Welcome to your CDP Climate Change Questionnaire 2021

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

(About the Nippon Paint Holdings Group)

The Nippon Paint Holdings Group (the "NPHD Group") was founded in 1881 as Komyosha, the first manufacturer of Western paint in Japan. For more than 130 years since, we have led the Japanese paint industry, contributing to the growth of the Japanese economy. Today, we offer solutions in two domains: the Paints and Coatings Business and the Fine Chemicals Business, the latter of which involves surface treatments for the pre-coating process. With locations in Asia, North America, Europe, and South America, we are operating in 29 countries/regions.

(Regional Operations Data)

Japan: A holding company and 16 consolidated subsidiaries, with a total headcount of 3,510

Asia: 110 consolidated subsidiaries with a total headcount of 15,354 in 14 countries/regions including China, Malaysia, Singapore, and Thailand

The Americas: 11 consolidated subsidiaries with a total headcount of 2,581 in the U.S. (the largest operation in the region), Canada, Mexico, and Brazil

Oceania: 43 consolidated subsidiaries with a total headcount of 3,826 (Australia, New Zealand, and Papua New Guinea)

Other regions: 12 consolidated subsidiaries with a total headcount of 2,047 in seven countries including the U.K., Germany, and Turkey

(What We Do)

We are a comprehensive paints and coatings manufacturer providing a broad range of products and services, including automotive coatings, decorative paints (for buildings and bridges and other large structures), industrial coatings (for construction machinery, farming machinery, exterior building materials, office equipment, household electrical appliances, etc.), and paints for marine coatings, auto refinish, DIY, and roads, as well as surface treatments and systems for enhancing painting efficiency.

(Segment Information)

Our net sales by geographical region are as follows (numbers in parentheses are the ratio to total consolidated net sales):

Japan: JPY159,625 million (20.4%), Asia excluding Japan: JPY356,609 million (45.7%), the Americas: JPY70,068 million (9.0%), Oceania: JPY148,290 million (19.0%), Other regions: JPY46,552 million (6.0%)

Our net sales by product segment are as follows (numbers in parentheses are the ratio to total consolidated net sales):

Automotive Coatings: JPY122,895 million (15.7%), Decorative Paints: JPY440,904 million (56.4%), Industrial Coatings: JPY69,176 million (8.9%), Other Paints: JPY54,520 million (7.0%), Fine Chemicals: JPY16,954 million (2.2%), Paint Related Business: JPY76,694 million (9.8%)

Trade name: Nippon Paint Holdings Co., Ltd. (NPHD)
Tokyo Head Office: MUSEUM TOWER KYOBASHI, 14th
floor, 1-7-2 Kyobashi, Chuo-ku, Tokyo, Japan 104-0031
Osaka Head Office: 2-1-2 Oyodo Kita, Kita-ku, Osaka, Japan 531-8511
Tokyo Office: 4-1-15, Minami Shinagawa, Shinagawa-ku, Tokyo 140-8675
Foundation: March 14, 1881
Capital: JPY671,432 million
Headcount: 342 (non-consolidated); 27,318 (consolidated) (as of December 31, 2020)

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Reporting year	January 1, 2020	December 31, 2020	

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

Japan

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

JPY

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Other, please specify
Financial management in Japan

C-CH0.7

(C-CH0.7) Which part of the chemicals value chain does your organization operate in?

Row 1

Bulk organic chemicals

Polymers

Bulk inorganic chemicals

Other chemicals

Specialty chemicals

Specialty organic chemicals

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Chief Executive Officer (CEO)	Our Board of Directors (BOD) is responsible for direct oversight of climate-related issues and, on the business execution level, draws up the NPHD Group's ESG strategies/policies and action plans, including those for climate-related issues. Chaired by CEO, the ESG Committee evaluates/promotes the implementation of such strategies/policies/plans. The CEO reports at least four times a year on the progress of ESG promotion, including measures taken to address climate-related issues. One example of a climate-related decision made by the ESG Committee is that six material issues were identified, and the utmost priority was placed on climate change in July 2020 at the Committee.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Monitoring and overseeing progress against goals and targets for addressing climate-related issues	The BOD meets at least once every month. Once every quarter, the BOD is briefed by the CEO (concurrently ESG Committee Chair) on strategies, policies, and issues on climate-related and other environmental challenges, as well as respective targets and their progress, and provides oversight of the situation.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Other committee, please specify Comprised of 25 members, both Japanese and foreign, including heads of functional divisions of NPHD and presidents/CEOs of partner companies ("PCs"; main subsidiaries), the ESG Committee (Chair: CEO, Vice-Chair: CAO) meets at least twice a year to identify and address climate-related issues, draw up relevant targets and action plans, and monitor their progress at the request of the BOD.	Both assessing and managing climate-related risks and opportunities	Quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

The NPHD Group places the SDGs and ESG at the core of its management. For Maximization of Shareholder Value (MSV) over the medium to long term through ESG management, we have drawn up strategies, policies, and action plans on ESG and sustainability for the NPHD Group and established the ESG Committee to evaluate/promote the implementation of such strategies/policies/plans.
Comprised of 25 members, both Japanese and foreign, including heads of functional divisions of NPHD and presidents/CEOs of partner companies ("PCs"; main subsidiaries), the ESG Committee (Chair: CEO, Vice-Chair: CAO) meets at least twice a year to identify and address climate-related issues, draw up relevant targets and action plans, and monitor their progress at the request of the BOD.
At the responsibility of the ESG Committee, a subcommittee led by the ESG Committee members (Environment Subcommittee) is established to discuss such issues as identification and assessment of risks and opportunities associated with climate change, scenario analysis, net-zero, and offer its suggestions to the ESG Committee. The ESG Committee then deliberates and makes decisions on each agenda item. Because PCs are represented in the ESG Committee, concrete actions can be taken in a timely manner.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity inventivized	Comment
Other C-Suite Officer	Monetary reward	Company performance against a climate-related sustainability index	

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	3	
Medium-term	3	10	
Long-term	10	30	

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

[Definition of substantive financial or strategic impact]

(1) Damages exceeding 3% of the amount of net assets (on a consolidated basis) within the NPHD Group's reporting boundary

(2) Fluctuation by 10% or more in consolidated net sales within the NPHD Group's reporting boundary from the start-of-year net sales forecast for the relevant fiscal year

(3) Fluctuation by 30% or more in consolidated ordinary profit within the NPHD Group's reporting boundary from the start-of-year ordinary profit forecast for the relevant fiscal year

[Explanation of quantitative indicators used in the definition of financial or strategic impact]

The NPHD Group Risk Management Committee is established (chaired by a Representative Executive Officer) to deliberate on continual review and improvement of the management of safety, climate change, the environment, compliance and other material risks for the Group, as well as an internal control system. With their frequency, impact, and seriousness being taken into account, substantive financial/strategic impact that such risks might have on the Group's business are classified into (1) - (3) above. This classification and the standards are subject to periodical review.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

Annually

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

[Process used]

At the request of the BOD, we drew up the NPHD Group's strategies/policies and action plans on ESG and sustainability, including those for climate-related issues, and have the ESG Committee (which evaluates/promotes the implementation of such strategies/policies/plans) and its subordinate Environment Subcommittee identify and assess the risks and opportunities associated with climate change and map out a course of action to those thus identified. The ESG Committee meets at least twice a year, and the Environment Subcommittee meets almost every month.

