

NYK Group GHG Emissions by Scope for Fiscal 2020

	Item	Emissions (ton-CO ₂ e)	Ratio
Scope 1	Ships, aircraft, semitrailers, etc.	11,650,054.83	87.4%
Scope 2	Offices	49,444.52	0.4%
Scope 3	Vessel construction, commuting / business trips	1,623,678.31	12.2%
Total		13,323,177.66	100.0%

Note 1: CO₂e: CO₂ equivalent

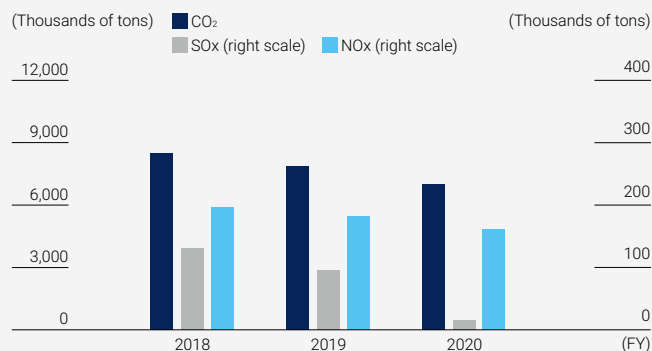
Note 2: GHG emission data for Scope 1, Scope 2, and Scope 3 has been verified by a third-party organization. Verification Report (<https://www.nyk.com/english/esg/envi/data/>)

Ships / Aircraft

NYK

INPUT (Ships)				OUTPUT			
	FY2018	FY2019	FY2020		FY2018	FY2019	FY2020
	(Thousands of tons)				(Thousands of tons)		
Heavy oil C	2,574	2,361	2,103	CO₂ emissions	8,473	7,860	6,954
Heavy oil A	0	0	0	SOx	131	96	20
Diesel	143	153	126	NOx	196	182	161

Note: To comply with UN IMO global sulfur cap regulations, from January 1, 2020 we changed our vessel fuel from HSFO, which has a maximum sulfur content of 3.5%, to LSF0, which contains a maximum of 0.5%, thereby reducing our sulfur oxide (SOx) emissions.

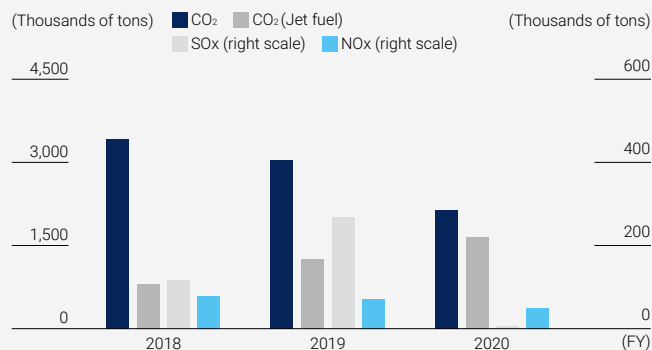


Japan and Overseas Group Companies

INPUT (Ships)				OUTPUT			
	FY2018	FY2019	FY2020		FY2018	FY2019	FY2020
	(Thousands of tons)				(Thousands of tons)		
Heavy oil C	973	876	624	CO₂ emissions	3,413	3,040	2,114
Heavy oil A	20	20	17	SOx	116	268	6
Diesel	100	76	36	NOx	79	70	49

Note: To comply with UN IMO global sulfur cap regulations, from January 1, 2020 we changed our vessel fuel from HSFO, which has a maximum sulfur content of 3.5%, to LSF0, which contains a maximum of 0.5%, thereby reducing our sulfur oxide (SOx) emissions.

INPUT (Aircraft)				OUTPUT			
	FY2018	FY2019	FY2020		FY2018	FY2019	FY2020
	(KL)				(Thousands of tons)		
Jet fuel	322,673	506,459	666,878	CO₂ emissions	803	1,247	1,642



Note: The above does not include the amounts of LNG fuel use and CO₂ emissions for NYK and its Group companies in Japan and overseas. (Reference) Input: 186,000 tons; output: 510,000 tons

Offices Input indicates resources and energy we have used.

