



Value Creation Business Model

We provide a summary of our five core businesses in FY2018.

Strengthening our measures for the global market through efforts such as expanding export destinations and modal shifts

Business Overview

The main product of the Paper Business is printing and communication paper used for books, magazines, catalogs, and brochures. Within the product line-up, coated paper is our key product, and its production volume in 2018 had the second highest share in the domestic industry. Furthermore, our sales of colored wood-free paper with its tradition and rich product line-up have allowed us to maintain a share of over 65% of the market in Japan, which shows our brand is loved by a wide range of customers.

Performance Highlights

Total domestic shipments for printing and communication paper manufacturers in 2018 have fallen for five consecutive years since 2014. The demand for paper continues to decline due to the continuing digitalization of media from the spread of smartphones and tablets, lower budgets for advertising on paper media, and the declining birthrate. In this environment, we will work to recover demand by combining the respective benefits of paper and digital mediums, and taking advantage of the functionality of paper that cannot be replaced digitally.

In addition, the worldwide movement to eliminate plastics is becoming more prominent, and the demand for cup base paper and packaging paper is growing. This is an opportunity to accelerate progress in developing new products and, we will continue to maintain our price, further pursue optimum production and efficiency improvements, and stably provide high quality products.

In our exports for 2018, we were able to expand our sales areas and volume as stated in our plan. The company-wide export volume exceeded 300,000 tons, of which the 291,000 tons from the Niigata Mill increased 23% compared to 2017. Our export volume to our six key destinations of the United States, Hong Kong, Vietnam, Taiwan, Thailand and Malaysia increased from 153,000 tons in 2017 to 179,000 tons in 2018. We also saw a significant increase in sales to India and Pakistan, where we have focused on growing our sales. Over the long term, we will strive to further strengthen our competitiveness in overseas markets and develop new customers as demand in Japan declines.

Future Issues and Initiatives

With the third year of the "V-DRIVE" Medium-Term Management Plan in the final step of "Vision 2020," the Paper Business Division will ensure the Niigata Mill, Kishu Mill, and the Sales Department are aligned in the same direction working together, and engaged in full-fledged efforts to enhance our competitiveness. To respond to rapid changes in the external environment, we will strive to improve our domestic market share. In exports, we will build a production system that can compete in the global market, and take bold measures to strengthen the competitiveness of the Paper Business Division as detailed in "V-DRIVE." Specifically, we will focus on the following:

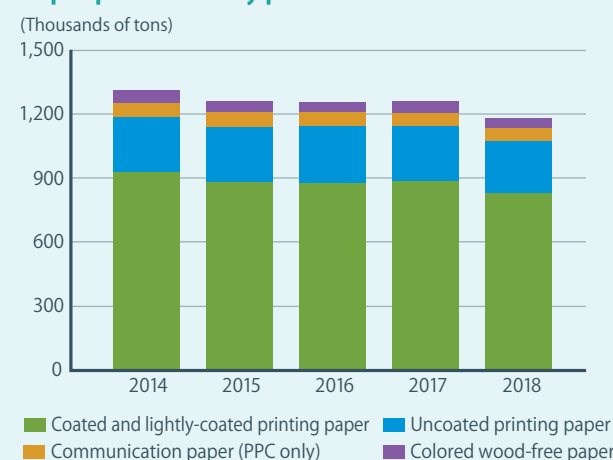
Production

- (1) Thoroughly pursue optimum production and lower costs at the Niigata and Kishu mills, while ensuring stable operations and supply.
- (2) Improve the reliability of quality and strengthen the relationships of trust we have with our users.
- (3) Reduce the environmental impact of our production operations through the effective use of resources.

Sales

- (1) Improve sales share through development of competitive new products based on our coated and wood-free paper, and further advance new uses for colored wood-free paper.
- (2) Conduct regular visits of our users by the Sales Department and staff at our mills to strengthen relationships and ensure reliable quality and sales.
- (3) Accurately grasp overseas market trends, maintain and strengthen relationships with existing customers while further strengthening export sales.

Paper production by product



Business Topics

Increasing export sales of paper

The Group has been exporting and expanding mainly printing and communication paper since 2008, and has continued to supply it without being affected by fluctuations in foreign exchange rates. As a result, the relationship of trust we have developed with customers through these efforts has led to the recent expansion of sales volumes.

In 2018, exports exceeded 300,000 tons. Exports, mainly in coated paper, are expected to decline in 2019, but the Niigata Mill has developed new products with coated paper intended for use overseas and is expanding sales in India, in addition to developing new markets in the Philippines and Indonesia.

