevant laws and regulations and stricter voluntary management standards ● A Group-wide management department to support product safety management and perform audits
	Risks arising from exchange rate fluctuations	● Monitor the impact of exchange rate fluctuations on the Group’s business performance and hedge a certain amount of risk by utilizing derivatives and mutually lending and borrowing foreign currency-denominated receivables and payables among group companies in japan
	Risks associated with information leaks	● Establish a risk management implementation system and clarify its roles (formulate and implement rules for Group information system use and risk management, create compliance rules for information system users, take preventive measures against unauthorized access, data theft, email spoofing, etc.)



Risks and Opportunities from ESG Perspective

Material Issues (ESG) and KPI pp. 72–73

Material Issues	Associated Risks and Opportunities ▲ Risk ○ Opportunity	Main Countermeasures against Major Risks
Mitigation and adaptation to climate change Sustainable forest management	▲ Greater natural disasters caused by abnormal weather ▲ An increase in costs due to strengthening and introduction of carbon tax, introduction of an emissions trading system, etc. ▲ Impact on sales from changing in evaluation of corporate attitudes and values of the market ○ An increase in demand for low-carbon products ○ An increase in value of company-owned forests through trading carbon credits associated with the carbon absorbed by the forests	● Reduce GHG emissions intensity through improving production efficiency, saving energy, and utilizing renewable fuel and waste fuel ● Expanded use of non-fossil fuels and biomass fuels as alternatives to coal ● Sustainable forest management such as promotion of forest plantation and conservation of company-owned forests ● Maintain and expand the multi-functionality of forests ● Absorb and fix CO_2 through sustainable forest management ● Develop biomass power generation business ● Develop eco-friendly products ● Opportunities arising from introduction of carbon pricing (especially emissions trading)
Responsible raw materials procurement	▲ Occurrence of cases lacking consideration for the environment and society in the supply chain ○ An increase in demand for eco-friendly products owing to changes in consumer awareness	● Expand CSR procurement, taking into consideration the environment and society in accordance with the Oji Group Partnership Procurement Policy and Wood Raw Material Procurement Guidelines ● Central management for appropriate procurement of major raw materials ● Manage the supply chain thoroughly (appropriate procurement through supplier monitoring, risk assessment, securing various suppliers, etc.) ● Supply of FSC™ certified products (FSC™ C014119, etc.)
Stable supply of safe and secure products	▲ A decline in trust of stakeholders due to spread of negative rumors ○ Contribution to society through stable supply of safe and secure corrugated containers, household paper, and hygiene products, and resulting increase in corporate value	● Stably supply own products ● Ensure safe quality design and management in compliance with relevant laws and regulations and stricter voluntary management standards ● Provide customers with information on safety of raw materials (chemicals, materials) ● Supply of hygiene products such as masks and gowns to prevent the spread of infectious diseases such as COVID-19
Reduction of environmental burdens	▲ Adverse effects on society due to pollution and the resulting decline in trust of stakeholders ○ An increase in demand for eco-friendly products owing to changes in consumer awareness	● Set voluntary management standards that are stricter than the environmental regulatory standards ● Purify wastewater and save emissions of chemical substances in exhaust ● Reduce and effectively use waste ● Develop eco-friendly products and biodegradable materials
Effective resource utilization	▲ Impact of resource depletion on core businesses ○ Deployment of water treatment technology	● Forest recycling (Sustainable forest management) ● Paper recycling (improve the recovered paper utilization ratio) ● Reduce water intake and improve water recycling ● Expand the water treatment business overseas
Respect for human rights	▲ A decline in trust of stakeholders due to lack of consideration for human rights	● Formulate and implement the “Oji Group Corporate Code of Conduct,” the “Oji Group Behavior Standard,” and the “Oji Group Human Rights Policy” ● Perform internal audits ● Implement the whistleblowing system ● Raise awareness of compliance and human rights through in-house training ● Assess risks associated with supliers’ respect for human rights
Ensuring worksite safety and health	▲ Occupational accidents ▲ Health of employees hindered by the spread of infectious diseases ○ An increase in trust of employees and other stakeholders resulting from prompt response to disasters and infectious diseases	● Establish safety and health management structures and promote activities aimed for safety and health ● Thoroughly ensure safety in the handling of machines and equipment and in other operations ● Promote safety education (Introduce VR risk experience education, etc.) ● Promote physical and mental well-being of employees ● Create comfortable work environments ● Respond to infectious diseases including COVID-19
Inclusion & diversity	○ Securing outstanding human resources ○ Creation of Innovative value ○ Contribution to globalization	● Implement human resource strategies and develop human resources ● Promote working style reforms ● Promote diversity

FY2019–2021 Medium-term Management Plan

In order to continuously increase corporate value in the ever-changing world, the Oji Group has formulated and is implementing a strategic medium-term management plan that promotes business restructuring through transformation based on its Management Philosophy and sustainable business model.

Review of the Strategies

FY2015 and earlier → FY2016–2018 → **FY2019–2021**

Our Goal Business restructuring through transformation ▶ **A truly global and innovative value-creating company that grows sustainably**

FY2015 and earlier	FY2016–2018	**FY2019–2021**
Fundamental Policies	Fundamental Policies	Fundamental Policies
● Deepening of the core businesses ● Development of new businesses and products ● Further expansion of overseas businesses	● Expansion of overseas businesses ● Concentration / advancement of domestic businesses ● Enhancement of financial foundation	● Profitability improvement of domestic business ● Expansion of overseas business ● Promotion of innovation ★ Contribution to a sustainable society

Major Indicators

	FY2015 and earlier		FY2016–2018		**FY2019–2021**	
	Targets	Final fiscal year results	Targets	Final fiscal year results	Targets	FY2019 results
Consolidated operating profit	¥90.0 billion	¥72.0 billion	¥100.0 billion	¥110.2 billion	**Over ¥150.0 billion**	**¥106.1 billion**
Overseas sales ratio	26.0%	27.8%	35.0%	32.0%	**40.0%**	**29.9%**
ROE	7.0%	2.1%	8.0%	7.7%	**10.0%**	**8.5%**

Overview of the FY2019–2021 Medium-term Management Plan

Under the FY2019–2021 Medium-term Management Plan, the Oji Group aims to constantly earn over 100 billion yen in annual consolidated operating profit through “contribution to a sustainable society,” with “profitability improvement of domestic business,” “expansion of overseas business” and “promotion of innovation” positioned as the fundamental policies.

Group Fundamental Policies

Contribution to a Sustainable Society
Responding to needs of the environment and society through business activities

Profitability improvement of domestic business	Expansion of overseas business	Promotion of innovation
● Restructure production system ● Enhance competitiveness through business partnership ● Concentrate management resources on promising businesses	● Expand organically from existing bases ● Generate synergies between businesses and operations ● Focus on Asia and Oceania regions	● Promote development and achieve early profitability of new business and products

FY2021 Performance Indicator Targets

- **Consolidated operating profit**: At least **150** billion yen — Maintain stable operating profit of more than 100 billion yen
- **Overseas sales ratio**: **40**% — With a target of more than 50% in the short term
- **Market capitalization**: At least **1** trillion yen
- **ROE**: **10.0**%
- **Net D/E ratio**: Maintain current status*
  * FY2018 result: 0.7 times

FY2019 Results and FY2020 Priority Measures

Industrial Materials Business ● Household and Consumer Products Business ● Functional Materials Business
Forest Resources and Environment Marketing Business ● Printing and Communications Media Business ● R&D and others

Profitability improvement of domestic business

FY2019 Major Results

- Apr. 2019 Start of JV household paper business with MPM*
- Sep. 2019 Start of JV biomass power generation with MPM*
- Dec. 2019 Start of sales of OJI FLEX PACK’AGE, a next-generation packaging solution, and Rakudan, its packaging material
- Feb. 2020 Shutdown of the #9 machine at the Oji Paper Tomioka Mill

*MPM: Mitsubishi Paper Mills

FY2020 Main Priority Measures *Scheduled dates for future events

- Jul. 2020 Start of a new corrugated container plant (Funabashi City, Chiba Prefecture)
- Jul. 2020 Transfer of carbonless paper manufacturing and sale to MPM*
- Sep. 2020 Start of paper liquid containers business with ISHIZUKA GLASS
- First half of FY2020 Shutdown of the #N-1 and #N-5 machines at the Oji Paper Tomakomai Mill *The #N-5 machine is scheduled to resume operation as a containerboard machine
- First half of FY2020 Shutdown of the #1 and #4 machines at the Oji F-Tex Ebetsu Mill
- Oct. 2020 Start of a new household paper processing machine (Edogawa Mill)

Pick Up p.49
Start of our third biomass power generation facility, aiming to contribute to the prevention of global warming

Pick Up p.38
Redevelopment of an existing logistics center to create one of the largest corrugated container plants in Japan in a major consumption area

Expansion of overseas business

FY2019 Major Results

- Jun. 2019 Myanmar: Introduction of water production equipment to the largest brewery
- Jul. 2019– SE Asia and India: Start of a new corrugated container plant [Jul. 2019: Vietnam, Feb. 2020: Cambodia, Mar. 2020: India]
- Nov. 2019 Brazil: Profitability enhancement of the pulp business
- Jan. 2020 Indonesia: Start of a new disposable diaper plant

Pick Up p.42
Indonesia: Start of our own disposable diaper plant to increase cost competitiveness through in-house production

