ESG Data Section

## Governance

#### Status of attendance at the Board of Director's Meeting (FY2019)

Positions	Name	Status of attendand Director's	
Chairman and Director	Fumio Manoshiro	13/14	92.9%
President and Representative Director	Toru Nozawa	14/14	100%
Executive Vice President and Representative Director	Kazufumi Yamasaki	14/14	100%
Director	Akihiro Utsumi	14/14	100%
Director	Takeo Konno	14/14	100%
Director	Masanobu Iizuka	11/11	100%
Outside Director	Yoshimitsu Aoyama	14/14	100%
Outside Director	Makoto Fujioka	13/14	92.9%
Outside Director	Yoko Hatta	11/11	100%

#### Status of attendance at the Personnel & Remuneration Advisory Committee (FY2019)

Positions	Name	Status of attendance at the Personnel & Remuneration Advisory Committee		
President and Representative Director	Toru Nozawa	2/2 100%		
Director General Manager, Personal & General Affairs Division	Akihiro Utsumi	2/2	100%	
Outside Director	Yoshimitsu Aoyama	2/2	100%	
Outside Director	Makoto Fujioka	2/2	100%	

#### Political contribution amount (Nippon Paper Industries)

Segment	FY2017	FY2018	FY2019
Political contribution amount (thousand yen)	210	170	140

# **Social**

# **Employment and Occupational Safety and Health Indicators**

### **Employment Indicators**

	Unit	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Number of Employees on a Consolidated Basis <sup>&amp;1 &amp;3</sup> Male Female	Persons Persons Persons	11,741 10,479 1,262	13,057 11,691 1,366	12,881 11,451 1,430	12,943 11,503 1,440	12,592 11,118 1,474
Paper and Paperboard Business <sup>%1%2</sup> Daily-Life Products Business <sup>%1%2</sup> Energy Business <sup>%1%2</sup> Wood Products and Construction Related Business <sup>%1%2</sup> Other Businesses <sup>%1%2</sup>	Persons Persons Persons Persons Persons	6,849 1,854 19 1,636 1,383	6,967 2,433 19 2,273 1,365	6,818 2,448 35 2,192 1,388	7,229 2,536 54 1,411 1,713	6,764 2,652 76 1,384 1,716
Overseas Male Female	Persons Persons Persons	1,662 1,433 229	2,723 2,385 338	2,582 2,257 325	2,587 2,263 324	2,504 2,158 346
Percent of upper management from the local community	%	80.6	74.1	80.6	82.1	89.3
New graduate hired <sup>™4</sup> Male Female	Persons Persons Persons	240 218 22	265 239 26	245 220 25	200 171 29	182 146 36
Mid-career recruits <sup>⊗4</sup> Male Female	Persons Persons Persons	146 136 10	163 141 22	198 169 29	204 180 24	222 199 23
Employees reemployed after retirement age <sup>**8</sup> Nippon Paper Ind. Consolidated companies in Japan	Persons Persons	172 327	185 331	46 227	168 332	95 296
Average age of employees <sup>%1%4</sup> Male Female	Years Years Years	43.3 43.3 42.8	43.3 43.3 43.1	43.4 43.4 43.5	43.4 43.3 43.6	43.7 43.6 43.7
Average years of employment <sup>%1%4</sup> Male Female	Years Years Years	18.7 19.0 15.9	19.0 19.2 17.8	19.1 19.2 18.2	19.4 19.6 18.0	19.2 19.3 17.8
Turnover rate(Includes employees leaving at the mandatory retirement age) <sup>%1%4</sup>	%	4.2	2.9	2.6	5.7	4.6
Number of Managers <sup>**1*5</sup> Nippon Paper Ind. Consolidated companies in Japan Consolidated subsidiaries outside Japan <sup>*6</sup>	Persons Persons Persons	1,191 2,373 93	1,128 2,336 112	1,095 2,305 139	1,134 2,227 151	1,112 2,302 196
Number of Female Managers <sup>×1×5</sup> Nippon Paper Ind. Consolidated companies in Japan Consolidated subsidiaries outside Japan <sup>*6</sup>		19 45 19	21 50 26	27 55 20	26 55 24	27 62 33
Female employees in management <sup>×1×5</sup> Nippon Paper Ind. Consolidated companies in Japan Consolidated subsidiaries outside Japan <sup>*6</sup>	% % %	1.60 1.90 20.4	1.86 2.14 23.2	2.47 2.39 14.4	2.29 2.47 15.9	2.43 2.70 16.8
Dispatched workers <sup>%1%4</sup> Male Female	Persons Persons Persons	131 51 80	77 27 50	105 39 66	89 41 48	108 47 61

※ 1 Fiscal year-end data

× 2 Estimates based on re-organized segments formed in fiscal 2019

× 3 Data scope: consolidated companies

× 4 Data scope: consolidated companies in Japan

※ 5 Percent of only full-time employees which excludes associate directors, employees commissioned for specific purposes,

employees on temporary assignment from other companies, and other non-full-time personnel

× 6 Managerial personnel at the level of section manager or positions higher

× 7 Data scope: Nippon Paper Industries Co., Ltd.

