

STRATEGIES PRESENTATION MATERIAL

November 10, 2023



Return to Medium-Term Business Plan 2025's track

Achieving
MTBP2025

Realize
2030VISION

- Realizing sustainable growth for the Nippon Paper Group
- Build a circulation oriented society that maximizes use of wood resources

Basic Strategies and Priority Tasks for FY2024/3-2026/3

Basic Strategy

Acceleration of Business Structure Transformation

Priority
Tasks

- 1) Improving Profitability of Daily-Life Products Business
- 2) Strength Competitiveness of Graphic Paper Business
- 3) Accelerate Reduction of GHG Emissions
- 4) Improve Financial Position

Actions to Achieve
Operating Income
Target

- Increase Net Sales of Daily-Life Products Business
- Restructuring Opal
- Reliable expression of CAPEXs efficacy
- Promotion of further cost reductions
- Securing and maintaining reasonable product prices

Medium-Term Business Plan 2025 Targets

Net Sales	¥1,200 Billion or more
Operating Income	At an early stage ¥40 Billion
EBITDA	Steady ¥100 Billion
Net Debt/Equity Ratio	1.7 to 1.8 times
ROE	5.0 % or more

Operating income by segment, domestic and overseas

(¥billion)

	FY2024/3			FY2023/3 Results	Variance
	1st Half Results	2nd Half Forecast	Full year Forecast		
Paper and paperboard	3.9	12.1	16.0	-29.2	45.2
Daily-life products	-5.0	0.0	-5.0	-7.8	2.8
Energy	0.2	1.3	1.5	-1.7	3.2
Wood Products and Construction Related	5.2	3.3	8.5	8.9	-0.4
Others	0.6	2.4	3.0	2.9	0.1
Domestic	12.1	23.1	35.2	-24.1	59.3
Overseas	-7.2	-4.0	-11.2	-2.8	-8.4
Total	4.9	19.1	24.0	-26.9	50.9

- Operating income returning to profitability from Q1, and the total remained at the planned level
- Domestic earnings recovered due to cost reductions and price revisions. Overseas earnings struggled more than expected due to deteriorating market conditions, etc.
- Daily-life products business expected to record operating loss due to a delay in recovering earnings at the Maryvale Mill in Opal



Increase profitability in Daily Life Products Business

- Domestic : Net sales steadily expanded, and the operating income margin recovered as expected in the first half of FY2024/3
- Overseas : Net sales and operating income are at low levels due to worldwide deterioration in the market and a delay in recovering earnings in Opal

Net sales Trends

(¥billion)

	FY2022/3		FY2023/3		FY2024/3
	1st Half	2nd Half	1st Half	2nd Half	1st Half
Domestic	90.5	92.8	94.9	97.0	103.6
Overseas	99.2	104.0	117.4	130.8	114.9
Total	189.7	196.8	212.3	227.8	218.5

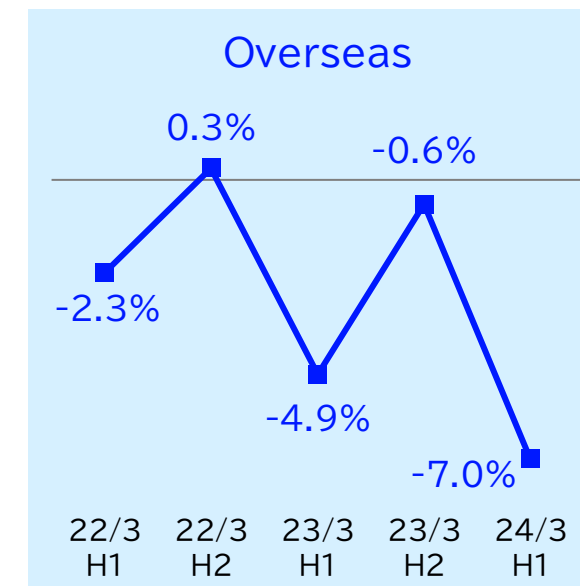
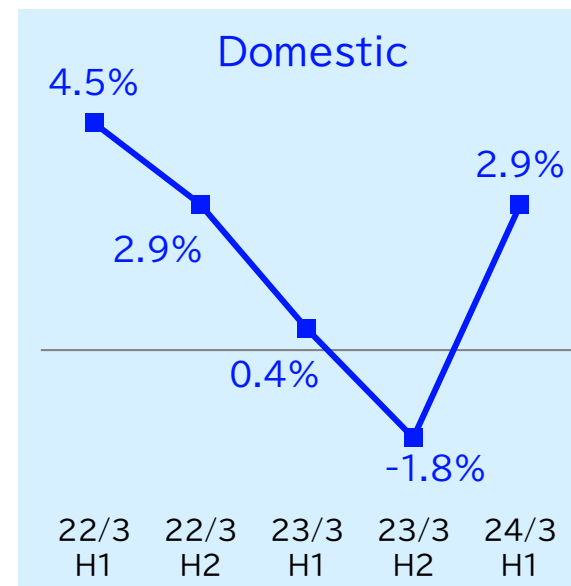
	FY2022/3		FY2023/3		FY2024/3
Net Sales Ratio	37%	37%	39%	38%	37%

Operating income Trends

(¥billion)

	FY2022/3		FY2023/3		FY2024/3
	1st Half	2nd Half	1st Half	2nd Half	1st Half
Domestic	4.1	2.7	0.4	-1.7	3.0
Overseas	-2.3	0.3	-5.7	-0.8	-8.0
Total	1.8	3.0	-5.3	-2.5	-5.0

Operating income margin





Increase profitability in Daily Life Products Business

Liquid Package (Domestic Paper-Pak Business + Nippon Dynawave Packaging (NDP))

Market Environment

- Beverage consumption is sluggish, and domestic demand for paper cartons continues to fall below the previous year
- Exchange rate fluctuations, raw material and fuel fluctuations, and risk of cost increases (logistics costs, personnel costs, etc.)

