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

### **Employment Indicators**

Number of Employees on a Consolidated Baiss   1.23   Persons   13,834   13,407   13,052   13,107   12,771		Unit	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Male	Number of Employees on a Consolidated Basis <sup>*1</sup> *3	Persons	13,834	13,407	13,052	13,107	12,771
Pulp and Paper Business	Female	Persons	_	1,335	1,536	1,430	1,382
Paper-Related Business   Persons   1,297   1,313   1,316   1,285   1,286	Male	Persons	_	12,072	11,516	11,677	11,389
Wood Products and Construction Related Business   Persons   1,687   1,632   1,669   1,670   1,671	Pulp and Paper Business	Persons	8,232	7,853	7,449	7,516	7,337
Construction Related Business	Paper-Related Business	Persons	1,297	1,313	1,316	1,285	1,286
Cross-Organizational № 2         Persons         235         232         221         237         214           Overseas         Persons         1,716         1,625         1,621         1,785         1,745           Female         Persons         —         —         —         254         214           Male         Persons         —         —         —         —         1,531         1,531           Person of the local community         96         —         —         —         —         —         83.2           New graduate hired №         Persons         118         83         106         150         160           Female         Persons         27         10         9         15         17           Male         Persons         91         73         97         135         143           Mid-career recruits №         Persons         62         100         189         123         190           Female         Persons         8         14         20         13         21           Male         Persons         54         86         169         110         169           The rate of employment of people with disabi		Persons	1,687	1,632	1,669	1,670	1,671
Diverseas	Other Businesses	Persons	2,383	2,377	2,397	2,399	2,263
Female	Cross-Organizational <sup>™2</sup>	Persons	235	232	221	237	214
Male         Persons         —         —         —         1,531         1,531           Percent of upper management from the local community         %         —         —         —         —         83.2           New graduate hired <sup>84</sup> Persons         118         83         106         150         160           Female         Persons         27         10         9         15         17           Male         Persons         91         73         97         135         143           Mid-career recruits <sup>84</sup> Persons         62         100         189         123         190           Female         Persons         8         14         20         13         21           Male         Persons         54         86         169         110         169           The rate of employment of people with disabilities <sup>8</sup> 1.82         1.82         1.91         1.78         1.99           Employees reemployee attemptor of people with disabilities <sup>8</sup> %         1.82         1.82         1.91         1.78         1.99           Employees reemployee attemptor of people with disabilities in Japan         %         1.82         1.82         1.91 <t< td=""><td>Overseas</td><td>Persons</td><td>1,716</td><td>1,625</td><td>1,621</td><td>1,785</td><td>1,745</td></t<>	Overseas	Persons	1,716	1,625	1,621	1,785	1,745
Percent of upper management from the local community   Persons   118   83   106   150   160	Female	Persons	_	_	_	254	214
New graduate hired   4	Male	Persons	_	_	_	1,531	1,531
Female         Persons         27         10         9         15         17           Male         Persons         91         73         97         135         143           Mid-career recruits**4         Persons         62         100         189         123         190           Female         Persons         8         14         20         13         21           Male         Persons         54         86         169         110         169           The rate of employment of people with disabilities**         %         1.82         1.82         1.91         1.78         1.99           Employees reemployed after retirement age**         Nippon Paper Ind. Consolidated subsidiaries in Japan         Persons         59         43         67         53         112           Consolidated subsidiaries in Japan         Persons         59         43         67         53         112           Average age of employees ****         Years         —         41.7         41.8         41.9         42.7           Female         Years         —         41.8         41.8         41.9         42.7           Average years of employment****         Years         20.7         21.2		%	_	_	_	_	83.2
Male         Persons         91         73         97         135         143           Mid-career recruits 4         Persons         62         100         189         123         190           Female         Persons         8         14         20         13         21           Male         Persons         54         86         169         110         169           The rate of employment of people with disabilities 5         486         169         110         169           Employees reemployed after retirement age 5         Nippon Paper Ind.         7         1.82         1.91         1.78         1.99           Employees reemployed after retirement age 6         Nippon Paper Ind.         Persons         59         43         67         53         112         309           Consolidated subsidiaries in Japan         Persons         59         43         67         53         112         309         42.7         41.8         41.9         42.7         42.7         42.7         42.7         42.0         42.0         42.0         42.0         42.0         42.0         42.0         42.0         42.0         42.0         42.0         42.0         42.0         42.0         42.0	New graduate hired <sup>×4</sup>	Persons	118	83	106	150	160
Nidicareer recruits   Persons   62   100   189   123   190	Female	Persons	27	10	9	15	17
Female	Male	Persons	91	73	97	135	143
Male         Persons         54         86         169         110         169           The rate of employment of people with disabilities \$6         %         1.82         1.82         1.91         1.78         1.99           Employees reemployed after retirement age \$6         Nippon Paper Ind. Consolidated subsidiaries in Japan         Persons         59         43         67         53         112 mode of the properties of	Mid-career recruits <sup>×4</sup>	Persons	62	100	189	123	190
The rate of employment of people with disabilities   %   1.82   1.82   1.91   1.78   1.99	Female	Persons	8	14	20	13	21
Employees reemployed after retirement age   Signon Paper Ind.   Persons   Signon Paper Ind.   Signon Pap	Male	Persons	54	86	169	110	169
Nippon Paper Ind.   Persons   Pers		%	1.82	1.82	1.91	1.78	1.99