Comprised of division heads of Corporate Planning, Safety and Environment, R&D, and ESG Promotion of NPHD and Responsible Care* managers from operating companies within the NPHD Group, the Environment Subcommittee locates and assesses wide-ranging risks and opportunities associated with environmental issues including climate change.

The Environment Subcommittee sends the risks and opportunities it has identified and assessed, together with relevant action plans, to the ESG Committee, which then determines pertinent targets and action plans for the NPHD Group after deliberations and reports to the BOD.

Operating companies of the NPHD Group are supposed to draw up their business plans in line with the above-mentioned targets and action plans.

In order to identify risks, the Environmental Subcommittee determines their significance by categorizing them into those directly affecting the Group's operations (amount of raw materials and energy consumed at production processes, water, and CO_2) or external factors (needed at the time of use by end-users vs. needed for product functionality) based on the grounds, scope, business opportunities, and timeline.

[Case study of physical risks]

Our acute physical risks include disruption in materials supply, factory operation, and logistics due to floods, tornados, and other natural disasters, and our chronic physical risks include the possibility of Japan's climate becoming tropical due to global warming.
Situation: Climate change can have a major impact on the Group's business. Placing the SDGs and ESG perspectives at the core of our management policy, we recognize climate change as one of the most important material issues.
Task: In order to mitigate the impact of climate change, we act to minimize business risks that the progression of climate change may bring about, while at the same time curbing GHGs emissions. To this end, we will start discussions on climate change by involving every member of the Group, and commence preparations for updating our materiality for the next year and beyond.
Action: We established the Environment Subcommittee to identify risks and opportunities concerning climate change for the entire Group, discuss relevant policies and targets, and make proposals to the ESG Committee.
Response: In FY2020, the Environment Committee met eight times to identify risks (both physical and transitional risks) and opportunities, consider the timeline and the significance of each risk, and share the recognition of the current state of actions against high-risk issues. The Environment Committee also confirmed that common issues that involve physical risks include a shutdown of factory operations, as well as a disruption in the supply of raw materials and logistics due to harm to suppliers. The Committee then approved the monetary conversion of the impact of such risks by taking into account the status of logistics of suppliers (upstream), which varies by locations of each factory and materials, and the differences in the impact on products owing to temperature change (properties, quality, etc.) (downstream—at the time of use by end-users), and approved the setting and monitoring of action plans and KPIs.

[Case study of transitional risks]
Our main transition risks include "policy/legal regulation risks," "technology risks," "market risks," and "reputation risks." One of the "policy / legal regulation risks" is revisions in the Building Standards Act designed to further enhance and accelerate CO_2 emissions reduction targets based on the Paris Agreement and respond to carbon taxes and the heat-island effect. Within "technology risks" is a shift from paints using petroleum solvents to water-based paints, while one "market risk" is a hike in raw materials prices due to restrictions on mining and emission by regulating the use of minerals and solvents that are the constituents of paint materials. Some of the "reputation risks" are low ratings from customers and investors for not taking sufficient actions against climate change and lowering of ratings from customers for failure to develop low-carbon products.
Situation: Climate change can have a major impact on the Group's business. Placing the SDGs and ESG perspectives at the core of our management policy, we recognize climate change as one of the most important material issues.
Task: In order to mitigate the impact of climate change, we act to minimize business risks that the progression of climate change may bring about, while at the same time curbing GHGs emissions. To this end, we will start discussions on climate change by involving every member of the Group, and commence preparations for updating our materiality for the next year and beyond.
Action: We established the Environment Subcommittee to identify risks and opportunities concerning climate change for the entire Group, discuss relevant policies and targets, and make proposals to the ESG Committee.

Response: In FY2020, the Environment Committee met eight times to identify risks (both physical and transitional risks) and opportunities, consider the timeline and the significance of each risk, and share the recognition of the current state of actions against high-risk issues. The Environment Committee also confirmed that carbon taxes represent the single biggest transition risk common to automotive coatings, decorative paints, industrial coatings, and paint related businesses. For all these types of paints and coatings, a hike in carbon taxes will directly add costs to our operations. We have accordingly begun studying the procurement of renewable energy to avoid such a situation. The Environment Committee reported the status of its study to the ESG Committee, which led to discussions in 2021. As a result, the Group had its plan approved by the ESG Committee to aim to achieve net-zero across the Group in 2021 and link the plan to the medium-term management plan. Based on this decision by the ESG Committee, each paints and coatings division, namely each PC, is currently identifying possible issues and conditions.

* The global chemical industry's voluntary initiative to implement and improve measures for the safety of the environment, with key topics being environmental conservation, security and disaster prevention, industrial safety and health, safety for chemical substances and products, safety for logistics, and communication.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	The NPHD Group considers risks associated with current regulations in its risk assessments. One example risk type is an anti-global warming tax. At the manufacturing process, we need a large amount of energy: At the synthetic reaction process of resins and other high polymeric substances, we need heat exceeding 100°C, and at a process for dispersion stabilization of pigments and other raw materials, we need energy to cool chiller water. In Japan, an anti-global warming tax was introduced in 2012 in the form of a carbon tax (anti-global warming tax), which levies a tax on fossil fuels according to CO_2 emissions. At the time of its introduction, our manufacturing cost increased significantly. Because the tax rate is 289 yen per ton of CO_2, which is far below that of other countries (from several thousand to over ten thousand yen), it is almost certain that the rate will be increased in stages in response to the Japanese government's goal of net-zero target by 2050. If this is the case, we are running the risk of manufacturing costs increasing as a result of a greater burden of fuel costs. Furthermore, the Act on Promotion of Global Warming Countermeasures (the "Anti-Global Warming Act") requires businesses to calculate, report, and announce their GHG emissions. As such, the NPHD Group calculates and reports its GHG emissions, sets its own reduction targets, and is working to achieve them. The Anti-Global Warming Act imposes administrative penalties of 200,000 yen or less in the event of a failure to report the emissions amount or falsification of reports, and compliance with the Act incurs costs. There is a risk of

		compliance costs increasing should these obligations to report be tightened or implemented more strictly.
Emerging regulation	Relevant, always included	The NPHD Group considers risks associated with emerging regulations in its risk assessments. For example, an increasing number of countries around the world oblige businesses to disclose information on climate change via TCFD reporting and otherwise. There is a risk of incurring administrative expenses for compliance should such disclosure be made mandatory in Japan. As of now, this type of disclosure in Japan is only being promoted through cooperation between the public and private sectors (TCFD Consortium). If disclosure on financial reports ("Annual Securities Reports" in the case of Japan) is made mandatory in the future, however, false statements will be subject to penalties. This being the case, an increase in associated compliance costs for checking the accuracy of statements and preventing false statements can pose a risk for us. For automobile-related companies, which account for one of the largest portions of our revenue, regulations on fuel efficiency and CO_2 emissions are crucial. As such, new regulations can trigger changes in the purchasing behaviours of relevant customers. In more concrete terms, efforts to advance the electrification of vehicles and realize automated driving and other technologies may result in a larger weight of electric/electronic and other onboard components combined, which in turn adds to the body weight. To achieve higher fuel efficiency, they may need to reduce the body weight by changing their purchasing behaviours, such as switching to coatings that are lighter weighted or match resins and other lighter materials. Because there is a possibility that this would affect our performance and strategies, we make it a rule to consider risks associated with emerging regulations in our risk assessments.
Technology	Relevant, always included	In every industrial sector, efforts to realize a low carbon society and reduce GHGs are being enhanced. Should the NPHD Group fail to come up with technologies/products that help to contribute to a reduction of GHGs, thus proving incapable of adequately responding to such technological innovation, there is a risk of demand for existing products decreasing and business being lost, which could result in damage to corporate value and a decline in revenue. This being the case, we consider risks associated with technology in our risk assessments. For example, water-based paints do not use organic solvents and hence are friendly to operators' health and the surrounding environment, but they take a long time to dry. Because a huge amount of energy is consumed to dry them, we need to come up with coating methods that lower baking energy at the time of coating by, for example, shortening drying time, or developing coatings that match such methods. With automobiles getting increasingly lighter, it is imperative that we develop technologies for paints and coatings that may be of use when new materials (aluminium, resins, etc.) different from existing ones (steel plates) are chosen. There is also a risk of our market share or profitability dropping as new materials from other industries, such as films and colored resins without the need for paints and coatings and thus drying or baking processes with high energetic load, are released. We will be increasingly required to boost our technological development to mitigate these risks, such as adding new values to paints and coatings.