Promoting a strategy of differentiation

Developed environmentally friendly paper cartons "LiterLyte®" in collaboration with NDP

- Launch of paper cartons using 8% lighter boards, the lightest in Japan (adopted by more and more companies)

Strengthen collaboration

Expanding sales of newly designed paper cartons and filling machines that meet the differentiation needs of beverage manufacturers

Significant expansion in supply of strawless paper cartons "School POP®"

- Expanded to 18 prefectures in the adoption area
- Evolving cartons School POP® new capacity version available in 300ml

Results of execution of differentiation strategy

Amid the market decline, we secured sales volume and expanded our share

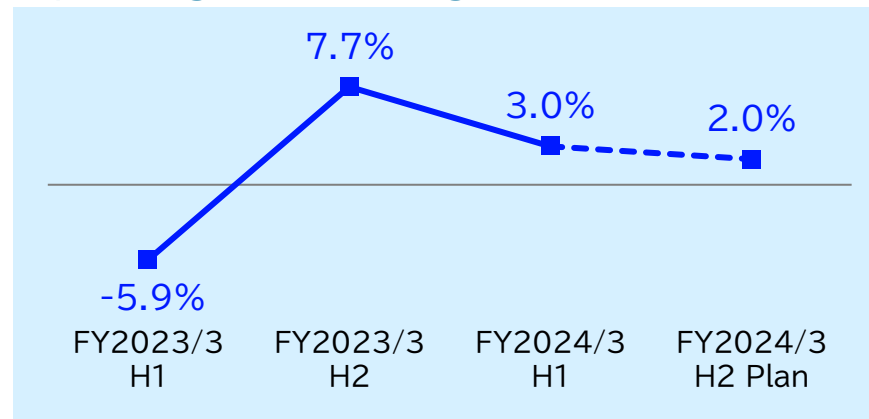
- Market growth rate in the first half was -5% compared to the previous year, but our sales volume decreased slightly

Responding to changes in the market environment

Continuous cost reduction

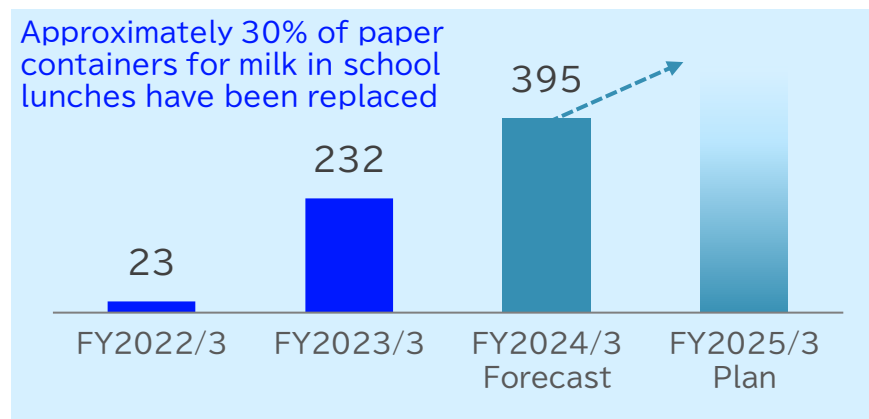
Considering price responses to cost increases that cannot be fully covered

Operating income margin



Operating income margin in FY2024/3 is expected to be low due to decreased sales volume in NDP

Sales Volume of School POP® (million cartons)





Household paper and healthcare

Market Environment

- Demand for household products was sluggish due to a growing interest in saving.
- Commercial product demand is recovering due to an increase in inbound tourist consumption

a strategy of differentiation

Expand sales under the concept of "Long-lasting & compact"

- Sales volume of toilet paper rolls expanded with 100% of long-lasting products
- 250 pairs of Scottie® FLOWERBOX, a long-lasting product, are also available in facial tissues .

Making new equipment into a force

Crecia-Kasuga No.3 Paper Machine (started operation in August 2023)

- Taking advantage of growth in long-lasting toilet paper rolls and moving into full operation at an early stage

Crecia Miyagi Mill Paper Machine (scheduled to start operation in May 2024)

- Strengthen competitiveness through improved productivity and integrated pulp system

