

Contents	Corporate direction	Environmental	Social	Governance	<b>Data</b>
Corporate overview	Environmental data	Social data	Governance data	Editorial policy	

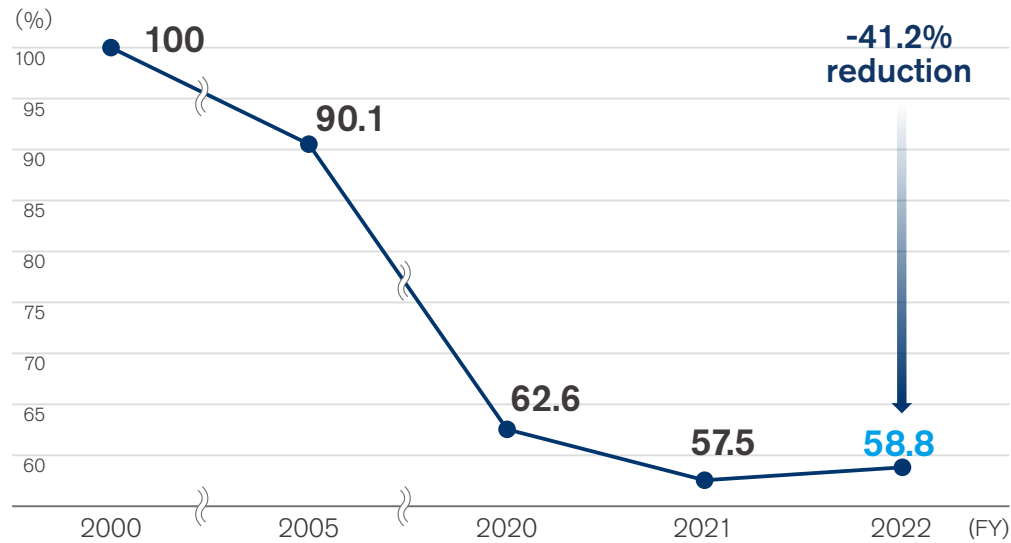
# Environmental data

- Climate change (Products) ..... 143
- Climate change (Corporate Activities) ..... 147
- Air quality ..... 152
- Resource dependency: Achievements in reuse ..... 153
- Resource dependency (Facility Waste) ..... 154
- Water resource management ..... 155
- Strengthening our business foundations to  
Address environmental issues ..... 157
- Material balance ..... 158
- Environmental conservation cost ..... 158

## Climate change (Products)

### CO<sub>2</sub> emissions from new vehicles (Global)

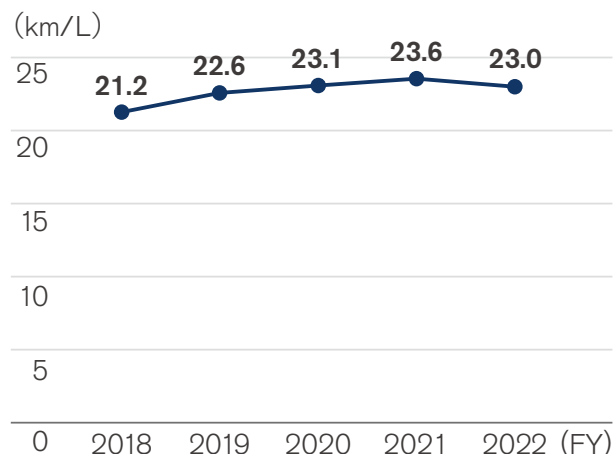
In fiscal 2022, CO<sub>2</sub> emissions in Nissan's main markets of Japan, the U.S., Europe, and China were 41.2% lower than fiscal 2000 levels, as measured by Corporate Average Fuel Economy (CAFE), and NGP's original goal of 40% reduction was achieved one year ahead of schedule.\*1



\*1 Reduction in CO<sub>2</sub> emissions calculated by Nissan.

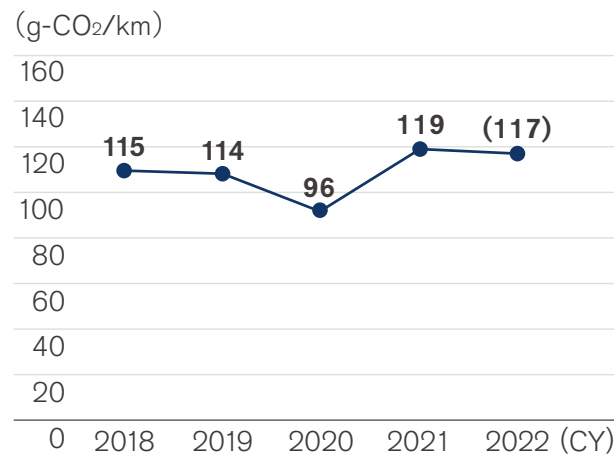
Contents	Corporate direction	Environmental	Social	Governance	Data
Corporate overview	Environmental data	Social data	Governance data	Editorial policy	

### Corporate average fuel economy (CAFE, JC08/WLTC Mode) in Japan



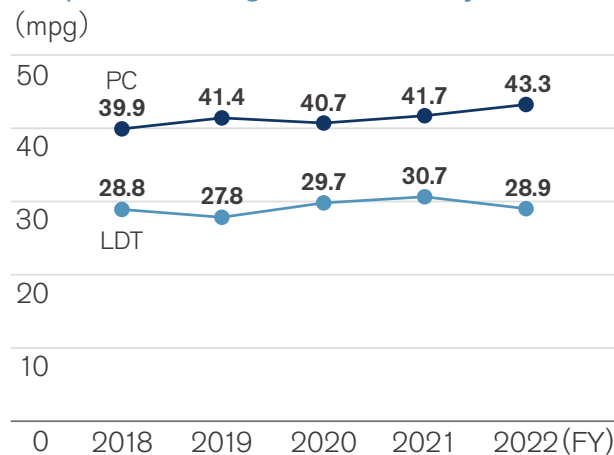
In fiscal 2022, the corporate average fuel economy\*1 in Japan was 23.0 km/L. The reason of slight deterioration is the increase of WLTC mode evaluation vehicles.

### CO<sub>2</sub> emission index from Nissan vehicles in Europe



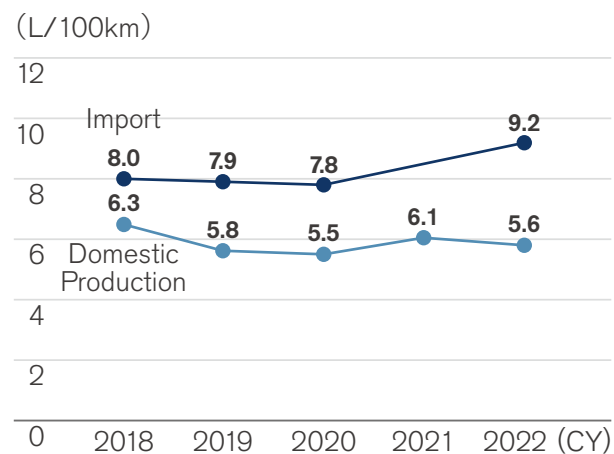
In 2021 and beyond, average vehicle CO<sub>2</sub> emissions in Europe are exacerbated by the change in evaluation mode from NEDC to WLTP, but the CO<sub>2</sub> value is considered to be almost the same as 2020 in the same NEDC mode.\*2

### Corporate average fuel economy (CAFE) in the United States



In fiscal 2022, the corporate average fuel economy (CAFE) of Nissan's passenger cars in the US was 43.3 mpg, a 3.8% improvement over fiscal 2021 by switching to a new downsized turbo engine. In the light-duty truck segment, the CAFE was exacerbated 5.9% to 28.9 mpg by effect of sales model mix.