		We thus make it a rule to consider risks associated with technology in our risk assessments.
Legal	Not relevant, included	Our main business is paint production. Unlike automobiles and electronics, which consume energy while in use, we do not deal in products that directly affect climate change. We thus believe that our legal risk is small and so consider legal risks to be irrelevant. That being said, there is a risk of our corporate value lowering if our existing operational/administrative systems are found to be insufficient and deemed to violate applicable laws after we have changed our operational systems by, for example, renovating or establishing factories in order to ensure compliance with revised laws/regulations in response to climate change. Because of this, we consider legal compliance in business activities in our risk assessments. Pursuant to the Anti-Global Warming Act, we calculate and report GHG emissions periodically and monitor the status of relevant laws once a year.
Market	Relevant, always included	Market risks are highly relevant to our business, and thus we make it a rule to consider such risks in our risk assessments. Users of our products deem reduction in GHG emissions to be a major issue, and many of them, be they in the auto, housing, shipbuilding, or maritime shipping industries, are asking us to use low-carbon technologies that help to reduce CO_2 emissions. Failure to respond to such requests could lower our products' competitive edge, and run the risk of market share loss. Regarding the risks associated with our products' competitiveness, we are constantly assessing them to make improvements. For example, the auto industry wants a shorter drying time during the automobile coating process, as it requires a large volume of thermal energy and emits a large amount of CO_2. Meanwhile, powder paints are preferable in terms of VOC reductions but may not be so in terms of CO_2 reductions, as they have to be cured at a high temperature during the production process. How we can go about lowering the curing temperature will be the key to technological development in this field. In the housing sector, demand for heat shielding paints, which reflect sunlight to lessen the thermal impact on buildings, is rising. Key differentiating points here include the maintenance of the heat shielding function and the diversification of the product line. Since there is no end to development competition, we need to consider market changes, such as spikes in sales of newly developed products and a decline in demand for existing paints and coatings, in our risk assessments.
Reputation	Relevant, always included	One type of reputational risk is a decline in reputation among stakeholders on account of a lowering of external evaluation of the Group. Failure to properly address climate change by, for example, reducing GHG emissions and developing/disseminating low-carbon technologies, and disclose relevant policies and efforts could result in a lowering of our external evaluation, and our customers, investors, and other stakeholders losing trust in us. This would result in us not being chosen by customers or our shareholder value being damaged. Other risks include that of financing costs increasing as our reputation among investors lowers due to a delay in responding

		to climate change, and sales decreases as our reputation among stakeholders deteriorates overall. We monitor the external evaluation of our ESG, including climate-related issues, given by rating agencies and report findings to the ESG Committee as part of risks of climate change.
Acute physical	Relevant, always included	There is a risk of disrupted product supply should any of our plants be affected, logistics be halted, or supply of materials be suspended by the ever-intensifying natural disasters resulting from climate change, such as floods and tornados. We consider such a risk to be an acute physical risk and make it a rule to include it in our risk assessments. Types of risks here include urgent physical risks, such as the detrimental impact on local residents and the natural environment associated with outflow, leakage, etc. of chemical substances in paints and coatings and raw materials due to abnormal weather patterns, such as heavy rain and typhoons. To prepare for these risks, we drew up and implemented a business continuity plan (BCP) by using hazard maps of floods and other natural disasters compiled by local governments, etc. to conduct simulations. We also have the Supply Chain Planning Department identify and assess potential risks to report to the BOD.
Chronic physical	Relevant, sometimes included	There is a possibility of the NPHD Group being affected by chronic physical risks, so we occasionally evaluate such risks. Among such chronic physical risks are the shortages of raw materials for fatty acids due to a poor harvest of rapeseeds, soybeans, etc., which are essential raw materials for paints and coatings. Other possible risks in this regard include a closedown of plants due to a rise in sea level and an increase in air-conditioning and cooling costs as temperatures rise. In addition, as the climate continues to slowly change, we expect the importance of water resistance tests and heat tests of weather resistance (paints and coatings resistant to external factors such as outdoor weather) to increase. For paints for outer walls of buildings, in particular, how they protect buildings from ultraviolet rays and rain will be important, which means that we have to check to see if outer walls do not deteriorate when exposed to ultraviolet rays and rain for a long time. At present, weather-resistant paints and coatings are those that endure for two to three thousand hours in weather resistance tests. There may be, however, a growing demand/need for those that resist even longer. There is also a risk of product development expenses increasing as the number of test items for deterioration tests, etc. increases. Also, our product sales may be affected by quality abnormalities that could occur during transportation due to insufficient storage/management systems at factories (those stored outdoors, in particular) and those occurring due to insufficient temperature management of raw materials, semi-finished and finished products. As such, we consider them to be chronic physical risks in the framework of risks of climate change.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Emerging regulation

Carbon pricing mechanisms

Primary potential financial impact

Increased direct costs

Company-specific description

At present, the anti-global warming tax in Japan costs JPY289 for every ton of GHG emissions. In 2020, our Scopes 1 and 2 emissions approximated 43,000 tons in Japan, which has already triggered an increase in manufacturing expenses due to a hike in carbon prices. Given the recent rise in awareness of anti-climate change measures, however, this tax is likely to increase. Should this happen, the energy costs of our operations will further increase, and additional costs will be incurred for developing new infrastructure and technology in order to achieve carbon-free operations, which in turn will push up our cost of goods sold (COGS). According to IEA, if the world becomes further decarbonized (the 2-degree scenario achieved), carbon prices in developed countries, including Japan, will rise to USD100/tCO_2 by 2030. If we consider the possibility of our emissions increasing as our business continues to expand, the impact that carbon prices may have on our operational costs is concerningly large. If, on the other hand, we base our assumptions on the "business as usual" scenario (4-degree scenario), where the current global decarbonization policies remain the same, the present level of expenses will continue to be incurred if we do not further reduce our Scopes 1 and 2 emissions in Japan.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

12,000,000

Potential financial impact figure – maximum (currency)

450,000,000

Explanation of financial impact figure

IEA predicts that, even if the world fails to achieve the level of decarbonization commensurate with the 2-degree scenario, carbon prices will increase from the current price because of the policies that countries around the world have announced so far. Using the carbon price under the 2-degree scenario as the upper limit and the price under the 4-degree scenario as the lower limit, and assuming that the volume of CO_2 emissions would not change from what it is now, we calculated the potential effects on our finances. IEA predicts the carbon price in 2030 under the 2-degree scenario to be USD100 per ton of CO_2 in developed countries and that, under the 4-degree scenario, the carbon price will remain unchanged (the current anti-global warming tax will remain intact in Japan).
(Breakdown of the calculation: 43,000 tons of CO_2 x JPY289/tCO_2 = Approx. JPY12 million / 43,000 tons of CO_2 x USD100/tCO_2 x JPY105/USD1 = Approx. JPY450 million)