FY2020 Main Priority Measures *Scheduled dates for future events

- Oct. 2020 China: Start of a new filter plant
- 2020 Indonesia: Start of a new corrugated container plant
- Feb. 2021 Myanmar: Introduction of domestic water treatment and wastewater treatment equipment to a large-scale multipurpose facility
- Feb. 2021 Brazil: Reinforcement of a thermal paper machine *Machine expansion is also scheduled in the same year.
- Mar. 2021 Malaysia: Machine expansion and site integration of disposable diaper business

Pick Up p.46
Brazil: Capacity enhancement (and machine expansion in the same year) of our thermal paper business to maintain and increase market shares in Brazil and Latin America

Coming Soon p.39
[First half of 2021] Malaysia: Start of a new containerboard machine to promote reinforcement of the business through integrating material and converting

Promotion of innovation

FY2019 Major Results

- Apr. 2019 Commercialization of CNF* AUROVISCO CS as a cosmetic ingredient
- Apr. 2019 Adoption of hydrolyzed xylan by ROHTO Pharmaceutical for their cosmetics
- Apr. 2019 Start of provision of SILBIO BARRIER, a paper material with barrier properties
- Jun. 2019 Myanmar: Introduction of water production equipment to the largest brewery
- Aug. 2019 Development of KAMIWAZA, a paper-based temporary construction material used in civil engineering
- Sept. 2019 Adoption of our products by Nestlé (Thailand) for packaging materials for their products
- Oct. 2019 Adoption of our biomass plastic business by the Ministry of the Environment as the commissioned project
- Oct. 2019 Provision of technology of CNF* reinforced polycarbonate resin (automobile window application)
- Dec. 2019 Start of sales of OJI FLEX PACK’AGE and Rakudan
- Jan. 2020 Adoption of our products by Nestlé (Japan) for packaging materials for their products
- Feb. 2020 Adoption of CNF* AUROVEIL for materials for table tennis rackets

*CNF: Cellulose nano-fiber

FY2020 Main Priority Measures *Scheduled dates for future events

- Apr. 2020 Establishment of Oji Pharma Co., Ltd.
- Aug. 2020 Development of a product with high-grade transparency of SILBIO BARRIER, a paper material with barrier properties
- Aug. 2020 Start of provision of PaPiPress, a molded pulp product
- Feb. 2021 Myanmar: Introduction of domestic water treatment and wastewater treatment equipment to a large-scale multipurpose facility

Pick Up 2019 p.34
Provision of technology of CNF reinforced polycarbonate resin (automobile window application) at Tokyo Motor Show 2019

Pick Up 2020 p.36
Establishment of Oji Pharma Co., Ltd. to reinforce collaboration with universities and pharmaceutical companies

Value Creation by the Innovation Promotion Division

The Innovation Promotion Division brings together multiple cutting-edge technologies based on the knowledge gained from paper manufacturing and forestation, which are the roots of our founding, to create innovative value.

We will serve as a business incubator who continually develops new projects into new business, aim for contribution to a sustainable society in response to the social issues people face, and propose new products and businesses that excite everyone.

Major Efforts toward New Products and Business

Contribution to a sustainable society through diverse core technologies and multiple cutting-edge technologies

1 Development of eco-friendly materials and products	Striving to solve social issues including marine plastic litter and climate change.
2 Active efforts in the healthcare field	Utilizing our knowledge and know-how for future medical care.
3 Total solution	Aiming for contribution to industrial development by uncovering needs and seeds.

We Accelerate “Promotion of Innovation.”

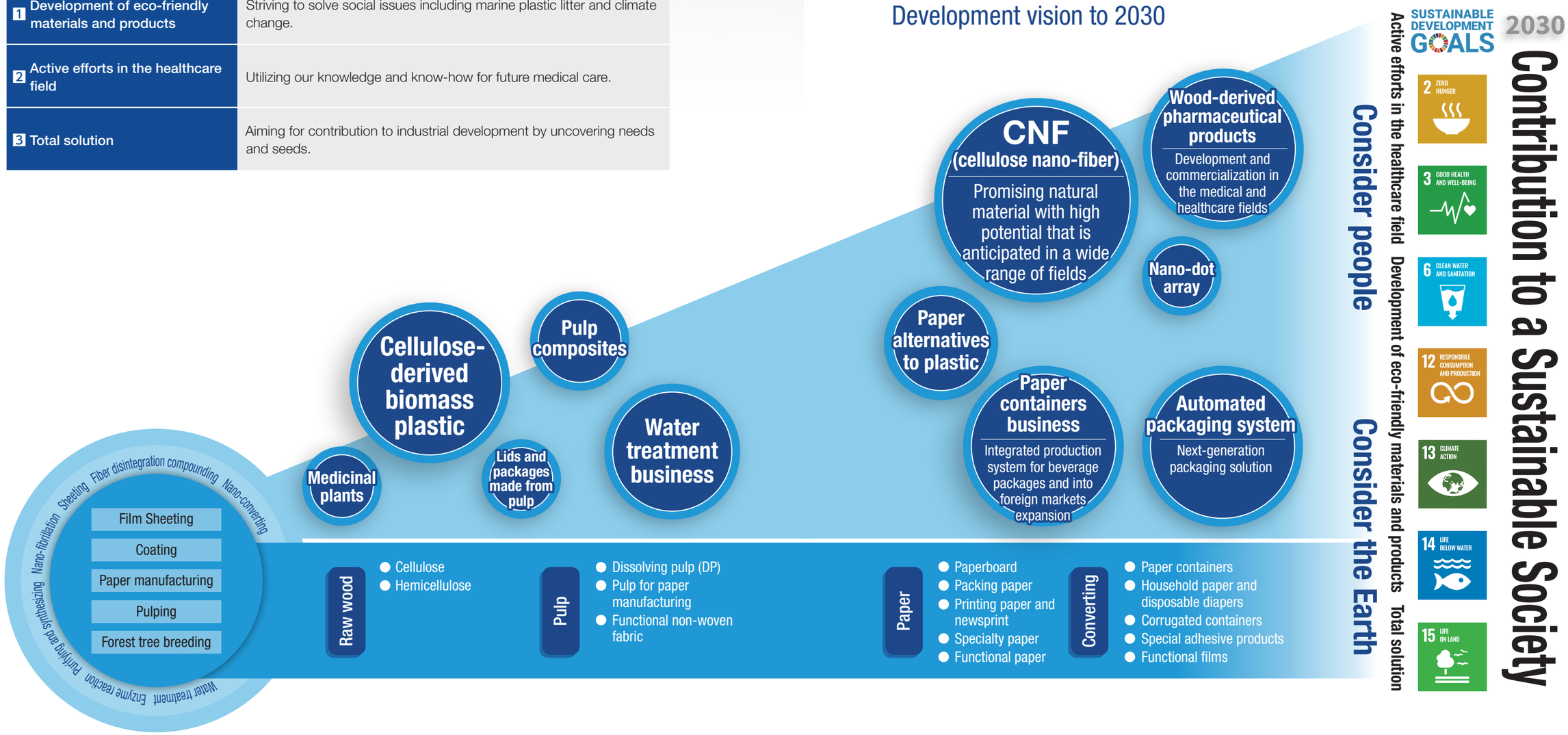
The Innovation Promotion Division is responsible for one of the three pillars of the medium-term management plan, “Promotion of Innovation.” Accordingly, the division is tasked with the development of truly unique new materials and the supply chain reform. Based on our technologies accumulated in the conventional pulp and paper business, we are taking on the challenge of developing new materials in addition to technological innovations in such fields as cellulose nano-fiber (CNF), wood-derived pharmaceutical products, cellulose-derived biomass plastic, and paper alternatives to plastic. Furthermore, the paper containers business, next-generation packaging solutions, and water treatment business create new supply chains that transcend our conventional business fields, providing products and services in tune with the needs of the times. I hope you will wait and see our progress with high expectations.

Through these efforts, we hope to be the vanguard of profitability improvement of the domestic business and expansion of the overseas business.



Masaru Yokoyama
Senior Executive Officer
General Manager, Innovation Promotion Division
Oji Holdings Corporation

Development vision to 2030



Development of Eco-friendly Materials and Products 1

Cellulose Nano-fiber (CNF)

Cellulose nano-fiber (CNF) is a plant fiber (pulp) that is finely fibrillated to the nano-order level. CNF is lightweight and durable and offers excellent thermal non-deformability; it also features exceptional viscosity and thixotropy. This new natural material with high potential is expected to find application in a broad range of fields.

The Oji Group's proprietary phosphorylated CNF can impart new functionalities to a variety of products. The phosphorylated CNF is provided to over 100 companies in a wide range of fields in Japan and overseas to jointly develop and commercialize new products.



*Thixotropy: A property of being highly viscous under static conditions but becoming thin when stirred or otherwise stressed.

1. Functional Additive Applications

The Oji Group's CNF adds various new functionalities to raw materials.

● CNF for Use in Cosmetic Ingredients

Working with Nikko Chemicals Co., Ltd., a leader in the cosmetics materials industry, the Oji Group commercialized AUROVISCO CS, a cosmetic ingredient. Its new functionality has been well received as it presents viscosity higher than any other naturally-derived thickeners and maintains a non-sticky and moist feel.

It won the silver award at one of the largest exhibitions for cosmetic ingredients in the world. The product development is underway at the world's leading cosmetic manufacturers.



Cosmetics products (sample)

● CNF Used as Concrete Pump Primer

RUBURI, a concrete pump primer made by TAKEcite Co., Ltd., uses CNF AUROVISCO as an ingredient. In the process of pumping concrete, approximately 1 ton of mortar is typically used to prevent pipes from clogging. After use, the mortar is disposed of as industrial waste. That amount of mortar can be replaced by only a few tens of kilograms of RUBURI, which contains AUROVISCO. The replacement helps reduce a large amount of industrial waste as well as time required for work.