Female         Years         —         40.8         41.5         42.0         42.0           Male         Years         —         41.8         41.8         41.9         42.7           Average years of employment №1 №4         Years         20.7         21.2         20.9         21.0         18.7           Female         Years         19.5         19.8         20.0         20.0         15.9           Male         Years         20.8         21.3         20.9         21.1         19.0           Turnover rate(Includes employees leaving at the mandatory retirement age) №4         %         —         —         —         3.29         3.83           Female employees in management №6 Nippon Paper Industries Nippon Paper Industries Consolidated entity in Japan %         —         1.88 №5         2.09 №5         1.49         1.48         1.57           Consolidated subsidiaries outside Japan №7         %         —         —         12.3         16.0         17.8           Dispatched workers №1 №4         Persons         —         —         —         —         87           Female         Persons         —         —         —         —         —         59	age <sup>×9</sup> Nippon Paper Ind.		59	43	67	53	
Male         Years         —         41.8         41.8         41.9         42.7           Average years of employment <sup>*1 № 4</sup> Years         20.7         21.2         20.9         21.0         18.7           Female         Years         19.5         19.8         20.0         20.0         15.9           Male         Years         20.8         21.3         20.9         21.1         19.0           Turnover rate(Includes employees leaving at the mandatory retirement age) № 4         %         —         —         —         3.29         3.83           Female employees in management № 6 Nippon Paper Industries %         1.88 № 5         2.09 № 5         1.49         1.48         1.57           Consolidated entity in Japan %         —         1.49         1.63         1.70         1.81           Consolidated subsidiaries outside Japan № 7         %         —         —         12.3         16.0         17.8           Dispatched workers № 1 № 7         Persons         —         —         —         —         87           Female         Persons         —         —         —         —         59	Average age of employees **1**4	Years	_	41.7	41.8	41.9	42.7
Average years of employment ****4         Years         20.7         21.2         20.9         21.0         18.7           Female         Years         19.5         19.8         20.0         20.0         15.9           Male         Years         20.8         21.3         20.9         21.1         19.0           Turnover rate(Includes employees leaving at the mandatory retirement age)*4         %         —         —         —         3.29         3.83           Female employees in management*6         Nippon Paper Industries         %         1.88*5         2.09*5         1.49         1.48         1.57           Consolidated entity in Japan         %         —         1.49         1.63         1.70         1.81           Consolidated subsidiaries outside Japan*7         %         —         —         12.3         16.0         17.8           Dispatched workers****         Persons         —         —         —         87           Female         Persons         —         —         —         59	Female	Years	_	40.8	41.5	42.0	42.0
Female         Years         19.5         19.8         20.0         20.0         15.9           Male         Years         20.8         21.3         20.9         21.1         19.0           Turnover rate(Includes employees leaving at the mandatory retirement age)*4         %         —         —         —         3.29         3.83           Female employees in management*6             Nippon Paper Industries         %         1.88*5         2.09*5         1.49         1.48         1.57           Consolidated entity in Japan         %         —         1.49         1.63         1.70         1.81           Consolidated subsidiaries outside Japan*7         %         —         —         12.3         16.0         17.8           Dispatched workers**1**4         Persons         —         —         —         87           Female         Persons         —         —         —         —         59	Male	Years	_	41.8	41.8	41.9	42.7
Male         Years         20.8         21.3         20.9         21.1         19.0           Turnover rate(Includes employees leaving at the mandatory retirement age)*4         %         —         —         —         3.29         3.83           Female employees in management*6             Nippon Paper Industries	Average years of employment <sup>×1×4</sup>	Years	20.7	21.2	20.9	21.0	18.7
Turnover rate(Includes employees leaving at the mandatory retirement age)*4         %         —         —         —         3.29         3.83           Female employees in management*6 Nippon Paper Industries Consolidated entity in Japan White Consolidated entity in Japan White Consolidated subsidiaries outside Japan*7         %         1.88*5         2.09*5         1.49         1.48         1.57           Consolidated subsidiaries outside Japan*7         %         —         —         12.3         16.0         17.8           Dispatched workers*1**4         Persons         —         —         —         87           Female         Persons         —         —         —         59	Female	Years	19.5	19.8	20.0	20.0	15.9
the mandatory retirement age) **4         70         —         —         3.29         3.83           Female employees in management **6           Nippon Paper Industries         %         1.88**5         2.09**5         1.49         1.48         1.57           Consolidated entity in Japan         %         —         1.49         1.63         1.70         1.81           Consolidated subsidiaries outside Japan**7         %         —         —         12.3         16.0         17.8           Dispatched workers*****         Persons         —         —         —         87           Female         Persons         —         —         —         59	Male	Years	20.8	21.3	20.9	21.1	19.0
Nippon Paper Industries         %         1.88**5         2.09**5         1.49         1.48         1.57           Consolidated entity in Japan         %         —         1.49         1.63         1.70         1.81           Consolidated subsidiaries outside Japan**7         %         —         —         12.3         16.0         17.8           Dispatched workers**1**4         Persons         —         —         —         87           Female         Persons         —         —         —         59	the mandatory retirement age) <sup>*4</sup>	%	_	_	_	3.29	3.83
Consolidated entity in Japan         %         —         1.49         1.63         1.70         1.81           Consolidated subsidiaries outside Japan*7         %         —         —         12.3         16.0         17.8           Dispatched workers*1**4         Persons         —         —         —         87           Female         Persons         —         —         —         59	Female employees in management **6	0/2	1 00%5	2.00%5	1 40	1 /10	1 57
Consolidated subsidiaries outside Japan*7         %         —         —         12.3         16.0         17.8           Dispatched workers*1**4         Persons         —         —         —         87           Female         Persons         —         —         —         59		i	1.00	i	i	i	i
Dispatched workers         Persons         —         —         —         87           Female         Persons         —         —         —         59	• •		_	_	!	!	!
Female         Persons         —         —         —         59			_	_	_	_	
			_	_	_	_	+
		Persons	_	<u> </u>	<u> </u>	_	:

<sup>¥ 1</sup> Fiscal year-end data

Employees responsible for multiple businesses

X 3 Data scope: consolidated subsidiaries

X 4 Data scope: consolidated subsidiaries in Japan

Data scope: Nippon Paper Group Inc. and Nippon Paper Industries Co., Ltd.

<sup>86</sup> Beginning with fiscal 2013 percentages have been adjusted retroactively to exclude associate directors, employees commissioned for specific purposes, employees on temporary assignment from other companies, and other non-full-time personnel to present percentages of only full-time employees.

X 7 Managerial personnel at the level of section manager or positions higher

Nata scope: Nippon Paper Industries Co., Ltd.

Seginning with fiscal 2014, figures cover consolidated subsidiaries in Japan and management employees. Until fiscal 2013, figures covered only non-management employees at Nippon Paper Industries.

### **Work-Life Balance Indicators**

	Unit	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Employees taking child-care leave <sup>×1</sup>	Persons	33	27	25	29	25
Female	Persons	30	25	25	28	21
recently giving birth	%	100	89	96	90	91
who returned to work	%	_	_	_	_	100
Male	Persons	3	2	0	1	4
Employees taking maternity/paternity leave <sup>**2</sup>	Persons	_	_	_	153	164
Female	Persons	_	_	_	13	23
Male	Persons	_	_	_	140	141
Average number of days taken for maternity/paternity leave <sup>×2</sup>						
Female	Days	_	_	_	66.0	85.6
Male	Days	_	_	_	3.3	3.1
Employees taking nursing-care leave <sup>×2</sup>	Persons	_	_	_	0	2
Total number of working hours <sup>*3</sup>	Hours	1,792	1,744	1,821	1,831	1,885
The rate of annual paid leave taken by employees <sup>×3</sup>	%	73.0	68.0	69.3	70.9	69.2

imes 1 Data scope: consolidated subsidiaries in Japan

## **Occupational Accidents**

### (Calendar year)

	2010	2011	2012	2013	2014
Occupational accident frequency rate*	0.75	0.39	0.77	0.30	0.31
Occupational accident severity rate**	0.75	0.03	0.74	0.76	0.03

<sup>💥</sup> Data scope: Manufacturing sites of Nippon Paper Industries Co., Ltd., Nippon Paper Crecia Co., Ltd., and Nippon Paper Papylia Co., Ltd.