In order to meet global demands for alternatives to plastic, the Kishu Mill has been exporting base paper for products such as paper cups and straws as well as other processed paper, and is expanding its sales volume for East Asia and India.

We aim to increase our sales volume over the long term not only by exporting products such as wood-free paper and coated paper to neighboring areas that have been our core accounts, but also by expanding both our areas and product types.

Augmenting our large containers

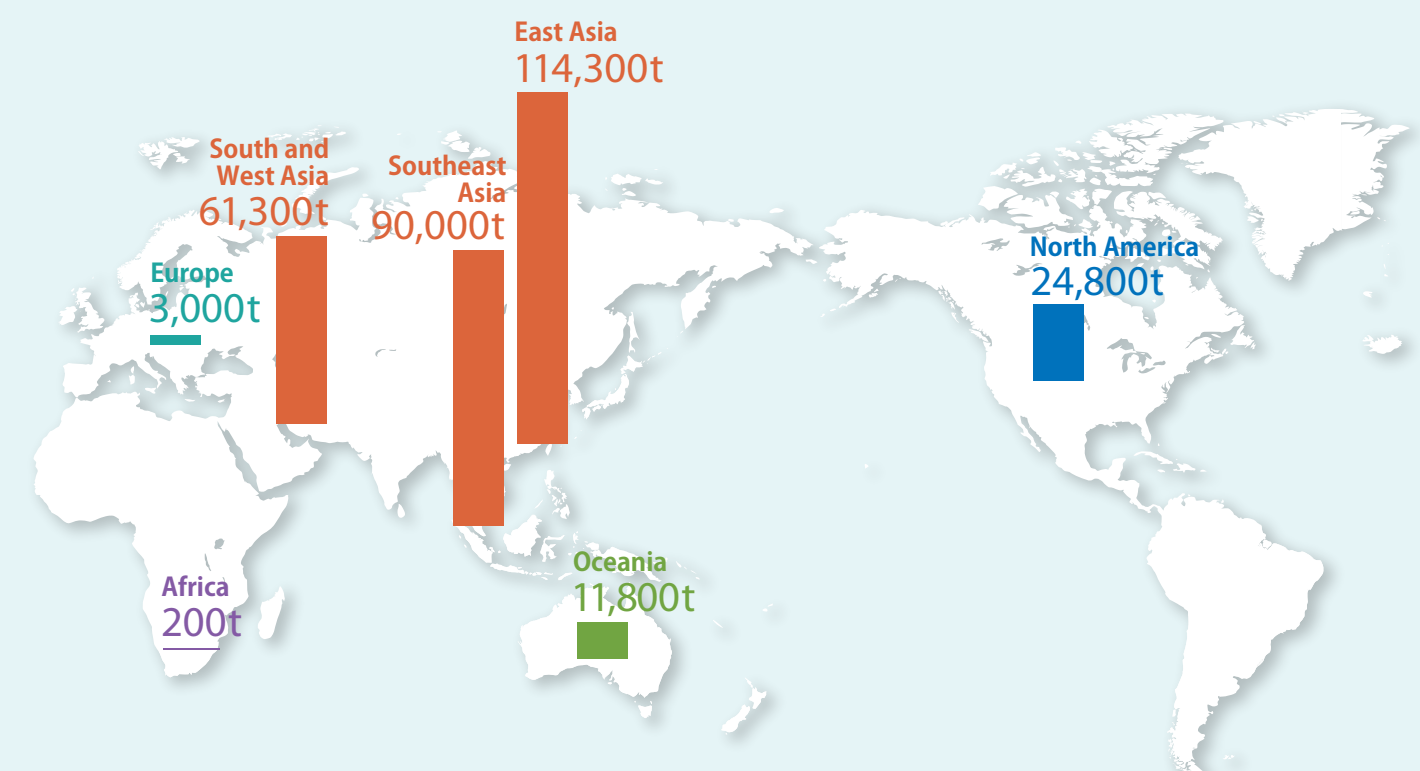
We began using 20-foot containers (10 ton) in October 2018.

The shortage of truck drivers in recent years has been prominent, and the number of trucks secured from the Niigata Mill to the Kansai/Chubu area has decreased. This led us to introduce 20-foot containers as a transportation alternative to trucks. Using these containers has made trefoil formation (stacked) of rolled products possible, something that could not be done with existing 12-foot containers (5 ton), leading to an improvement in the direct delivery ratio of users.