Its standardization is currently underway, and once standardized, the product is expected to be adopted at more construction sites.

2. Composite Applications

By creating compounds of existing materials and CNF, we promote development of new composites that take advantage of their respective strengths.

● CNF Reinforced Polycarbonate Resin (automobile window application)

Polycarbonate resin is lightweight, highly transparent, and shock resistant, and is expected to be used as an alternative to glass for automobile windows, but it also has weaknesses—it is easily bent and deformed by heat. These disadvantages were greatly improved by a combination of CNF and polycarbonate resin. The Oji Group provided the technology to CNF composite resin glass exhibited by Toyota Motor East Japan, Inc. at Tokyo Motor Show 2019, with a view to commercialization.



Roof panel material

Nano cellulose vehicle (NCV)
(Exhibited at Tokyo Motor Show 2019)

Rear window material

Eco-friendly Products Made from Pulp and Paper

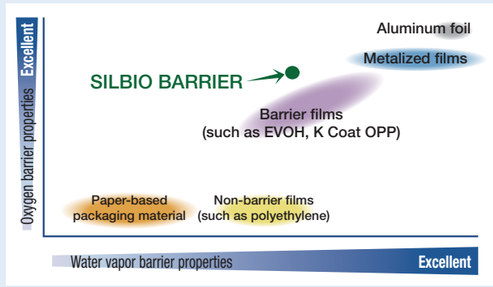
SILBIO BARRIER, a Paper Alternative to Plastic

p.45 p.107

SILBIO BARRIER is a multibarrier paper manufactured using water-based coating technologies. The base paper adding a barrier coating layer prevents oxygen, water vapor, and other substances from passing through, curtailing deterioration of the content. As it has the functions equivalent to those of general barrier films, the multibarrier paper is expected to become an alternative material to plastic packaging materials.

In addition, we are currently accelerating the development of high-performance products with even higher barrier properties comparable to those of metalized films.

Barrier properties of SILBIO BARRIER



PaPiPress, Lids And Packages Made from Pulp

Pulp lids, manufactured using a precise pulp-molding technology, are lids for paper cups with high fittability and applicable to both hot and iced beverages.

Other than lids, the pulp-molding technology is applied to different types of package as an alternative solution to plastic containers.







Pulp Composites

We are developing pulp composites. Created by mixing pulp into biodegradable plastic, the material has improved in properties such as strength and rigidity.

We are proceeding with its commercialization not only to contribute to reduction of the amount of plastic used but also to expand the applications of biodegradable plastic.



Cellulose-derived Biomass Plastics

The Oji Group has been considering manufacturing cellulose-derived biomass plastic. Unlike conventional plastic made from petroleum resources, cellulose is a wood fiber component and can significantly contribute to the reduction of CO_2 emissions from fossil fuel into the atmosphere.

In addition, while most of the sugar used as a raw material for biomass plastic is produced from edible ingredients such as sugar cane and corn, wood is non-edible. This means that cellulose-derived biomass plastic do not contribute to global food shortage problem. We also commenced development of biomass plastic films through the application of our film sheeting technology.



Cellulose-derived biomass plastic (polylactic acid)



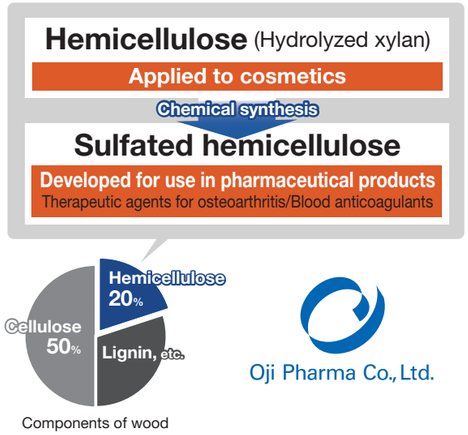
Cellulose-derived sugar solution

Active Efforts in the Healthcare Field 2

Wood-derived Pharmaceutical Products —Establishment of Oji Pharma Co., Ltd., our medical and healthcare business—

Hemicellulose is one of the major wood fiber components. Hemicellulose extracted and refined through the Oji Group's proprietary technology, called hydrolyzed xylan, is used as a cosmetic ingredient. We have also developed sulfated hemicellulose, which is a chemically modified hemicellulose, with the aim of further increasing the added value of the wood fiber component. Sulfated hemicellulose is anticipated to have the effects of suppressing inflammation of joints and the bladder as well as blood coagulation.

In April 2020, we established Oji Pharma Co., Ltd., as a subsidiary that takes charge of the medical and healthcare field of our business. The new company is promoting the development to utilize wood fiber components as active pharmaceutical components together with domestic and overseas pharmaceutical companies and universities.



Medicinal Plants —Japan's first short-term, large-scale cultivation of licorice—

There are calls for domestic production of licorice, which is used for many Kampo medicines, due to fear of resource depletion and export restrictions. Applying the tree breeding technology, the Oji Group developed cultivation techniques* enabling licorice to grow in a short period of time with a high concentration of a medicinal ingredient, for the first time in Japan, and succeeded in a cultivation trial at our farm. We established the mechanization technology necessary to increase the scale of the business and are now proceeding with a large-scale cultivation trial.

Going forward, the Oji Group will strive for high quality and stable supply of Japanese licorice to build a new business of licorice as a raw material for pharmaceutical products.



Licorice 13 months after planting

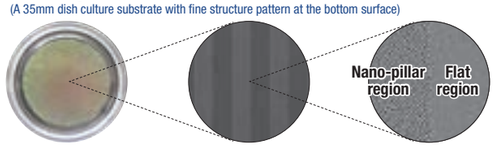
* It takes 1.5 years from sowing to harvesting (regular licorice takes 5 to 6 years). Our licorice contains more glycyrrhizin, a medicinal ingredient, than the medicinal ingredient content standards (2.0%) (our licorice contains 2.3% or more).

Nano-dot Array Technology —Cell culture substrates for controlled cell orientation—

Nano-dot array technology of the Oji Group enables high-precision fine structure fabrication ranging from hundreds nanometers to a few micrometers at the surface. This technology is used to develop diverse applications in such fields as optics and life science.

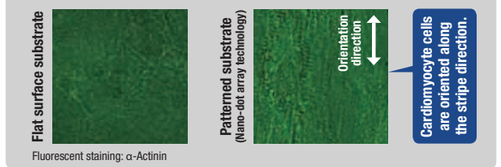
With the technology, we have developed cell culture substrates that have nano-pillar and flat regions interleaved in parallel stripes. It has been confirmed that when cells that are oriented in vivo such as cardiomyocytes and myoblast cells are cultured on this substrate, cell sheets are formed in which the long axes of the cells are oriented in the same direction. These cell-sheets with controlled cell orientation exhibit bioactivity similar to that in vivo, and therefore are expected to be used for bio assays and regenerative medicines.

ND Cell Aligner Dish 35
(A 35mm dish culture substrate with fine structure pattern at the bottom surface)



Nano-pillar and flat regions are interleaved in parallel stripes.

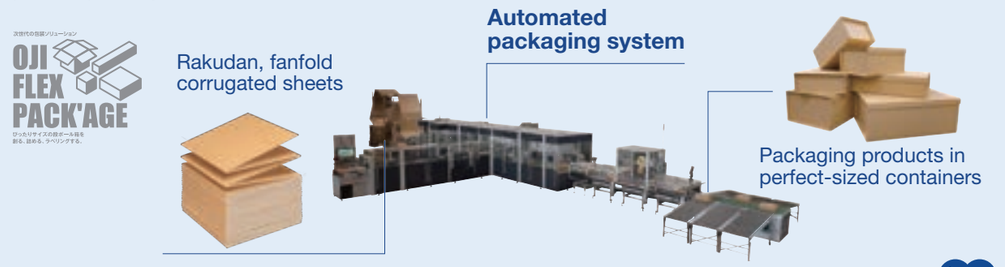
Examples of cell culturing (Culturing cardiomyocytes (human) differentiated from iPS cells)



Total Solution 3

Automated Packaging System —OJI FLEX PACK'AGE, a next-generation packaging solution— p.40

Different industries are nowadays faced with packaging and logistics issues in the wake of rapid expansion of the online shopping market. In response to this, the Oji Group has put together the technologies and know-how of packaging materials and packaging machines cultivated over many years, and started to provide "OJI FLEX PACK'AGE," a next-generation packaging solution that enables packaging according to the size of the products. The system, which allows its users to prepare a corrugated container that fits the product perfectly, offers different solutions to meet a variety of needs: a 3-sided variable system, which uses our fanfold corrugated sheets Rakudan, and a variable height automatic sealing system, which uses standard-sized corrugated containers. Introduction of OJI FLEX PACK'AGE realizes resource saving (corrugated containers and packaging materials), cost saving (improving work efficiency and solving the labor shortage issue through automation), and energy saving (reduction of transportation costs due to improvement in loading efficiency) at once.

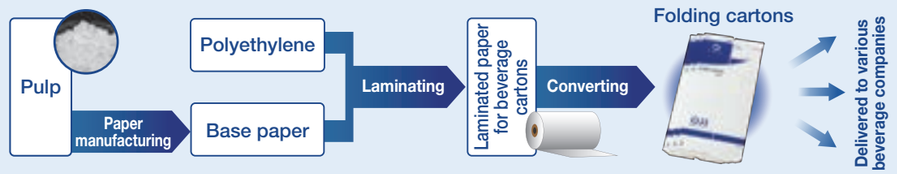


Paper Containers Business —Integrated domestic production system for beverage packages and into foreign markets expansion— p.40

The Oji Group has utilized its core technologies including paper manufacturing technologies and various converting technologies and built an integrated domestic production system covering from paper manufacturing of Japan-made base paper to beverage packages in collaboration with ISHIZUKA GLASS CO., LTD., a general container manufacturer. The integrated system can contribute to advanced quality control, reduction of transportation costs from overseas, stable supply, etc.

