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Company name : Nippon Paper Industries Co., Ltd.  
Representative : Fumio Manoshiro, President  
(Stock code: 3863, First Section, TSE)

## **Nippon Paper Group Formulates its Sixth Medium-Term Business Plan (2018 - 2020)**

- Shaping the future with trees: Reorganize production structure of paper business and expand business in growth areas -

Nippon Paper Industries Co., Ltd. (President: Fumio Manoshiro; hereinafter, “the Company”) has formulated its sixth medium-term business plan for three years (FY2018 - FY2020) from this fiscal year. The fifth medium-term business plan tackled the themes of “enhancing the competitiveness of the existing businesses” and “transforming the business structure.” The sixth medium-term business plan maintains these themes as its basic policies, and raises the themes of “reorganize production structure of paper business and make maximum utilization of in-house facilities” and “expand business operations in growth areas, and early commercialization of new businesses,” with the goal of building a business portfolio that will enable the Company to create a stable operating income of 50.0 billion yen. Based on this plan, the Company will seek to build a more stable revenue base.

### **■ Review on the Fifth Medium-Term Business Plan**

Business operations in the package, household paper products, healthcare and chemical business (which the Company regards as growth areas) all grew steadily due to investments and other initiatives for the expansion of business operations. The Company’s energy business also progressed as planned, and oversea business improved its earning by promoting revenue improvement activities and portfolio changes. As a result, each business almost achieved its revenue target except existing business (domestic paper and paperboard businesses).

With regard to existing business operations, in the paperboard business (for which demand remains strong), the Company started business alliance in containerboard and sack and general-purpose unbleached kraft paper with Tokushu Tokai Paper Co., Ltd. and achieved synergies with Shin Tokai Paper Co., Ltd. by taking several measures such as cost reductions, logistics optimization, and joint procurement of raw materials and fuels. Meanwhile, in the paper business, domestic demand declined than initial expectation and price revision for printing paper was not implemented as planned. Moreover, rise in raw material and fuel price (especially on waste paper) and operating disruption, which caused delay on cost reductions, resulted in deterioration in revenue on paper business. Consequently, operating income for FY 2017 stood at ¥17.6 billion, falling significantly short of the target level of ¥50.0 billion.

### **■ Sixth Medium-Term Business Plan**

The Nippon Paper Group will continue to advance the construction of a sustainable business structure, creating a diverse range of products and services based on wood - a renewable resource - as it works towards the realization of its corporate group philosophy and mission of “contributing to better living and cultural progress.”

In its sixth medium-term business plan, in light of the severe results of the fifth medium-term business plan, the Group recognizes enhancing the competitiveness of its existing businesses (especially its paper business) as its most important issue, and will work to reduce fixed costs by reorganizing its production structure. In regard to transformation of business structure, which is making steady progress, the company will seek for further expansion of its business operation in growth areas.

### **■ Themes**

#### **(1) Reorganize production structure of paper business and make maximum utilization of in-house facilities**

With regard to its paper business, as stated in another announcement (“Nippon Paper Group Announces Reorganization of Production Structure for its Paper Business”) also issued today, the Company will shut down all paper production machines at Hokkaido (Yufutsu) and Fuji (Fuji) Mills, and consider modifying those sites for growth businesses and new business operations. In addition, one paper production machine at Kushiro Mill will also be shut down. Through this reorganization, the Company will seek to improve the profitability of its paper business by optimizing the balance of supply and demand, reducing fixed costs and maintaining a higher operation rate. With regard to its paperboard business, where strong demand is anticipated to continue, the Company will build a robust revenue base by advancing the further optimization of its production structure in its business alliance with Tokushu Tokai Paper Co., Ltd.

## (2) Expand business in growth areas and early commercialization of new businesses

The Company continues to regard the package, household paper products and healthcare, chemical and energy businesses as growth areas. Demand growth in the household paper products and healthcare business expect to continue as a result of a several factors, including an increase in the number of households due to trend towards the formation of nuclear families, changes in lifestyle to reflect aging society, and an increase in the number of hotels to reflect increase in foreign tourists visiting Japan. In the package business, while there is a decline in demand due to population decrease in Japan, the Company will seek to stimulate demand by launching newly-shaped containers onto the market. The shift from plastic containers towards paper containers is also accelerating globally, due to increasing environmental awareness among consumers. In the chemical business, although market size is relatively small, demand for profitable products is growing, primarily in Asia. These products include functional carboxymethyl cellulose (CMC) used in lithium-ion batteries mounted in electric vehicles (EV), and functional coating resins used for automobile coatings, etc. In the energy business, while renewable energy attracted a lot of attention, expectations for biomass power generation are growing. In these business areas, the Company will make proactive investments and accelerate the transformation of its business structure in order to expand its business operations by accurately capturing consumer needs, and by creating new demand through the development of new products. Additionally, in the field of innovative materials, the Company will aim to expand sales as soon as possible by continuing to advance the development of applications for products such as the cellulose nanofiber (CNF) “CELLENPIA®”, and the paper-based barrier-type packaging material “SHIELDPLUS®”, which have already been released to market. It will also accelerate its development of applications for high value-added products such as “SHIELDPLUS PREMIER®” and “MinerPa®”, in order to realize commercialization at early timing. In this way, the Company will continue to “shape the future with trees” by building a diverse and wide-ranging business portfolio.