Cost of response to risk

252,000,000

Description of response and explanation of cost calculation

Situation: Given the impact of the carbon tax on our business, we believe it necessary to reduce emissions at our sites as part of relevant risk management. At the same time, our main customers are asking us to take drastic and thorough measures to reduce CO_2 emissions at production processes.
Task: With the aim of achieving net-zero for the entire Group by 2050 or 2060, we will promote measures to meticulously save energy, transition to fuels with low CO_2 emissions, and procure renewable energy to comply with Scopes 1 and 2 emissions and take measures to reduce emissions in supply chains through engagement, etc. to comply with Scope 3 emissions.
Action: Concrete programs within the Group include thorough energy saving at existing facilities, transition to fuels with low CO_2 emissions, and introduction of renewable energy to our sites in Japan. To save energy at existing facilities, we worked to improve the energy efficiency of buildings and production processes. For the introduction of renewable energy, we have divided measures into those for the short term and those for the mid and long term to begin discussing measures by way of the renewable energy procurement method using certificates. As we advance, we will be pursuing a long-term plan, with procurement of renewable energy based on a long-term contract with electricity generation utilities (or electricity retailers) in mind.
Result: At the NPAC Okayama Plant, our new automotive coatings production site under construction, we are planning to introduce state-of-the-art equipment to save energy and lower carbon emissions at production processes. This ESG-conscious plant is due to become operational in July 2022 and is expected to reduce emissions through efficient operation.
Response: During the period under review, we replaced air conditioners and lighting apparatuses to save energy consumption by existing equipment further, successfully improving the energy efficiency of buildings. The investment for replacing such equipment amounted to JPY108 million and reduced 118 tons of CO_2 emissions. Also, by replacing

machinery and equipment, we improved energy efficiency at production processes, which resulted in a reduction of 500 tons of CO_2 emissions. These capital expenditures cost JPY144 million, and relevant measures cost JPY252 (108 + 144) million.

Comment

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical

Increased severity and frequency of extreme weather events such as cyclones and floods

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

In the event that the seriousness and frequency of events arising from abnormal weather patterns increase, there is a risk of our sales decreasing if our plants are damaged and production is suspended. In particular, those located near rivers and coastal areas are at risk of floods, high tides, tsunamis, etc. For example, our Okayama Plant neighbours the Taki River. According to the Okayama Prefectural Government, if this river overruns, the area where the Plant is located could be as much as 3-5 meters underwater. On the other hand, our Hiroshima Plant is our key site in the Chugoku and Kyushu regions for technological development and logistics. Since this plant is located on the waterfront area, it is vulnerable to tsunamis. Furthermore, it is surrounded by the Kyobashi River and Enko River—two tributaries of the Ota River. The Hiroshima Prefectural Government reports that if the main stream of the Ota River overruns, the area could be as much as 0.5 to 3 meters underwater. If these plants suffer power failures, cut-offs of the logistics and supply networks, physical damage, or otherwise become non-operational, we would have a major decline in sales.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

In Japan, there has been an increasing number of incidents where an overflow danger level was exceeded in recent years. The Ministry of Land, Infrastructure, Transport and Tourism (MLIT) Japan reported that in 2018 there were 470 such incidents, which was more than five times the number during the previous four years. For this reason, it is increasingly likely that our plants located by the coast or rivers will be affected by floods, overflows, high tides, and other forms of water damage in the future. Due to the sheer size of the resultant impact (in monetary value), it is important that we share the common recognition of these risks within the Group, assess the impact, and put together contingency plans.

Cost of response to risk

Description of response and explanation of cost calculation

Situation: We recognize the watershed areas along the Yodo River, Kinu River, Ota River, and other rivers in Japan may have a material financial and strategic impact on our business. It is expected that our sites located either near or along these rivers will suffer suspension and delay of product shipment and other damage should they be overrun.
Task: We need to minimize the impact of flood risks on customers through engagement.
Action: We ask customers to adjust the product inventory volume when the situation demands. In more concrete terms, we ask distributors and customers to build up their inventories in preparation for flood risks. Thus we minimize the impact on customers should a flood affect our plants, suspending shipment.

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Market
Changing customer behavior

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

With society growing increasingly decarbonized, there have been conspicuous changes in the behaviour and awareness of business partners. We believe it is necessary to assess the impact that such changes may have on our business. Because most of our customers belong to the auto, construction, and other sectors with a high volume of emissions, we assume there will be many more actions to implement their decarbonization policies and related business strategies. Customers in these sectors with a high volume of emissions are near the top in terms of our sales rankings. This being the case, if we fail to meet customers' requests, we might run the risk of losing business opportunities and so it is crucial to assess the potential impact of such a risk. We have already had several dozens of customer companies ask us to respond to climate change, including answering CDP climate change questionnaires. If we fail to adequately respond to these requests, we might end up losing business opportunities, which could have an extensive impact on our sales.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

According to TCFD's guidance for the chemical sector, many companies belonging to the chemical industry mention a decline in demand due to customers' behavioural changes (i.e., loss of business opportunities) as one of the most important risks associated with business, and we believe such a risk to be common throughout this industry.

Cost of response to risk

Description of response and explanation of cost calculation

Task: As an increasing number of business partners are making requests concerning climate change, demand for the development of products that contribute to decarbonization is growing fast. We believe that we can prevent the risk of losing business opportunities by sincerely responding to their climate change-related requests, including those on the development of decarbonized products. Accordingly, we have begun a variety of initiatives in this regard, including calculating the emissions volume for the entire

supply chain, introducing renewable energy, and developing products with minimal environmental burden (eco-friendly products).
Action: For example, we define products with the following functions as "eco-friendly products," and are focusing on research and development of such products to meet customer requests.
(1) Products that, compared to general products, achieve far longer life of paint films and coatings and longer life of coated objects and curb generation of waste, thus contributing to efficient use of resources
(2) Products that, compared to general products, significantly improve energy efficiency when coated objects are used thanks to functions of paint films and coatings, thus mitigating impact on climate change
(3) Products that, compared to general products, significantly curb energy consumption at coating / surface treatment processes, thus mitigating impact on climate change
(4) Products that, compared to general products, curb atmospheric emission of chemical substances at coating/surface treatment processes, thus minimizing environmental destruction and health effects to operators at such processes
(5) Products that, compared to general products, significantly improve efficiency in resource use and allow for applications of eco-friendly technological/industrial processes

Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Global warming is of interest to our main customers and society in general. While it comes with physical and regulatory risks, we believe that we can take advantage of related opportunities to expand our business if dealt with strategically. One category of "eco-friendly products" as per our definition includes "Products that, compared to general products, significantly improve energy efficiency when coated objects are used thanks to functions of paint films and coatings, thus mitigating impact on climate change" and one such product is energy-conserving marine coating. LF-Sea and A-LF-Sea are both already available and can improve fuel efficiency by 4-10% by reducing the friction of vessels. We have also developed a new marine coating FASTAR, which went on sale in 2021. This coating reduces fuel consumption and VOC emissions and has low elution. As it is expected that products with environmental impact will be regulated more strictly by, for example, requiring CO_2 reduction, we aim to expand sales of products that increase the fuel efficiency of vessels in the marine transportation business.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The International Maritime Organization (IMO) has drawn up a roadmap for reducing CO_2 emissions from the marine transportation sector. The roadmap aims to reduce CO_2 emissions from international marine transportation by 50% by 2050 (vs. 2008) and by 40% by 2030 (vs. 2008). They assume that the 2030 reduction targets should be achieved through roughly two programs of "reduction by energy-saving technology" and "reduction by increasing efficiency in operation." Since the energy-saving technology of our energy-conserving marine coating should prove effective in this regard, we expect to see further sales expansion of those innovative products.