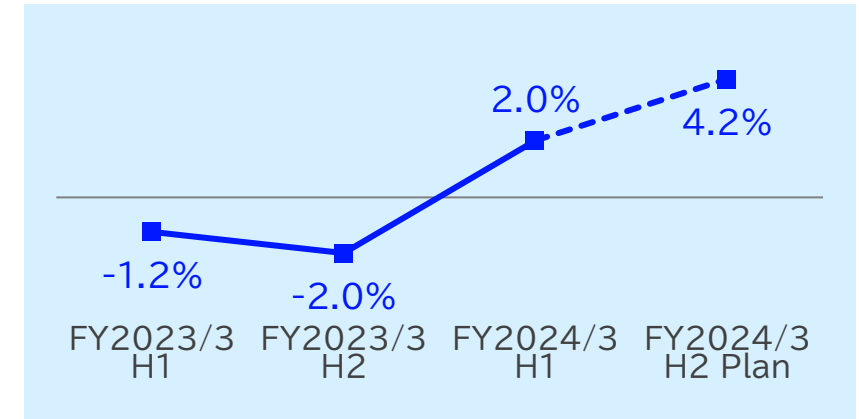
Rising costs
Response to

Continuous cost reduction

Considering price responses to cost increases that cannot be fully covered

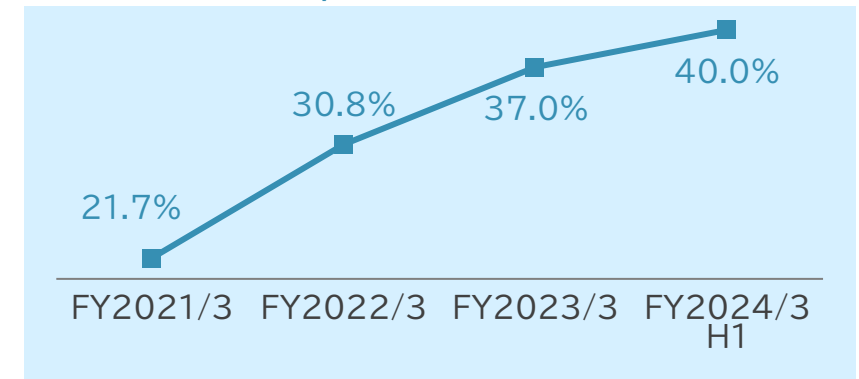
- Responding to increases in logistics, personnel, and other expenses

Operating income margin



Operating income margin improved due to cost reductions and securing appropriate prices

Composition Ratio of Long-lasting Products in the Toilet Paper Roll Market



Source: Our estimates based on SRI+ data



Chemical

Market Environment

- Continued sluggish business environment due to the slowdown in the Chinese economy and other factors
- Sluggish global markets of smartphones and tablets
- Electric vehicle (EV) sales will grow in the long term but are currently sluggish

Positive Contribution of new equipment

Productivity increase measures of functional coating resins, Iwakuni Mill

- Sales volume is expected to recover as automobile production recovers

CMC Production equipment upgraded, Gotsu Mill

Establishment of LiB CMC manufacturing and sales company in Hungary

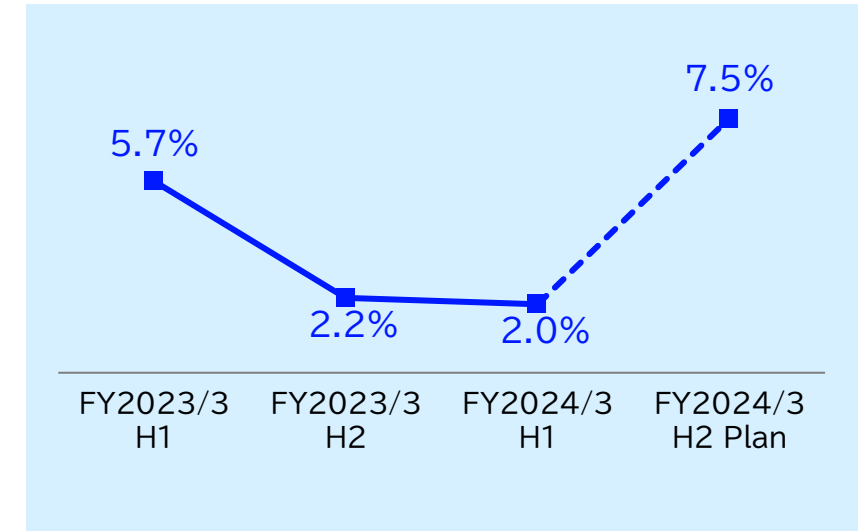
- Strengthening production system for lithium-ion battery (LiB) applications in preparation for the expansion of the electric vehicle (EV) market

Promoting a strategy of differentiation

In functional films and functional coating resins, we aim to advance the development of environmentally friendly, high value-added products

In dissolving pulp, we have established an increased production system for roll pulp and are shifting to high-value-added products

Operating income margin



Recovering earnings is underway in the second half of FY2024/3, a full-fledged recovery is expected in FY2025/3



Opal's Maryvale Mill

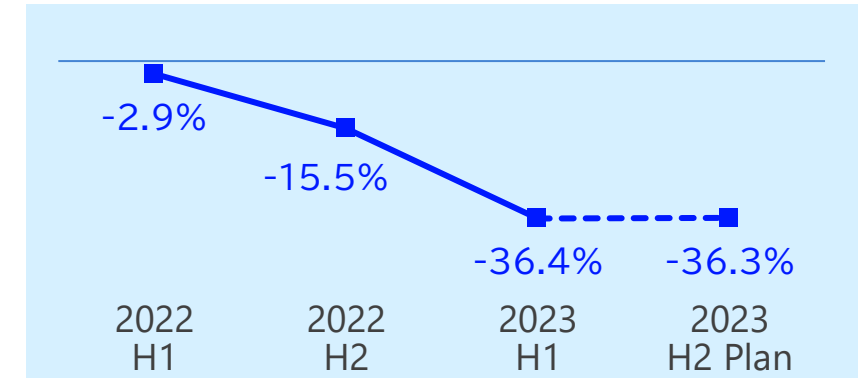
Status updates of Maryvale Mill's Optimization following the unplanned closure of white paper production

Closed Machine	M2 paper machine was closed following M5 • Temporary fixed costs incurred due to M2 close
Workforce redundancies	Progress generally as planned
Optimization of Manufacturing	Transition of pulp production (batch to continuous Mill) delayed • Scheduled to be completed in February 2024, about half a year later than the original plan
Sale of product	Market conditions for export base paper, which accounts for approx. 40% of production, have deteriorated significantly.