× 8 Data scope: Figures cover consolidated subsidiaries in Japan and management employees

# **Social**

#### Work-Life Balance Indicators

	Unit	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Employees taking child-care leave $^{\times 1}$	Persons	24	26	26	23	23
Male	Persons	0	0	0	3	2
Female	Persons	24	26	26	20	21
recently giving birth	%	100	100	100	100	100
who returned to work	%	100	100	100	90	100
Employees taking maternity/paternity leave <sup>**2</sup>	Persons	167	186	148	183	203
Male	Persons	145	160	122	163	184
Female	Persons	22	26	26	20	19
Average number of days taken for maternity/paternity leave <sup>%2</sup>						
Male	Days	3.2	3.0	3.4	3.7	3.8
Female	Days	79.4	64.9	78.0	79.2	67.9
Employees taking nursing-care leave <sup>**2</sup>	Persons	0	1	1	2	1
Total number of working hours <sup>⊗3</sup> Non-management employees All employees	Hours per person	1,912	1,927	1,903 1,927	1,900 1,923	1,885 1,894
The rate of annual paid leave taken by non-management employees	% <sup>%1</sup> % <sup>%3</sup>	66.8	68.3	71.8	75.1	74.4 76.6

simes 1 Data scope: consolidated subsidiaries in Japan

2 Data scope: In fiscal 2014, figures covered consolidated subsidiaries in Japan. In fiscal 2013, figures covered only Nippon Paper Industries.

※ 3 Data scope: Nippon Paper Industries

### Number of violations of the Labor Standards Act (Nippon Paper Industries )

FY2017	FY2018	FY2019
0	0	0

### **Occupational Accidents**

		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Frequency rate for occupational accidents requiring time off from work	Nippon Paper Group <sup>*</sup> Nippon Paper Group (including affiliates)	0.40 0.43	0.10 0.39	0.68 0.63	1.16 0.77	0.54 0.79
covority roto	Nippon Paper Group <sup>®</sup> Nippon Paper Group (including affiliates)	0.02 0.02	0.01 0.03	0.02 0.03	0.03 0.30	0.03 0.33

Data Scope : The manufacturing facilities of Nippon Paper Industries Co., Ltd., Nippon Paper Crecia Co., Ltd., Nippon Paper Papylia Co., Ltd., and Nippon Paper Liquid Package Product Co., Ltd.

# Number of work-related employee/affiliate fatalities of Nippon Paper Group\*

	2016	2017	2018	2019
Nippon Paper Group Employees	0	0	0	0
Affiliates	0	0	1	1
Total	0	0	1	1

\*\* The manufacturing facilities of Nippon Paper Industries Co., Ltd.; Nippon Paper Crecia Co., Ltd.; Nippon Paper Papylia Co., Ltd.; and Nippon Paper Liquid Package Product Co., Ltd.

#### (Calendar year)

# **Social**

# Principal organization memberships (as of July 2020)

Organization	Position
Japan Paper Association	Chairman
Japan Tappi	President
Forest Management Association	Director
Japan Woody Bioenergy Association	Director
Paper Recycling Promotion Center	Vice President
Japan Paper Exporters' Association	Chairman
Japan Paper Importers' Association	Vice Chairman
Japan Association of Milk Packaging and Machinery	Chairman
Committee for Milk Container Environmental Issues	Vice Chairman
Association of Large-scale On-site Power-plant Owners	Director
National Institute of Advanced Industrial Science and Technology Nanocellulose Forum	Auditor

#### Social contribution amount (Nippon Paper Industries)

Segment	FY2019
Total Donations (Million yen)	87.00

# **Environmental Accounting**<sup>\*\*</sup>

#### **Environmental Conservation Costs**

(Fiscal 2019)	(Millions of Yen)		
	Investment	Cost	
(1) Business area costs			
①Pollution prevention costs	2,181	12,357	
②Global environmental conservation costs	2,000	562	
③Resources circulation costs	189	9,698	
(2) Upstream/downstream cost	-	3,856	
(3) Administration cost	-	294	
(4) R&D cost	-	3,537	
(5) Social activity costs	-	13	
(6) Environmental remediation costs	-	585	
Total	4,360	30,904	