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

<sup>× 3</sup> Data scope: Non-management employees of Nippon Paper Industries

## **Acquisition of ISO Certification**

# Acquisition of ISO 9001 Certification (as of March 31, 2015)

Company Name	Mills/Operating Division/ Production Subsidiaries
Nippon Paper Industries Co., Ltd.	Akita Mill, Nakoso Mill, Ashikaga Mill, Soka Mill, Yoshinaga Mill, Otake Mill
(Paper-Pak Division)	MIKI PAPER-PAK CO., LTD., ISHIOKA KAKO CO., LTD.
(Chemical Division)	Gotsu Mill <sup>⊗1</sup> , Iwakuni Mill, Higashimatsuyama Mill, Yufutsu Mill
Nippon Paper Crecia Co., Ltd.	Tokyo Mill
Nippon Paper Papylia Co., Ltd.	Harada Mill, Suita Mill, Kochi Mill
SHIKOKU COCA-COLA BOTTLING CO., LTD.	Komatsu Plant
SHIKOKU CUSTOMER SERVICE CO., LTD.	Headquarters
Nippon Seitai Corporation	Hokkaido Office, Maebashi Mill, Saitama Mill
NIPPON PAPER UNITEC CO., LTD.	Four business sites at headquarters (construction/electricity/control systems/ plant engineering)
Kokusaku Kiko Co., Ltd.	Headquarters/Equipment & Facilities Department/Yufutsu Department/Shiraoi Department/Asahikawa Department
NANKO UNYU CO.,LTD.	Headquarters/Ishinomaki Office/Shipping Management Center/Iwanuma Office/ Nakoso Office/Akita Sales Office Service Department/ Maintenance Shop/ Tokyo Branch
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.	
Australian Paper	Maryvale Mill, Shoalhaven Mill, Preston Facility
Jujo Thermal Oy	Kauttua Mill

 $<sup>\</sup>times\!\!\!\!/\, 1$  Certifications obtained for CMC and cellulose powder production.

## Acquisition of FSSC 22000 Certifications (as of March 31, 2015)

(as of March 31, 2013)	
Company Name	Mills/ Operating Division/ Production Subsidiaries
Nippon Paper Industries Co., Ltd.	
(Paper-Pak Division)	SOKA PAPER-PAK CO., LTD., EGAWA PAPER-PAK CO., LTD.
(Chemical Division)	Gotsu Mill <sup>※1</sup>

# Acquisition of ISO 14001 Certification (as of March 31, 2015)

(as of March 31, 2013)	
Company Name	Mills / Operating Divisions/ Manufacturing Companies
Nippon Paper Industries Co., Ltd.	Kushiro Mill, Hokkaido Mill, Akita Mill, Ishinomaki Mill, Iwanuma Mill, Nakoso Mill, Ashikaga Mill, Soka Mill, Yoshinaga Mill, Fuji Mill, Otake Mill, Iwakuni Mill, Yatsushiro Mill, R&D Dept.
(Paper-Pak Division)	Paper-Pak Division (Ochanomizu and Oji regions), SOKA PAPER-PAK CO., LTD., EGAWA PAPER-PAK CO., LTD., MIKI PAPER-PAK CO., LTD., ISHIOKA KAKO CO., LTD.
(Chemical Division)	Gotsu Mill, Iwakuni Mill, Higashimatsuyama Mill, Yufutsu 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
Kitakami Paper Co., Ltd.	Headquarters/Ichinoseki Mill
NP Trading Co., Ltd.	Headquarters/Sapporo Branch Office/ Chubu Branch Office/Kansai Branch Office/Chugoku Branch Office/Kyushu Branch Office/Shizuoka Sales Office
Nippon Seitai Corporation	Headquarters, Hokkaido Office, Niigata Office, Maebashi Mill, Saitama Mill, Kansai Office, Kyusyu Office
Daishowa Uniboard Co., Ltd.	Headquarters, Miyagi Mill
SHIKOKU COCA-COLA BOTTLING CO., LTD.	Headquarters, Komatsu Plant
SHIKOKUCANTEENCO., LTD.	Headquarters
DYNAFLOW CO., LTD.	Headquarters
N&E Co., Ltd.	
Nippon Paper Development Co., Ltd.	Headquarters, Landscape Department, Tokyo Department
Sakurai Co., Ltd.	Headquarters
Nippon Paper Ishinomaki Technology Co., Ltd.	Headquarters
Nippon Paper Industries USA Co., Ltd.	Port Angeles Mill
Australian Paper	Maryvale Mill, Shoalhaven Mill
South East Fiber Exports	Eden
Jujo Thermal Oy	Kauttua Mill