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation

We set KPIs for "eco-friendly products," including energy-conserving marine coating, in a bid to expand their sales.

Situation: Marine transportation companies were concerned about a hike in fuel costs, as reduction of CO_2 and SOx, which cause global warming, became required, and the fuel oil prices began to rise from the second half of 2005, prompting a switchover from C fuel oil to A fuel oil, which contains less sulphur as SOx regulations began to tighten. Against this background, MLIT announced its guideline, "For reducing CO_2 emissions from the international marine transportation," which led us to develop low fuel consumption A/F

Task: Because it was confirmed that LF-Sea reduces fuel consumption by 4%, customers are requesting us to develop products that reduce fuel consumption further. Also, LF-Sea was adopted by MLIT's "project to support the development of CO_2 reduction technology from vessels," and so we commenced the development of A-LF-Sea. We came up with LF-Sea, a biomimetics model with viscosity and smoothness inspired by a surface of marine organisms (tuna, covered by mucosae). The technical challenge was how we could develop a technique for effective smoothness.

Action: To conduct research and development of A-LF-Sea, an improved version of LF-Sea, we took advantage of the framework of a three-party national project. With support from MLIT, Nippon Paint Co., Ltd. (now Nippon Paint Holdings, Co., Ltd.), Nippon Paint Marine Coatings Co., Ltd. (NPMC), and Mitsui O.S.K. Lines, Ltd. got together to work on a joint research project, "Research and development concerning GHG reduction technology in international marine transportation" by ClassNK.

Result: We successfully improved LF-Sea's hydrogel technology to add to its friction reduction effect, which, it was confirmed, achieved a 10% fuel consumption reduction when combined with undercoat's viscosity control technology. Since it was first introduced back in 2008, LF-Sea and its successor A-LF-Sea have been used on more than 3,500 vessels as of December 2020.

Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Global warming is of interest to our main customers and society in general. While it comes with physical and regulatory risks, we believe that we can take advantage of related opportunities to expand our business if dealt with strategically. One category of "eco-friendly products" as per our definition includes "Products that, compared to general products, significantly improve energy efficiency when coated objects are used thanks to functions of paint films and coatings, thus mitigating impact on climate change" and one

product of this type that we have developed to reduce environmental impact at the automobile coating process is paints and coatings and their systems that dry at a lower temperature and for a shorter time. The aptly named three-wet coating system can reduce CO_2 emissions during manufacturing. Our main customers recognize reduction in CO_2 emissions at the auto manufacturing plants as part of their long-term strategy, and we expect sales of such products to expand.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

In the auto industry, decarbonization efforts are expanding. With each passing year, the number of our key business partners sending out messages on climate change control is increasing, and we believe that our eco-friendly automotive coatings can meet their requests for decarbonization. From a long-term perspective, including international movements, some reports say that unit production of new cars is expected to grow by 2% per annum up to 2030, despite a slowdown in growth due to car-sharing services, etc. It is thus expected that production of new cars will remain on an upward trend. (Mckinsey: Automotive revolution–perspective towards 2030)

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation

Situation: In recent years, our key business partners have been accelerating their efforts to achieve carbon neutrality and reduce CO_2 emissions over the entire life cycle of automobiles. They are accordingly launching initiatives and plans that focus on the environment. Because the coating process emits more CO_2 than other processes in the auto production line, demand for reducing CO_2 emissions at the coating process is growing year by year.

Task: Because coatings and electrodeposition paints used at the auto production line need higher baking temperatures, which consumes more energy than otherwise, there is demand for coatings that can be applied in a shorter time than conventional alternatives.

Action: "Wet-on-wet" painting technology that we have developed shortens the time for the middle-coat layer's baking process, which in turn reduces CO_2 emissions at the coating process more than before. An example product using the wet-on-wet painting technology is nax E-CUBE WB.

Comment

Identifier

Opp3

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Global warming is of interest to our main customers and society in general. While it comes with physical and regulatory risks, we believe that we can take advantage of related opportunities to expand our business if dealt with strategically. One of the "eco-friendly products" as per our definition is ATTSU-9 ROAD®, a heat-shielding coating for road surfaces, which reduces the temperature of asphalt roads by reflecting sunlight. By applying ATTSU-9® to the road surfaces to reflect infrared rays of solar energy and control a rise in the road surface temperature, we can curb temperature rises in urban areas (heat island effect), thus helping to save energy used for cooling in these locations. By applying it to the road surfaces, this product is expected to control a rise in temperature on the road surface by 11-14°C (during daytime in summer).

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

750,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

In Japan, it is agreed that there has been a conspicuous temperature rise in urban areas due to the heat island effect caused by global warming in recent years. Some report says that the temperature in August in Tokyo rose by 2.4°C over 100 years from 1901 when they began taking data. To combat the heat island effect in Tokyo and other metropolitan areas, the Japanese government has drawn up an urban development guideline to mitigate it, which local governments refer to in compiling their low-carbon community development plan under the Low Carbon City Act. The guideline mentions three major causes of the heat island effect, one of which is the artificialization of ground surfaces. In other words, it attributes the temperature rise in urban areas to the fact that heat is stored on the road surface paved with asphalt, concrete, etc. The guideline also says that highly reflective paving is a good way to mitigate the effect and mentions that CO_2 emissions can be reduced by controlling the heat island effect. Because it achieves highly reflective paving, we believe that sales of ATTSU-9 ROAD® will continue to increase from local governments and companies who consider the product to be a means to mitigate environmental impact. We have calculated the potential monetary value of this trend by multiplying current annual sales of 100 million yen by the expected growth of the road coating market (7.5 times) in 2030, ten years from now.

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation

We set KPIs for "eco-friendly products," including heat-shielding road coating, in a bid to expand their sales.

Situation: From around 2006, we began rolling out applications of heat-shielding coatings for roofs in the Group-wide heat shielding project. For the heat-shielding coatings to be applied to road surfaces, it was necessary to improve their asphalt adhesion and durability against vehicle loads while maintaining the shielding ability of heat-shielding coatings for roofs. The Tokyo Metropolitan Government wanted the road surface temperature during the summer months to be lowered by 10°C to control the heat island effect.

Task: In around 2009, the Tokyo Metropolitan Government began using MMA coatings to pave roads for shielding heat as part of its heat island effect control in urban areas. From around 2014, however, they began having issues due to coatings stripping (no such a problem occurred with our urethane/urea coatings). Furthermore, MMA coatings produce a strong odor, which was another source of problems.

Action: ATTSU-9 ROAD®, our urethane/urea coating, comes with skid resistance and wear resistance, has no odor, controls stripping, and has minimal VOC emissions.

Result: An investigation by the Tokyo Metropolitan Government found that our urea coating was rarely stripped. To mitigate issues with coating stripping, they revised their performance requirements to shift to urethane/urea coatings (the same material that our ATTSU-9 ROAD® uses). This accelerated the introduction of ATTSU-9 ROAD®, which eventually captured an overwhelming portion of the market. Then in 2015, they decided to use the product for the official marathon course, and it was applied to the relevant areas.