#### Environmental conservation impacts (Fiscal 2019)

Categories	Environmenta	Results	YoY Change	
Effects related to resources	Afforestation projects overseas	Overseas afforestation areas	83 k ha	
introduced to business activities	Energy-saving measures	Fuel reduction(Heavy oil equivalent)	53,855kl	Down 1.920kl
	Greenhouse gas emissions		6.26 Mt	Down 0.60 Mt
		NOx emissions (NO equivalent)	8,478 t	Down 242t
	Air pollutant emissions	SOx emissions (SO <sub>2</sub> equivalent)	3,448 t	Down 128t
Effects related to environmental		Soot and dust emissions	1,360 t	Up 214t
impact and waste from business activities	Effluent	863 Mt	Up29 Mt	
		COD/BOD emissions	48,615 t	Down 3,761t
	Water contaminant emissions	SS emissions	21,205 t	Up 1345t
	Final waste disposal	20.2 kt	Up 7 kt	
Effects related to goods and services produced from business activities		Recycled paper utilization rate(paper)	32.8%	Down 1.1%
	Product recycling	Recycled paper utilization rate (paperboard)	88.5%	Up 0.3%
	Shipping material recycling	Pallet recovery rate	46.7%	Up 2.8%

### **Environmental Benefits of Environmental**

Conservation (Fiscal 2019)	(Millions of Yen)
Effect	Amount
Income from company-owned forests in Japan	560
Reduced expenses from energy saved	2,598
Reduced disposal expenses through the effective use of waste	4,719
Gain on sales from the recycled waste	146
Reduced expenses through the recycling of shipping material	1,064
Total	9,087

※ Accounting standards are based on Environmental Accounting Guidelines 2005 Data Scope: consolidated subsidiaries in Japan

# **Environment Material Balance**

#### Balance of Materials for All Businesses (Principal Materials) (Fiscal 2019)

[Units] GWh = Gigawatt hours, BDt = Bone-dry tonnes, ADt = Air-dry tonnes Note: t indicates Tonnes (also called Metric Tons)

		Unit	FY2017 <sup>×1</sup>	FY2018 <sup>×1</sup>	FY2019 <sup>×1</sup>
Input					
-	Purchased electricity	GW h	2,144	2,134	2100
	Oil	Thousand kl	184	462	447
	Coal		2,593	2,841	2637
Energy input	Gas		279	261	272
	Other fossil fuels	Thousand t	24	23	27.5
	Non-fossil fules <sup>**2</sup>		6,453	6,622	5,997
	(Of which Black liquor)		4,749	4,906	4,643
Chemical substances subject to the PRTR Law <sup>**3</sup>	Amount handled	t	10,901	9,527	9270
	Water Consumption		966	901	930
	River water		775	750	757
Vater consumption	Industrial water	Million t	164	123	143
	Well water		26	27	29
	Public water supply		1	1	1
	Woodchips		5,498	5,443	5228
	Logs	Thousand BDt	789	808	805
Raw Material	Pulp		494	511	512
	Recycled paper(Pulp)	Thousand ADt	3,122	2,899	2705
	Base Paper		100	100	102
Dutput					
	GHG emissions		8.10	7.90	7.40
	(Scope 1)	Million t-CO <sub>2</sub>	7.18	7.06	6.62
	(Scope 2)		0.92	0.83	0.78
Gas Emissions	SOx emissions		3.53	3.95	3.97
	NOx emissions	Thousand t	9.99	11.2	10.82
	Soot and dust		1.55	1.4	1.61
hemical substances subject to the	Amount released		166	201	141
RTR Law%3	Amount transferred	t	76	82	80
	Wastewater Total		930	875	905
	Public water	Million t	920	866	896
	Sewerage		10	9	9
Vaste Water	COD/BOD		64	62	59
	SS		24	24	26
	Nitrogen	Thousand t	1.6	1.5	1.5
	Phosphorous		0.2	0.2	0.2
	Total Waste Generated		918	982	989
Vaste	Final disposal subtotal	Thousand BDt	111	124	141
	Recycled subtotal		807	858	848
	Paper, household Paper		4.39	4.3	4.02
	Paperboard	Million t	2.17	2.16	2.04
	Pulp		229	268	239
roducts manufactured	Paper container		89	83	88
	Chemical products	Thousand t	107	101	100
	Building materials		67	85	126
Electricity	Electricity	GWh	1,304	2,523	2,199

%1 Coverage : FY2017 <u>https://www.nipponpapergroup.com/english/csr/npg\_csrr2018\_e\_all.pdf#page=3</u>

 FY2018
 https://www.nipponpapergroup.com/english/csr/npg\_csrr2019\_e\_all.pdf#page=2

 FY2019
 https://www.nipponpapergroup.com/english/csr/npg\_csrr2020\_e\_all.pdf#page=2