### **Forest Management and Raw Material Procurement-Related Indicators**

### Tree Species Nippon Paper Industries Co., Ltd. Procured from Overseas, and Their Countries of Origin (Fiscal 2014)

Hardwood

Hardwood			(tonnes=bone dry tonnes)	Softwood
Country	1,000 tonnes	Percentage	Species	Country
Australia	855	35.2%	Eucalyptus	Australia
South Africa	540	22.3%	Acacia	U.S.A
Brazil	510	21.0%	Eucalyptus, Acacia	Russia
Chile	280	11.5%	Acacia	Total
Vietnam	241	9.9%	Eucalyptus	
Total	2,426	100.0%		-

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

Country	End of 2008	End of 2009	End of 2010	End of 2011	End of 2012	End of 2013	End of 2014
Australia	81	80	79	77	38	38	36
Chile	13	13	13	13	13	13	13
Brazil	62	62	62	62	62	54	54
South Africa	12	11	11	11	11	11	11
Total	167	166	165	163	124	116	114

### Status of Forest Certification Acquisition for Overseas Afforestation Project 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	
SEFE (Australia)	AFS	October 2006	
Volterra (Chile)	FSC <sup>®</sup> (FSC-C120260)	January 2014	
	CERTFORCHILE	December 2007	
Forestco (South Africa)	FSC <sup>®</sup> (FSC-C012171)	April 2003	
AMCEL (Brazil)	FSC <sup>®</sup> (FSC-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	

1,000 tonnes

196

65

14

276

Percentage

71.2%

23.7%

100.0%

5.0%

(tonnes=bone dry tonnes)

Radiata pine

Douglas fir

Yezo spruce

Species

<sup>\*\*</sup>The Company's Kitayama Forest in Shizuoka Prefecture was certified in December 2003.

# Breakdown of company-owned forests in Japan by IUCN(International Union for Conservation of Nature) (as of March 31, 2013) (1,000 hectares)

IU	JCN category	N/A	Environmenta I forest area <sup>**</sup>	Total	% Share	Ratio of environmental forest area (%)	
I	Strict nature reserve / wilderness area	0	0	0	0%	-	Protected area that is managed mainly for scientific research or wilderness
П	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
N	ot Applicable	68.6	13.1	81.7	91%	16%	
	Total	71.7	18.3	90.0	100%	20%	

X Commercial forest area: The portion of Company-owned forests utilized as resources under appropriate forest management.

## **Environmental Accounting**\*

#### **Environmental Conservation Costs**

(Millions of Yen)

Category	Investment	Cost
(1) Business area costs		
① Pollution prevention costs	512	13,517
②Global environmental conservation costs	3,250	736
③Resources circulation costs	374	8,635
(2) Upstream/downstream cost	-	2,102
(3) Administration cost	-	386
(4) R&D cost	-	1,027
(5) Social activity costs	-	55
(6) Environmental remediation costs	-	576
Total	4,136	27,034

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

# **Environmental Benefits of Environmental Conservation**(Millions of Yen)

Effect	Amount
Income from company–owned forests in Japan	621
Reduced expenses from energy saved	2,280
Reduced disposal expenses through the effective use of waste	5,274
Gain on sales from the recycled waste	444
Reduced expenses through the recycling of shipping material	77
Total	8,696

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-Related Indicators**

#### Balance of Materials for All Businesses (Principal Materials) \*1

Note: t indicates Tonnes (also called Metric Tons)

<b>INPU</b> 1		$\Rightarrow$	Ol	JT	Р	U	Γ

Fossil energy input	,	Water consumption	939百万t
Electricity Oil	1,800GWh 170∓kℓ	River water Industrial water	740百万t 173百万t
Coal Gas	2,615千t 238千t	Well water Public water supply	25百万t 1百万t
Non-fossil energy input Black liquor	4,003 <del>千</del> t	Raw Material Woodchips	4,810∓BDt
Other non-fossil fuels <sup>**2</sup> Chemical substances subject to the PRTR Law (Amount handled)	1,627∓t 11,984t	Logs Pulp Recycled paper(Pulp) Base paper	724千BDt 437千ADt 3,273千ADt 88千BDt