### Corporate average fuel consumption in China



In 2022, average fuel consumption of domestic production models\*3 in China was improved by approximately 8% due to increase of EV sales. (The figure of import car in 2022 is from 627 units' low-volume model)

\*1 Provisional values calculated in-house; some models include WLTC mode fuel consumption values.

\*2 Official figures for 2022 have not been published yet, so it is shown by provisional values.

\*3 No data due to no import car sales in 2021.

Contents	Corporate direction	Environmental	Social	Governance	Data
Corporate overview	Environmental data		Social data	Governance data	Editorial policy

## Revenue, global sales volume and production volume data

(¥ billion)

	FY2021	FY2022
Revenue*1	9,743.3	11,811.8

(k unit)

	FY2021	FY2022
Global Sales Volume*2	3,876	3,305
Japan	428	454
North America	1,183	1,023
Europe	340	308
Asia	1,572	1,201
Other	353	318

(k unit)

	FY2021	FY2022
Global Production Volume*2	3,404	3,381
Japan	446	597
North America*3	930	992
Europe*4	276	288
Asia*5	1,646	1,378
Other*6	105	125

In Japan, where customers' interest in electrified vehicles is relatively high, e-POWER models account for 36.5% of total shipments in Japan. Combined with electric and hybrid vehicles, entire electrified vehicles account for 60%, almost two-thirds of the total. This trend is expected to continue, given the strong sales of the new Nissan Sakura Kei-EV, which went on sale in fiscal 2022. We see this as a situation where more sustainable product lines are becoming the core of Nissan's business in pursuit of environmental values.

### Powertrain type ratios (Shipment-based)

	Unit	Gasoline-powered vehicles	Diesel-powered vehicles	e-POWER vehicles	Electric vehicles	Hybrid drive vehicles	Natural-gas drive vehicles
Japan	%	29.2	0.3	36.5	11.7	22.2	0.1
North America	%	97.6	0.3	0.3	1.8	0.0	0.0
Europe	%	29.4	3.5	15.4	11.6	40.1	0.0
Asia	%	91.2	3.5	2.8	1.7	0.8	0.0
Other	%	80.8	15.0	0.9	0.2	3.0	0.0
Global	%	77.6	3.2	7.8	3.9	7.5	0.0

\*1 Management pro-forma basis (includes Chinese joint ventures in proportionate consolidation).

\*2 Global sales volume and global production volume for China and Taiwan consider values from January to December.

\*3 Production in the U.S. and Mexico.

\*4 Production in the U.K. and France.

\*5 Production in Taiwan, Thailand, China and India.

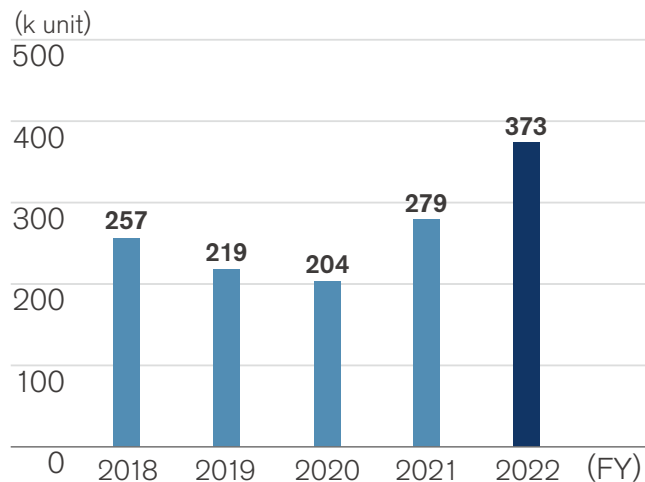
\*6 Production in South Africa, Brazil, Egypt and Argentina.

Contents	Corporate direction	Environmental	Social	Governance	<b>Data</b>
Corporate overview	Environmental data		Social data	Governance data	Editorial policy

## EVs

In fiscal 2022, EV sales volume increased thanks to strong sales of the new Sakura and Ariya, e-POWER sales increased due to the effects of the new Qashqai and the new X-Trail. \*1

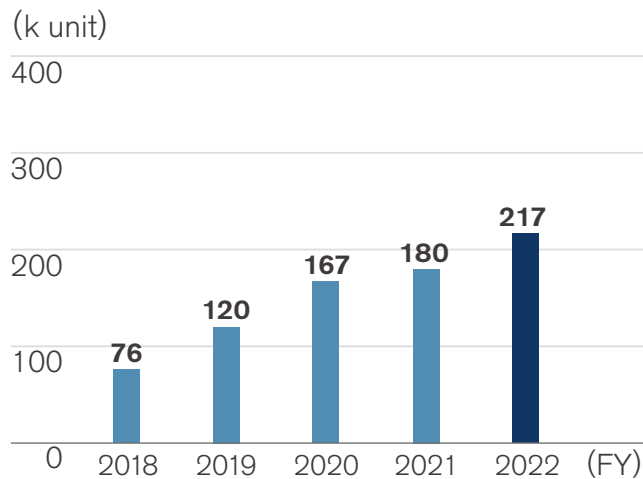
### 100% EV and e-POWER vehicle sales



## Hybrid electric vehicles

In fiscal 2022, vehicle numbers increased due to the launch of the all-new Juke and Qashqai in Europe.

### Hybrid vehicle sales \*2



\*1 There have been changes in historical figures due to the recalculation of sales volume.

\*2 There have been changes in historical figures due to the change in the counting method from the number of units shipped to the number of units sold.

Contents	Corporate direction	Environmental	Social	Governance	<b>Data</b>
Corporate overview	Environmental data		Social data	Governance data	Editorial policy

## Climate change (Corporate activities)

### Energy input

(FY)

	Unit	2019	2020	2021	2022
Total	MWh	8,313,893	7,655,514	7,495,492	7,195,408
By region					
Japan	MWh	3,438,939	3,015,419	3,149,380	3,166,269
North America	MWh	2,180,450	1,909,902	1,982,066	2,016,313
Europe	MWh	913,521	888,089	650,003	676,897
Other	MWh	1,780,983	1,842,105	1,714,043	1,335,929
By energy source					
Primary					
Natural gas	MWh	3,079,723	3,089,803	2,907,420	2,828,289
LPG	MWh	175,559	144,478	145,717	130,508
Coke	MWh	154,961	100,144	112,154	119,767
Heating oil	MWh	90,078	69,618	69,868	58,579
Gasoline	MWh	243,166	184,021	177,147	120,565
Diesel	MWh	23,246	25,315	23,800	26,016
Heavy oil	MWh	16,303	22,816	22,383	9,767

(FY)