As shown in the photo below, we adopted our corporate color for the container body and a design that makes the product name stand out. Moving forward, we hope that more people will know our company and products, and that they can actually hold those products in their hands.



Exports and destinations (2018)



Accurately understanding changes in demand structure and creating added value to improve customer satisfaction

Business Overview

Our department's main products are premium white paperboard, special white paperboard, coated duplex board (with gray back), cast-coated paper, etc. We feature a wide range of products in order to meet our customers' diverse needs. The major usage for our products is in commercial printing, which include packages, catalogs, POP advertising, postcards and the covers of publications. Our products are used in a wide range of fields. Production sites in Japan are at the Niigata Mill and Kanto Mill (Ichikawa and Katsuta) and overseas by Jiangmen Xinghui Paper Mill, located in Jiangmen, Guangdong Province in China. With HOKUETSU GROUP'S technical strength for top quality, high efficiency and less environmental impact which is cultivated over the course of many years, we will further strengthen our profit base by selling attractive products.

Performance Highlights

In 2018, total domestic shipment of white paperboard by manufacturers was approximately 1.36 million tons with the Group accounting for about 270 thousand tons, equal to 21% of the market share in Japan. In the white paperboard business, domestic demand in fields such as food, medicine, and cosmetics remained strong. In the food product field, the number of retort food pouches has increased as in the previous year due to the growing trend of ready-made meals as a result of increasing numbers of nuclear families and their propensity to save. In the pharmaceutical field, there is an increasing trend due to more generic drugs and an increase in demand for high-functional products due to health consciousness. On the other hand, in addition to a decrease due to structural factors accompanying the declining population, the aging population, and low birthrate, there is a continuing downward trend due to the trend toward smaller and softer packaging from increased strict cost-cutting measures by users and a decrease in the commercial printing and publishing fields due to the impact of digitization. Inbound demand remains stable as the number of foreign visitors to Japan continues to increase, despite flat shipment of goods for souvenirs compared to its peak. To respond to changes in the demand structure of our customers, the Group has pursued total optimization by building a production system that fully leverages the characteristics of the three production sites in Niigata, Katsuta, and Ichikawa. We are also working on initiatives in the functional paper sector in cooperation with the Specialty Paper Business Division and expect it to grow in the future.

Future Issues and Initiatives

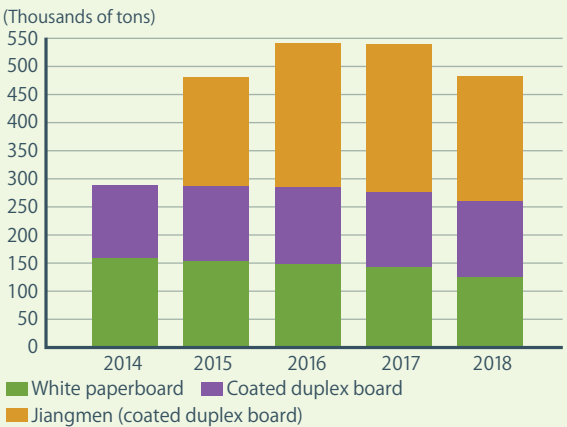
Important Issues

- (1) Strengthen the foundations for environmental conservation, governance, and compliance.
- (2) Promote work style reforms rooted in creating an attractive workplace, and build safe workplaces that integrate human resources and Group companies.
- (3) Work to expand business areas and expand sales through environmentally-oriented strategies such as using FSC-certified paper and ending the use of plastics.
- (4) Reinforce our competitiveness by implementing total optimization of production, inventories, and sales, and promoting logistics reform.
- (5) Thoroughly implement measures to prevent the recurrence of operational problems and perform preventive maintenance on equipment.
- (6) Realize advantageous procurement in response to changes in the procurement environment of raw materials for Jiangmen Xinghui Paper Mill in China, and secure profits by improving efficiency.
- (7) Contribute to the profits of the entire Group by further strengthening the cooperation with the Paper Processing Business Division and other divisions, and sharing information and sales strategies with our Group companies, Hokuetsu Package and Hokuetsu Paper Sales.

Specific Initiatives

- (1) Proceed with developing demand for primary food containers and pharmaceutical applications as a growth field and promote the development of quality, including in new products.
- (2) Had Maricoat and NEW-DV flagship white paperboard FSC® certified.
- (3) Consolidate multiple warehouses at the Kanto Mill (Ichikawa) to further improve convenience as part of logistics reforms.