NYK Headquarters

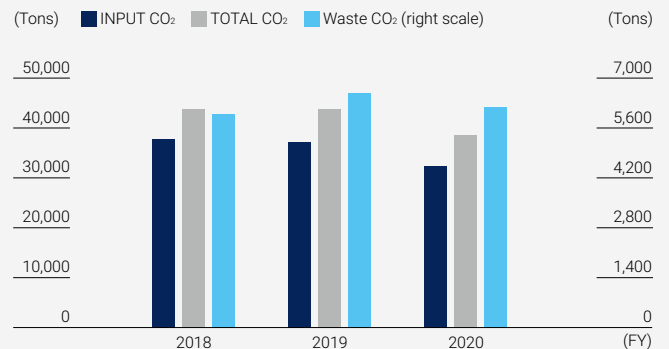
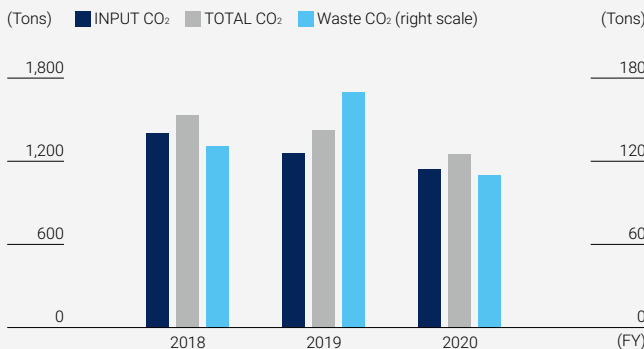
INPUT				OUTPUT			
	FY2018	FY2019	FY2020		FY2018	FY2019	FY2020
	(1,000 kWh)				(Tons)		
Electricity	2,353	2,194	1,960	Ordinary waste	40	52	33
	(KL)			Industrial waste	4	5	4
Heavy oil A	0	0	0	Recycling	103	83	50
Heavy oil B and C	0	0	0	Waste CO ₂ emissions	131	170	110
Diesel	0	0	0	INPUT CO ₂ emissions	1,405	1,256	1,144
Kerosene	0	0	0	TOTAL CO ₂ emissions	1,536	1,426	1,254
Gasoline	15	12	8				
	(1,000 m ³)						
LPG	0	0	0				
City gas	21	20	11				
	(Tons)						
Steam	1,352	1,028	1,352				
	(MJ)						
Heated water	0	0	0				
Cooled water	0	0	0				
	(1,000 m ³)						
Water supplied by utilities	17	15	10				
	(Tons)						
Paper	20	18	7				
	(Tons)						

Note 1: Electricity consumption includes shared spaces with tenants in the headquarters building.
 Note 2: CO₂ emission volume from electric power consumption for fiscal 2020 has been calculated using the coefficient of 0.457 kg-CO₂/kWh (actual figure for 2019) for TEPCO Energy Partner, Incorporated (formerly, Tokyo Electric Power Company, Incorporated).
 Note 3: The waste volume recycling rate was 57%.
 Note 4: Input CO₂ emissions are CO₂ emissions created by input items.

Group Companies in Japan

INPUT				OUTPUT			
	FY2018	FY2019	FY2020		FY2018	FY2019	FY2020
	(1,000 kWh)				(Tons)		
Electricity	49,292	51,930	47,007	Ordinary waste	939	957	765
	(KL)			Industrial waste	1,211	1,426	1,495
Heavy oil A	9	9	7	Recycling	314	317	244
Heavy oil B and C	0	0	0	Waste CO ₂ emissions	5,981	6,594	6,194
Diesel	4,624	4,415	4,145	INPUT CO ₂ emissions	37,785	37,213	32,387
Kerosene	50	47	48	TOTAL CO ₂ emissions	43,766	43,807	38,581
Gasoline	615	579	477				
	(1,000 m ³)						
LPG	51	71	62				
City gas	377	317	261				
	(Tons)						
Steam	222	134	174				
	(MJ)						
Heated water	1,519	2,048	95,211				
Cooled water	163,121	115,012	627,758				
	(1,000 m ³)						
Water supplied by utilities	218	123	103				
	(Tons)						
Paper	457	420	362				
	(Tons)						