Maryvale Mill deficit higher than planned

Important Issue	<ul style="list-style-type: none"> • Early transition to optimal manufacturing system and fixed cost reduction (The amount of Fixed cost reduction) 2023 forecast: A\$80 million → 2024 target: A\$130 million
	<ul style="list-style-type: none"> • Maximize integrated packaging profit by expanding inhouse paper usage

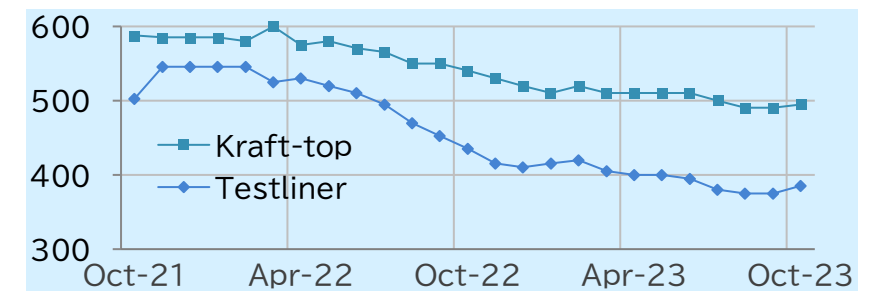
Operating profit margin (Maryvale Mill)



Operating profit of Maryvale Mill (A\$ million)

2022		2023	
H1	H2	H1	H2
-9	-44	-64	-49

Paperboard price trends (Southeast Asia) (US\$/t)



Source: RISI

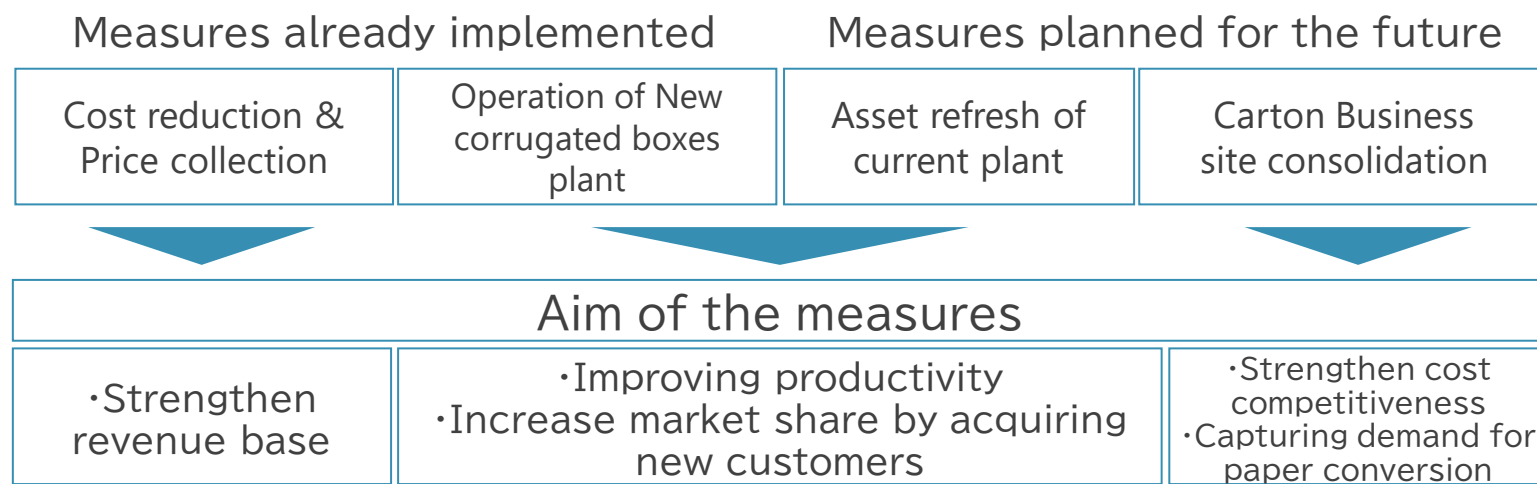


Increase profitability in Daily Life Products Business

Opal Packaging Business

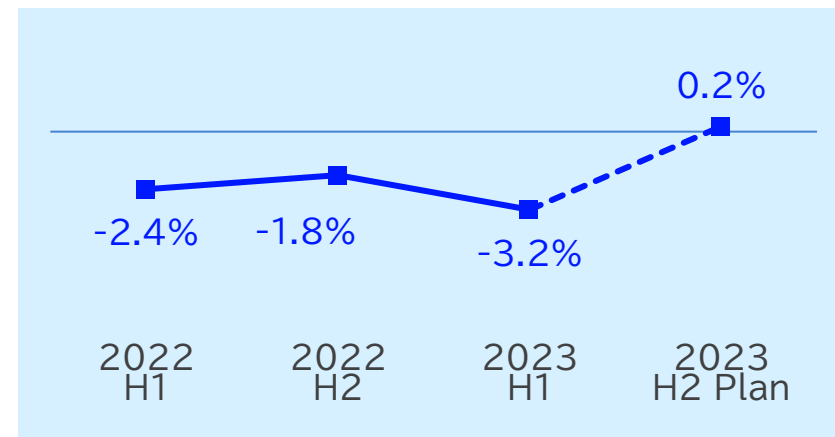
- Market Environment
- Demand for packaging in the Oceania region is currently weak.
 - Expectation of gradual recovery from 2024 onwards