※2 Biomass fuels ( including black liquor ) and waste fuels

3 Japan only. Dioxins are not included in total data.

## **Material Balance**

#### Balance of Materials in the Pulp and Paper Businesses in Japan (Principal Materials)

(Fiscal 2019) [Units] GWh = Gigawatt hours, BDt = Bone-dry tonnes, ADt = Air-dry tonnes Note: t indicates Tonnes (also called Metric Tons)

		Unit	FY2017 <sup>×1</sup>	FY2018 <sup>×1</sup>	FY2019 <sup>™1</sup>
Input					
	Purchased electricity	GW h	927	929	895
	Oil	Thousand kl	153	170	159
	Coal		2,007	1,942	1,773
Energy input	Gas		107	101	97
	Other fossil fuels	Thousand t	24	23	27
	Non-fossil fules <sup>₩2</sup>		4,636	4,608	4,281
	(Of which Black liquor)		3,317	3,315	3,130
Chemical substances subject to the PRTR Law <sup>#3</sup>	Amount handled	t	660	328	402
Water consumption		Million t	843	778	805
	Woodchips	Thousand BDt	4,348	4,239	4,102
Raw Material	Logs		28	25	28
	Pulp	Thousand ADt	394	430	424
	Recycled paper(Pulp)		3,038	2,823	2,619
Dutput					_
	GHG emissions (Scope 1 + 2)		6.71	6.56	6.00
	Scope 1 <sup>×4</sup>	Million t-CO <sub>2</sub>	6.24	6.08	5.56
Gas Emissions	Scope 2		0.48	0.49	0.44
	SOx emissions		2.9	3.3	3.2
	NOx emissions	Thousand t	8.3	8.4	8.2
	Soot and dust		1.3	1.1	1.3
Chemical substances subject to the PRTR	Amount released	t	91	147	95
.aw <sup>≋3</sup>	Amount transferred	(	4	0.23	0.22
/OC (Volatile Organic Compounds )		t	57.61	47.91	41.37
	Wastewater Total	Million t	816	763	789
	COD/BOD		46	44	40
Nastewater	SS	Thousand t	19	18	18
	Nitrogen	inousanu t	1.4	1.5	1.4
	Phosphorous		0.2	0.2	0.1
	Total Waste Generated		609	714	700
Vaste	Final disposal subtotal	Thousand BDt	6	12	19
	Recycled subtotal		603	702	681
	Paper, household Paper	Million t	3.95	3.86	3.57
Products manufactured	Paperboard	Million t	1.73	1.7	1.6
	Pulp	Thousand t	19	13	14

X1 Coverage : Pulp and Paper Businesses in Japan extracted from P.8 coverage

2 Biomass fuels (including black liquor) and waste fuels 3 Japan only. Dioxins are not included in total data.

84 Break down Scope 1 emissions by greenhouse gas type (2019, Nippon Paper Industries) by IPCC Fourth Assessment Report AR4 - 100 year CO<sub>2</sub>: 5.235 Million t-CO<sub>2</sub>, CH<sub>4</sub>: 0.024 Million t-CO<sub>2</sub>, N<sub>2</sub>O: 0.501 Million t-CO<sub>2</sub>

# Amounts of Substances Subject to the PRTR Law Released and Transferred<sup>×1</sup> (FY 2019)

Cabinet Order No.	CAS No	Chemical Substance	Unit	Amount Released	Amount Transferred	Total released and transferred
1		Water-soluble zinc compounds	kg	300	0	300
2	79-06-1	Acrylamide	kg	11	0	11
4	—	Acrylic acid and water-soluble salt	kg	11	0	11
9	107-13-1	Acrylonitrile	kg	1	0	1
57	110-80-5	Ethylene glycol monoethyl ether	kg	430	4,400	4,830
80	1330-20-7	Xylene	kg	175	0	175
85	111-30-8	Glutaraldehyde	kg	8	2	10
127	67-66-3	Chloroform	kg	52,935	34,000	86,935
149	56-23-5	Tetrachloromethane	kg	0	30,000	30,000
154	108-91-8	Cyclohexylamine	kg	690	0	690
176	1717-00-6	Dichlorofluoroethane	kg	2	0	2
213	127-19-5	N,N-dimethyl acetamide	kg	358	218	576
232	68-12-2	N,N-dimethylmethanamide	kg	50	260	310
243	_	Dioxins <sup>₩2</sup>	mg-TEQ	501	5,991	6,492
272	_	Water-soluble copper salts (except complex salts)	kg	1	0	1
296	95-63-6	1,2,4-trimethylbenzene	kg	1,252	0	1,252
297	108-67-8	1,3,5-trimethylbenzene	kg	3	0	3
300	108-88-3	Toluene	kg	25,813	10,760	36,573
374	_	Hydrogen fluoride and its water-soluble salts	kg	20,619	0	20,619
405		Boron compounds	kg	32,019	0	32,019
411	50-00-0	Formaldehyde <sup>**2</sup>	kg	5,385	98	5,483
415	79-41-4	Methacrylic acid	kg	3	0	3
418	2867-47-2	2-(dimethylamino) ethyl methacrylate	kg	27	0	27
420	80-62-6	Methyl methacrylate	kg	23	0	23
438	1321-94-4	Methylnaphthalene	kg	418	0	418
Total <sup>× 3</sup>			kg	140,537	79,738	220,275