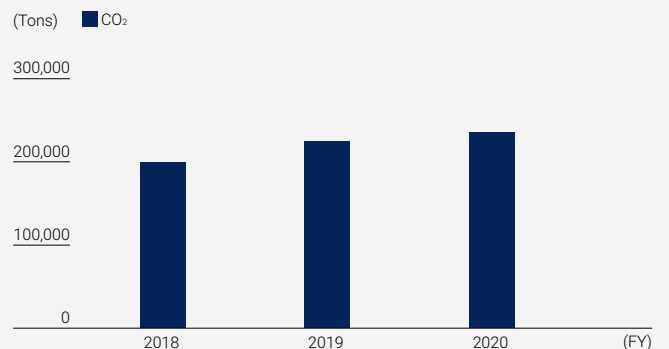
Note 1: CO₂ emission volume from electric power consumption for fiscal 2020 has been calculated using the coefficients for each electricity provider (actual figures for 2019) published by Japan's Ministry of the Environment.
 Note 2: Figures are for consolidated subsidiaries.
 Note 3: Input CO₂ emissions are CO₂ emissions created by input items.



Overseas Group Companies

INPUT				OUTPUT			
	FY2018	FY2019	FY2020		FY2018	FY2019	FY2020
	(1,000 kWh)				(Tons)		
Electricity	55,866	60,793	68,552	CO ₂ emissions	199,471	224,465	235,100
	(KL)						
Gasoline	42,278	26,344	48,703				
Diesel	21,050	48,520	27,372				
	(Tons)						
LPG	616	588	314				
	(1,000 Nm ³)						
Natural gas	7,137	4,921	9,486				
	(Tons)						

* The Company referred to the Carbon Footprint/ Greenhouse Gas (GHG) Protocol for conversion coefficients used in the calculation of CO₂ emission volumes from electric power consumption.
 * Figures are for consolidated subsidiaries.



The NYK Group annually reviews its environmental results to promote responsible environmental protection in its business activities and to accurately track costs associated with environmental activities.

In fiscal 2020, we completed construction of Sakura Leader, Japan's first LNG-fueled vessel. We continue to take other measures to prevent global warming and air pollution, such as installing SOx scrubbers and so forth.

Comparison of All Costs and Results Related to Environmental Activities

		(Millions of yen)	
		FY2019	FY2020
Prevention of global warming and air pollution, conservation of marine environments, conservation of resources, and deployment of environmental technologies	Environmental protection costs	13,679	13,744
	Year-on-year savings	396	1,687

NYK's In-House Classifications

			(Millions of yen)
Environmental policies	Objectives	Items	Environmental protection costs
1. Continuous improvement	Maintenance of environmental management systems	Construction, operation, ISO certification (including personnel costs)	114
2. Compliance	Restorative work in response to environmental degradation	Restorative work in response to marine pollution, etc.	0
3. Safe operations	Reduction of accidents and trouble	NAV9000 and other safety promotion activities (including personnel costs)	157
4. Prevention of global warming and air pollution, protection of ocean environments, conservation of natural resources	Prevention of global warming and air pollution	Use of fuel additives to improve combustion, activities to reduce ship fuel consumption, propeller polishing, etc.	382
	Prevention of marine pollution	Use of corrosion-resistant steel in VLCC cargo tanks, etc.	0
	Conservation of natural resources	Environmentally conscious purchases*1	0
5. Use of environment-friendly technologies	Prevention of global warming and air pollution	Installation of electronically controlled engines, installation of LNG-fueled propulsion systems and other energy-saving devices, low-sulfur fuel measures, etc.	8,664
	Prevention of destruction of the ozone layer	Ship air-conditioners, refrigerators and freezers, etc.	0
	Prevention of marine pollution	Ballast water management systems and the NYK bilge treatment system, etc.	3,547
	R&D expenses	Smart fleet operations, technology to reduce the CO ₂ and NOx emissions of large main engines in vessels	856
6. Environmental education	Greater environmental awareness and promotion of our Green Policy	Environmental e-learning, environmental protection campaigns, etc.	1
7. Community activities to promote environmental awareness	Environmental information disclosure, social contributions, etc.	Expenses for NYK Report, sponsorship of environmental organizations, etc.	21
Total			13,744

*1 The Company uses FSCR-certified paper, but the price difference is not substantial and is thus recorded as zero.