CO2 emission from		Nitrogen	1.49千t
	7 4 5 7 7 1		0.2571
fossil energy		Phosphorous	0.25千t
Sox emissions	4.3千t	Waste generation	850千BDt
Nox emissions	8.8 <b>∓</b> t	Final waste disposal	54千BDt
Soot and dust	1.5千t	Recycling of waste	796千BDt
Chemical substances			
subject to the PRTR Lav	v <sup>※3</sup>	Products manufactured	
(Amount released)	192t	Paper, household Paper	4.36百万t
(Amount transferred)	61t	Paperboard	1.75百万t
Wastewater	918百万t	Pulp	122千t
Public water	908百万t	Paper container	98 <del>千</del> t
Sewerage	10百万t	Chemical products	108 <b>∓</b> t
COD/BOD	63.7千t	Building materials	63 <b>千</b> t
SS	23.6千t		

- ¾1 Jujo Thermal Oy and South East Fibre Exports were added to the data collection scope in fiscal 2014.
- Biomass fuels, except for black liquor, and waste fuels

#### Major Environmental Performance Data\*1

Note: t indicates Tonnes (also called Metric Tons)

		Unit	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
	Fossil energy input	Millions GJ	97	88	91	97	95
Energy	Non-fossil energy input <sup>*2</sup>	Millions GJ	76	69	66	77	80
	CO <sub>2</sub> emissions from fossil energy	Million t-CO <sub>2</sub>	7.23	6.55	6.63	7.29	7.15
Water consumption		Million t	958 <sup>×3</sup>	870	953	883	939
Waste water	Amount discharged	Million t	942 <sup>**3</sup>	843	905	907	918
	COD/BOD	Thousand t	55.5 <sup>**3</sup>	46.9	54.0	56.0	63.7
	SS	Thousand t	20.3 <sup>×3</sup>	16.8	21.3	22.0	23.6
	SOx	Thousand t	3.96 <sup>*3</sup>	3.37	3.50	3.34	4.32
Gas emissions	NOx	Thousand t	7.73 <sup>×3</sup>	7.05	7.95	9.03	8.78
	Soot and dirt	Thousand t	1.23 <sup>×3</sup>	1.25	1.04	1.52	1.54
\Masta	Amount generated	Thousand t	699 <sup>**3</sup>	688	737	819	850
Waste	Final waste disposal	Thousand t	31 <sup>※3</sup>	44	49	71.9	54.2

- X1 Australian Paper was added to the data collection scope in fiscal 2013. Jujo Thermal Oy and South East Fibre Exports Pty. Ltd. were added in fiscal 2014.
- $\ensuremath{lpha}\xspace^2$  Energy from biomass and waste
- 3 The Group was unable to compile information for the Ishinomaki and Iwanuma mills, due to the impact of the Great East Japan Earthquake. Accordingly, fiscal 2009 data for each mill was used and modified to enable a year-on-year comparison.

#### **Environment–Related Complaints** (FY 2014)

Complaints	Noise	Vibration	Odor	Dust and mist dispersal	Smoke	Other	Total
Number	8	0	2	3	0	1	14

### **External Awards for Environmental Conservation Activities** (FY 2014)

Recipient	Award	Award Organization
Nippon Paper Industries Co., Ltd., Ishinomaki Mill;Nanko Unyu Co, Ltd.		Ministry of Land, Infrastructure, Transport and Tourism and the Ministry of Economy, Trade and Industry
Nippon Paper Industries Co., Ltd., Head office Excellent Waste Manager Award		Chiyoda City, Tokyo
Nippon Paper Crecia Co., Ltd., Kaisei Mill Fiscal 2014 Environmental Conservation Award (Chairman's Award) Western Prefecture Region		Kanagawa Environmental Conservation Association
Kitakami Danor Co. Itd		Iwate Prefecture Southern Wide-Area Development Bureau