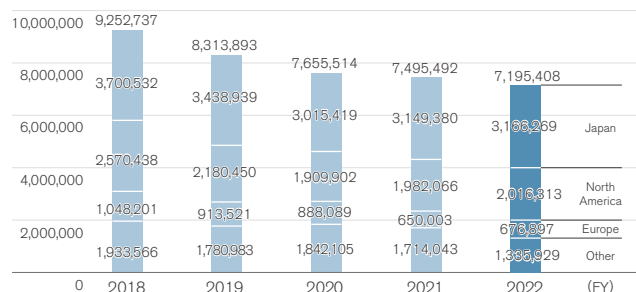
	Unit	2019	2020	2021	2022
External					
Electricity (purchased)	MWh	4,384,282	3,851,011	3,859,586*3	3,737,002
Renewable energy*1	MWh	123,225	181,815	229,754	275,807
Chilled water	MWh	5,086	3,530	3,598	3,929
Steam	MWh	125,662	96,960	114,506	125,761
Internal					
Electricity (in-house generation)	MWh	43,668	65,183	59,313	35,226
Renewable energy*2	MWh	43,668	65,183	59,313	35,226
Total renewable energy	MWh	166,893	246,998	289,067	311,033

### Trend in energy consumption

The total energy consumption of our global corporate activities during fiscal 2022 was 7,195 thousand MWh, a 4% decrease from 7,495 thousand MWh in fiscal 2021.

The total energy consumption from manufacturing processes during fiscal 2022 was 6,462 thousand MWh ★, a decrease from 6,875 thousand MWh in fiscal 2021.

(MWh)

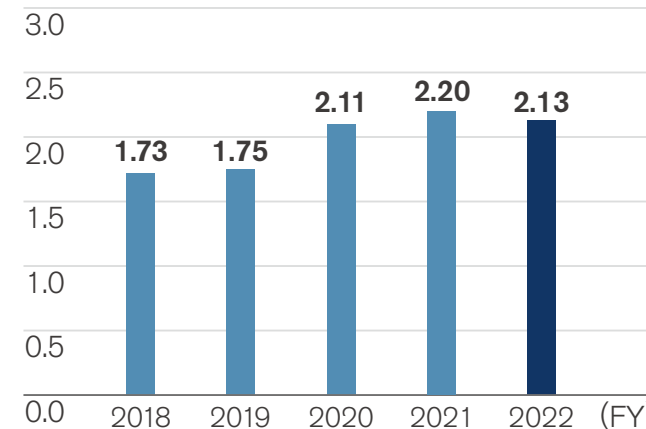


### Energy per vehicle produced

In fiscal 2022, energy per vehicle produced was 2.13 MWh reduced by 3.4% compared to fiscal 2021.

Data for the Japan region includes the manufacture of powertrains and other components for overseas assembly. Since the denominator is vehicles produced in the region, this tends to result in higher values for Japan.

(MWh/vehicle)



(FY)

By region	Unit	2022
Japan	MWh/vehicle	5.30
North America	MWh/vehicle	2.03
Europe	MWh/vehicle	2.35
Other	MWh/vehicle	0.89

\*1 Volume of renewable energy in electricity purchased by Nissan.

\*2 Volume of renewable energy generated by Nissan at its facilities and consumed for its own purposes.

\*3 Due to an error in the disclosure of last fiscal year's figures, the figures for fiscal 2021 were revised.

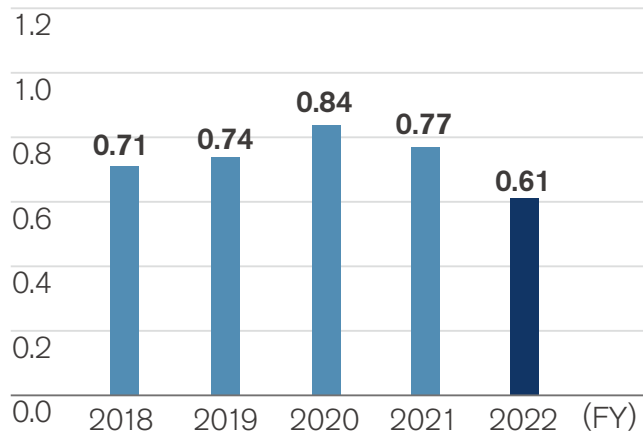
★ This figure is subject to assurance by KPMG AZSA Sustainability Co., Ltd. For details, please see here. [>>> P058](#)

Contents	Corporate direction	Environmental	Social	Governance	Data
Corporate overview	Environmental data	Social data	Governance data	Editorial policy	

## Energy per revenue

In fiscal 2022, global Nissan facilities saw energy per revenue result of 0.61 MWh, decreased by 21% from 2021. We are taking ongoing steps toward decoupling financial capital generation from energy use.

(MWh/million ¥)



## Carbon footprint of corporate activities

In fiscal 2022, the total of Scope 1 and 2 emissions of our global corporate activities was 2,096 thousand tons, a 6% decrease from 2,231 thousand tons in fiscal 2021. Total CO<sub>2</sub> emissions from manufacturing processes were 1,798 thousand tons ★ (Scope 1 emissions: 579 thousand tons ★; Scope 2 emissions: 1,219 thousand tons ★), a decrease from 1,944 thousand tons in fiscal 2021.

## Carbon footprint aligned with financial statements

Nissan has recognized the importance of disclosing carbon footprint in alignment with financial statement and have recalculated the scope.

- Previous scope: Nissan Motor Co., Ltd., consolidated subsidiaries, and part of its affiliates accounted for by the equity method
- New scope: Nissan Motor Co., Ltd. and consolidated subsidiaries

	Unit	2018	2019	2020	2021	2022
Scope 1+2	kt-CO <sub>2</sub>	2,413	2,239	1,769	1,844	1,794

Reference: Data based on the conventional scope

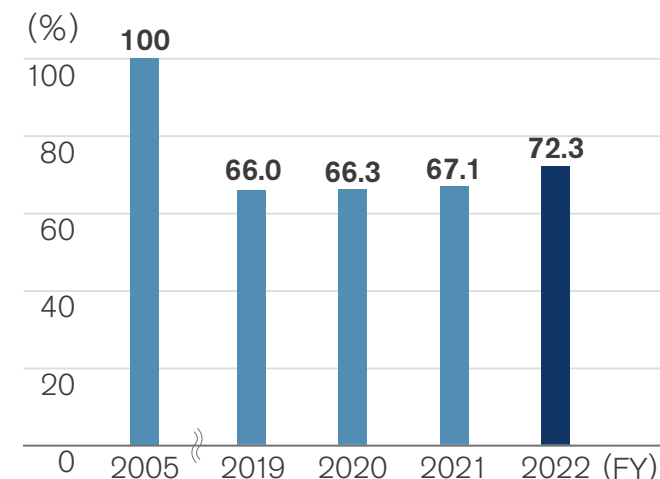
	Unit	2018	2019	2020	2021	2022
Scope 1*1	t-CO <sub>2</sub>	879,534	764,929	746,677	690,155	661,241
Scope 2	t-CO <sub>2</sub>	2,339,883	2,105,700	1,631,551	1,541,276	1,435,081
Scope 1+2*1	t-CO <sub>2</sub>	3,219,417	2,870,630	2,378,228	2,231,430	2,096,322
Japan*1	t-CO <sub>2</sub>	1,198,393	1,138,452	941,493	982,671	978,051
North America	t-CO <sub>2</sub>	738,234	648,754	529,044	507,584	526,414
Europe	t-CO <sub>2</sub>	221,692	163,553	156,442	112,157	105,974
Other	t-CO <sub>2</sub>	1,061,098	919,871	751,250	629,019	485,882
Scope 3	t-CO <sub>2</sub>	203,106,900	173,138,601	135,068,055	127,546,646*2	118,828,370