Comment

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?

Yes, and we have developed a low-carbon transition plan

C3.1a

(C3.1a) Is your organization's low-carbon transition plan a scheduled resolution item at Annual General Meetings (AGMs)?

	Is your low-carbon transition plan a scheduled resolution item at AGMs?	Comment
Row 1	No, and we do not intend it to become a scheduled resolution item within the next two years	

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

No, but we anticipate using qualitative and/or quantitative analysis in the next two years

C3.2b

(C3.2b) Why does your organization not use climate-related scenario analysis to inform its strategy?

i) Explanations as to why our organization does not use climate-related scenario analysis in our business strategy

So far, we have not recognized climate change risks sufficiently and so have yet to conduct scenario analysis.

ii) Explanations as to how we will go about conducting climate-related scenario analysis if "Scheduled within the next two years" is chosen

Since 2020, we have had this discussion at the Environment Subcommittee, which is under the ESG Committee, and are planning to disclose the findings of scenario analysis on our website before the end of 2021.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your	Description of influence

	strategy in this area?	
Products and services	Yes	Evidence of influence: According to the data by the World Coating Council, the decorative paints (for construction work) business is expected to grow by 0.7% per annum between 2019 and 2024. By application, demand for newly-constructed buildings and steel structures should record negative growth, while repaint demand is expected to remain stable. The World Coating Council also estimates the automotive coatings market to grow by 3.1% per annum during the same period, indicating that major changes in the auto industry will bring about more business opportunities. Customers in the auto industry and otherwise began preferentially procuring low-carbon components and materials from the early 2000s. As these data show, both the construction and auto industries recognize responses to climate change as one of their material issues. Should they perceive us as a company with little regard for climate change control, we might not be chosen as their supplier, resulting in loss of business over the medium- and long-term. How was the strategy influenced: As we began taking an interest in anti-climate change measures, we reviewed our capital expenditure plan so that we can develop products capable of contributing to customers' efforts to combat climate change as they try to decarbonize their entire value chain, as well as products that help us to decarbonize our own production processes. Timeline: 3-5 years Case study: Situation: Customers in the auto and other industries, who are promoting decarbonization of their value chains from product development, production, to distribution, have begun choosing raw materials and components with minimal GHG emissions (low-carbon products). Task: To promote the decarbonization of our products while enhancing our competitive edge and productivity, we have reviewed the basic policy for capital expenditures and reset systems and targets in this regard in the new medium-term management plan (2021-2023). This should allow us to maintain business opportunities over the medium- and long-term. Action: For the medium-term management plan, we have set aside funds to maintain equipment and get rid of obsolete equipment, procure new equipment, establish new sites, ramp up production capacity, and develop distribution networks. Response: In more concrete terms, we have set aside JPY40.0 billion for the replacement of existing equipment over the coming three years and JPY65.0 billion for establishing new sites, ramping up production capacity and development of distribution networks. For 2021, we have allocated JPY5.8 billion yen for capital expenditures in Japan, which include the establishment of our new automotive coatings plant in Okayama. We

		are also planning to introduce state-of-the-art equipment to further save energy and lower carbon emissions at our production processes, which should drastically reduce CO_2 emissions per product. We are currently estimating the volume of CO_2 emissions that will be slashed. Every year, we report to our main customers about our CO_2 emissions from our production processes via the CDP framework, and we should be able to report reductions in 2021 and thereafter, allowing us to publicize our efforts to decarbonize products. For existing equipment, too, we are working to develop production sites and reorganize supply chains and have launched the Okayama Plant and toning plant for general-purpose paints in the Kanagawa district. These intelligent plants are highly automated and should contribute to reductions in our energy consumption.
Supply chain and/or value chain	Yes	Evidence of influence: We use a large quantity of petrochemical products to manufacture and sell paints and coatings. Because the petrochemical industry emits a large amount of GHG, we recognize that the raw materials that we purchase via our value chain and the CO_2 emitted during manufacturing have a significant impact on climate change. How was the strategy influenced: Our main customer sectors of automobiles, construction, and vessels are accelerating their responses to climate change. Should they perceive us as a company with little regard for climate change control, we might not be chosen as their supplier, resulting in loss of business over the medium- and long-term. Timeline: 0-3 years (short- and medium-term) Case study: Situation: Some of the customer needs include improving fuel efficiency for automobiles and vessels, enhancing energy efficiency for housing, and energy saving at the coating process. The NPHD Group has already released eco-friendly products, but they have yet to gain broad recognition among end-users through promotions at retailers. Task: In order to expand sales and market share, it is necessary to gain extensive recognition of our products that contribute to climate change control throughout the value chain. Action: We will redesign our PR and advertising strategies by, for example, creating more opportunities to stress the advantages of CO_2 reduction for products already on the market. These products include: automotive coatings (Aquarex: decarbonizing the baking process by the 3-wet system, etc.); automotive refinish paints (nax Series: reducing drying process, improving drying characteristics), industrial coatings (ATTS-9, etc.: pavement heat-shielding coating), decorative paints (Thermo Eye, etc.: Roof heat shielding paints), and marine paints (A-LF-Sea, etc.: low fuel consumption antifouling paints). Response: In order to increase recognition of products that contribute to the CO_2 emission reduction efforts of

		our customers and end users, we have increased exposure of our products by having them commended by third parties, registering them with certified products from third parties, and publishing introductory videos. In more concrete terms, since 2019, we have uploaded YouTube videos containing candid interviews with a plate coating service that has adopted/introduced our nax E-CUBE WB, next-generation water-based paint for automotive refinish, to ask such questions as, "Why did you introduce water-based paints?" "What difficulties did you encounter at introduction?" and "What do you think about Nippon Paint's water-based paints?" We then posted sequels in 2020 and 2021, marking four uploads. Our automotive refinish paint nax E3 Series (E-Cube) can be used "wet-on-wet," thus reducing the drying process. Other E-Cube products also feature enhanced drying characteristics, which help customers to reduce their energy consumption. Thanks to these measures, in 2020, we were able to add E3 PLUS to the product line. This fourth "E" has led to the launch of another new product, the nax E-Cube WB Aqueous System, which signifies employees' attachment to the company and celebrates the bond between plate coating services and customers and the surrounding area. By enhancing engagement this way, we believe that we can realize more sustainable business management. For the vessel division, our undertakings to "reduce fuel consumption and CO_2 emissions by spreading low-friction antifouling paint on ship bottoms" was awarded in the Countermeasure Technology Introduction and Dissemination Category of the "Minister of the Environment's 2019 Commendation for Global Warming Prevention Activity" on December 2, 2019. The series of low-friction antifouling paints for ship bottoms (LF-Sea and A-LF-Sea) have been adopted by a total of more than 2,900 vessels. Our antifouling agent-free antifouling paint for ship bottoms, AQUATERRASS, was nominated for the GREEN4SEA TECHNOLOGY AWARD hosted by a Europe-based non-profit organization SAFETY4SEA and won the award in 2021. SAFETY4SEA is a non-profit organization that fosters understanding and increased use of environmentally-friendly practical maritime methods and technologies, while nurturing, enlightening, and promoting maritime environmental awareness. The receipt of this highly-esteemed award is effective in increasing recognition of our products among various stakeholders. We received the " **KCS Award in Environmental Technology** " for the development of technology for "highly durable heat shielding paints for roads." This award-winning heat shielding paint absorbs the energy of sunlight to curb a rise in the temperature of road surfaces, thus controlling the heat island effect and preventing global warming. Another product that enjoys a high reputation is heat shielding paint for roads ATTSU-9, which offers high durability in the face of vehicle load and flexible coating that malleably follows asphalt's characteristics. Its heat-shielding effect can lower the surface temperature of asphalt roads by 10-