In addition to manufacturing paper cartons in Japan, the Paper Containers Business also sells and maintains machines that fill paper cartons with beverages. As such, we leverage the entire services of the business to provide flexible solutions according to customer needs.

In the future, we will utilize our overseas infrastructure to expand the business outside Japan, where demand is expected.



Integrated domestic production system covering pulp to printing and converting

Water Treatment Business p.54

The Oji Group provides customers in and outside Japan with water treatment systems that meet a wide range of needs, based on the paper manufacturing technologies, and the technologies and operational expertise for water production and wastewater treatment, which have been accumulated since the founding. Based on investigation and proposals from various standpoints, we design and build optimal equipment from a broad viewpoint, and maintain and manage it for the purpose of stable operation (including remote operation) and trouble prevention. In this way, we make available appropriate water quality management solutions from a holistic perspective. We strive to realize a sustainable society by providing stable water treatment technologies and making effective use of limited water resources.



We aim to be a “lifestyle and social support enterprise” that contributes to the prosperity of society for the future by sustainably providing materials and technologies that are closely tied to people’s day-to-day lives.

Yoshiki Koseki
President, Industrial Materials COMPANY
President, Household and Consumer Products COMPANY

Changes in Net Sales and Operating Profit

In FY2019, the Household and Industrial Materials Businesses had net sales of 686.1 billion yen (up 4.9 billion yen from FY2018) and operating profit of 40.9 billion yen (up 18.5 billion yen from FY2018). The Industrial Materials Business reported that profit increased year-on-year due to product price revisions and progress in cost reductions. The Household and Consumer Products Business reported higher net sales as a result of an overall increase in household paper sales.

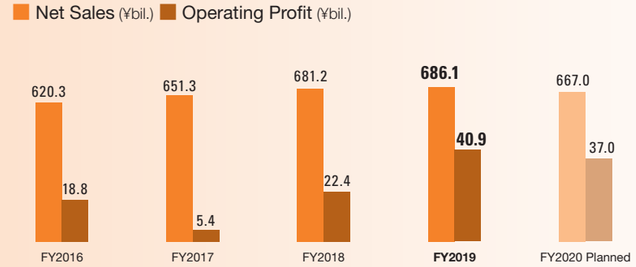
In FY2020, net sales of 667.0 billion yen (down 19.1 billion yen from FY2019) and operating profit of 37.0 billion yen (down 3.9 billion yen from FY2019) are planned.

Impact of COVID-19

A decrease in net sales is forecast, due mainly to a decrease in demand from customers.

Net Sales	Operating Profit
¥686.1 billion	¥40.9 billion

Net Sales Composition Ratio
38.8%



Industrial Materials Business



Business Overview

The Industrial Materials Business has production and sales structures that integrate material and converting from base paper manufacturing to product processing and packaging design for the packaging materials that are essential to industry such as corrugated containers, folding cartons, and paper bags and responds in a timely manner to customer needs.

Business Strategy

Profitability Improvement of Domestic Business

The new corrugated container plant in Funabashi City, Chiba Prefecture, has started commercial production in July 2020, to meet the growth in demand for corrugated containers in the Kanto region. The Industrial Materials COMPANY will enhance its competitive strength in the corrugated container business in the Kanto region, by aggressively capturing new demand for corrugated containers, and expanding its supply volume.

At the same time, as part of its initiatives to restructure manufacturing in response to structural changes in domestic demand, we will shut down the manufacturing facilities at the Oji Materia Nayoro Mill and transfer other facilities to Oji Paper Tomakomai Mill, and production facilities for newsprint at the Tomakomai Mill are now in the midst of modification for containerboard and kraft paper.


The new corrugated container plant in Funabashi City, Chiba Prefecture

To further reinforce earnings bases through the integration of material and converting, a range of investments will be made for the optimization of the domestic business structure.

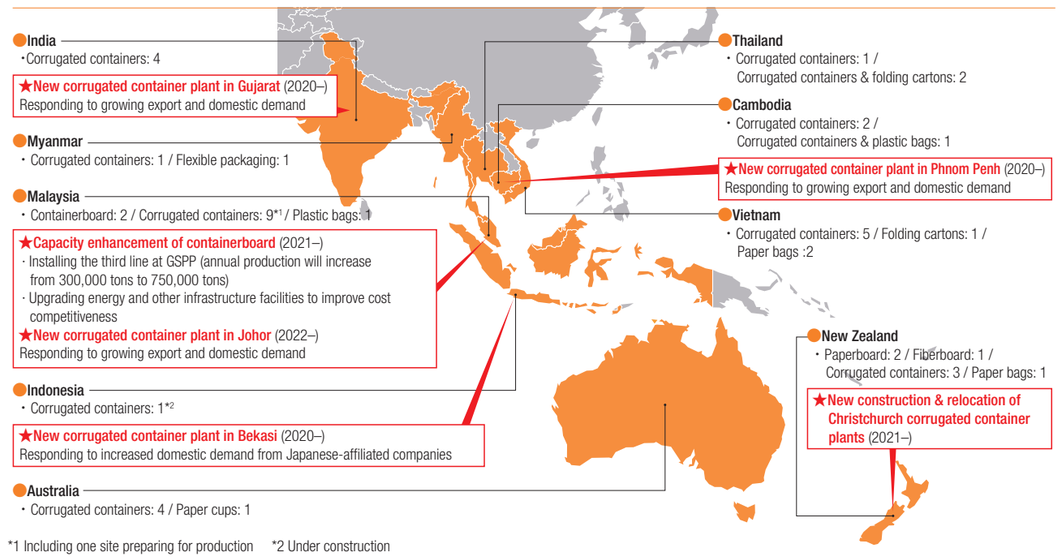
Expansion of Overseas Business

The Industrial Materials COMPANY conducts business at 45 sites in nine countries in Southeast Asia, India, and Oceania. We have been focusing mainly on expanding converting sites to respond to growing packaging demand, and now, we will install new containerboard production facilities in Malaysia, which is scheduled to start commercial operation in 2021. Through these efforts, we will further progress the development of overseas businesses by integrating material and converting.

Regarding new corrugated container plants, we are preparing for operations in Cambodia and India, those are scheduled to start in 2020, and constructions are now in progress in Indonesia (the first entry into this country), Malaysia, and New Zealand. With monitoring risk and return carefully in each region/market, we will expand our business further by way of new plant starting-up from greenfield and/or M&A activities.


New corrugated container plant in Ahmedabad, Gujarat, India

Main Overseas Sites



*1 Including one site preparing for production *2 Under construction

Industrial Materials Business

Voice

With 20 years of operation as a corrugated container production site in Vietnam, we aim to further expand the business.



Tran Dac Nguyen Khang
Director
Ojitex (Vietnam)

Ojitex (Vietnam) commenced the production and sales of corrugated containers in 2000, as the Oji Group's first manufacturing site in Vietnam. This year we celebrate our 20th anniversary.

Over the past 20 years, the Oji Group's corrugated container production sites in Vietnam have grown, and there are now five such sites, all of which continue to operate smoothly. I joined Ojitex (Vietnam) when it was first established, and have been working here for 20 years. I was appointed the company's first Vietnamese Director, and I am working hard every day. There are now several Vietnamese Directors. I feel that this is an embodiment of "sustainable business growth" and the Oji Group's slogan "Beyond the Boundaries" in the form of overseas business expansion and human resource philosophy. Vietnam is a high-growth but competitive market, and I will strive to continue to expand the business.

Business Strategy

Promotion of Innovation

In coordination with Oji Holdings' Innovation Promotion Division, the Industrial Materials COMPANY has launched OJI FLEX PACK'AGE, a next-generation packaging solution for the mail-order sector, where demand for corrugated containers is expected to grow significantly (p.37). This solution features a system that can carry out automatic or semi-automatic packaging using special "Rakudan" continuous corrugated sheets, and a height-adjustable automatic sealing system using standard-sized corrugated sheets, whereby not only providing customers with saving of resource and cost but also facilitating sales expansion of the Industrial Materials COMPANY's products.



"Rakudan" in the corrugated sheets feed of the automatic packaging system

News



Drink cartons made using base paper manufactured by the Oji Group

Entering the Liquid Paper Packaging Business

Amid increasing attention on paper materials in the context of a worldwide heightening of environmental awareness, the Industrial Materials COMPANY has invested in the liquid paper packaging business that was split from ISHIZUKA GLASS CO., LTD., and launched a joint venture in September 2020. The raw material for the joint venture, namely laminated base paper, will be provided by the Group rather than by other companies. Through this shift, we will build a integrated production system in Japan. In the future, the Industrial Materials COMPANY plans to utilize the Oji Group's international network to expand the business overseas.

Household and Consumer Products Business

Business Overview

In the household paper and disposable diaper business fields, Oji Nepia integrates sales, marketing, and production in the pursuit of three types of quality: quality of life as in the seeking of good texture, comfort, and functionality; environmental quality as in forest conservation such as the adoption of FSC™ certified paper; and social quality such as taking CSR initiatives that contribute to society and that are in line with customers' hopes. (FSC™ C018118)

* FSC™ is the world's most widely recognized forest certification program. Examinations are performed on issues such as whether forests and lumber are properly managed and whether new trees are planted to replace trees cut in order to protect precious nature. Selecting products with the FSC™ certification mark is a sign of support for forest conservation activities worldwide, and is conducive to sustainable forests in the future.



nepia Premium
Soft Toilet Rolls



nepia Premium
Soft Tissues



nepia Hana Celeb
Hana Celeb Three Pack



nepia Genki! Pants

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Business Strategy

Profitability Improvement of Domestic Business

In the household paper business, the market for toilet rolls is expected to grow, and we are launching high value-added products, including longer toilet rolls and printed toilet rolls.