## Greenhouse gas (GHG) emissions other than energy-derived CO<sub>2</sub>\*3

By type	Unit	2018	2019	2020	2021	2022
CH <sub>4</sub> (methane)	t-CO <sub>2</sub> e	4,846	4,750	4,620	5,088	5,054
N <sub>2</sub> O (nitrous oxide)	t-CO <sub>2</sub> e	1,425	1,334	1,238	1,244	1,071
HFCs (hydrofluorocarbons)	t-CO <sub>2</sub> e	3,594	3,106	1,873	1,320	1,878
PFCs (perfluorocarbons)	t-CO <sub>2</sub> e	0	0	0	0	0
SF <sub>6</sub> (sulfur hexafluoride)	t-CO <sub>2</sub> e	43	43	43	43	43
NF <sub>3</sub> (nitrogen trifluoride)	t-CO <sub>2</sub> e	2	1	1	1	0

## Carbon footprint of manufacturing activities

In fiscal 2022, overall corporate emissions were reduced by 27.7% compared to fiscal 2005.



\*1 The values for the past four years have changed due to the disclosure of greenhouse gases other than CO<sub>2</sub> emissions from energy use as a separate item.

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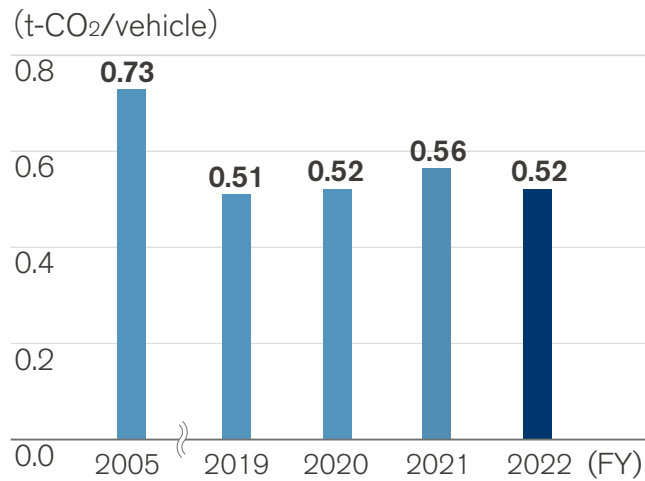
\*2 Among Scope 3 emissions, the values for fiscal 2021 have changed due to a modification in the calculation method for Category 1 and the determination of fuel efficiency values published by the government for Category 11.

\*3 GHG emissions from Nissan Motor Co., Ltd. manufacturing sites calculated based on the Act on Promotion of Global Warming Countermeasures.

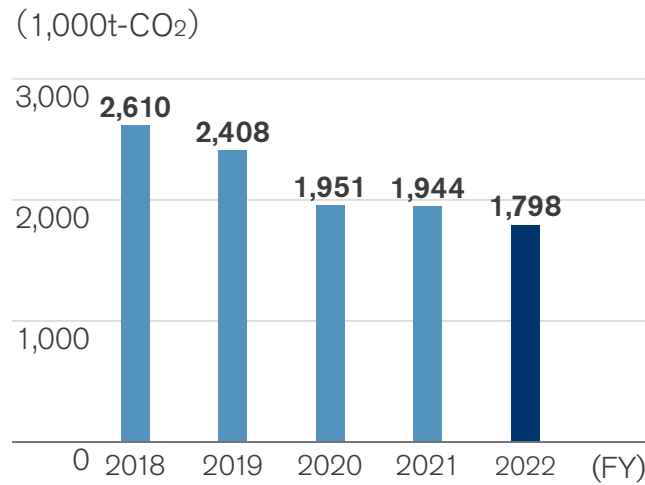
Contents	Corporate direction	Environmental	Social	Governance	<b>Data</b>
Corporate overview	Environmental data		Social data	Governance data	Editorial policy

### Manufacturing CO<sub>2</sub> per vehicle produced

In fiscal 2022, our manufacturing CO<sub>2</sub> emissions per vehicle produced were 0.52 tons, 28.8% less than fiscal 2005.

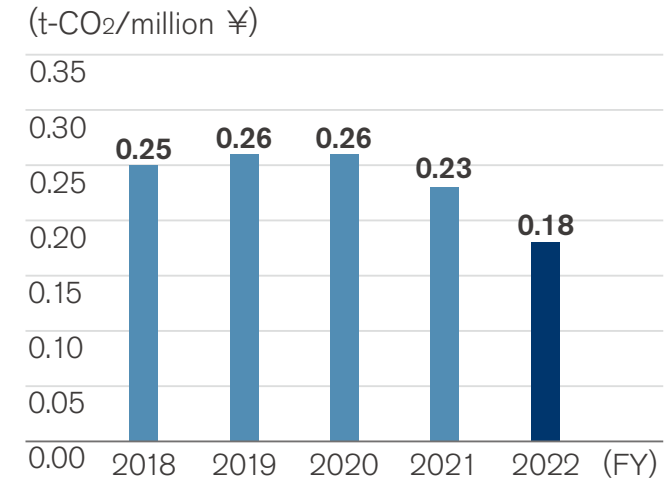


### Carbon footprint of manufacturing activities



### Scope 1 and 2 emissions per revenue

In fiscal 2022, CO<sub>2</sub> emissions from our global operations were 0.18 ton per ¥1 million of revenue.



Contents	Corporate direction	Environmental	Social	Governance	Data
Corporate overview		Environmental data	Social data	Governance data	Editorial policy

## Logistics volume

	Unit	2018	2019	2020	2021	2022
Total	mil ton-km	34,903	28,288	21,168	22,835	25,550
Inbound*1	mil ton-km	10,164	8,083	5,518	7,643	8,782
Outbound*2	mil ton-km	24,739	20,205	15,651	15,192	16,768
Sea	%	60.9	63.8	60.2	61.7	69.5
Road	%	23.3	23.0	25.0	24.1	19.3
Rail	%	14.9	12.7	14.3	13.8	10.9
Air	%	0.9	0.6	0.5	0.4	0.3

In fiscal 2022, global shipping increased by around 12% compared to the previous fiscal year, to 25.6 billion ton-km.

## CO<sub>2</sub> emissions from logistics

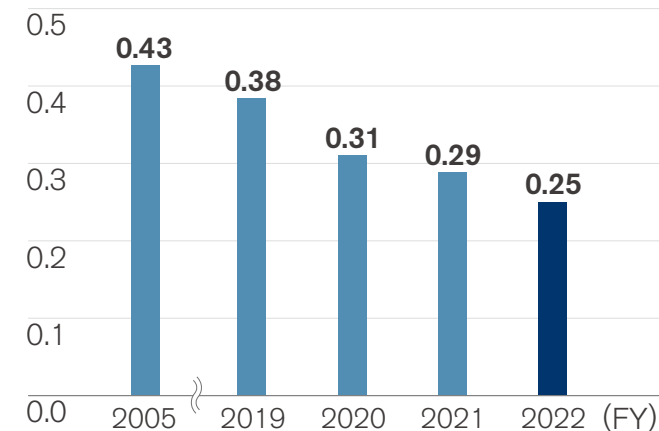
	Unit	2018	2019	2020	2021	2022
Total	t-CO <sub>2</sub>	1,482,982	1,144,338	900,234	874,936	771,102
Inbound*1	t-CO <sub>2</sub>	762,314	582,957	397,822	366,190	316,541
Outbound*2	t-CO <sub>2</sub>	720,667	561,381	502,412	508,746	454,561
Sea	%	19.9	21.1	19.9	20.8	27.7
Road	%	60.3	64.1	66.2	65.6	57.8
Rail	%	6.7	5.9	6.6	7.1	7.1
Air	%	13.1	8.9	7.3	6.5	7.1

In fiscal 2022, CO<sub>2</sub> emissions from logistics were 771 k-tons, down approximately 12% from the previous fiscal year.