		15°C, thus mitigating the heat island effect in urban areas. For these premium features, this product was certified under the heat island countermeasures certification system and has been adopted by MLIT and other organizations for Tokyo municipal roads, national roads, and the like.
Investment in R&D	Yes	Evidence of influence: Our customers are requesting us to improve fuel efficiency for automobiles and vessels, increase energy efficiency for housing, and save energy during the coating process. Should we fail to meet these requests, we might not be chosen by them and lose business over the mid- and long-term. How was the strategy influenced: To reflect customer requests in our materiality, we identified our material issues again. Timeline: 3-5 years Case study: Situation: Our customers are requesting us to improve fuel efficiency for automobiles and vessels, increase energy efficiency for housing, and save energy during the coating process. Should we fail to meet these requests, we might not be chosen by them and lose business over the mid- and long-term. Task: We thought it was necessary to reflect customer requests in our materiality. Action: In our materiality that we identified in 2020, we chose "climate change" and "innovation for a sustainable future" among others. Accordingly, we will focus on creating innovations that solve social issues for which solutions have been previously challenging, including climate change. Response: Based on the materiality thus identified, we are conducting research and development of products that could reduce environmental impacts in each field of automotive coatings, industrial coatings, decorative coatings, and coatings for vessels. Some of the research and development projects in these fields that we do for commercial applications include infrared ray-reflective transparent heat-shielding paints (just by applying this, infrared rays are reflected to contribute to lower power consumption by air conditioners, while maintaining comfort in rooms), coating technology for heat recycling technology by chemical heat storage materials (storing heat without equipment, allowing for efficient use of thermal energy). Furthermore, highly functional hydrophilic treatment and hydrophilic planning treatment technologies, which improve the efficiency of air-conditioning for housing and automobiles, and self-polishing antifouling paints, which improve vessels' fuel efficiency, have already been brought to market. In the new medium-term management plan that started in 2020, we announced our basic global policy on capital expenditures (2021-2023). Looking beyond the next five and ten years, this policy demands that a foundation for sustainable growth be established to ensure the sustainable growth of our business by enhancing competitive advantage and productivity. To this end, we will make both

		"offensive" investments to capture growth and "defensive" investments to strengthen our tolerance of climate change and other risks. The policy plans to spend JPY10.0 billion for research and development, environmental protection, and others (of which JPY5.5 billion will be spent in 2021 in Japan).
Operations	Evaluation in progress	Evidence of influence: In line with the Japanese government's GHG reduction policy, we have placed top priority on "climate change," which is one of our material issues in 2020. We also recognize "net-zero CO_2 emissions" as one of the imperatives in the new medium-term management plan (FY2021-FY2023). Under these circumstances, we own a variety of equipment at production processes that may be of use to meet the emission requirements of Scopes 1 and 2. Recognizing that we may need to do something to make the most of such equipment, we have begun identifying concrete issues and discussing their countermeasures. A company-specific description of the evaluation process: Throughout the Group, we are procuring renewable energy and monitoring the impact that carbon pricing may have on our finances, while at the same time considering the introduction of energy-saving equipment or investing in the operation of renewable energy equipment. We recognize that we need to address this both in terms of reduction of CO_2 emission and enhancement of profitability. Also, in order to realize the optimal use of various equipment and machinery that use existing energy sources, we are checking the operating conditions of compressors, boilers, and other equipment to determine if they are appropriate. Meanwhile, at offices, we ensure that air-conditioners and office equipment are turned off when not in use, and calculate the amount of energy reduced by these small but consistent activities in our everyday work. When it is expected to be completed: At present, the Environmental Subcommittee, which is under the ESG Committee, is putting together actions and reduction plans for each company to compile a grand GHG reduction plan so that we can all share best practices. In 2020, we discussed a reduction plan and set targets with input from external consultants. This reduction plan and the targets will be reorganized by the Environmental Subcommittee by mid-2021 and will be presented to the ESG Committee by the end of 2021 before seeking approval from the Board of Directors.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning	Description of influence

	elements that have been influenced	
Row 1	Capital expenditures	When we plan capital expenditures, climate-related risks and opportunities are influencing our financial planning as a factor that increases capital expenditures. In order to provide low-carbon products, we have set aside in our new medium-term management plan (FY2021-FY2023) budgets for capital expenditures and investments/loans to fund capital spending and research and development at our plants. Such risks and opportunities are exercising a significant impact on our financial planning in the form of an increase in capital expenditures. Several years ago, we explained to investors that we would need about JPY100 billion in capital expenditure to consolidate our plants into eight main plants in Japan over the coming decade. With the recent burgeoning interest in climate change and low-carbon society, however, we believe our responses to the risks associated with the market, technology, and our reputation would not be timely enough if spanned over a decade. So, we have divided our capital expenditure plan into phases so that we can start short- and medium-term projects first, which include short- and medium-term capital expenditures for our plants in Japan. (Case study of capital expenditures/distribution) Situation: In 2015, the U.N. adopted the Sustainable Development Goals (SDGs) and private enterprises like ours are expected to respond in some shape or form. Because how we go about creating value by addressing environmental issues, including climate change, will be the key to expanding our business and earnings, we have added "mitigate environmental impact caused by products and services" as one of our CSR goals. In March 2019, we defined "eco-friendly products" of the NPHD Group. Based on the "ideal state of society in 2030" below, we had discussions as to what a paint manufacturer can do to realize such a society in a future-oriented manner. [A sustainable society as perceived by NPHD = The ideal society in 2030 (environmental aspects)] (1) A society where its capital endures and minimal resources are needed to sustain it (2) A society where CO_2 emissions have been reduced through energy-saving measures and global warming is under control (3) A society that does not release substances of concern into the atmosphere but keeps water and the atmosphere clean (4) A society where pollution of water sources and oceans is prevented and ecosystems are preserved In order to realize a society like this, it will be necessary to develop and spread eco-friendly products: low-carbon products in particular. Unfortunately, our production equipment in Japan has become old and obsolete, and we need to shore up our production system, as we are not in a position to provide eco-friendly products.

		Task: Our definition of low-carbon products is those with negligible environmental impact, those for which we use minimal energy; that is, those consuming little energy at production processes and those helping to reduce energy consumed by users after the release. Specifically to us, these are products that help shorten drying time at coating processes and save energy for low-temperature baking, etc. To reduce energy consumption at our production processes, we need to increase productivity and replace equipment with updated models in Japan by investing in production equipment. Action: We have set aside a budget for investments in capacity ramp-up in our financial planning. (Capacity ramp-up at the powder paint production factory of the Chiba Plant, Nippon Paint Industrial Coatings Co., Ltd. (NPIU); setting aside a budget for capital expenditures for construction (consolidation) of new plants during the new medium-term management plan (FY2021-FY2023); and establishment of an automotive coatings production factory within the Okayama Plant of Nippon Paint Automotive Coatings Co., Ltd. (NPAC)). (Total amount invested: JPY4.1 billion; Production items: automotive coatings (overcoat, water-based middle coat, for plastics); total building area: 4,700m^2) Response: NPIU has begun introducing an innovative production process for powder paints by spending approximately JPY900 million (total floor area: 3,000m^2), together with capital expenditures for capacity ramp-up. In more concrete terms, at their Chiba Plant, the first phase construction process began in November 2018, and it became operational in October 2019. The second phase began in April 2020 to start operation in January 2021. These new production processes can reduce energy consumption at production processes, which leads to low-carbon products. Meanwhile, construction work at NPAC's Okayama Plant began in May 2021 for scheduled completion and opening in May 2022 and July 2022, respectively. The new Plant is designed to be a state-of-the-art intelligent factory, which will boast the latest equipment capable of saving energy and producing lower-carbon products. We are planning to evaluate percentages of CO_2 reduction, etc. for each product after operations begin.