Classification According to the Environmental Accounting Guidelines of the Ministry of the Environment

			(Millions of yen)
Environmental protection costs	Investments	Expenses	
(1) Costs within NYK business activities:			
a. Pollution prevention costs	9,495	5	
b. Global environmental protection costs	2,734	360	
c. Recycling costs	0	0	
(2) Upstream and downstream costs			
	0	0	
(3) Management activity costs:			
a. Operation and maintenance of environmental management systems	0	272	
b. Environmental information disclosure, environmental advertising	0	19	
c. Environmental education and training	0	2	
d. Expenses for environmental improvement	0	0	
(4) R&D costs:			
Environmental-burden reduction	0	856	
(5) Social contribution activities costs:			
Social contribution activities	0	2	
(6) Environmental damage response costs			
	0	0	
Total	12,229	1,515	

Calculation methodology:

- The period is from April 1, 2020 to March 31, 2021. (The calculation period for activities to reduce ship fuel consumption is from January 1, 2020 to December 31, 2020.)
- The scope is primarily business activities associated with NYK's headquarters and branch offices, NYK-operated terminals, fleet, and ancillary activities in Japan. (Expenses to maintain ISO 14001 certification are included for certified Group companies in North America, Europe, South Asia, and East Asia.)
- The Ministry of the Environment's fiscal 2005 Environmental Accounting Guidelines were used.
- Investment amounts refer to costs for depreciable environment-related facilities acquired during the term.
- Expenses include maintenance and management of facilities for the purpose of environmental protection and associated personnel costs, but do not include depreciation.
- Results are noted only to the extent that impacts can be quantified.

Use of Proceeds and Environmental Improvements from the Issue of Unsecured Corporate Bonds No. 40 (NYK Green Bonds)

Fund Allocation Report (All proceeds of the bond has been allocated in October 2020.)

- Allocated to LNG-related investments (LNG-fueled vessels, LNG bunkering vessels): ¥8.6 billion
- Allocated to regulation compliance-related investments (scrubbers, ballast water management systems): ¥1.4 billion
- Refinancing ratio related to the above: 24%

Impact Report	FY2018	FY2019
1. LNG-fueled vessels	1 ship	2 ships
• GHG emissions	35,730 mt per ship per year	
• GHG reduction rate		21%
• CO ₂ reduction rate		30%
• NOx reduction rate		30%
• SOx reduction rate		99%
2. LNG bunkering vessels	1 ship	1 ship
• GHG emissions	3,647 mt per ship per year	
• GHG reduction rate		15%
• CO ₂ reduction rate		30%
• NOx reduction rate		76%
• SOx reduction rate		99%
3. BWMS	1 ship	2 ships
• Volume managed	348,000 mt per ship per year	
4. SOx scrubbers	-	9 ships
• SOx reduction rate		86% per ship

* The target period of the Impact Report covers the fiscal year under review (one-year period from April 1, 2019 to March 31, 2020).

* The number of vessels refers to the cumulative number of vessels funded during the period from the issuance of corporate bonds to the fiscal year under review, however, incomplete vessels are not included.

* Environmental improvement effect is a theoretical value that uses an annual impact estimation model with the consent of third-party organization Vigeo Eiris.

* Figures for GHG emissions and GHG reduction rates take into account methane gas emissions.

* LNG-fueled vessels do not transport products related to "controversial activities" as defined by Vigeo Eiris.

NYK Group (Includes NYK Headquarters) As of the end of each company's fiscal year

Employee Demographics Number of employees of consolidated companies (long-term employees, employees on contracts for more than six months)

		FY2018	FY2019	FY2020	
Total number of employees (a)		35,711	34,857	35,057	
By region	Japan	7,968	7,753	7,932	
	Europe	7,029	7,412	7,957	
	South Asia	13,763	12,934	12,650	
	North America	2,106	1,987	1,964	
	East Asia	3,352	3,303	3,207	
	Oceania	363	311	205	
	Central and South America	1,130	1,157	1,142	
Number of employees promoted to director by region*1	Japan	Men	264	230	176
		Women	4	4	6
	Europe	Men	55	68	84
		Women	8	5	18
	South Asia	Men	112	83	119
		Women	17	14	5
	North America	Men	28	24	23
		Women	1	2	2
	East Asia	Men	27	25	21
		Women	1	4	0
	Oceania	Men	7	5	6
		Women	0	0	0
	Central and South America	Men	6	12	5
		Women	0	3	1