White paperboard production by type (Japan + China operations)



Business Topics (White paperboard business in China / Jiangmen Xinghui Paper Mill)

Stabilizing and expanding sales

Continuing from October 2016, a group of major customers (15 people from eight companies) of Jiangmen Xinghui Paper Mill visited our Niigata Mill and head office in September 2018 where they were presented with a commemorative plate for being excellent sales customers. During the tour of the Niigata Mill, we showed them equipment, such as the No. 8 and No. 9 paper machines and the black liquor recovery boiler, where they were able to experience the size of the mill and our excellent environmental measures. Going forward, we will continue to strengthen our relationships with major customers and cultivate new customers with the aim of expanding sales.



Commemorative photo at the Niigata Mill

Promoting further environmental protection measures

In line with the strengthening of environmental protections in China, departments related to the Ministry of Ecology and Environment frequently conduct inspections and examinations at the central, provincial, city, and district levels, such as when applying for imported used paper licenses. To respond to these conditions, we are working on thorough environmental protection measures, which include the beautification and cleaning of mills every week, promoting 5S activities, and strengthening the management of solid and hazardous waste, in addition to installing a roof over the entire used paper yard and making the sewage ditch visible. In October 2018, we were certified a "clean production company" by the city of Jiangmen.



Certification as a "clean production company" by the city of Jiangmen

Acquisition of a license for imported used paper

As part of efforts to strengthen environmental protections, the Chinese government started restricting used paper imports in 2018, including the prohibition of imported mixed used paper. The total amount of licensed imported used paper in 2018 was 18.16 million tons, a significant decrease compared to the 28.12 million tons in 2017. At the same time, Jiangmen Xinghui Paper Mill succeeded in taking various environmental protection measures and was able to obtain a used paper license in 2019.

Enhancing our lineup of FSC-certified paper in our White Paperboard Business

The Group has worked to expand its FSC-certified paper, said to be the most effective way to prevent deforestation, in order to ensure sustainability and preserve biodiversity. Although we have obtained FSC certification at all our mills, the White Paperboard Business Division received FSC certification for all its Maricoat and NEW-DV paper produced from October 2018, which is primarily used for paper containers in main products. Other brands have also been certified. At the Tokyo Olympics and Paralympic Games, where a management plan has been put in place that takes into account sustainability, the paper procurement standards set by the Organizing Committee calls for the "maximum use of used paper pulp and the use of materials with guaranteed sustainability, including FSC certification, for other pulps."



Example of use of FSC-certified paper (sample)

(Hokuetsu Corporation FSC license code: FSC-C005497)

Accelerating the expansion of business areas in growth markets

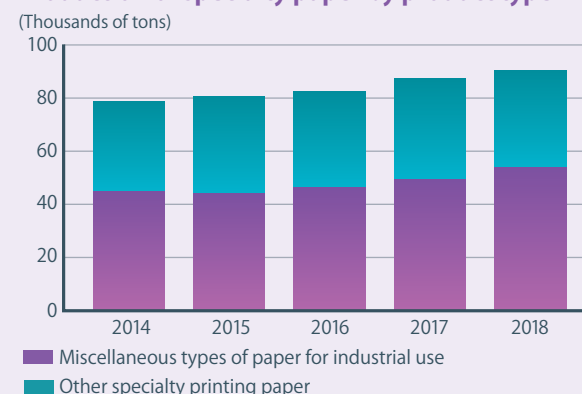
Business Overview

The main products of the Specialty Paper Business Division are premium printing paper, fancy paper, communication paper, paper for industrial use, specialty processed products, specialty fiber boards, and more. Among these, products such as abrasive-coated base paper, adhesive postcard paper, and chip carrier tape base paper boast a large share of the domestic market. Going forward, we will further solidify our domestic base while strengthening our competitiveness and revenue-earning capability in the global market.

Performance Highlights

Total shipments by the Specialty Paper Business Division in 2018 totaled 101% of shipments for the previous year. In the specialty paper field, fancy paper, such as colored paper, has been on the decline due to the effects of the declining birthrate, but premium printing paper used in brochures and packaging has remained firm in the publishing industry. In the communication paper field, sales to central government agencies struggled despite regional governments adopting adhesive postcard paper. Paper for forms and OCR paper continued to decline slightly, but thanks to efforts to expand sales of processed paper for use in applications in Japan and abroad, we were able to secure the sales volume in line with levels of the previous year. In the performance materials paper field, chip carrier tape base paper performed well due to higher demand for electronic components from advances in areas such as 5G technology and the computerization of automobiles, in addition to the greater functionality of smartphones. Abrasive-coated base paper showed steady shipments supported by demand related to construction and building materials, mainly in Japan. Air filter media was sluggish due to stagnation in large-scale investment demand from the economic slowdown. Sales of RO (water treatment) membrane backings for the water treatment sector remained firm in both Japan and abroad.