## CO<sub>2</sub> emissions per vehicle transported

In fiscal 2022, CO<sub>2</sub> emissions per vehicle transported were 0.25 tons.

(t-CO<sub>2</sub>/vehicle)



\*1 "Inbound" includes parts procurement from suppliers and transportation of knockdown parts.

\*2 "Outbound" includes transportation of complete vehicles and service parts.



Contents	Corporate direction	Environmental	Social	Governance	Data
Corporate overview	Environmental data	Social data	Governance data	Editorial policy	

## Scope 3 emissions by category

We conducted a study based on standards such as the Corporate Value Chain (Scope3) Accounting and Reporting Standard from the GHG Protocol and found that about 90% of our Scope3 emissions were from the use of sold products.

(FY)

Category	Unit	2022
1.Purchased goods & services	kt-CO <sub>2</sub>	11,840★
2.Capital goods	kt-CO <sub>2</sub>	1,066
3.Fuel- and energy-related activities	kt-CO <sub>2</sub>	246
4.Upstream transportation & distribution	kt-CO <sub>2</sub>	768
5.Waste generated in operations	kt-CO <sub>2</sub>	118
6.Business travel	kt-CO <sub>2</sub>	66
7.Employee commuting	kt-CO <sub>2</sub>	134
8.Upstream leased assets	kt-CO <sub>2</sub>	0
9.Downstream transportation & distribution	kt-CO <sub>2</sub>	523
10.Processing of sold products	kt-CO <sub>2</sub>	6
11.Use of sold products	kt-CO <sub>2</sub>	103,391★
12.End-of-life treatment of sold products	kt-CO <sub>2</sub>	253
13.Downstream leased assets	kt-CO <sub>2</sub>	417
14.Franchises	kt-CO <sub>2</sub>	0
15.Investments	kt-CO <sub>2</sub>	0
Total	kt-CO <sub>2</sub>	118,828

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Contents	Corporate direction	Environmental	Social	Governance	Data
Corporate overview	Environmental data	Social data	Governance data	Editorial policy	

## Air quality

### Emissions

In fiscal 2022, NOx and SOx emissions from Nissan manufacturing facilities in Japan were 340 tons and 2 tons.

(FY)

	Unit	2018	2019	2020	2021	2022
NOx	ton	418	380	364	373	340
SOx	ton	34	14	10	7	2

### Volatile organic compounds (VOCs)

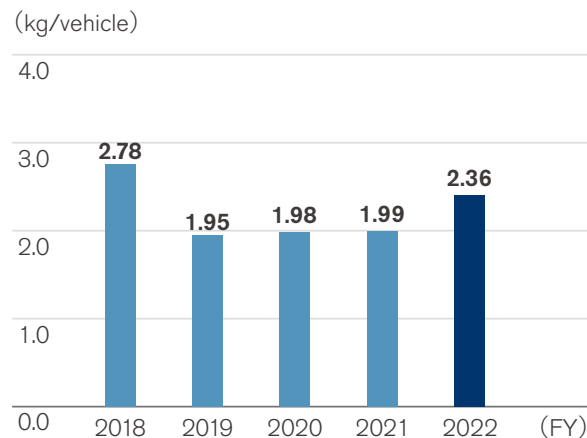
In fiscal 2022, VOC\*1 emissions from manufacturing plants were 7,990 tons globally, an increase from fiscal 2021 owing to a higher number of vehicles manufactured at sites in Japan\*2. We actively continue to promote activities to reduce VOCs, such as switching to materials including water-based paints.

(FY)

	Unit	2018	2019	2020	2021	2022
Total	ton	14,900	9,266	7,186	6,790	7,990
Japan	ton	4,482	4,028	3,107	3,019	3,987
North America	ton	4,474	3,960	3,097	3,112	3,156
Europe	ton	5,945	1,278	982	658	847

### VOCs per vehicle produced

In fiscal 2022, VOCs per vehicle produced were 2.36 kg.



(FY)

By region	Unit	2022
Japan	kg/vehicle	6.68
North America	kg/vehicle	3.18
Europe	kg/vehicle	2.94

### Released substances designated by PRTR Law (Japan)

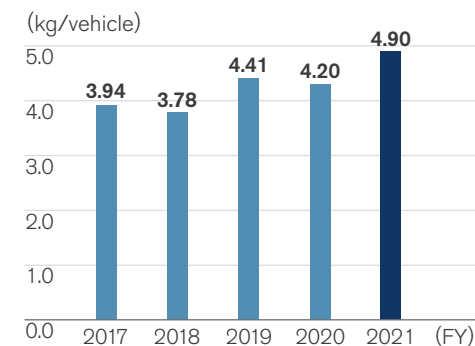
In fiscal 2021, released substances designated by the the PRTR (Pollutant Release and Transfer Register) \*3 Law in Japan were 2,183 tons, the same level as 2,173 ton in fiscal 2020.

(FY)

By region	Unit	2018	2019	2020	2021
Japan site total	ton	3,406	3,339	2,173	2,183
Oppama	ton	715	1,022	697	881
Tochigi	ton	655	467	394	323
Kyushu	ton	1,573	1,391	1,042	942
Yokohama	ton	25	21	9	4
Iwaki	ton	54	62	6	4
NTC	ton	378	351	3	3
Zama Operation Center	ton	7	26	22	26

### PRTR emissions per vehicle produced (Japan)

In fiscal 2021, PRTR emissions per vehicle produced in Japan were 4.90 kg, a increase from fiscal 2020.



\*1 VOC: Organic chemicals that readily evaporate and become gaseous at normal temperature and pressure conditions.

\*2 The transition values for 2018 have been revised due to a change in the aggregation method for VOCs.

\*3 The table shows chemical substance emissions calculated based on the Japanese government PRTR guidelines. PRTR emissions show total volume excluding substances adherent to the product.