### ■ Nippon Paper Group Target Operating Income

**Group Operating Income: ¥50.0 billion**

### ■ Sixth Medium-Term Business Plan Targets

**EBITDA: ¥100.0 billion (early-stage achievement) (FY2017 ¥78.1 billion)**

#### [Final Year (FY2020) Targets]

<b>Operating Income:</b>	<b>¥47.0 billion</b>	(FY2017 ¥17.6 billion)
<b>ROA:</b>	<b>3.8%</b>	(FY2017 1.8%)
<b>D/E Ratio:</b>	<b>1.5 or less</b>	(FY2017 1.61)

**(Reference) Net Sales and Operating Income by segment**

(billion yen)

		5th MTBP* FY2017		6th MTBP FY2020	
		Net Sales	Operating Income	Net Sales	Operating Income
Existing	Paper and Paperboard	741.4	-5.5	730.0	14.0
Growth Area etc	Livelihood - Related	192.8	11.9	235.0	18.0
	Energy	17.8	3.9	36.0	7.5
	Wood Products and Construction Related	62.8	4.5	77.0	4.5
	Other	31.7	2.8	37.0	3.0
	Sub total	305.1	23.1	385.0	33.0
Total		1046.5	17.6	1115.0	47.0

\*MTBP: Midterm Business Plan

\* The segment classification used for financial results will change from FY2018. See below for a comparison of the current segment against the new segment, and details of main consolidated subsidiaries included in the results for each segment.

○Current Segment (Until Mar. 31, 2018)

<b>Pulp &amp; Paper segment</b>	
<b>(Pulp &amp; Paper)</b> Nippon Paper Industries (Paper · Paperboard) Nippon Tokai Industrial Paper Supply Paper Australia [Australia] Jujo Thermal [Finland] Siam Nippon Industrial Paper [Thailand]	
<b>(Package)</b> Nippon Dynawave Packaging (NDP) [USA]	
<b>(Healthcare)</b> Nippon Paper Crecia	
<b>(Energy)</b> Nippon Paper Industries (Energy) Nippon Paper Ishinomaki Energy Center	
<b>Paper - Related segment</b>	
<b>(Package)</b> Nippon Paper Industries (Paper-Pak) Nippon Seitai Kyouei Seitai	
<b>(Chemical)</b> Nippon Paper Industries (Chemical) Flowric	
<b>Wood Products and Construction Related</b>	
<b>(Wood Products)</b> Nippon Paper Lumber N&E Amapa Florestal e Celulose [Brazil]	
<b>(Construction Related)</b> Nippon Paper Unitec Nippon Paper Ishinomaki Technology	
<b>Other</b>	
<b>(Logistics)</b> Nippon Paper Logistics Nanko Unyu Kyokushin Transport Corporation	
<b>(Leisure, etc.)</b> Nippon Paper Development	

○New Segment (From Apr. 1, 2018)

<b>Paper and Paperboard segment</b>	
<b>(Pulp &amp; Paper)</b> Nippon Paper Industries (Paper · Paperboard) Nippon Tokai Industrial Paper Supply Paper Australia [Australia] Jujo Thermal [Finland] Siam Nippon Industrial Paper [Thailand]	
<b>Livelihood- Related segment</b>	
<b>(Package)</b> Nippon Paper Industries (Paper-Pak) Nippon Seitai Kyouei Seitai Nippon Dynawave Packaging (NDP) [USA]	
<b>(Healthcare)</b> Nippon Paper Crecia <b>Creacia-Kasuga (newly consolidated)</b>	
<b>(Chemical)</b> Nippon Paper Industries (Chemical) Flowric	
<b>Energy segment</b>	
<b>(Energy)</b> Nippon Paper Industries (Energy) Nippon Paper Ishinomaki Energy Center	
<b>Wood Products and Construction Related</b>	
<b>(Wood Products)</b> Nippon Paper Lumber N&E Amapa Florestal e Celulose [Brazil]	
<b>(Construction Related)</b> Nippon Paper Unitec Nippon Paper Ishinomaki Technology	
<b>Other</b>	
<b>(Logistics)</b> Nippon Paper Logistics Nanko Unyu Kyokushin Transport Corporation	
<b>(Leisure, etc.)</b> Nippon Paper Development	