※1 A summary of the volumes Group companies reported in accordance with the PRTR Law. Rounded to one decimal place for chemical substances less than 1kg. Includes unintentionally generated chloroform and dioxins.

X2 Type 1 chemical substances.

X3 Dioxins are not included in total data.

ESG Data Section

# **Environment**

#### Environment-Related Complaints (FY 2019)

Complaints	Noise	Vibration	Odor	Dust and mist dispersal	Smoke	Other	Total
Number	8	1	2	2	25	0	38

During June-August 2019, an incident occurred at our Akita Mill, which involved the downfall of white smoke from its recovery boiler. As a result, we received numerous complaints and inquiries from local residents. Since then, the Akita Mill has provided an explanation on the incident and conducted inspections and maintenance on its facilities, and the issue has been resolved as a result.

#### External Awards for Environmental Conservation Activities (FY 2019)

Award	Recipient
The 59th National Health and Safety Convention for Paper and Pulp, "Safety grand Excellence Award Class I	Nippon Paper Industries, Otake Mill
The 59th National Health and Safety Convention for Paper and Pulp, "Safety Excellence Award	Nippon Paper Industries, Ishinomaki Mill, Kanto Mill, Kanto Mill Safety Association (contractors)
Ministry of Health, Labour and Welfare (MHLW), Safety Project "Visible" safety activity contest, excellent case selection	Nippon Paper Industries, Gotsu Mill

# The Nippon Paper Group Environmental Action Plan (Green Action Plan 2020: from 2016 to 2020) - Fiscal 2019 Progress Report