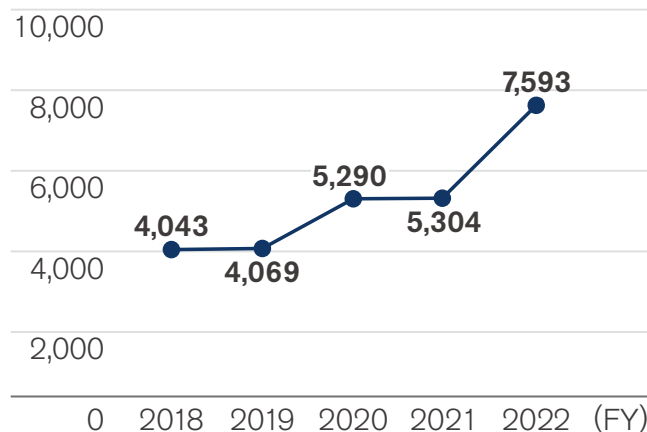
Contents	Corporate direction	Environmental	Social	Governance	<b>Data</b>
Corporate overview	Environmental data	Social data	Governance data	Editorial policy	

## Resource dependency: Achievements in reuse

### Proper use of regulated chemical substances

Nissan revised its standard for the assessment of hazards and risks in the Renault-Nissan Alliance, actively applying restrictions to substances not yet covered by regulations but increasingly subject to consideration around the world. As a result, the number of substances covered by the Nissan Engineering Standard in fiscal 2022 rose to 7,593. These steps are thought to be necessary for future efforts in the repair, reuse, remanufacture, and recycle loop for resources. \*1

(Substances)



## Recycled plastic usage in vehicle

We are making efforts to expand the use of recycled plastic in our vehicles, as well as developing technologies for this. Recycled plastic use in fiscal 2022 was 5%, based on the rate achieved by our best-selling model in Europe.

### Automotive shredder residue to landfill ratio

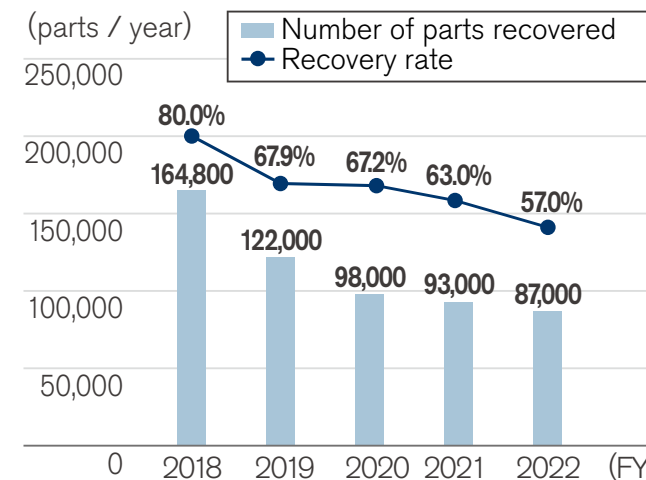
After removing ferrous and nonferrous metals from ELVs, in accordance with the End-of-Life Vehicle Recycling Law in Japan, the ratio of ASR taken to landfills for final disposal was zero in fiscal 2022 as same as 2021's result.

### Material ratio

In 2022, ferrous metals accounted for 61% of the materials used in our automobiles by weight. Nonferrous metals made up another 15% and resins 13%, with miscellaneous materials making up the final 11%. To further reduce our use of natural resources, we are advancing initiatives to expand the use of recycled materials in each of these categories.

## Recovered bumpers

The number of bumpers collected in fiscal 2022 was 87,000, and the recovery rate decreased by 6.0%.



\*1 Click here for more information on chemical substances governance. >>> P051

Contents	Corporate direction	Environmental	Social	Governance	<b>Data</b>
Corporate overview	Environmental data		Social data	Governance data	Editorial policy

## Resource dependency (Facility waste)

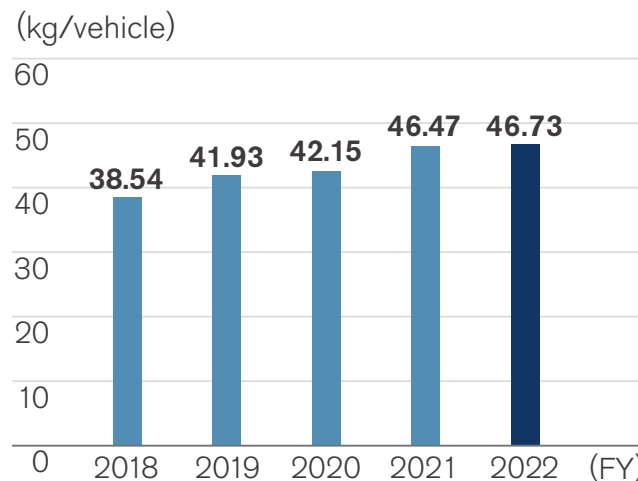
### Waste

Waste generated globally in fiscal 2022 amounted to 157,982 tons, same level as 158,199 tons in fiscal 2021. Waste generated globally from production sites in fiscal 2022 was 149,999 tons★, same level as 150,945 tons in fiscal 2021.

	Unit	2018	2019	2020	2021	2022
Total	ton	206,645	199,470	153,160	158,199	157,982
By region						
Japan	ton	69,829	63,294	48,921	52,386	51,069
North America	ton	64,514	58,970	48,043	51,062	52,007
Europe	ton	49,662	50,205	31,868	33,895	36,577
Other	ton	22,639	27,001	24,328	20,857	18,329
By treatment method						
Waste for disposal	ton	7,231	6,365	6,539	7,208	8,688
Recycled	ton	199,414	193,105	146,621	150,991	149,293

## Waste per vehicle produced

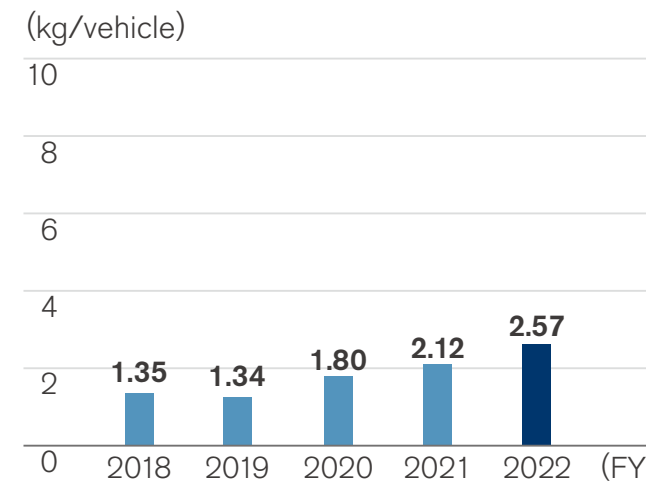
In fiscal 2022, waste per vehicle produced was 46.73 kg same level as fiscal 2021.



By region	Unit	2021	2022
Japan	kg/vehicle	117.46	85.54
North America	kg/vehicle	54.90	52.43
Europe	kg/vehicle	122.81	127.00
Other	kg/vehicle	11.91	12.19

## Waste for disposal per vehicle produced

In fiscal 2022, the volume of waste for disposal was increased to 2.57 kg per vehicle produced.



## Responding to the Plastic Resource Circulation Act

The amount of industrial waste generated from plastic products in fiscal 2022 was 3,567 tons.\*1

Plastic-related targets	FY2022 Achievements
Continue actions to reduce waste emissions of plastic packaging, etc.	Continued to reuse returnable containers
Maintain a 100% recycling rate for industrial waste from products using plastic	Maintained a 100% recycling rate

\*1 Plastic Resource Circulation Act : Law for plastic waste

★ This figure is subject to assurance by KPMG AZSA Sustainability Co., Ltd. For details, please see here. >>> P058

Contents	Corporate direction	Environmental	Social	Governance	Data
Corporate overview	Environmental data	Social data	Governance data	Editorial policy	

## Water resource management

### Water input for corporate activities

In fiscal 2022, water input for our global corporate activities was 20,208 thousand m<sup>3</sup>, same level as 20,090 thousand m<sup>3</sup> in fiscal 2021.