Increase profitability Packaging Business

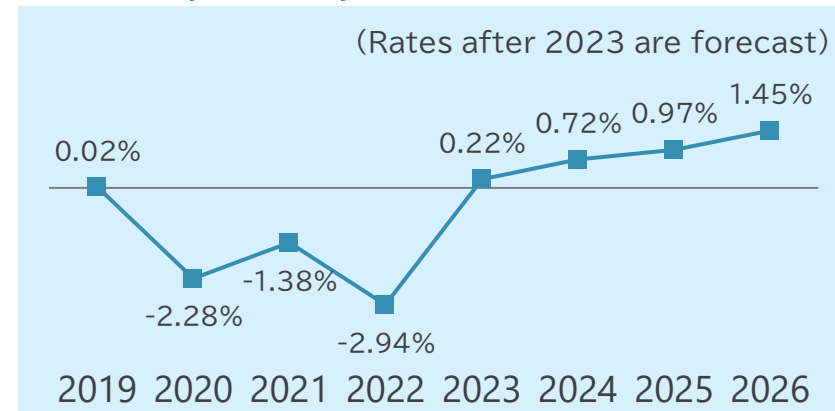


The target of this 2nd half of 2023 is to turn a positive operating profit

Operating profit margin



Growth rate of Australian corrugated board demand (year-on-year)



Source: IBIS World data



Paper and paperboard

- Market Environment
- Decreased demand for graphic paper accelerated further
 - In paperboard, domestic shipments and exports are expected to remain sluggish for the time being.

Full year target : **¥9.7** billion

1st Half **¥5.6** billion

Cost reductions

- Reduction of coal consumption (Reduce 38 thousand tons compared to the previous year) ¥1.1 billion
- Switching to low-cost coal ¥1.0 billion
- Reduction of repair costs ¥0.5 billion
- Other cost Reduction (energy saving, etc.) ¥0.3 billion
- Impact of Permanent machine shutdown (Akita / Ishinomaki) ¥0.7 billion
- Reduction of labor costs (Implementation of voluntary retirement) ¥1.4 billion
- Others ¥0.6 billion

Price revisions

Progress as planned

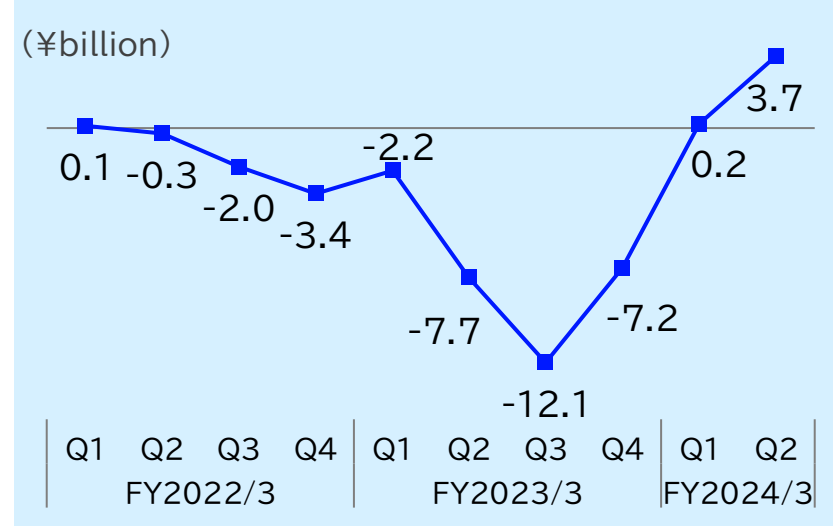
Developing differentiated products

Development and sales expansion of environmentally friendly products that meet society's needs

Magazine text paper "N.Polaris43Mocha"

- Reduce energy consumption by using 100% chemical pulp instead of mechanical pulp
- Lifecycle GHG emissions are reduced by approximately 20% compared to conventional products, although the qualities are equivalent.

Operating Income Trends in the Paper and Paperboard Business



Cost reductions and price revisions progressed as planned, returning to profitability from Q1



Paper and paperboard

Challenges faced

Decrease in demand

- Accelerating the decrease in graphic paper
- Decline in reaction to price revisions
- Consumers' preference for savings



- To expand sales of environmentally friendly products
- Elimination of the supply-demand gap by adjusting production
- Consider appropriate time to review production system

Rising costs

- Continued depreciation of the yen
- Unstable raw material and fuels market
- Increase in logistics costs
- Increase in labor costs and contracted salary
- Increased capitalization, such as GHG reduction, energy savings, and personnel savings



- Further promotion of cost reductions
- Considering responses to rising costs that cannot be fully covered

Energy

Basic Policy ▪ Securing stable revenue, mainly in the field of biomass power generation

Yufutsu
Energy Center

Steady in the first half and continued stable operations to secure stable earnings

Nippon Paper Ishinoki
Energy Center

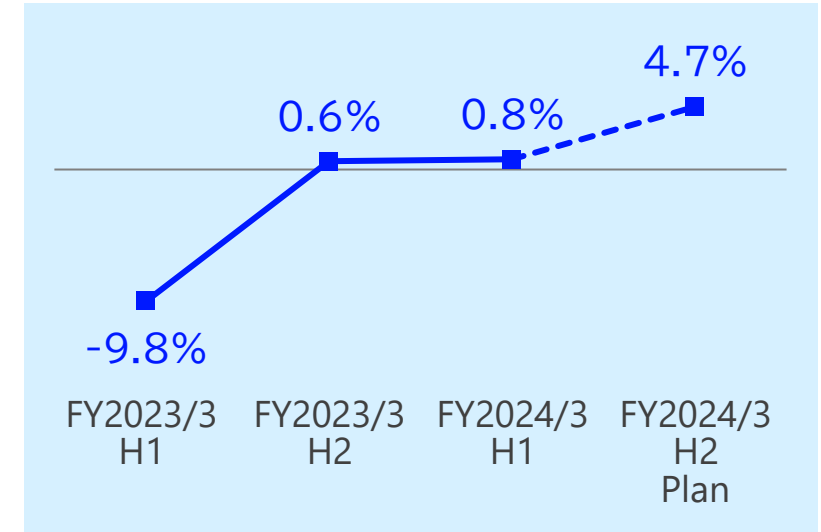
Steady in the first half and continued stable operations to secure stable earnings