In fall 2020, using base paper produced by the new machine at Jiangsu Oji Paper factory which began operation in July 2020, production and sales of such toilet rolls will commence by employing the newly-installed toilet roll converting equipment in the Oji Materia Edogawa Mill. In addition to enhancing replenishment to the metropolitan area, we will proceed to streamline the supply chain.

To capture market share in the disposable diaper business, we expand sales of nepia Genki! baby diapers. Furthermore, we will engage in product development for adult diapers, aimed at solving issues faced at nursing homes.



Oji Nepia Edogawa Mill (in Oji Materia Edogawa Mill)

Expansion of Overseas Business

The Household and Consumer Products COMPANY will promote business expansion in Southeast Asia and China, where consumption of baby diapers is expected to grow, and work to enhance both production and sales.

In Malaysia, we will increase capacity through manufacturing system restructuring and improve efficiency through manufacturing site integration. In Indonesia, which has the largest population in the region, we will respond to growing demand through production at the own factory, which began operation in January 2020, and continue to strengthen manufacturing.

In addition to the export of products made in Malaysia, we will also expand supply of high-quality "made in Japan" products such as Genki! and Whito to other Southeast Asian countries, whereby actively exploring new target countries.

In China, we have launched Doraemon package and actively promote e-commerce to explore new customers, whereby continuing to expand sales through the export of "made in Japan" products.



© Fujiko Pro

"Genki! (Doraemon package)" for Chinese market

Household and Consumer Products Business

Main Overseas Manufacturing Sites



China (household paper base paper)
- **Jiangsu Oji Paper Co., Ltd.**
  Location: Nantong City, China
  Establishment: October 2007

Malaysia (disposable baby diapers)
- **People & Grit**
  Location: Selangor, Malaysia
  Share acquisition: January 2015
- **Oji Asia Household Product**
  Location: Selangor, Malaysia
  Operation commencement: April 2016

Indonesia (disposable baby diapers)
- **PT Oji Indo Makmur Perkasa**
  (Manufacturing Joint Venture)
- **PT Indo Oji Sukses Pratama**
  (Sales Joint Venture)

Location: Jakarta, Indonesia
Establishment: January 2015



PT Oji Indo Makmur Perkasa

Voice

Our employees will strive together united to establish a secure revenue base, for the further growth of the disposable diaper industry here and overseas.



Irene Wong
General Manager
People & Grit (M) Sdn. Bhd.

People & Grit (M) Sdn Bhd was incorporated in 2002 and became a 100% owned subsidiary of Oji Holdings in 2017.

The company is one of Malaysia's leading manufacturers of baby diaper which offers a wide range of sizes and various brands of baby diapers and our products are marketed and distributed throughout Southeast Asian, China and African countries. We have come a long way since our incorporation. Today, we have a track record of delivering high quality products to both local and international clients. We are also recognized for our excellent customer service and reliable delivery performance. Over the span of 18 years, we have grown phenomenally while enhancing our capabilities and production volume.

With our expanding capabilities we are confident of further growth in the diaper industry both locally and internationally. The recent COVID-19 outbreak has resulted in an unprecedented level of business challenges.

People & Grit will monitor its current business environment closely and respond appropriately to the development in order to navigate the pandemic.

We aim to deliver on our 2020 strategic target: strengthening our product portfolio management to better utilize our facilities, securing broader and deeper sales channels, and keep a tight rein on costs and expenses.

We are certain that we will ride through this turbulent time and emerge stronger once the market recovered.

Business Strategy

Promotion of Innovation

In China, which is witnessing significant growth in high-end (high value-added, high-price range) baby diapers, the new "nepia Whito Premium" lineup will be launched in fall 2020. The new lineup uses thicker non-woven fabric on the inside of diaper, and features enhanced softness and rewet prevention, in line with consumer needs. Moreover, a non-woven fabric, luxurious to the touch, is used for the outside of diaper. In Japan, the package design of Genki! Pants will be changed, aiming to refresh the product image at stores.





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ESG and SDG Topics

Now producing masks and isolation gowns in response to COVID-19

Nepia Long Lasting Best Fit Face Mask

In New Tac Kasei Yamamoto Mill, there is a cleanroom used to manufacture stickers and labels for medical use. We have remodeled this cleanroom and installed a new mask production line. The base material is non-woven fabric manufactured by Oji Nepia Nagoya Mill. These masks are "All Made in Japan," from materials procurement to processing, and from the wire around the nose to the ear straps.

In response to requests from medical and nursing sites, the masks have been designed with a longer wire fitting around the nose, allowing them to be worn for a longer time.





Isolation Gown

We have strengthened production systems for highly-water repellant non-woven fabric, usually used as base material for disposable diapers, at Oji Nepia Nagoya Mill, and have commenced the manufacture of isolation gowns. These gowns are "All Made in Japan," featuring materials produced in Japan, and processed by garment manufacturers in Japan. Based on the opinions put forward by infectious disease specialists, the gowns are close-fitting with ribbed cuffs to prevent them from rising with movement, hemmed below the knees, and easily removed.







We aim to be a company chosen by customers in today's rapidly-changing society, anticipating market needs, strengthening dialogue, and always working with speed to provide products and services that exceed customer expectations.

Shigeki Aoki
President, Functional Materials COMPANY

Changes in Net Sales and Operating Profit

In FY2019, the Functional Materials Business had net sales of 214.7 billion yen (down 9.4 billion yen from FY2018) and operating profit of 15.4 billion yen (down 3.0 billion yen from FY2018).

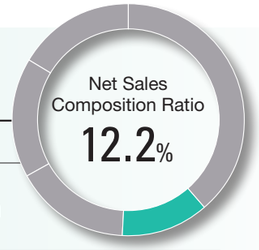
Net sales declined compared to FY2018, due to subdued sales for electronic and industrial components in the domestic business, and a decrease in export sales following the impact of a slowdown in the Chinese and South Korean economies. Operating profit decreased, primarily due to the impact of a decrease in sales volumes for some products.

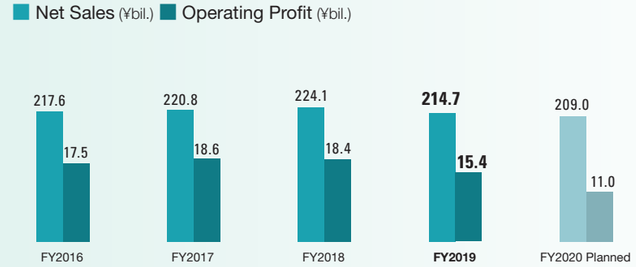
In FY2020, net sales of 209.0 billion yen (down 5.7 billion yen from FY2019) and operating profit of 11.0 billion yen (down 4.4 billion yen from FY2019) are planned.

Impact of COVID-19

A decline in sales volumes is forecast for release sheets for automobiles and magnetic recording paper (bullet train tickets, express train tickets, etc.). New mask manufacturing equipment has been installed in New Tac Kasei Yamamoto Mill, to contribute to bringing the pandemic under control.

Net Sales	Operating Profit
¥214.7 billion	¥15.4 billion





Business Overview

Specialty Papers Business

The Specialty Papers Business has a lineup of products with advanced special functions such as electrical material paper including insulation materials, dry pulp non-woven fabric, and glass paper. The production of pressboards (except for heat resistant pressboards) will be consolidated from October 2021, as a result of the business transfer from Mitsubishi Paper Mills.


Glass paper (Oji F-Tex)

Adhesive Products Business

Using proprietary adhesive force control technology, the Adhesive Products Business handles from familiar products like food and beverage labels, courier delivery labels, adhesive tape for packaging, and wound dressings to less familiar, special applications like aluminum tape for construction material and forgery prevention tape.


PP Clean stickers (Oji Tac)

Imaging Media Business

With diverse coating technologies such as thermal and inkjet technologies, the Imaging Media Business boasts a top class global market share, developing products that meet diverse industries' customer needs. The transfer of production and sales operations for carbonless paper to Mitsubishi Paper Mills commenced in July 2020.


Thermal papers (Oji Imaging Media)

Film Business

Films for capacitors are used as an essential material in the power supply units of hybrid and full electric vehicles, and the Oji Group offers films of various thicknesses including the world's thinnest. The Film Business also offers optical double-sided adhesive films and hard-coated films that are seeing rapid growth due to their use in smartphones and other precision devices.


Film used in capacitors (Oji F-Tex)

Business Strategy

Profitability Improvement of Domestic Business

The Functional Materials Business provides a variety of different products to the automotive industry, as well as electronics materials, environmental and medical domains, based on core technologies such as papermaking, converting (functional and adhesive coatings), film forming and non-woven fabric. In addition, competitive strength and profitability are both improving, through the continuing review of manufacturing systems. We will work to further enhance corporate value, realizing synergies from its business alliance with Mitsubishi Paper Mills.

In addition, we are engaged in proposing materials for use in paper trays, containers, straws, etc., in response to the shift away from plastics, and developing and promoting new products to meet the needs of users in a broad range of fields. The Functional Materials Business will continue to engage in the swift development of high-function and high-value-added products, fusing core technologies and new materials.