Production of specialty paper by product type



Future Issues and Initiatives

In the Specialty Paper Business Division, we are working closely with five strategic businesses and subsidiaries (Hokuetsu Toyo Fibre, HK Paper (USA), Shanghai Toh Tech, Bernard Dumas, and Nikkan) and have made an effort to shrink the distance between our customers on a global scale and link latent needs to commercialization, from the perspective of the whole Group. This effort promoted over the past few years with this thinking is steadily under way and we have been able to expand our business field. With this approach as a pillar to speed up this effort, the following six items will be used as a short-term vision to enter into promising markets and connect to surrounding business fields.

Initiatives

- Build a system to gradually increase the production of chip carrier tape base paper
- Strengthen glass fiber business
- Start a new mill for the new thermal processing paper business in the Chinese market
- Expand sales of RO (water treatment) membrane backings
- Develop and commercialize a functional substitute product to plastic
- Develop and commercialize functional paper products in partnership with specific major customers in Japan

Fancy & Media Paper

In the specialty paper business, although demand for fancy paper is expected to decline further in the future, we are working to expand sales related to premium printing paper and to develop environmentally-friendly products with added functionality. Although communication paper finds itself in a difficult market environment for both paper for forms and OCR paper, we are strengthening efforts for processed base paper applications, promoting new the development of new applications, and expanding sales of adhesive postcard paper.

Performance Materials Paper

Shipments continued to be sluggish in the first half of 2019 due to lower export-related demand stemming from trade friction between the United States and China. Chip carrier tape base paper is in an adjustment phase, coupled with the maturity of the smartphone market and the slowdown in the Chinese economy, but volume is expected to recover in the second half due to growth in sectors, including 5G and automotive components such as EVs. Even export sales of abrasive-coated base paper and air filter media, which have been steady, are currently sluggish. Specialty hardened fiber board has also slightly declined, but we are working to acquire new projects by developing multiple applications. In addition to strengthening each business, we will aim to expand our business while promoting the development of new projects.

Business Topics

Fancy & Media Paper

● **Developing environmentally-friendly products**
In the specialty paper field, in response to the trend of eliminating plastic, inquiries are increasing for food cutlery applications, such as paper spoons, paper muddlers, and clear paper document folders that use our base paper. We have worked to bolster the presence of the entire Group. In 2018, we exhibited at EcoPro 2018, the largest event on the environment in Japan, and TOKYO PACK 2018, and actively participated in other user-centered exhibitions. Going forward, we will continue to expand sales of environmentally-friendly waterproof and oil-resistant "Poem-S" paper and develop new products.



Environmentally-friendly products on display at an exhibition

● Strengthening initiatives with hardware manufacturers

In the communication paper field, printer manufacturers are focusing on developing high-speed inkjet printers. We are collaborating with printer manufacturers for adhesive postcard paper to improve product quality, such as the coloring and bleeding of printed text, and stability of adhesion. We are also working on a lineup of products suitable for high-speed inkjet printers, as well as focusing on expanding sales. In addition, we will work on developing uncoated inkjet paper to further bolster our efforts for high-speed inkjet printers. Furthermore, we will take advantage of the stability of dimensions and workability of communication paper to strengthen development of release base paper and processed base paper for processing applications.

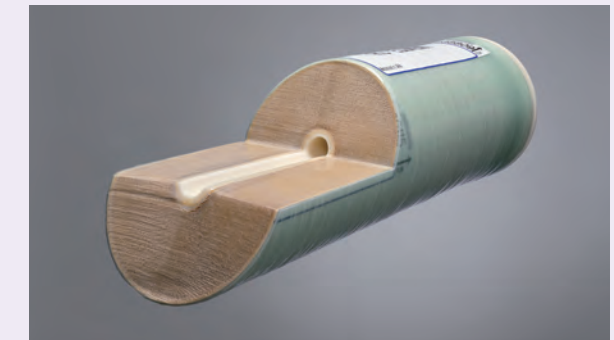


Adhesive postcard paper

Performance Materials Paper

● Supplying RO (water treatment) membrane backings for the water treatment sector

According 2017 data from UNICEF and the WHO, 2.1 billion people (about 3 out of 10 people in the world) do not have access to safely managed water, of which 800 million do not even have basic drinking water. The Group has focused on stably mass producing membrane backings, focusing on RO membranes to desalinate seawater and recycle domestic wastewater into drinking water, and began full-scale sales to RO membrane manufacturers from April 2017. Going forward, we believe that the need for desalination or recycling domestic wastewater will continue to increase as the global population increases and living standards improve. We will continue our efforts to make this growth field a pillar of our business.