In fiscal 2022, water input from global production sites was 19,065 thousand m<sup>3</sup>★, the same level as 19,495 thousand m<sup>3</sup> in fiscal 2021.

	Unit	2018	2019	2020	2021	2022
Total	thousand m <sup>3</sup>	26,420	23,656	21,159	20,090	20,208

Japan	thousand m <sup>3</sup>	13,022	11,918	10,797	10,317	10,472
North America	thousand m <sup>3</sup>	4,930	4,768	3,888	4,047	4,235
Europe	thousand m <sup>3</sup>	2,093	1,792	1,373	1,404	1,270
Other	thousand m <sup>3</sup>	6,376	5,178	5,101	4,322	4,231

### Water withdrawal by source

	Unit	2022
Total	thousand m <sup>3</sup>	20,208
Surface water	thousand m <sup>3</sup>	1,229
Groundwater	thousand m <sup>3</sup>	6,331
Third-party water	thousand m <sup>3</sup>	12,648

### Water discharge from corporate activities

The total amount of water discharged in global corporate activities in fiscal 2022 was 13,219 thousand m<sup>3</sup>, same level as 13,620 thousand m<sup>3</sup>\*1 in fiscal 2021.

	Unit	2018	2019	2020	2021	2022
Total	thousand m <sup>3</sup>	17,345	15,391	13,624	13,620*1	13,219

Japan	thousand m <sup>3</sup>	10,472	9,496	8,474	8,771	8,902
North America	thousand m <sup>3</sup>	3,190	2,746	2,351	2,565	2,610
Europe	thousand m <sup>3</sup>	1,539	1,389	1,094	707*1	596
Other	thousand m <sup>3</sup>	2,143	1,760	1,705	1,577	1,110

#### Quality

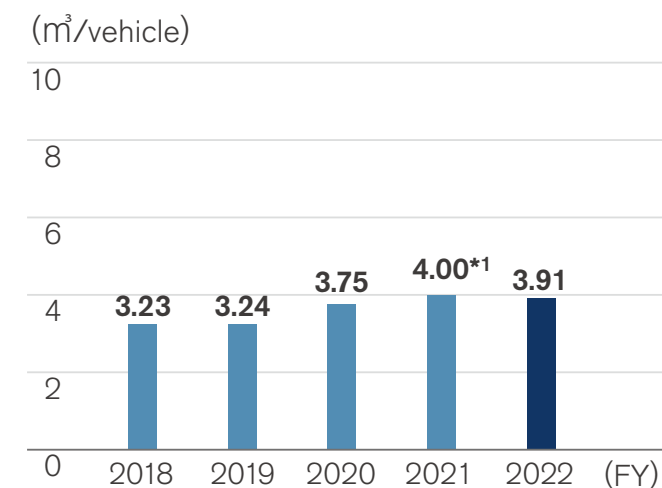
Chemical oxygen demand (COD) Japan only	kg	25,965	22,269	18,017	19,941	24,884
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### Water discharge by destination

	Unit	2022
Total	thousand m <sup>3</sup>	13,219
Surface water	thousand m <sup>3</sup>	8,519
Underground seepage	thousand m <sup>3</sup>	0
Third-party water	thousand m <sup>3</sup>	4,700

### Water discharge from corporate activities (Per vehicle produced)

In fiscal 2022, water discharge per vehicle produced was 3.91 m<sup>3</sup>, same level as 4.00 m<sup>3</sup>\*1 in fiscal 2021.



	Unit	2021	2022
Japan	m <sup>3</sup> /vehicle	19.67	14.91
North America	m <sup>3</sup> /vehicle	2.76	2.63
Europe	m <sup>3</sup> /vehicle	2.56*1	2.07
Other	m <sup>3</sup> /vehicle	0.90	0.74

Data for the Japan region includes the manufacture of powertrains and other components for overseas assembly. Since the denominator is vehicles produced in the region, this tends to result in higher values for Japan.

\*1 Due to an error in the calculation of last fiscal year's figures, the figures for fiscal 2021 were revised.

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Contents	Corporate direction	Environmental	Social	Governance	Data
Corporate overview	Environmental data	Social data	Governance data	Editorial policy	

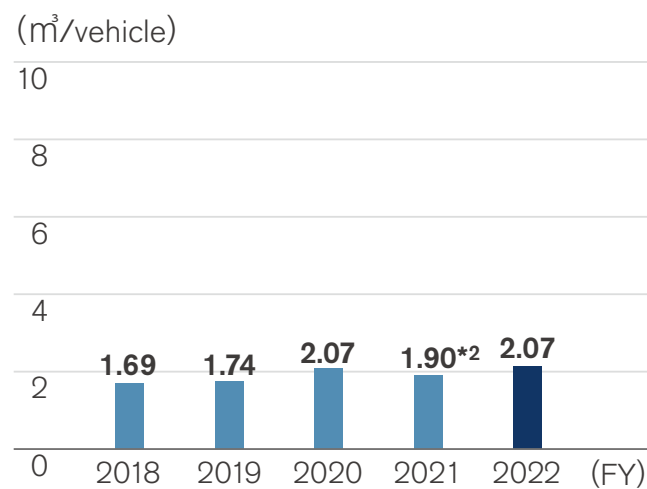
## Water consumption in corporate activities

The total amount of water consumed in global corporate activities in fiscal 2022 was 6,989 thousand m<sup>3</sup>\*1, an increase from 6,470 thousand m<sup>3</sup>\*2 in fiscal 2021.

	Unit	2018	2019	2020	2021	2022
Total	thousand m <sup>3</sup>	9,075	8,265	7,535	6,470*2	6,989
Japan	thousand m <sup>3</sup>	2,550	2,422	2,323	1,546	1,570
North America	thousand m <sup>3</sup>	1,740	2,022	1,537	1,481	1,625
Europe	thousand m <sup>3</sup>	554	403	279	697*2	674
Other	thousand m <sup>3</sup>	4,233	3,418	3,396	2,745	3,121

## Water consumption in corporate activities (Per vehicle produced)

In fiscal 2022, water discharge per vehicle produced was 2.07 m<sup>3</sup>, which was an increase from 1.90 m<sup>3</sup>\*2 in fiscal 2021.



Region	Unit	2021	2022
Japan	m <sup>3</sup> /vehicle	3.47	2.63
North America	m <sup>3</sup> /vehicle	1.59	1.64
Europe	m <sup>3</sup> /vehicle	2.53*2	2.34
Other	m <sup>3</sup> /vehicle	1.57	2.07

\*1 Based on GRI 303, total water consumption is total water withdrawn minus total water discharged as calculated by Nissan.

\*2 Due to an error in the calculation of last fiscal year's figures, the figures for fiscal 2021 were revised.