Named a co-recipient, together with Japan Freight Railway Company

## Amounts of Substances Subject to the PRTR Law Released and Transferred<sup>\*1</sup> (FY2014)

Cabinet Order No.	CAS No	Chemical Substance	Unit	Amount Released	Amount Transferred
1	_	Water-soluble zinc compounds	t	3	9
2	79-06-1	Acrylamide	t	0	0
4	_	Acrylic acid and water-soluble salt	t	0	0
6	818-61-1	Acrylic acid 2-hydroxyethyl ester	t	0	0
9	107-13-1	Acrylonitrile	t	0	0
16	78-67-1	2,2'-azobisisobutyronitrile	t	0	0
37	80-05-7	4,4'-isopropylidenediphenol	t	0	0
48	2104-64-5	O-ethyl-O-(4-nitrophenyl)phenylphosphonothioate	t	2	0
53	100-41-4	Ethyl benzene	t	0	0
57	110-80-5	Ethylene glycol monoethyl ether	t	1	4
80	1330-20-7	Xylene	t	4	1
85	111-30-8	Glutaraldehyde	t	0	0
98	79-11-8	Chlorodifluoromethane	t	0	0
127	67-66-3	Chloroform <sup>**2</sup>	t	72	11
134	108-05-4	Vinyl acetate	t	0	0
144	_	Inorganic cyanide compounds (except complex salts and cyanates)	t	2	0
149	56-23-5	Tetrachloromethane	t	0	33
154	108-91-8	Cyclohexylamine	t	1	0
213	127-19-5	N,N-dimethyl acetamide	t	0	0
232	68-12-2	N,N-dimethylmethanamide	t	0	0
243	_	Dioxins <sup>**2</sup>	g-TEQ	0	7
272	_	Copper salts (water-soluble, except complex salts)	t	2	0
296	95-63-6	1,2,4-trimethylbenzene	t	5	0
300	108-88-3	Toluene	t	24	3
302	91-20-3	Naphthalene	t	0	0
318	75-15-0	Carbon disulfide	t	6	0
333	302-01-2	Hydrazine	t	0	0
374	_	Hydrogen fluoride and its water-soluble salts	t	16	0
392	110-54-3	N-hexane	t	0	0
395	_	Water-soluble salts of peroxodisulfuric acid	t	0	0
405	_	Boron compounds	t	26	0
407	_	Poly (oxyethylene) alkyl ether (alkyl C=12-15)	t	0	0
410	9016-45-9	Polyoxyethylene nonylphenyl ether	t	0	0
411	50-00-0	Formaldehyde	t	6	0
412	_	Manganese and its compounds	t	20	0
414	108-31-6	Maleic anhydride	t	0	0
415	79-41-4	Methacrylic acid	t	0	0
418	2867-47-2	2-(dimethylamino) ethyl methacrylate	t	0	0
419	97-88-1	N-butyl methacrylate	t	0	0
420	80-62-6	Methyl methacrylate	t	0	0
438	1321-94-4	Methylnaphthalene	t	2	0
448	101-68-8	Methylenebis (4,1-phenylene) diisocyanate	t	0	0
455	110-91-8	Morpholine	t	0	0
Total ** 3		· ·	t	190	62

X1 A summary of the amounts of substances, excluding dioxins, released or transferred in quantities of at least 1 tonne by each Group company. Dioxins and formaldehyde are designated type 1 chemical substances.

X2 Includes unintentionally generated chloroform and dioxins.

<sup>3</sup> Dioxins are not included in total data.