	Green Action Plan 2020	Progress
1. Anti-global	<ul> <li>Reduce greenhouse gas emissions by 10% compared to fiscal 2013. <sup>⊗1</sup></li> </ul>	By systematic investment in energy-saving equipment and promotion of fuel conversion, greenhouse gas emissions were reduced by 14% compared to fiscal 2013.
warming action	• Reduce logistics-generated CO <sub>2</sub> emissions.	Continued efforts to reduce CO <sub>2</sub> emissions by shortening transportation distances and promoting modal shifts for efficient transportation.
	<ul> <li>Advance domestic company-owned forest operations and the overseas afforestation project (Tree Farm Initiative) to ensure the sustainable nurturing of forest resources.</li> </ul>	As of the end of 2019, we had planted 83,000 hectares of trees in our overseas afforestation business.
	<ul> <li>Maintain forest certifications in all proprietary forests, both domestically and internationally.</li> </ul>	The company continues to maintain forest certification (FSC <sup><math>@\times2</math></sup> , SGEC, PEFC,) for all its forests in Japan and overseas.
<ol> <li>Protection and development of forest Resources</li> </ol>	<ul> <li>Ensure that all wood materials for pulp and paper are endorsed under forest certification schemes.</li> </ul>	The wood chips and pulp used for papermaking in fiscal 2019 were all made from wood approved by $FSC^{\otimes 2}$ or PEFC (including controlled wood and controlled sources).
	Enhance traceability and facilitate the procurement of sustainable forest resources.	Utilized the forest certification system to enhance traceability and met 100% of the risk assessment standards for imported woodchips under both $FSC^{\otimes 2}$ and PEFC rules.
	<ul> <li>Advance the use of wood fiber produced from domestically grown trees to promote sound growth of forest resources in Japan.</li> </ul>	The use of domestic wood at all Nippon Paper mills reached 35.8% in fiscal 2019 (based on actual purchases).
3. Recycling of	<ul> <li>Promote greater use of wastepaper by achieving advances in wastepaper utilization technologies.</li> </ul>	As a result of our efforts to use unused recovered paper, the utilization rate of recovered paper for paper and paperboard reached 33% and 89%, respectively.
Resources • Increase the waste recycling rate to at least 98%. <sup>%1</sup>		In addition to curbing the generation of waste, we achieved a 97.2% recycling rate through the recycling of boiler ash.
4. Observance of environment- related laws and	<ul> <li>Use the environmental management system to strengthen environmental management and reduce environmental impact.</li> </ul>	At sites that have a high environmental load, environmental management systems such as ISO 14001 is introduced in an effort to comply with laws and regulations and reduce the environmental load.
reduction of environmental Load	<ul> <li>Properly manage chemical substances in accordance with the Nippon Paper Group Chemical Substance Management Guidelines.</li> </ul>	The types and amounts of chemical substances handled and various types of information are monitored and managed appropriately through safety data sheets etc.
5. Development of	Enhance the more sophisticated use of wood materials.	<ul> <li>Highly digestible cellulose for cattle, which has excellent fiber content and nutritional value, is developed , through the company's unique technology for extracting cellulose fibers from wood chips.</li> <li>The company participated in the NEDO project "Development of a Process Technology for the Production of Inedible Plant-Based Chemicals" to develop elemental technologies for the integrated production process of chemical raw materials from woody biomass, and established Japan's first bench-scale process for the separation of lignin from black liquor in the soda AQ digestion process.</li> <li>The adoption of TEMPO oxidated CNF and CM-CNF is expanding to tires, cosmetics, and food additives. In addition, CNF-reinforced resin was used in a concept car for the NCV project of the Ministry of the Environment and was exhibited at the 2019 Tokyo Motor Show.</li> </ul>
eco-friendly technologies and products	<ul> <li>Develop equipment technology for facilitating a departure from reliance on fossil energy.</li> </ul>	Based on the knowledge gained from the tests of the demonstration plant, the company has evaluated the feasibility of introducing wood fuel production facilities into its own power generation facilities in Japan, and is considering commercialization.
	<ul> <li>Reduce the environmental load through the provision of ecofriendly products and services.</li> </ul>	<ul> <li>The Company's proprietary technology was applied to Shield Plus®, a new paper packaging material that can be used as a substitute for plastic in packaging and other applications, and won the Confectionery Packaging Award at the 2019 Japan Packaging Contest for its paper packaging material with unprecedentedly high barrier properties to oxygen and water vapor. In addition, the company's new high-barrier function Sealed Plus® Premier was adopted as food packaging paper.</li> <li>At Suzukawa Energy Center, a decision was made to switch from exclusively firing biomass fuels, a first case in Japan.</li> <li>In the Yufutsu biomass power generation business, construction of a 75MW thermal power plant, one of the largest biomass power plants in operation in Japan, began.</li> </ul>
6. Environmental Communication	<ul> <li>Disclose environment-related information to stakeholders and accelerate environmental communication through dialogue and other means.</li> </ul>	Activated dialogue with local communities and shared risk information through CSR reports and risk communication held by each operation site.
	<ul> <li>Proactively participate in and support environment conservation activities.</li> </ul>	Actively participated in environmental preservation activities such as community cleanup etc. At the same time accepted plant tours for local residents etc. and internship programs.
7.Biodiversity Commitments	<ul> <li>Advance companywide biodiversity initiatives in accordance with the Nippon Paper Group Basic Policies on Protection of Biodiversity.</li> </ul>	<ul> <li>The group is working on both habitat conservation and business activities, such as surveying the habitat of Blakiston's fish owl in company-owned forests in collaboration with the Wild Bird Society of Japan.</li> <li>The Group held "Marunuma Highlands Tree Planting 2019" in the Suganuma Company- owned forests in Gunma Prefecture, using company-owned forests.</li> </ul>

## Forest Management and Raw Material Procurement-Related Indicators

# Tree Species Nippon Paper Industries Co., Ltd. Procured from Overseas, and Their Countries of Origin (Fiscal 2020)

Hardwood						
Country	Percentage	Species				
Vietnam	30%	Acacia				
Australia	22%	Eucalyptus				
Brazil	19%	Eucalyptus, Acacia				
South Africa	16%	Acacia				
Chile	11%	Eucalyptus				
Thailand	1%	Eucalyptus				
Malaysia	1%	Acacia				
Total	100%					

Softwood						
Country	Percentage	Species				
Australia	65%	Radiata pine				
U.S.A	26%	Douglas fir				
Russia	9%	Yezo spruce				
Total	100%					

#### Overseas Afforestation Areas by Country (1,000 hectares)

Country	End of 2012	End of 2013	End of 2014	End of 2015	End of 2016	End of 2017	End of 2018	End of 2019
Australia	38	38	36	15	15	11	10	9
Chile	13	13	13	13	13	13	12	12
Brazil	62	54	54	50	52	53	53	53
South Africa	11	11	11	11	11	11	8	9
Total	124	116	114	89	91	88	83	83