RO membrane element

● PASCO multi-use specialty hardened fiber board

PASCO is an environmentally-friendly specialty hardened fiber board made mainly of wood fiber. It is used in a variety of applications and fields, ranging from interior uses such as store fixtures, boxes, trunks, and from stationery products to electrical products and other industrial materials, as well as for a structural material in the insole of shoes in the footwear market. The material can be used to create unique products and has strength exceeding paper, excellent workability, moldability, and is available in 24 color variations. Its potential is attracting renewed attention as a gateway to the plastic-free era, which is an important topic in recent years, and as a substitute for wood and steel.



PASCO products

Creating new value with environmentally-friendly packaging

Business Overview

In the Paper Processing Business, our consolidated subsidiary, Hokuetsu Package Co., Ltd. (HPC), collaborates with our Paper Business Division, White Paperboard Business Division, and Specialty Paper Business Division to develop business by leveraging the strengths of its integrated production from making base paper and developing materials to the design, printing, and processing of finished products. HPC manufactures its products at Katsuta Production Department and Tokorozawa Production Department. The Katsuta Production Department produces "TOHEI-PAK" brand milk and drink cartons, primary food containers used at convenience stores and supermarkets, and high-quality processed paper with functionality and decorativeness used in packaging materials, cosmetics, and medical products packaging. The Tokorozawa Production Department produces print media products such as adhesive postcard paper, answer sheet paper, and business forms, RFID tags, and communication media products for data processing of personal information. We pursue the delivery of high-quality products to customers in all business fields, and the Katsuta Production Department, which handles packaging for food and beverages, has acquired FSSC 22000 Food Safety System Certification, the international food safety management standard, and is committed to health and safety management. The Tokorozawa Production Department, which handles customer information, has acquired ISMS Information Security Management System certification, and implements strict security management. HPC promotes environmentally-friendly manufacturing based on the Group Environmental Charter. Specifically, it provides milk and drink cartons and processed paper made from FSC- and PEFC-certified paper that promotes sustainable forest management on a global level, in addition to manufacturing products with clean energy from the largest biomass power generation in Japan at our Kanto Mill (Katsuta).

Performance Highlights

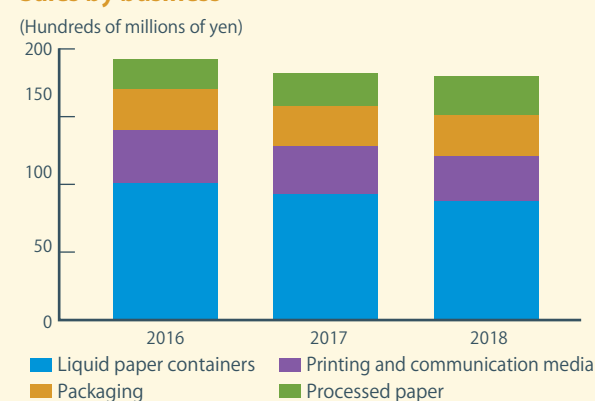
The processed paper field saw significantly higher sales supported by strong demand for metallized paper for cosmetics and paper with processing variations due to inbound travel. In the packaging materials field, we secured stable sales by acquiring products for paper cosmetics boxes and confectionery boxes, in addition to convenience store product materials. On the other hand, sales in the liquid container field and the printing and communication paper field are decreasing due to lower structural demand for gable top milk and drink cartons and printed materials. In order to change the current sales composition ratio of these two fields, which account for just under 70% of sales, we will introduce an eight-color rotogravure printing press and new processing paper equipment to increase the production of laminated products in the white paperboard field, where demand is firm. Also, sales of IPI's Italian aseptic filling systems (aseptic filling

machine and drink cartons), which enable the long-term shelf life of food and beverages, through an exclusive joint domestic distribution agreement with Mitsubishi Corporation Packaging, is now in full swing.