The Oji F-Tex Shiga Mill (film manufacture)


Oji Kinocloth (fireproof cloth manufacture)

ESG and SDG Topics

Developing Products Friendly to the Global Environment

The Oji Group participates in the Plastics Smart Campaign implemented by the Ministry of the Environment since January 2019.

At present, three products are registered under the campaign: Oji F-Tex's SILBIO BARRIER, and Oji Tac's environmentally-friendly adhesive film and paper net envelope.

The Functional Materials Business will continue to contribute to reducing plastic waste, developing products that are friendly to the global environment.

Expansion of Overseas Business

The Functional Materials COMPANY is striving to expand its business that integrate material and converting across the world, pivoting on the thermal paper business, which boasts a share of around 20% of the global market.

In Southeast Asia, COMPANY is implementing M&A targeting downstream operating companies in Malaysia that convert, print, and sell thermal paper and adhesive paper, in order to further strengthen and reinforce the upstream businesses that primarily manufacture and sell thermal paper and adhesive paper.

In Central and South America, demand is rising for thermal paper, due to the spread and expansion of POS systems and logistics systems. Through increased manufacturing capacity at Oji Papéis Especiais in Brazil, COMPANY aims to improve quality and cost competitiveness, maintain an 85% share of Brazil's thermal paper market, and expand its share of the thermal paper market across Central and South America.

The Functional Materials COMPANY will continue to leverage its current core technologies to expand into new business areas, responding to increasing demand in Southeast Asia, South America, the Middle East, Africa and elsewhere.

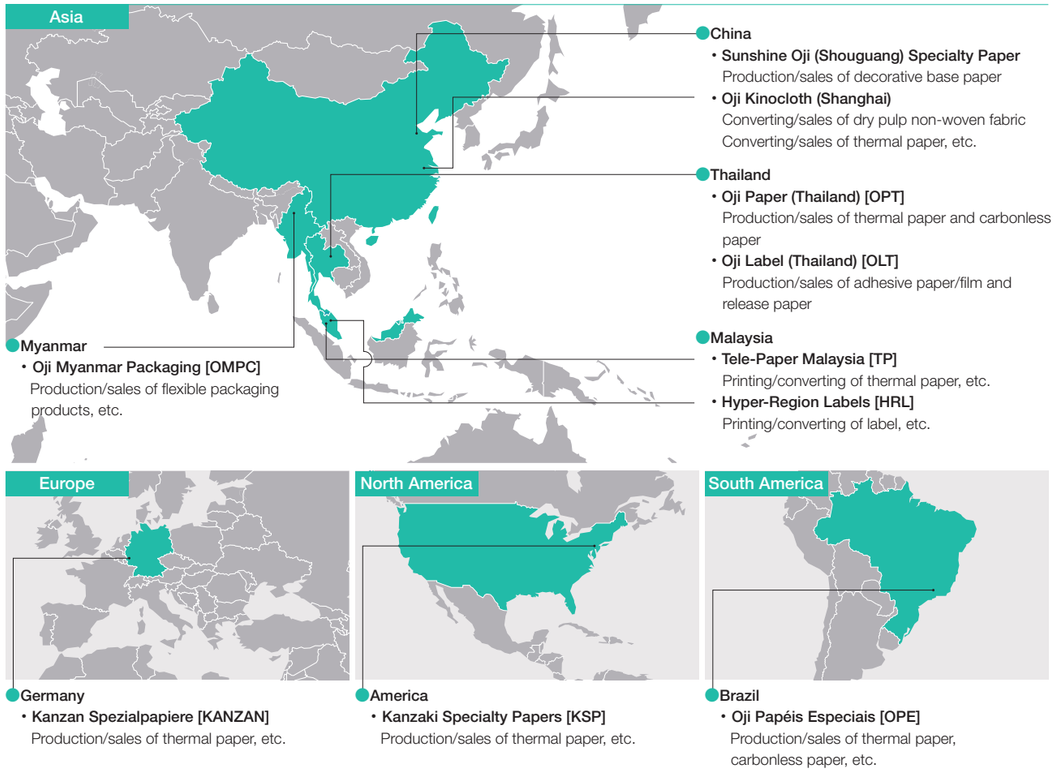


Oji Paper (Thailand)



Oji Papéis Especiais (Brazil)

Main Overseas Sites



Voice

We will respond to the diverse needs of the European market, and contribute to the development of the Oji Group.



Matthias Simon
President
KANZAN

KANZAN was established in 1991 as an equal joint venture of Kanzaki Paper and the German paper manufacturer Zanders. Its name is a combination of "Kanzaki" and "Zanders". KANZAN's purpose has always been the production and sale of thermal paper. After a decade as a joint venture company, KANZAN's stock was purchased by Oji Paper at the time, and we have been part of the Oji Group ever since. We sell products compatible with diverse market requirements to around 500 customers, primarily European converters, printing companies, and adhesive converters.

In 2019, the thermal paper business suffered from a downturn in demand on European markets. On the other hand, the supply side showed startup of competitors' new machines, resulting in a significant impact on prices and profit. This situation is forecast to continue in 2020, but we will strive with high aspirations to promote even greater efficiency and improve profit, strengthening coordination in Europe with Mitsubishi HiTec Paper Europe, whereby actively contributing to the development of the Oji Group.

Promotion of Innovation

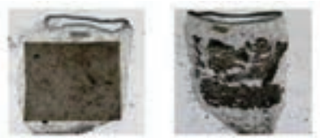
Oji Tac has developed Eco Marine Tac™, environmentally friendly adhesive film, in response to the issues of marine pollution and microplastics. Eco Marine Tac™ was launched in October 2019.

The surface base material of Eco Marine Tac™ is made of biomass materials that suppresses the emission of CO_2 when incinerated, and is easily broken down (biodegradable, etc.) in the soil or ocean due to the use of biomass plastic. Eco Marine Tac™ is suitable for printing in the same way as PET or OPP labels, and are more water resistant than adhesive paper. A special and unique adhesive is used, that does not tend to inhibit the degradability of the biomass plastic used on the surface base material. Proprietary decomposition test were carried in sea water and soil. After six months in sea water, the weight of the adhesive film had decreased by 85%.

Eco Marine Tac™ is registered under Plastics Smart, a campaign by the Ministry of the Environment to address marine plastic waste problems. The Functional Materials COMPANY will continue to engage in the development of environmentally-friendly products.

Soil decomposition test (after 3 months)

General-use adhesive film | Eco Marine Tac™



*Eco Marine Tac™ decomposes more easily than general-use adhesive film.

Seawater decomposition test (after 2 months)

General-use adhesive | Special adhesive



*When the same kind of biomass plastic is used on the surface base material, the special adhesive does not tend to inhibit the degradability.



Eco Marine Tac™



The Forest Resources and Environment Marketing Business supports the Group's business through the stable supply of raw materials and other materials and comprehensively leverages Group assets including renewable resources of the likes of forests and water as well as facilities, real estate, and technologies to reinforce business.

Fumio Shindo
President, Forest Resources and Environment Marketing COMPANY

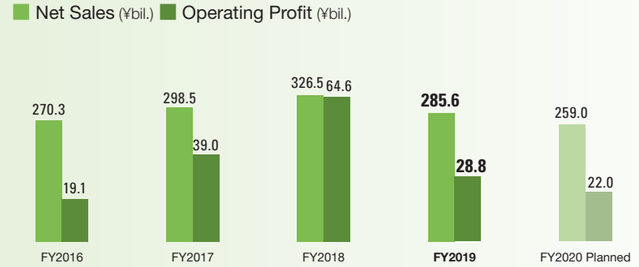
Changes in Net Sales and Operating Profit
In FY2019, the Forest Resources and Environment Marketing Business had net sales of 285.6 billion yen (down 40.9 billion yen from FY2018) and operating profit of 28.8 billion yen (down 35.8 billion yen from FY2018). Net sales and operating profit decreased substantially, mainly due to the impact of a weakening pulp market. In the energy business, electric power sales increased compared to the previous year, due to the commencing of operation of a new biomass power generation facility by MPM Oji Eco-Energy.

In FY2020, net sales of 259.0 billion yen (down 26.6 billion yen from FY2019) and operating profit of 22.0 billion yen (down 6.8 billion yen from FY2019) are planned.

Impact of COVID-19
A decline in sales volumes is forecast, with the weakening trend in global pulp markets expected to persist, despite positive effects anticipated from foreign exchange rate movements at overseas manufacturing sites.

Net Sales	Operating Profit
¥285.6 billion	¥28.8 billion

Net Sales Composition Ratio 16.1%



Business Overview

Pulp Business

Market pulp supply capacity is 2.5 million tons per year, and the Forest Resources and Environment Marketing Business has a diverse lineup of pulp grades including hardwood kraft pulp, softwood kraft pulp, and dissolving pulp. The broad product lineup and the Group's sales channels are used to boost sales in Asia and other growth regions. Moving forward, we will continue to carry out strategic financial measures to secure our competitiveness.


Dissolving pulp

Energy Business

The electric power generation business has strengthened by expanding and fortifying electricity generation facilities and entering the electricity retailing business. With regard to biomass electric power generation, the Energy Business brought two new boilers online in FY2015 and, in March 2016, established a joint venture biomass power generation company together with Mitsubishi Paper Mills, which started operation in 2019. As for hydroelectric power plants, the energy business continues to renovate existing facilities. Additionally, a joint electricity retailing business was launched with ITOCHU ENEX.

Lumber Processing Business

The Forest Resources and Environment Marketing Business purchases and sells lumber products and processed lumber products, primarily in Asia and Oceania, and is taking measures to expand production capacity. Efforts to expand sales at sales bases established in China and Southeast Asia are ongoing.