### The Nippon Paper Group Environmental Action Plan (Green Action Plan 2015) fiscal 2014 status

	Green Action Plan 2015	Progress
	Reduce CO2 emissions from fossil energy by 25% versus fiscal 1990.	•Notwithstanding the impact of decreased production volumes in the Paper and Paperboard departments, reduced CO2 emissions from fossil energy by 28.7% as well as the use of fossil energy by 38.4% versus fiscal 1990 through energy-saving initiatives and successful efforts to promote the
	Reduce the use of fossil energy by 30% versus fiscal 1990.	conversion of fuel.
Anti-global warming action	Reduce logistics-generated CO2 emissions.	With persistent efforts, paper operations have continued to far surpass the domestic industry average with an 89% adoption rate for highly efficient modal shift transport.  The decision to use freight trains to transport wastepaper on return trips, thereby, reducing energy consumption and CO2 emissions earned the Fiscal 2014 Green Logistics Partnership Conference Special Award and the Logistics Environment Special Award at the Japan Association for Logistics and Transport's 16th Environmental Awards.
	Facilitate the Tree Farm Initiative, an overseas afforestation project for procuring sustainable resources, with the aim of increasing overseas afforested area up to 200,000 hectares. *1	*As of the end of 2014, total afforested areas came to 114,000 ha. *Going forward, plans to take full advantage of AMCEL's 130,000 ha (70,000 ha remaining) of afforestable areas will be drawn up for purposes including afforestation for the energy business.
Protection and development of forest resources	Maintain forest certification in all proprietary forests, both domestically and internationally.	Currently maintaining SGEC, FSC® 2, and PEFC certification at all company-owned forests in Japan and overseas.  AMCEL S.A., adding to its FSC®-FM certification, obtained the PEFC reciprocal CERFLOR FM certification in September 2014.
	Ensure that all imported hardwood chips are PEFC- or FSC®-certified.**3	*Continuing from fiscal 2013, achieved PEFC- or FSC®-certification for 100% of imported hardwood chips.
	Enhance traceability and facilitate the procurement of sustainable forest resources.	*Cleared the requirements of PEFC rules in their entirety and FSC® rules to 82% with respect to the assessment of imported wood risk as of December 31, 2014.
	Increase the ratio of recycled paper to paper to at least 40%. Increase the ratio of recycled paper to paperboard to at least 88%	Achieved ratios of recycled paper to paper and recycled paper to paperboard of 38.2% and 92.3%, respectively, through proactive efforts to utilize recycled paper.
Recycling of resources	Increase the waste recycling rate to at least 97%.	*As a result of progress in the effective use of granulated combustion ash and other waste, achieved a waste recycling rate of 98.2% (vs. total waste generated) and an on-site recycling
	Recycle at least 40% of waste generated within mills.	rate 27.9 % for waste generated at mills.
	Reduce water use in the manufacturing process.	•Taking steps to conserve water consumption by assessing material balance of water.
Observance of environment- related laws and reduction of	Use the environmental management system to strengthen environmental management.	Together with strengthening and maintenance of the environmental management system, which is led by the Management Execution Committee, environmental management systems have been adopted at individual works. As of March 31, 2015, 51 business locations at 18 consolidated subsidiaries, and 4 business locations at 4 non-consolidated subsidiaries, had obtained ISO 14001 certification. Eco-Action 21 certification had been obtained by 1 business location at 1 non-consolidated subsidiary.  *Based on the Nippon Paper Group Chemical Substance Management Guidelines, the types
environmental load	Properly control and reduce the use of chemical substances.	and volumes of chemical substances handled are being ascertained, and proper chemical substance management is being pursued.
	Facilitate the procurement of raw materials and equipment with a smaller environmental burden throughout the supply chain.	• Establishing and updating of facilitate, based on energy management rules, energy efficiency is one selection benchmark for the procurement of raw materials.
	Enhance the more sophisticated use of wood materials.	A test facility for cellulose nanofiber (CNF) production is being used to examine mass-production technologies, and provide samples to support application development. Participated in a NEDO project for the development of a manufacturing process for non-edible plant-based chemical products, advancing the development of a process for manufacturing various types of chemical product raw materials from wood biomass through an industry—government-academia collaboration.
5. Development of eco-friendly technologies and	Develop equipment technology for facilitating a departure from reliance on fossil energy.	*Work to develop a new biomass fuel for pulverized coal boilers continues. The ability to co-fire imported steam explosion pellets and high-temperature, high-speed torrefaction pellets was confirmed, opening the door to the use of both fuels.
products	Reduce the environmental load through ecofriendly products and services.	Participated as an observer on a committee considering possibilities for using wastepaper processing technology to create a paper diaper recycling system for the city of Fukuoka, and provided technical cooperation for constructing an optimal processing system.  The Aluminum-Free Fuji Pak, a brick-shaped aluminum free paper carton, received the Eco-Products Awards Steering Committee Chairperson's Award at the 11th Eco-Products Awards.  Commenced power generation at the Mega-Solar Plant in Komatsushima City, Tokushima Prefecture.
	Disclose environment-related information to stakeholders whenever appropriate with the use of CSR reports, the website etc.	Sustainability reports are being made available in both printed and online editions. Also, ShikiOriori, communication magazine is being published to provide reader-friendly information on environmental and social issues.
Proactive     environmental     communication	Proactively facilitate environmental communication on a regional basis through, for example, dialogue with local people and governments.	Placed particular emphasis on risk communication as a part of efforts to share risk information with local communities and to foster relationships of mutual trust.
	Proactively participate in and support environment conservation activities.	<ul> <li>Actively participated in environmental endeavors including clean-up and greening initiatives organized by local communities, while promoting various activities including mill tours and internships.</li> </ul>
7. Biodiversity commitments	Remain aware of the impact of business activities on biodiversity, and facilitate companywide biodiversity commitments.	Positioning forest certification systems as one of several biodiversity conservation benchmarks in an effort to promote sustainable forest management in line with core business activities.     As an initiative that makes the most of proprietary resources and technologies, concluded a memorandum of understanding with the Wild Bird Society of Japan regarding preserving Blakiston's fish owl habitat while pursuing logging in company-owned forests in the Kushiro region of Hokkaido.

 <sup>\*\*1</sup> No deadline has been set at this point.
 \*\*2 FSC® Logo License No. FSC-C120260, FSC-C022307, FSC-C023383
 \*\*3 Aside from FM certification, CW certification is also included