#### Status of Forest Certification Acquisition for Overseas Afforestation Projects and Company-Owned Forests in Japan

Overseas Plantation Project by operating company	Certification system name (License no)	Date of acquisition
PTP (Australia)	AFS	June 2006
BTP (Australia)	AFS	April 2006
Volterra (Chile)	FSC <sup>®</sup> (FSC <sup>®</sup> C120260)	January 2014
	CERTFORCHILE	December 2007
Forestco (South Africa)	FSC <sup>®</sup> (FSC <sup>®</sup> C012171)	April 2003
AMCEL (Brazil)	FSC <sup>®</sup> (FSC <sup>®</sup> C023383)	December 2008
_	CERFLOR	September 2014

Company-owned forests in Japan by area	Certification system name	Date of acquisition			
Hokkaido	SGEC	December 2005			
Tohoku	SGEC	October 2007			
Kanto and Chubu	SGEC	October 2007 <sup>×</sup>			
Kinki, Chugoku and Shikoku	SGEC	December 2006			
Kyushu	SGEC	March 2005			

The Company's Kitayama Forest in Shizuoka Prefecture was certified in December 2003.

# Forest Management and Raw Material Procurement-Related Indicators

# Breakdown of company-owned forests in Japan by IUCN(International Union for Conservation of Nature) (as of March 31, 2020) (1,000 hectares)

IUCN category			Environmenta I forest area	Total	% Share	Ratio of environmenta I forest area (%)	
I	Strict nature reserve / wilderness area	0	0	0	0%	-	Protected area that is managed mainly for scientific research or wilderness
Ш	National park	0.6	4.5	5.1	6%	88%	Protected area managed mainly for ecological processes and recreation
Ш	Natural monument or Feature	0	0	0	0%	-	Protected area managed mainly for specific natural monument
IV	Habitat / species management area	0	0	0	0%	-	Protected area managed mainly for particular species or habitats
V	Protected landscape/seascape	2.5	0.7	3.2	4%	22%	Protected area managed mainly for landscape/seascape protection and recreation
VI	Protected area with sustainable use of natural resources	0	0	0	0%	-	Protected area managed mainly for the sustainable use of ecosystems
Not Applicable		68.9	12.4	81.3	91%	15%	
Total		72.0	17.6	89.6	100%	20%	

※ Commercial forest area: The portion of Company-owned forests utilized as resources under appropriate forest management. Environmental forest area: The portion of forests where environmental functions are conserved.

The logging of trees for the purpose of lumber production is prohibited in this portion.

# Environment Acquisition of Certification

#### Acquisition of ISO 9001 Certification

(as of March 31, 2020)					
Company Name	Mills/Operating Division/ Production Subsidiaries				
Nippon Paper Industries Co., Ltd.	Hokkaido Mill(Yufutsu Pulp Production Sec.(KCF), Shiraoi 10M/C), Akita Mill, Nakoso Mill, Kanto Mill, Fuji Mill (Yoshinaga), Gotsu Mill <sup>®</sup> , Otake Mill, Iwakuni Mill(Chemical Production Dept.), Higashimatsuyama Mill				
Nippon Paper Crecia Co., Ltd.	Tokyo Mill				
Nippon Paper Papylia Co., Ltd.	Harada Mill, Suita Mill, Kochi Mill				
Nippon Seitai Corporation	Hokkaido Office, Maebashi Mill, Saitama Mill, Kansai Office				
Kyouei Seitai K.K.	Hokkaido Plant, Koganei Plant, Headquarter				
NIPPON PAPER UNITEC CO., LTD.	Four business sites at headquarters (construction/electricity/control systems/plant engineering)				
NANKO UNYU CO.,LTD.	Ishinomaki Office(Products Operation Dept., Raw Materials Operation Dept.), Port Transport Dept., Land Transport Dept. and Tokyo Branch, Iwanuma Office, Nakoso Office, Akita Sales Office, Sendai Sales Office, Service Dept., Greening and Engineering Sales Office				
Nippon Paper Ishinomaki Technology Co., Ltd.	Headquarters				
GAC Co., Ltd.	Headquarters/Mill, Marketing Division				
FLOWRIC CO., LTD.	Headquarters, Concrete Research Center, Nagoya Mill				
N&E Co., Ltd.					
Paper Australia Pty Ltd.	Maryvale, Preston				
Jujo Thermal Oy	Kauttua				
Siam Nippon Industrial Paper Co.	, Ltd.				