Promote biomass mono-firing power plant (26%→42%)
(scheduled for completion in December 2023)

Kushiro Mill
Power generation
business

- Despite a drop in sales prices linked to the Coal Index Price, the arrival of expensive Coal worsened revenue.
- Switching to low-cost coal and revising sales contract conditions

Operating income margin



Increase the ratio of biomass mono-firing power plant
Nippon Paper Ishinomaki Energy Center

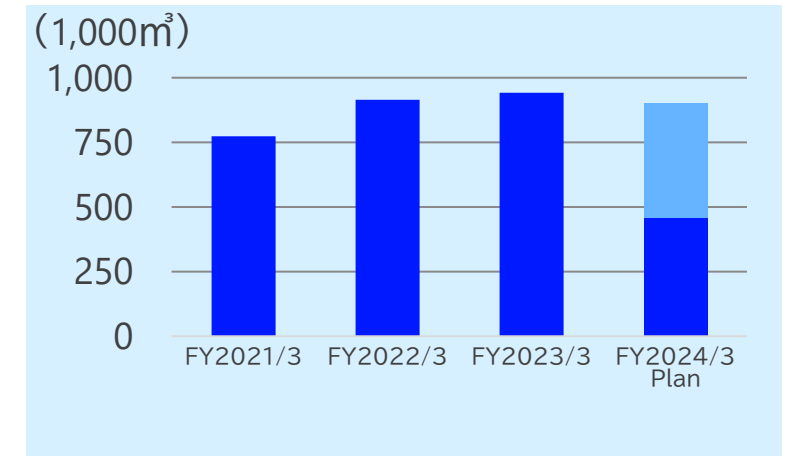


Wood/Building Material

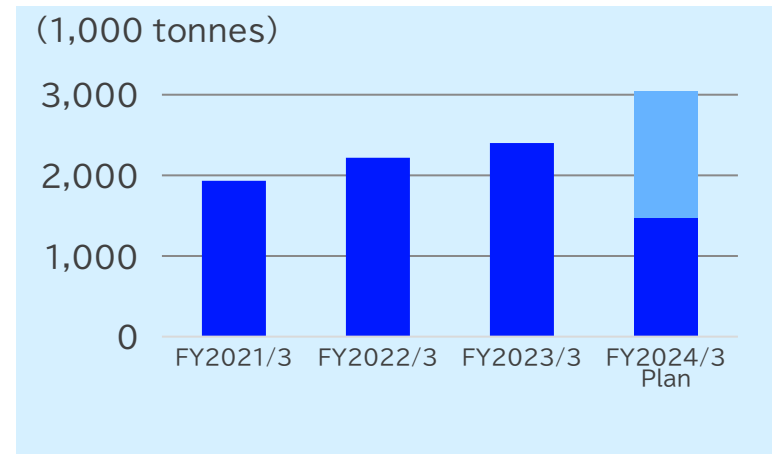
- Basic Policy
- Strengthen procurement capabilities for raw materials and fuels and expand earnings in the wood-related business

Expansion of domestic wood business	Target for 1 million m ³ of domestic wood (FY2024/3 estimate 0.9 million m ³)
Expansion of the Fuel Business	To expand domestic and international procurement of biomass fuels Promote the use of waste fuels (including the operation of waste tire processing equipment in the Fuji Region)
Expanding overseas business	Established bases in Vietnam and Thailand and strengthened procurement capabilities for raw materials and fuels overseas

Transition in the Volume of Domestic wood Handled (Nippon Paper Lumber)



Volume of Fuel Handled (Nippon Paper Lumber)





New businesses and new products

Cellulose Nanofiber (CNF)

- CNF reinforced resin

Links with Yamaha Motor Co., Ltd for application development

Participating in NEDO's Grant Project

In August 2023, Yamaha Motor Co., Ltd ^{*1} to use Watercraft components.

Large-scale manufacturing technology and a full-scale supply system are under consideration.

Future activities

- To establish stable mass production technology, improve quality, and reduce costs
- Accelerate development of applications in a wide range of industries, including mobility parts

^{*1} Mass production of transportation equipment components using CNF reinforced resin is the first in the world. (Our research)

- Cosmetics : Rebranding to enhance storytelling
- CNF electricity storage bodies : 10 times or more as much storage capacity as in the early development phase

Bioethanol

- Entered the Public-Private Joint Conference to Promote the Introduction of SAF and is selected as a pilot-operator for registering and certifying woody fuels as a CORSIA Qualified Fuel (CEF) ^{*2}

- Aiming to begin production of bioethanol from domestic wood with tens of thousands of kiloliters per year in FY2028/3

^{*2} CORSIA: Carbon Offsets and Reduction Schemes for International Civil Aviation

Sugar and bioethanol production

	<ul style="list-style-type: none"> • Domestic wood supply chain • Factory production equipment
	<ul style="list-style-type: none"> • Marketing • To collect information in Japan and other countries
	<ul style="list-style-type: none"> • Biorefinery technology

SAF manufacturing

<p>Oil wholesale</p>	<p>Airline</p>
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Bio-chemical manufacturing

<p>Chemical manufacturer</p>



Financial and capital strategies

■ Asset sales

- September 2023 Transferred land and buildings owned in Kita-ku, Tokyo
- Six strategic stockholdings were sold in the first half of FY2024/3.
- Continue to sell strategic stockholdings and idle assets

■ Strategic investment

- Prioritize environmental investments. Reduce GHG emissions
- For other investments, continue to carefully select projects and reduce investment amounts by utilizing subsidies, etc.
- Strategic investment for FY2024/3 is expected to be ¥30 billion.