*1 National staff hired locally. Excludes employees seconded from headquarters and other organizations

		FY2018	FY2019	FY2020	
Ratio of management by region and gender (%)*1	Japan	Men	89.4	89.9	91.5
		Women	10.6	10.1	8.5
	Europe	Men	79.1	72.8	73.6
		Women	20.9	27.2	26.4
	South Asia	Men	67.6	66.2	60.6
		Women	32.4	33.8	39.4
	North America	Men	67.9	64.6	66.3
		Women	32.1	35.4	33.7
	East Asia	Men	63.9	63.0	62.9
		Women	36.1	37.0	37.1
	Oceania	Men	87.7	93.0	86.0
		Women	12.3	7.0	14.0
	Central and South America	Men	72.1	72.7	69.2
		Women	27.9	27.3	30.8
By gender	Men	23,688	22,265	22,436	
	Women	12,023	12,592	12,621	
By job type	Office workers*2	34,692	33,976	34,185	
	Seafarers*3	1,019	881	872	
New hires	Total	6,997	5,170	3,889	
	Men	4,508	3,305	2,452	
	Women	2,489	1,865	1,437	
Ratio of voluntary resignations (%)		–	10.4	12.2	

*1 National staff who are managers or higher. Includes employees seconded from headquarters and other organizations

2 Includes navigation officers and engineers at office locations as well as employees seconded from Group companies

*3 Excludes non-Japanese seafarers

Note: Navigation officers and engineers either hold a seafaring license or are in the process of acquiring one at a maritime college.

Employee Diversity

		FY2018	FY2019	FY2020
Number of non-Japanese seafarers	Total (b)	18,055	17,742	17,254
	Vessels under Group management	6,879	6,434	6,166
	Chartered vessels	11,176	11,308	11,088
Ratio of women employees (%)		34.6	37.0	37.0
Ratio of women managers (%)*1		23.8	25.0	25.0

*1 Managers or higher

Number of Group Employees (Including Non-Japanese Seafarers)

	FY2018	FY2019	FY2020
Total (a + b)	53,766	52,599	52,311

Occupational Health and Safety

	FY2018	FY2019	FY2020
Lost time injury (LTI) rate (%)	–	1.55	2.22
Number of work-related deaths	11	5	4
Mortality rate (%)	0.03	0.01	0.01

Calculation method: (Number of work-related accidents requiring leave) / (Total working hours) x 1,000,000
Total working hours are calculated as 2,000 hours per person.

 **NYK Headquarters**
Employee Demographics

		FY2018	FY2019	FY2020	
Total number of employees		1,732	1,774	1,788	
By gender	Men	1,410	1,450	1,465	
	Women	322	324	323	
Long-term employees	Office workers (excludes navigation officers and engineers at office locations)	Men	758	767	759
		Women	265	265	258
	Navigation officers and engineers	Men	566	574	575
		Women	19	19	19
Fixed-term employees	Office workers	Men	74	93	120
		Women	38	32	38
	Seafarers	Men	12	12	8
		Women	0	0	0
Non-fixed-term employees*1	Office workers	Men	—	4	3
		Women	—	8	8
	Seafarers	Men	—	0	0
		Women	—	0	0
Long-term employees and fixed-term employees*2		1,135	1,169	1,186	
Navigation officers and engineers		597	605	602	
Average age (years old)*3	Office workers (excludes navigation officers and engineers at office locations)	40.9	41.5	41.3	
	Navigation officers and engineers	37.9	38.4	38.6	
Age range*3	Office workers (excludes navigation officers and engineers at office locations)	Under 30	211	217	207
		30–49	516	496	495
		50 and older	296	319	315
	Navigation officers and engineers	Under 30	141	140	139
		30–49	364	354	347
		50 and older	80	99	108
Total		53	61	54	
New hires*4	Office workers (excludes navigation officers and engineers at office locations)	Men	22	29	25
		Women	6	7	7
	Navigation officers and engineers	Men	24	24	20
		Women	1	1	2
Rate of turnover within three years after hire (%)*5	Office workers (excludes navigation officers and engineers at office locations)	0.9	1.0	0.0	
	Navigation officers and engineers	1.2	7.8	5.6	
Ratio of voluntary resignations (%)*6		0.8	1.5	1.0	
Turnover rate at NYK (%)*7		3.7	3.8	4.2	