Pan Pac lumber

Forest Plantation Business

The Group has engaged in forest management for many years and has 190,000 hectares forests in Japan and 250,000 hectares of forest plantations overseas. In addition to paper manufacturing raw materials, forests are used for processed products including lumber and plywood, as well as diverse resources including biomass fuel, to develop a integrated forestry industry that generates maximum value from forest resources.

Fuels/Chemicals and Other Material Procurement Business

As prices for raw materials, fuels, and materials increase in conjunction with economic development of emerging countries, centralized management procurement and advantageous procurement are conducted for the group as a whole. CSR procurement is conducted while taking into consideration the environment and society in accordance with the Oji Group Partnership Procurement Policy.

Starch and Sweetener Products Business

The Forest Resources and Environment Marketing Business is working to enhance manufacturing technology for starch and sweetener products, etc., primarily corn, while developing and providing products to meet customer needs.



Business Strategy

Profitability Improvement of Domestic Business

Electric Power Generation Business: Expansion of the renewable energy business with a focus on establishing new biomass power plants

The Forest Resources and Environment Marketing Business is pursuing further expansion of the energy business, and a joint venture biomass power generation facility established with Mitsubishi Paper Mills commenced operation. Additionally, a decision was made to construct a biomass power generation facility in Tokushima Prefecture as a joint venture with ITOCHU ENEX, and preparations are underway for the start of operations in 2022.

To reinforce the biomass fuel business in conjunction with expansion of the energy business, a new fuel woodchip production company was established in Hokkaido in November 2018 to expand production of fuel woodchips by making use of unused domestic forest resources. Overseas, efforts to increase procurement of palm kernel shells (PKS) for use as fuel continue in Indonesia and Malaysia.

MPM Oji Eco-Energy
Operation commenced in 2019 (on the site of Mitsubishi Paper Mills Hachinohe Mill)
Generating capacity: 75,000 kW
Joint venture with Mitsubishi Paper Mills

Oji Green Energy Tokushima
Operation to commence in 2022 (on the site of the Oji Paper Tomioka Mill)
Generating capacity: 75,000 kW
Joint venture with ITOCHU ENEX

Other
Undertakings that seek to contribute to the development of a low-carbon society including the fuel procurement business for biomass power generation, hydroelectric power business, and other businesses

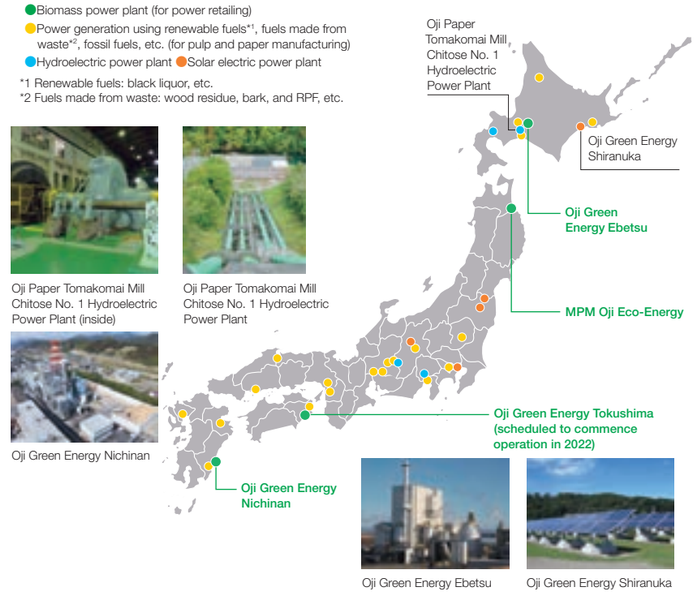

MPM Oji Eco-Energy's biomass electric power generation facility


Biomass fuel

Oji Group's Power Generation Sites

- Biomass power plant (for power retailing)
- Power generation using renewable fuels*1, fuels made from waste*2, fossil fuels, etc. (for pulp and paper manufacturing)
- Hydroelectric power plant
- Solar electric power plant

*1 Renewable fuels: black liquor, etc.
*2 Fuels made from waste: wood residue, bark, and RPF, etc.



Oji Paper Tomakomai Mill Chitose No. 1 Hydroelectric Power Plant (inside)

Oji Paper Tomakomai Mill Chitose No. 1 Hydroelectric Power Plant

Oji Green Energy Nichinan

Oji Green Energy Ebetsu

Oji Green Energy Shiranuka

Expansion of Overseas Businesses

In the pulp business, the Forest Resources and Environment Marketing Business continues to implement strategic profit measures at key business sites to reinforce business foundations that are resilient to fluctuations in pulp markets.

Oji Group know-how and operational management methods have been introduced and used in New Zealand to stabilize operations and raise efficiency. In Brazil, profit measures are implemented on a continuous basis by updating production facilities and through other means.

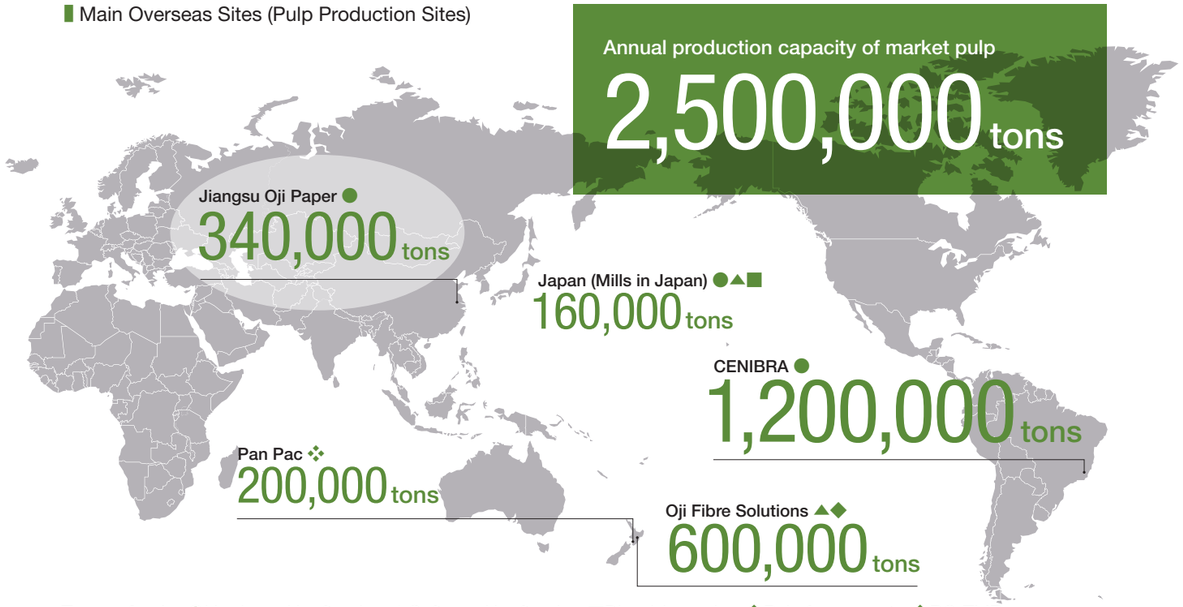
In Japan, the Forest Resources and Environment Marketing Business is expanding business and started production of high value added products: medical product materials and filter materials in addition to existing products for rayon applications.

The Forest Resources and Environment Marketing Business conducts forest plantation operations in nine locations in six overseas countries and is working to continuously secure sustainable resources.



Products are loaded onto a ship (Brazil)

Main Overseas Sites (Pulp Production Sites)





CENIBRA Mill
(Belo Oriente, Minas Gerais, Brazil)



Pan Pac Mill
(North Island, New Zealand)

Promotion of Innovation

The growth of planted trees is affected by a variety of factors, including natural factors such as the rainfall and soil in each area, and human factors such as the selection of species, care of the seedlings, and plantation management.

The trees planted by the Oji Group's Forest Plantation Business in plantations around the world take from a few years to more than 20 years to mature. The Forest Plantation Business is striving to research environmentally, economically and socially friendly resources in each area, in collaboration with local forestry researchers and forestry industry organizations.

Improving the Quality of Trees to Make Forests More Productive https://ojiholdings.disclosure.site/en/themes/153/

ESG and SDG Topics

Forestry Activities that Contribute to Achieving the Sustainable Development Goals (SDGs)

The UN Strategic Plan for Forests 2030, adopted by the UN Forum on Forests in 2017, indicates that forestry activities contribute to 14 of the 17 SDGs. The Plan establishes six Global Forest Goals for international society to achieve by the year 2030. This section introduces the Oji Group's initiatives towards the second Global Forest Goal, as an example.

Global Forest Goal 2

Enhance forest-based economic, social and environmental benefits



The 6 Global Forest Goals
https://www.un.org/esa/forests/wp-content/uploads/2019/04/Global-Forest-Goals-booklet-Apr-2019.pdf

The Oji Group's Initiatives

Promote the Employment of Local Residents

Forest plantation activities overseas bring about a variety of ripple effects. The creation of local employment is one of these effects. Planting an acacia forest in Vietnam promotes the employment of local residents, contributing to enhanced living standards. Workers are also employed during the harvesting period. Today, planting takes place in the wet season, and harvesting in the dry, providing employment throughout the year.

Social Contribution Activities

QPFL (Vietnam) engages in harvesting and forest planting activities in various locations. In some places, the local villagers cannot easily travel to hospital because of distance and poor roads.

In February 2020, QPFL dispatched a medical team to villages without doctors, and 650 villagers received medical examinations (blood pressure measurement, dental treatment, ultrasound tests). Blood pressure measurement equipment, clinical thermometers, beds and second-hand clothes were also provided to village clinics.