#### Acquisition of ISO 14001 Certification (as of March 31, 2020)

<u>(</u>				
Company Name	Mills/Operating Division/ Production Subsidiaries			
Nippon Paper Industries Co., Ltd.	Kushiro Mill, Hokkaido Mill, Akita Mill, Ishinomaki Mill, Iwanuma Mill, Nakoso Mill, Kanto Mill, Fuji Mill, Gotsu Mill, Otake Mill, Iwakuni Mill, Yatsushiro Mil Higashimatsuyama Mill			
Nippon Paper Liquid Package Product Co., Ltd.	Egawa Mill, Ishioka Mill, Miki Mill			
Nippon Paper Crecia Co., Ltd.	Tokyo Mill, Kaisei Mill, Koyo Mill, Kyoto Mill			
Nippon Paper Papylia Co., Ltd.	Harada Mill, Suita Mill, Kochi Mill			
NP Trading Co., Ltd.	Headquarters/Sapporo Branch Office/ Chubu Branch Office/Kansai Branch Office/Chugoku Branch Office/Kyushu Branch Office/Shizuoka Sales Office			
Daishowa Uniboard Co., Ltd.	Headquarters/Miyagi Mill			
N&E Co., Ltd.				
Nippon Paper Ishinomaki Technology Co., Ltd.	Headquarters			
Paper Australia Pty Ltd.	Maryvale			
Jujo Thermal Oy	Kauttua			

#### Acquisition of ISO22000 (as of March 31, 2020)

Company Name	Mills/Operating Division/ Production Subsidiaries		
Nippon Paper Papylia Co., Ltd.	Kochi Mill <sup>®</sup>		

※ Liquid Filtrate Paper(tea bag filter paper, coffee filter paper, etc.), Food Packaging Paper

× Certifications obtained for CMC and cellulose powder production.

Nippon Dynawave Packaging Co.

#### Acquisition of FSSC 22000 Certifications (as of March 31, 2020)

Company Name	Mills/Operating Division/ Production Subsidiaries		
Nippon Paper Industries Co., Ltd.	Gotsu Mill <sup>∞</sup>		
Nippon Paper Liquid Package Product Co., Ltd.	Egawa Mill, Ishioka Mill, Miki Mill		
Nippon Dynawave Packaging Co.			

× CMC, cellulose powder, and stevia and licorice sweeteners (all for use in food)

# **Environment** Acquisition of Certification

# The status of Eco-Action 21 acquisition (as of March 31, 2020)

#### HACCP (Akita Prefecture) (as of March 31, 2020)

(as of March 31, 2020)				
Company Name	Mills/Operating Division	Company Name	Mills/Operating Division	
Akita Jujo Chemicals Co., Ltd. Head Office Plant		Akita Jujo Chemicals Co., Ltd.	Head Office Plant	

#### Acquisition of OHSAS18001 certification (as of March 31, 2020)

	Number of sites with certificated	Number of sites	Percentage of sites with certification
Consolidated companies in Japan	0	29	0.0%
Overseas consolidated companies %	2	6	33.3%
Total	2	35	5.7%

#### Status of CoC certification acquisition at principal production sites (as of July 31, 2020)

Company	FSC <sup>®</sup>	PEFC	
Name	Mill, Production Company	License no.	Mill, Production Company
Nippon Paper Industries Co., Ltd.	Kushiro Mill	FSC®C129049	
	Hokkaido Mill(Yufutsu, Asahikawa, Shiraoi)	- - FSC®C001751	Hokkaido Mill(Shiraoi)
	Ishinomki Mill		Ishinomaki Mill
	Iwakuni Mill		Iwakuni Mill
	Yatsushiro Mill		Yatsushiro Mill
	Akita Mill	FSC®C133166	Akita Mill
	Iwanuma Mill	FSC®C001751	
	Nakoso Mill	FSC®C020977	
	Kanto Mill(Soka, Ashikaga)	FSC®C133163	
	Fuji Mill Yoshinaga	FSC®C133678	Fuji Mill
	Otake Mill	FSC®C132226	Otake Mill
	Nippon Paper Liquid Package Product Co., Ltd. Egawa Mill, Ishioka Mill, Miki Mill	FSC®C128733	Nippon Paper Liquid Package Product Co., Ltd. Egawa Mill, Ishioka Mill, Miki Mill
	Nippon Paper Papylia Co., Ltd. Harada Mill, Kochi Mill	FSC®C005984	Nippon Paper Papylia Co., Ltd. Harada Mill, Kochi Mill
Other Nippon Paper Group Companies	Nippon Paper Crecia Co., Ltd. Tokyo Mill, Kaisei Mill, Koyo Mill, Kyoto Mill	FSC <sup>®</sup> C124287	
	Nippon Dynawave Packaging Co.	FSC®C131932	Nippon Dynawave Packaging Co.
	Siam Nippon Industrial Paper Co., Ltd.	FSC®C125026	
	Jujo Thermal Oy	FSC®C012566	Jujo Thermal Oy
	Paper Australia Pty Ltd. Maryvale Mill	FSC®C002059	Paper Australia Pty Ltd. Maryvale Mill