Future Issues and Initiatives

- (1) Pursue high quality and high efficiency**
In addition to boosting individual motivation and organizational cohesion, we will review all business processes based on ideas that are not bound by conventional frameworks, and simultaneously pursue improvements in quality and efficiency. We will also improve operational efficiency by promoting the use of IoT, such as backbone systems and RPA (robotic process automation), that were completely updated in April.
- (2) Flexibly respond to changes in the market environment**
We focus on the planning and development of new products and businesses that solve problems and challenges for customers and society. We will also enhance our ability to deal with external negative factors such as foreign exchange risk and increases in the cost of raw materials.
- (3) Demonstrate Group synergy**
The Paper Processing Business Division, responsible for the downstream business of the Group, will collaborate with other business divisions to rebuild an integrated production and sales system to expand the volume of base paper used and the sales volume of processed products. In addition, as the transition to a recycling-based economy is accelerating, we will continue to develop paper materials and applications that meet the need for alternatives to plastic.
- (4) Enhance governance system**
We will ensure thorough compliance and maintain and deepen voluntary internal controls through risk assessments and practicing the PDCA cycle.
- (5) Ensure mental and physical safety**
We will implement work style reforms and build a positive and comfortable workplace where all employees can feel safe and secure.

Sales by business



Business Topics

Installation of an eight-color rotogravure printing press

The Division installed an eight-color rotogravure printing press with a basic specification of 200 g/m² to 400 g/m² paperboard, and capable of printing on polyethylene laminated base paper. In addition to printing a maximum of eight colors on the front, it also has a reversing function, and can print fronts and backs in seven colors on the front and one on the back, or six colors on the front and two on the back. In addition, it has a wide range of

design specifications that enable oil- and water-based printing according to the product application, with paper widths of 1,300 mm to 500 mm and a printing speed (maximum) of 200 m/min.

The press has been in commercial production since November 2018, and we launched a paper cup made with base paper and made at the Kishu Mill, using rotogravure printing and polyethylene-laminate. Going forward, we plan to increase new products while repeating printing tests.



Eight-color rotogravure printing press

Installation of an automatic box-making machine

The automatic box-making equipment automatically assembles gift boxes for souvenirs (confectioneries, sweet buns, etc.) sold at shopping arcades in train stations and sightseeing spots, and can process up to 55 boxes/min ranging from thick paper to cardboard, framed/unframed, and top/bottom padding. The equipment started commercial production from April 2019. While using white paperboard made at the Kanto Mill (Katsuta), we are launching the integrated production of confectionery boxes from rotogravure printing to stamping molding and box making under strict health and safety management.



Automatic box-making machine

Installation of a color inkjet printer

Batch production of printing and text printing. We installed a 1400IJCCF color inkjet printer that is scheduled for commercial production from October 2019. This model can print A3 paper on both sides, punch holes and cut corners. In addition, printing and text data can be produced in batches, improving work efficiency. Going forward, we will develop a digital on-demand printing business that supports not only the DPS field but also the small lot, multi-product business in the printing sector.



1400IJCCF

(Hokuetsu Package FSC license code: FSC-C105145)

Developing the pulp business and further improving corporate value

The Resource and Pulp Business Division sells the pulp produced by our Niigata and Kishu mills, and is an agent in Japan for our subsidiary, Alberta-Pacific Forest Industries Inc. (Al-Pac).

Its mission is to work closely with other business divisions and Group companies to maintain a sustainable and stable production and sales system for the Group's pulp business, and to maximize profits for the entire Group.

Business Overview

Pulp business in Japan

The pulp produced by our two mills is leaf bleached kraft pulp, which has earned the support of a wide range of customers due to its characteristics. In the past few years, we have adopted a policy to increase its sales volume and position it as our main product, in an effort to continue to expand our pulp business in Japan with a focus on domestic customers.

Pulp business in Canada

Our Canadian subsidiary Alberta-Pacific Forest Industries Inc. (Al-Pac) is responsible for the upstream sector of the Group, and is the heart of our pulp business.

Al-Pac operates the largest kraft pulp mill in North America, boasting an annual output of 530,000 tons of leaf bleached kraft pulp and 90,000 tons of needle bleached kraft pulp (2018 results). Al-Pac is entrusted by the Government of Alberta with managing 6.4 million hectares of forest land (an area that is larger than Kyushu and Shikoku combined), and uses this resource as raw pulp material.