*1 Employees who converted to employment contracts with no fixed period

*2 Long-term employees + fixed-term employees + non-fixed-term employees for fiscal 2019 and beyond

*3 Excludes fixed-term employees

*4 New graduates and mid-career hires

*5 Calculation method: Number of new graduates and mid-career employees hired in the previous three years who resigned in each fiscal year / Number of new graduates and mid-career employees hired in the previous three years

*6 Calculation method: Number of employees who resigned at their own request in each fiscal year / Total number of long-term employees at the end of each fiscal year

*7 Calculation method: Number of employees who resigned in each fiscal year / Total number of long-term employees at the end of each fiscal year

Employee Diversity

		FY2018	FY2019	FY2020
Ratio of women employees (%)	Office workers (Includes navigation officers and engineers at office locations)	21.2	20.9	20.4
	Seafarers	2.9	2.9	3.5
Ratio of women managers (%)*1 (a)	Office workers (Includes navigation officers and engineers at office locations)	18.0	17.1	16.6
	Seafarers	0.0	0.0	0.0
Ratio of women managers to the total number of women employees (long-term) (%)*1 (b)		13.0	12.7	13.0
Employment ratio of people with disabilities (%)		2.4	2.2	2.0

*1 Office workers include employees at manager level or higher. Seafarers include captains and chief engineers.

Calculation method: (a) Women managers / Total managers; (b) Women managers / Total number of women employees (long-term)

Occupational Health and Safety (Includes Fixed-Term Employees)

		FY2018	FY2019	FY2020
Number of occupational accidents*1	Total	0	1	2
	Office workers (includes navigation officers and engineers at office locations)	0	0	0
	Seafarers	0	1	2
Lost time injury (LTI) rate (%)*2		0.00	0.44	0.00
Number of work-related deaths	Total	0	0	0
	Office workers (includes navigation officers and engineers at office locations)	0	0	0
	Seafarers	0	0	0
Number of lost days caused by occupational accidents	Total	0	89	0
	Office workers (includes navigation officers and engineers at office locations)	0	0	0
	Seafarers	0	89	0

*1 Excludes commuting accidents

2 Employees working at headquarters, including navigation officers and engineers who are working at office locations, seconded employees from Group companies, and contractors for business consignment, etc.
Calculation method: (Number of work-related accidents requiring leave) / (Total working hours) × 1,000,000

* Engineers refer to those holding a diploma in marine engineering or those attending a technical college or institute to acquire such a diploma.

Employee Support Systems

		FY2018	FY2019	FY2020
Average number of days of paid leave taken*1		17.0	17.2	15.4
Number of employees who took maternity leave*2		21	14	8
Number of employees who used parental leave program*2	Total	52	60	49
	Men	15	28	25
	Women	37	32	24
Ratio of employees who returned to work after taking parental leave (%)		93.8 (Number of employees who left the Company: 1)	100.0	100.0
Retention rate of employees who used parental leave program (%)		100.0	93.8 (Number of employees who left the Company: 1)	100.0
Number of employees who used shortened working-hour program*2	Total	22	25	21
	Men	0	1	1
	Women	22	24	20
Number of working mothers*3		56	61	71
Number of employees who used family-care leave program*2	Total	1	0	0
	Men	0	0	0
	Women	1	0	0
Ratio of employees who returned to work after taking family-care leave (%)		100.0	100.0	100.0
Retention rate of employees who used family-care leave program (%)		100.0	100.0	100.0

*1 Excludes seafarers and employees currently seconded to other companies / Includes paid summer holidays

*2 Total number of users, excluding those who left the Company

*3 Mothers with children in compulsory education or younger / Excludes mothers on maternity or parental leave

Education

		FY2018	FY2019	FY2020
Average number of hours employees participated in training programs	Company average	77.4	67.4	43.0
	Office workers*1 (includes navigation officers and engineers at office locations)	34.9	30.3	17.2
	Seafarers	237.6	210.7	142.1
Average expenditure on educational and training programs (yen)	Company average	271,137	255,107	177,610
	Office workers*2 (includes navigation officers and engineers at office locations)	131,334	140,304	85,021
	Seafarers	798,241	697,821	533,995

*1 Excludes workers trained outside the Company

*2 Programs for office workers trained inside or outside the Company