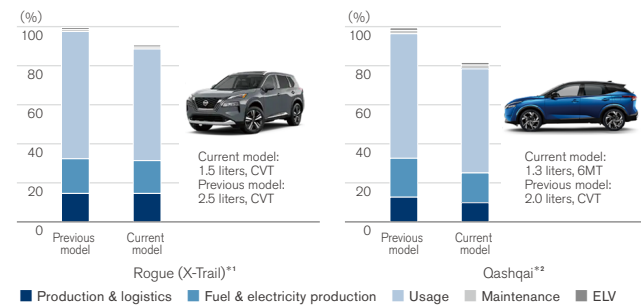
Contents	Corporate direction	Environmental	Social	Governance	Data
Corporate overview	Environmental data	Social data	Governance data	Editorial policy	

## Strengthening our business foundations to address environmental issues

### Global top-selling model's life cycle improvements

We have been expanding the application of the LCA method and enhancing the understanding of the environmental impact of our products in quantitative terms, especially our best-selling models worldwide. Coverage on a unit basis has reached approximately 80% of models globally and approximately 90% in Europe.

### Lifecycle CO<sub>2</sub> equivalent emissions (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, etc.)



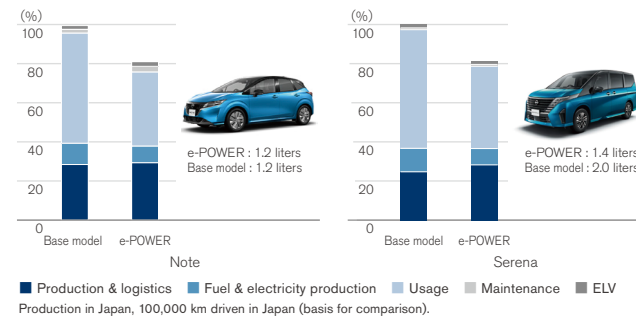
\*\* Production in the U.S., 120,000 miles driven in the U.S. (basis for comparison).

\*\* Production in EU, 150,000 km driven in EU (basis for comparison).

### LCA comparison for e-POWER models

Nissan introduced its new e-POWER powertrain in 2016, marking another significant milestone in the electrification strategy with lifecycle emission improvements. Compared to their gasoline-powered counterpart models, the Note e-POWER and Serena e-POWER have achieved a 18% and 27% reduction in CO<sub>2</sub> emissions, respectively.

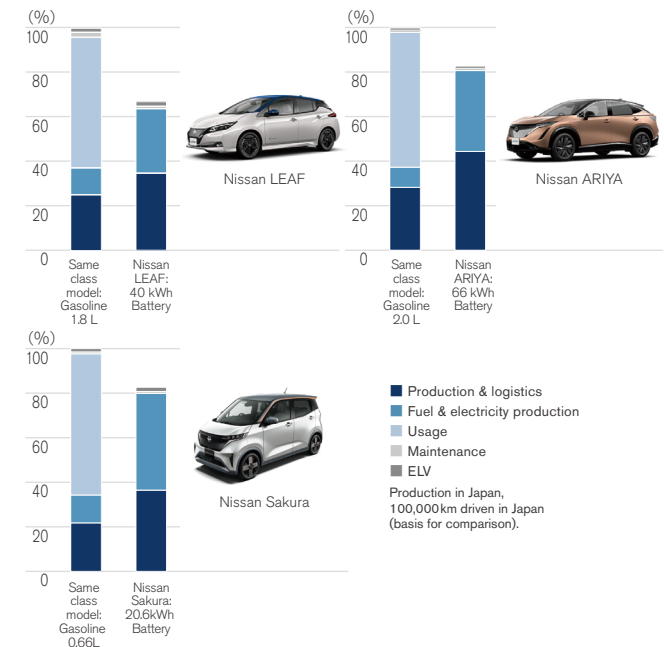
### Life Cycle CO<sub>2</sub> Equivalent Emissions (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, etc.)



### LCA comparison of EV models

The Nissan LEAF reduces its lifecycle CO<sub>2</sub> emissions by approximately 32% compared to conventional vehicles of the same class in Japan. The Nissan ARIYA and Nissan Sakura launched in 2022, further improve EV product appeal and reduce environmental impacts. Compared to Japanese gasoline-powered vehicles in the same class, the Nissan ARIYA and Nissan Sakura reduce lifecycle CO<sub>2</sub> emissions by 17-18%.

### Lifecycle CO<sub>2</sub> equivalent emissions (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, etc.)

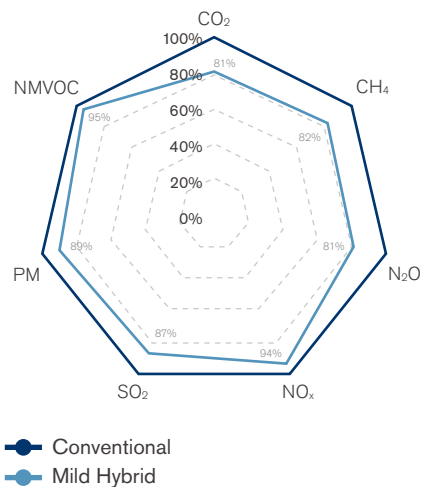


Contents	Corporate direction	Environmental	Social	Governance	<b>Data</b>
Corporate overview	Environmental data	Social data	Governance data	Editorial policy	

## Lifecycle improvements beyond climate change

Nissan is expanding the scope of LCAs to include not just greenhouse gases but also a variety of chemicals. Our calculations show that, compared to conventional gasoline engines, the new Qashqai achieves reductions in emission 5-19% for all targeted chemical substances, and reduces environmental impacts throughout its lifecycle.

Emissions improvement in the New Qashqai over its life cycle



Production in EU, 150,000 km driven in EU.

## Material balance

### Input

	Unit	2021	2022
Raw materials	ton	3,065,721	3,351,577
Energy	MWh	7,495,492	7,195,408
Renewable energy	MWh	289,067	311,033
Water withdrawal	thousand m <sup>3</sup>	20,090	20,208

### Output

	Unit	2021	2022
Vehicles produced			
Global production volume	k unit	3,404	3,381
CO <sub>2</sub> emissions	t-CO <sub>2</sub>	2,231,430* <sup>1</sup>	2,096,322
Water discharge	thousand m <sup>3</sup>	13,620* <sup>2</sup>	13,219
Emissions			
NO <sub>x</sub>	ton	373	340
SO <sub>x</sub>	ton	7	2
VOC	ton	6,790	7,990
Waste			
For recycling	ton	150,991	149,293
For final disposal	ton	7,208	8,688

## Environmental conservation cost\*<sup>3</sup>

	Unit	2021		2022	
		Investment	Cost	Investment	Cost
Total	mil ¥	4,144	125,145	6,955	134,697
Business area	mil ¥	91	1,713	392	1,829
Upstream/downstream	mil ¥	0	407	0	436
Management	mil ¥	0	12,899	0	12,370
R&D	mil ¥	4,053	109,824	6,563	119,909
Social activities	mil ¥	0	87	0	124
Damage repairs	mil ¥	0	215	0	29

	Unit	2021	2022
Total	mil ¥	8,816	10,465
Cost reduction	mil ¥	192	478
Profit	mil ¥	8,623	9,987

\*1 The values for fiscal 2021 have changed due to the disclosure of greenhouse gases other than CO<sub>2</sub> emissions from energy use as a separate item.

\*2 Due to an error in the calculation of last fiscal year's figures, the figures for fiscal 2021 were revised.

\*3 All environmental costs are based on the guidelines provided by Japan's Ministry of the Environment, and calculated for activities in Japan only.