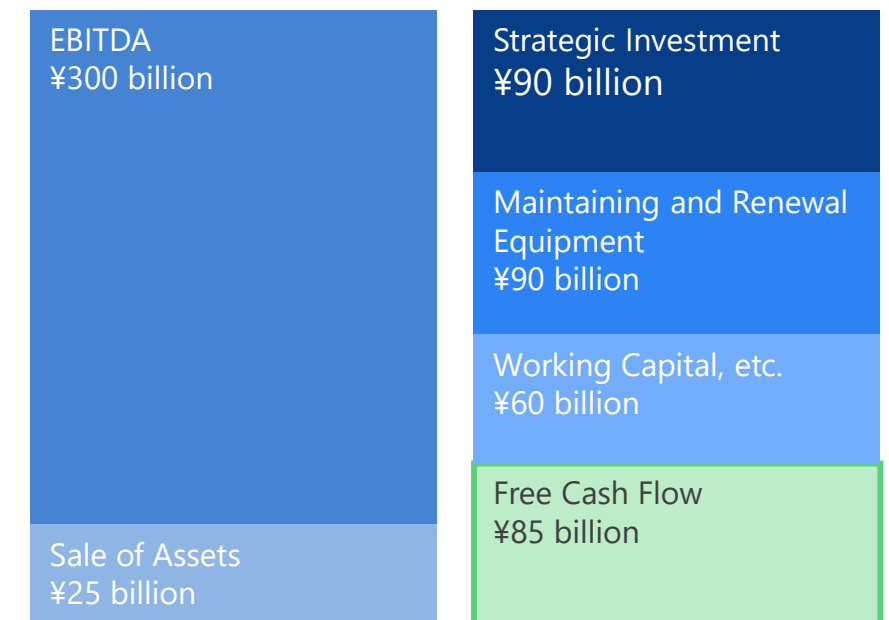
■ Shareholder Returns

- Dividends for FY2024/3 were determined based on an assessment of business trends and the business environment.

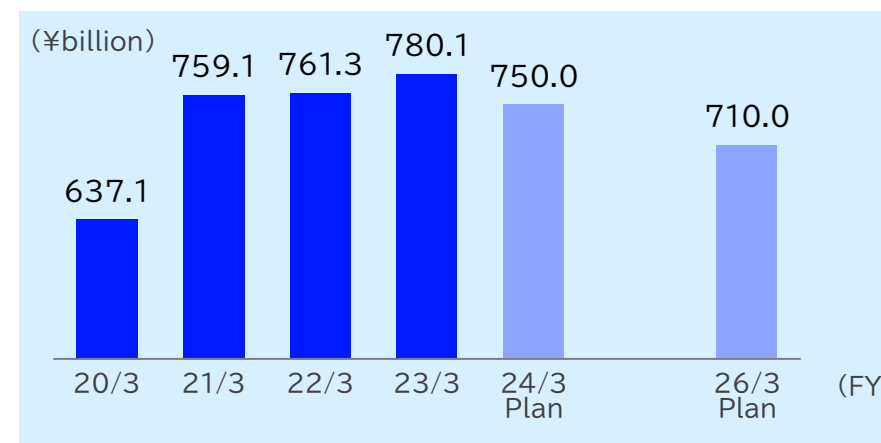
■ Compress Net interest-bearing debt

- Net interest-bearing debt is expected to be ¥750.0 billion at the end of FY2024/3.
- We will continue to improve our financial position while paying due attention to financial discipline.

Cash Flows (FY2024/3-FY2026/3)



Compress Net interest-bearing debt



Reduction in GHG emission

Target for reducing GHG emissions (FY2031/3) (Scope1+2)

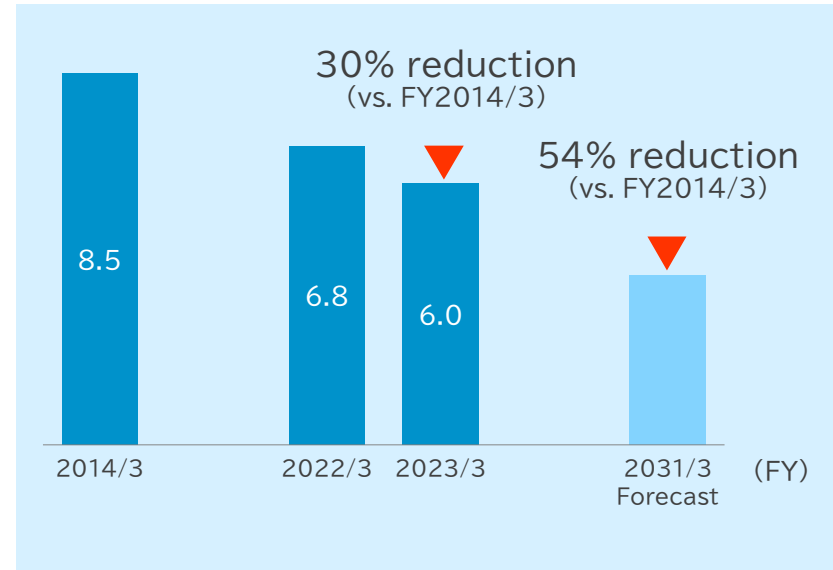
54% (vs. FY2014/3)