It produces and sells high quality pulp with low dirt and a high fibre uniformity from the forest fibre managed by Al-Pac and sourced from other suppliers, using the mill's production technology. Thanks to their high quality, environmental measures, and accurate response to customer needs, Al-Pac has secured a stable customer base in North America, China, Japan, and South Korea.

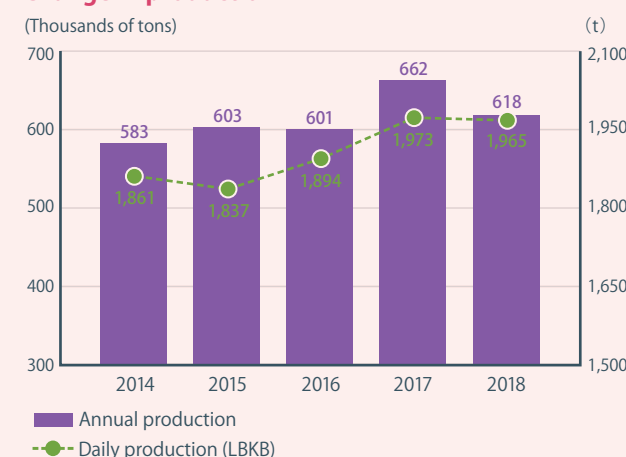
Sales ratio of Al-Pac pulp by usage



Performance Highlights (Al-Pac)

In 2018, Al-Pac conducted scheduled long-term maintenance (equipment inspections and repairs), deferred from 2017 in order to optimize periodic maintenance intervals. As a result, year over year production volume fell and costs increased, but due to strong market conditions the price of pulp rose. In addition, due to revenue growth from electricity sales, performance greatly exceeded that of the previous fiscal year, helping contribute to the profits of the entire Group. The Chinese market showed signs of sluggishness starting in the second half of 2018, and that sluggish market has become more prominent through 2019, with its impact being felt around the world. As market uncertainty increases, Al-Pac is building a portfolio that aims to be unaffected by printing and writing paper demand in order to maintain a strong platform of stable operations, maximizing production by through optimized maintenance intervals, and diversifying pulp sales (for household paper and specialty paper). Furthermore, Al-Pac is doing its utmost to have customers appreciate the quality and value of its products by offering FSC (Forest Stewardship Council) certified products, leading to further growth and sustainability.

Change in production



Future Issues and Initiatives (Al-Pac)

In order for Al-Pac to maintain its FSC certification, it must manage the vast forests in a "Ecologically, Economically, and Socially" responsible manner. By leveraging the market valuation of FSC certification, we aim to expand our ecological value chain from logs to the final product and end users, deploying this chain to differentiate the company's products. We intend to improve our sustainability and corporate value by strengthening our sales' system so that it is better protected from commodity market conditions. In addition, we intend to improve profitability by expanding our power generation business (through capital investment) with a view to rising electricity market prices caused by more stringent environmental measures. Currently, we are considering how we can use our existing facilities and potential investment feasibility, to further nurture business opportunities that offer sustainable improvement of our corporate value, like the FSC certification.

Business Topics

Strengthening domestic pulp production and improving our shipment logistics

We plan to introduce, in 2019, an automatic pulp wrapping machine to increase our production volume, and are also considering adding new marine transportation options to complement our conventional truck and rail transportation, in an effort to address which is increasingly difficult availability. We will improve our

logistics' system so that can continue to reliably deliver the required quantities, at the required time, to customers in Japan.

Al-Pac's log crane upgrade work

Two portal cranes that efficiently receive and handle logs within the mill yard started operation in 1992. One crane was upgraded in 2006 while the other remained in operation after major upgrades and maintenance. However, in November 2017, our regular structural inspections determined that the second crane had reached the end of its life. This upgrade, approved by Al-Pac's BOD in January 2018, was completed and the crane re-entered service, at a total investment of CAD\$17 million, in July 2019 following work that took place over the course of two severe winters. With two cranes now back in operation, log yard operations will return to their normal efficiency, and the cost increase associated with operating a single crane will be eliminated.

Al-Pac's distributed control system (DCS) upgrade

Al-Pac has systematically updated DCS components since 2011 as the DCS ages. The recovery boiler DCS upgrade was completed in 2018, as was some work for the upgrade of the final fiber line. The fiber line system upgrade was completed in June 2019 during the scheduled major shut down. All DCS upgrades have now been completed, over the course of nine years, as scheduled and without any delays.

(Alberta-Pacific Forest Industries Inc. FSC license code: FSC-C022642)



Alberta-Pacific Forest Industries Inc. (Al-Pac)