Voice

Meeting the expectations of the community and Stakeholders



Tony Clifford
Managing Director
Pan Pac Forest Products

Pan Pac is a fully interegrated forestry/timber products company with logging, pulp and lumber operations in Whirinaki, Hawke's Bay and in Milburn, Otago.

Pan Pac is one of the most historical and traditional companies in overseas business of Oji Group.

I see my role as MD as like the conductor of an orchestra.

It is my job to make sure we have the right mixture of instruments (functional skills) and each of the musicians must be capable of playing their instrument to the best of their ability (performance).

They all need to be reading from the same music score (strategy) and playing in time (aligned) with each other.

If the orchestra sounds good, then all the stakeholders will be pleased and buy tickets to our next concert (support and invest).

Paying attention to the company's sustainability and overall environmental footprint is another area I will maintain a focus on.

The expectations of the community and all other stakeholders is ever-increasing, and we need to be constantly managing and investing to keep ahead of compliance levels.



In response to the changing demand structure in Japan and integration with Asian markets, we are advancing with our business structure reforms while maximizing our cash flow.

Fumio Shindo
President, Printing and Communications Media COMPANY

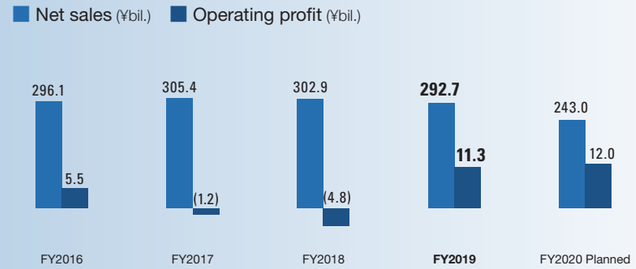
Changes in Net Sales and Operating Profit
In FY2019, the Printing and Communications Media Business had net sales of 292.7 billion yen (down 10.2 billion yen from FY2018) and operating profit of 11.3 billion yen (up 16.1 billion yen from FY2018). Net sales decreased due to a decline in demand for newsprint, printing / publication paper, and communication paper in the domestic business and due to an impact of a softening of the market in the overseas business. Operating profit increased primarily owing to an effect of correction of product prices.

In FY2020, net sales of 243.0 billion yen (down 49.7 billion yen from FY2019) and operating profit of 12.0 billion yen (up 0.7 billion yen from FY2019) are planned.

Impact of COVID-19
A decrease in sales volume of newsprint, printing / publication paper, and communication paper is forecast due to restraint in holding events and cancellation of events.

Net Sales	Operating Profit
¥292.7 billion	¥11.3 billion

Net Sales Composition Ratio 16.5%



Business Overview

Newsprint Business
We hold approximately 30% share of the Japanese market for newsprint. We make ongoing efforts to enhance quality, such as strength and printability, in response to the needs of newspaper companies throughout the country.



Printing and Publication Paper Business
We have various types of printing paper used for books, magazines, catalogs, leaflets, etc. We constantly meet the needs of the times and continue to supply high-quality products.



Communications Paper Business
In addition to forms and copier paper (PPC), we have various output media for information processing system, including printing paper for print on-demand.



Business Strategy

Profitability Improvement of Domestic Business

Printing and Communications Media COMPANY is taking various measures including concentration of production facilities through shutdown and transfer of operations in order to improve profitability and increase international competitiveness, thereby eliminating urgent issues.

Overview of Equipment Shutdown and Retrofitting
[Tomioka Mill]
Shutdown of the #9 machine and the #9 coater (FY2019)
[Tomakomai Mill]
- Shutdown of the #N-1 machine (FY2020)
- Retrofitting of the #N-5 machine (Manufacture of containerboard and kraft paper will start in FY2021.)
- Relocation of the #2 machine at the Oji Materia Nayoro Mill (Manufacture of specialty linerboard and specialty paperboard will start in FY2022.)


The #N-5 machine at the Tomakomai Mill

Production and sales cooperation with Mitsubishi Paper Mills
- Cost cutting by eliminating mixed transportation
- Improvement of production efficiency and reduction of cost through sharing of operating technologies
- Reciprocal use of sales channels

Expansion of Overseas Business

At Jiangsu Oji Paper Co., Ltd., a newly installed household paper base paper machine started operation in July 2020. By adding the household paper business to the existing printing paper and pulp businesses to achieve considerable synergy among these businesses, the Printing and Communications Media Business will further enhance our overall competitiveness and flexibly respond to the increasingly severe business environment due to the advancement in information and communications technologies in recent years as well as the impact of COVID-19.


Household paper base paper machine (TM2)

Promotion of Innovation

In the Japanese markets for newsprint and printing paper, a shift has been made over the past several years from gravure printing suitable for large-lot printing to general offset printing in conjunction with declines in the numbers of copies of newspapers, books, and magazines issued, and it is expected that the introduction of inkjet printing suitable for extremely small lots will also be explored. To flexibly respond to these emerging needs, the Printing and Communications Media Business is developing papers with unique characteristics such as offset printing paper that has strong gloss approaching that of gravure printing and paper suitable for inkjet printing.

Voice



Chen WeiBing
General Manager
Jiangsu Oji Paper Co., Ltd.

Meeting new challenges of entering the household paper field

In January 2020, Jiangsu Oji Paper undertook the household paper product business in China consisting of nepia tissue paper and disposable diapers as a result of the business consolidation within the Group and started selling household paper products. In addition, in July 2020, a newly installed household paper base paper machine started operation and we began selling household paper base paper. We are confident that the business foundation of Jiangsu Oji Paper will be further reinforced through the entry to the household paper field, which is expected to continue to grow in the future, in addition to the existing coated paper and pulp businesses. The first challenge we are to face is stabilizing the output of the household paper base paper machine at an early stage. With top priorities given to safety, environment, and compliance, all employees will work together to meet this challenge.

"A time will come to ride the wind and cleave the waves; I'll set my cloud-white sail and cross the sea which raves."

Kyokuyo and Ginpo Pack

Kyokuyo Co., Ltd. is a specialized trading company that buys and sells products of Oji Group and other companies. These products include pulp and paper, synthetic resin materials and products, packaging materials, chemicals, and machinery. With the change of its name in January 2018, Kyokuyo has been expanding its business activities to a more diverse range of fields and has responded to customer needs in the most suitable and optimal ways.

Ginpo Pack Co., Ltd, a subsidiary of Kyokuyo, conducts planning, production, and sales of plastic containers for food packing with focus on “Pulfine,” heat-resistant polypropylene foam containers.



Plastic cups made from used PET bottles (CO_2 reduction)



“Pulfine,” highly-expanded polypropylene containers that feature excellent heat resistance and heat retention properties

Oji Engineering

Oji Engineering Co., Ltd. leverages its technologies accumulated through paper manufacturing to offer one-stop engineering services ranging from facility design to operations. To explore other new fields, it also makes active efforts in proposals for practical waste water treatment and other systems in the water environment business, and in development of fuel handling facilities in the biomass power generation business. In addition, it is also promoting technical support for digital transformation, such as enhanced safety education utilizing VR-simulated disaster experience, remote maintenance using drones equipped with thermographic cameras, as well as realization of working style reforms through improved operational efficiency using IoT technology.



Waste water treatment system

Oji Real Estate

Oji Real Estate Co., Ltd. is as a general developer active nationwide in the development and sales of condominiums and single-family homes, lease and management of office buildings, condominiums, and commercial facilities, and the renovation business.

It also has a construction division that conducts design, supervision, and consultation in a wide range of areas including factories and plants as well as public and private facilities.





Oji Homes Aoyama (located in Minamiaoyama, Minato-ku, Tokyo) is a vintage condominium that provides support for fulfilling lifestyles through a highly-detailed concierge service.

Hotel New Oji

Hotel New Oji Co., Ltd. engages in the hotel and flight catering businesses. In addition to the hotel business at the Grand Hotel New Oji, a 16-story city hotel located in Tomakomai City, Hokkaido, it prepares inflight meals for domestic and overseas airlines in the catering building at the New Chitose Airport and loads the meals onto aircraft using large, specialized vehicles.



The Grand Hotel New Oji



A food loader supplies meals to an aircraft

Oji Logistics

Oji Logistics Co., Ltd. offers a variety of services, mainly to Oji Group companies to transport paper products to be shipped out of mills and consumption area warehouses. These services include warehousing, land transportation, marine transportation, port logistics, international logistics, etc. It offers total logistics service solutions, along with incorporating eco-friendliness into its operations such as implementing a modal shift toward railroads and ships rather than trucks.



A roll-on roll-off (RORO) ship that can transport vehicles carrying goods

ESG and SDG Topics

Green Management Certification issued for the purpose of reduction of environmental burdens in the transportation industry

Environmentally friendly efforts (Oji Logistics)

Oji Logistics is proceeding with a shift (modal shift) from truck transportation to marine transportation and rail transportation.

In September 2019, we issued Declaration of Voluntary Actions in support of the White Logistics Movement aimed at increasing the productivity of truck transportation, improving the efficiency of logistics, realizing a working environment where female drivers and drivers in their 60s and older can work comfortably, etc.

In addition, Green Management Certification has been obtained at all business offices of an Oji Logistics’ subsidiary (Oji Rikuun) in charge of the truck transportation division (p. 81).

Through these efforts, we are striving for clean logistics and working with the Oji Group to become an environmentally friendly company.

Oji Group Declaration of Voluntary Actions
https://white-logistics-movement.jp/wp-content/themes/white-logistics/docs/declarations/00539.pdf (available only in Japanese)