■ GHG Reduction Rate for FY2024/3-2031/3 **24%**

Main measures

NIPPON PAPER Industries	Improve productivity through Reorganization of production structure	6%
	Coal boiler stop with Reorganization of production structure	7%
	Maximization of fuel-conversion and black liquor utilization	5%
	Energy conservation measures	2%
Affiliated companies	Overall initiatives	4%

GHG Emissions Reduction, Forecast (Million tonnes-CO₂)



■ Set reduction targets under GX League Voluntary Emissions Trading System (GX-ETS)

Reduction target Direct emissions in FY 2031/3 54% indirect emissions 5%

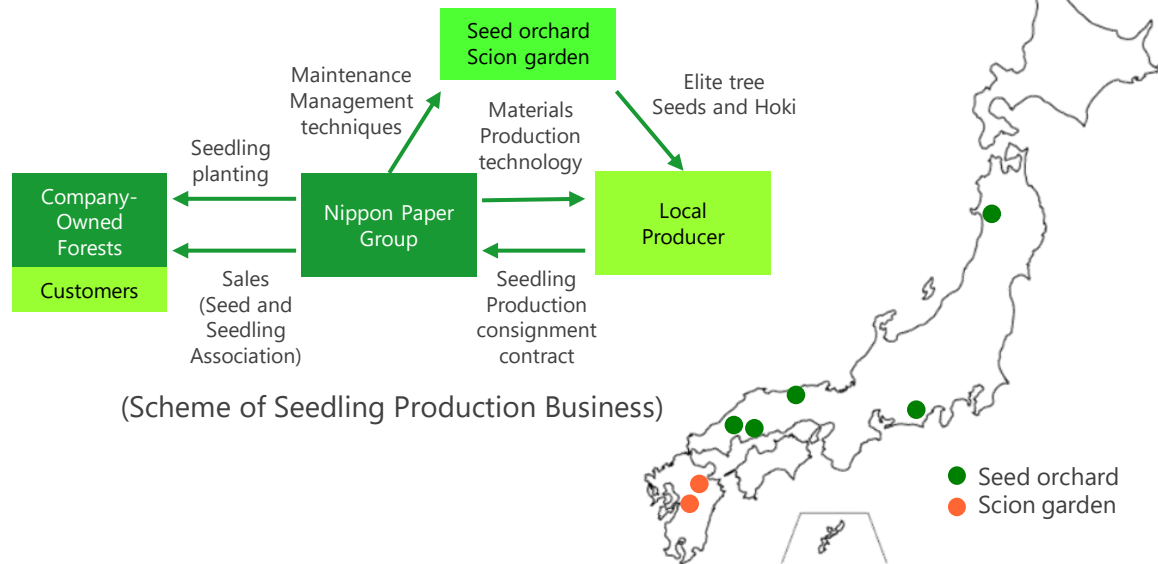
*Unit of participation: Nippon Paper Industries, base year: FY2014/3

* Emissions related to manufacturing excluding the energy business field

The Unique Strategy of Nippon Paper Group; to strengthen our business foundation and to contribute to the creation of a circulation-oriented society through spreading biomass products while maximizing the various values of forests

Elite tree

- Elite Tree Project Office established to expand the Elite Tree business
- Establishment of a production system of 10 million units/year in FY2031/3
- Increase in value of Company-Owned Forests and increase in CO2 removals by conversion to elite trees
- Contributing to strengthening the competitiveness of domestic forestry and the resolution of pollinosis
- Branded seedlings as "Sugoi (great) - Seedlings TM" *



(Scheme of Seedling Production Business)

(Location of seed gardens and panicle plantations)

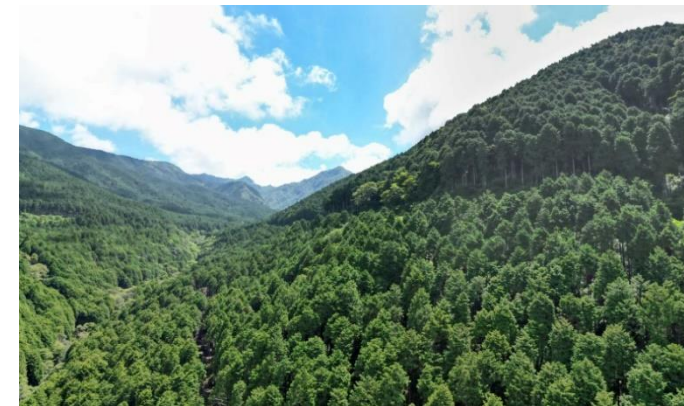
* Tentative name

J-credit

- Possibility of acquiring and disseminating J-credit expanded due to methodological revisions in 2022
- GX League Emissions Trading for J-Credit



- Further Expansion of Credit Acquisition in Company-Owned Forests
- Maximize the potential of 90,000 hectares of Company-Owned Forests
- Considering transactions in the newly established carbon credit market



Acquired J-Credit certification in 2022
Kazaki Company-Owned Forest (Shizuoka)

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

■ Basic Policy of Nippon Paper Group 2030VISION

1. Reallocate management resources to growing businesses
2. Respond to rapid changes in the social landscape such as GHG reduction and environmental issues

■ Target of FY2031/3

Net Sales	¥1,300 Billion	•Of which, Daily-Life Products Business is 50% or more (including ¥65 billion of New Businesses) •Net Sales Ratio of Overseas 30% or more
Net Sales Margin of Daily-Life Products Business	7% or more	
ROE	8.0% or more	
GHG Emissions	*54% Reduction	•compared with FY2014/3•Scope1+2 <u>*Revised the target</u>

■ What it means to be a comprehensive biomass company

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



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

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