C3.4a

(C3.4a) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Intensity target

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number
Int 1

Year target was set
2020

Target coverage
Country/region

Scope(s) (or Scope 3 category)
Scope 1+2 (location-based)

Intensity metric
Metric tons CO2e per unit of production

Base year
2019

Intensity figure in base year (metric tons CO2e per unit of activity)
0.15

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure
100

Target year
2020

Targeted reduction from base year (%)
1

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]
0.1485

% change anticipated in absolute Scope 1+2 emissions
0.94

% change anticipated in absolute Scope 3 emissions
0

Intensity figure in reporting year (metric tons CO2e per unit of activity)
0.16

% of target achieved [auto-calculated]
-666.6666666667

Target status in reporting year

Underway

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

Target ambition

Please explain (including target coverage)

The spread of COVID-19 has caused our production volume to decline, increasing per-unit emissions.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

No other climate-related targets

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	5	746.5
To be implemented*	2	9.7
Implementation commenced*	12	419.8
Implemented*	15	121.7
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Energy efficiency in buildings

Other, please specify

Replacement of air conditioners, lighting apparatuses, and other equipment (for higher efficiency)

Estimated annual CO2e savings (metric tonnes CO2e)

117.8

Scope(s)

Scope 1

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

2,582,392

Investment required (unit currency – as specified in C0.4)

108,175,620

Payback period

>25 years

Estimated lifetime of the initiative

1-2 years

Comment

Initiative category & Initiative type

Energy efficiency in production processes

Machine/equipment replacement

Estimated annual CO2e savings (metric tonnes CO2e)

500.8

Scope(s)

Scope 1

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

15,515,717

Investment required (unit currency – as specified in C0.4)

144,370,000

Payback period

>25 years

Estimated lifetime of the initiative

1-2 years

Comment

Initiative category & Initiative type

Low-carbon energy consumption

Other, please specify

Conversion of fuels (fuel oil -> LNG)

Estimated annual CO2e savings (metric tonnes CO2e)

679

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

8,480,000

Investment required (unit currency – as specified in C0.4)

65,000,000

Payback period

4-10 years

Estimated lifetime of the initiative

1-2 years

Comment

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	In response to the Minamata Convention on Mercury, we replaced mercury-containing lighting apparatuses with LED lighting apparatuses with higher energy efficiency
Dedicated budget for energy efficiency	We introduced the latest energy-conservation equipment at the time of equipment replacement
Employee engagement	We are making improvements to production processes and enhancing/maintaining the operating efficiency of production equipment.

	Other than the above, we turn off lights whenever not in use, adjust air conditioners' temperature, introduce "Cool Biz" energy-saving campaign, etc.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Company-wide

Description of product/Group of products

In the automotive coatings field, we are strengthening the development of paints and coatings that help to lower energy consumption from the point of application and developing and releasing eco-friendly paints and coatings, such as paints with minimal organic solvents, water-based paints, and tin-free electrodeposition paints, shortening painting processes, and lowering curing temperature. In the industrial coatings field, we are smoothly shifting to eco-friendly products, such as powder paints, water-based paints, high solid paints, and heat-shielding paints by responding to relevant laws/regulations both at home and abroad (Specified Chemicals Ordinance, RoHS Directives, SVHC, etc.) and launching products that can contribute to energy conservation. We see this as a necessity amid the current state of society, where environmental regulations on, for example, volatile organic compounds (VOCs) emissions, are being tightened across the globe. In the decorative paints field, we are promoting weather-resistant paints using inorganic resins, the thick and flexible special clear coating method, which protects and maintains concrete structures by increasing visibility, and rust-proof paints that shorten construction periods and processes. In the automotive refinish paints field, we are working on expanding sales of eco-friendly two-pack urethane resin paints in the market and are developing more high-value-added, eco-friendly products. In the marine paints field, we are developing technologies and products that reduce environmental burden, such as antifouling paints that reduce elution of antifouling agents contained in them but demonstrate high performance. Our long-term anticorrosion paints, on the other hand, satisfy international standards required for vessels and marine structures, thus contributing to the maintenance and enhancement of their asset value. In the fine chemical field, we provide ultra-thin (1 micrometer) surface treatment agents that significantly increase materials' added value. We are developing this unique product as a pre-paint treatment agent and are expanding its applications, including an eco-friendly chemical synthesis system that dramatically slashes energy consumption and waste generation at the film-forming process and antifouling coatings that take advantage of our core technologies.

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product and avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

Innovating coating technology

% revenue from low carbon product(s) in the reporting year

25

Comment

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

16,824

Comment

Scope 2 (location-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 2 (market-based)

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

28,889

Comment

A CO_2 conversion factor specified by Keidanren and the JCIA is used.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Japan Ministry of the Environment, Law Concerning the Promotion of the Measures to Cope with Global Warming, Superceded by Revision of the Act on Promotion of Global Warming Countermeasures (2005 Amendment)
Other, please specify
A CO_2 conversion factor specified by Keidanren and the JCIA

C5.2a

(C5.2a) Provide details of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Gross CO_2 emissions are calculated from the amount used in Scopes 1 & 2 by applying the CO_2 conversion factor presented in Keidanren's/JCIA's Commitment to a Low Carbon Society.
Pursuant to the Act on the Rationalization, etc. of Energy Use (the "Energy Saving Act") and the Anti-Global Warming Act, domestic NPHD Group companies are within the scope of calculation.
When filing an application according to the Energy Saving Act and the Anti-Global Warming Act, we use a conversion factor specified in the relevant act (specific energy consumption -> crude oil equivalent, specified by the Energy Saving Act; consumption after conversion to crude oil equivalent -> CO_2 emissions, specified by the Anti-Global Warming Act) to calculate the total CO_2 emissions.

C6. Emissions data

C6.1

(C6.1) What were your organization’s gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

15,065

Comment

The spread of COVID-19 has caused our production volume to decline. The total CO_2 emissions have decreased, but per-unit emissions have increased.

C6.2

(C6.2) Describe your organization’s approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

For reports based on the Energy Saving Act and Anti-Global Warming Act, we use a factor specified by the relevant act (crude oil equivalent factor: Energy Saving Act, CO_2 emissions factor: Anti-Global Warming Act), which serves as a location-based figure, provided, however, that a conversion factor specified by the electric power company with which each location maintains a contract may be used for an application pursuant to the Anti-Global Warming Act (Electric power companies are allowed to choose a CO_2 emissions factor out of those specified by the Anti-Global Warming Act).

For reports to the JCIA, we use a CO_2 conversion factor in Keidanren's/JCIA's Commitment to a Low Carbon Society, which serves as a market-based figure.

C6.3

(C6.3) What were your organization’s gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

30,344

Scope 2, market-based (if applicable)

27,309

Comment

The location-based figure is calculated using factors (alternative value: 0.000470) based on the Energy Saving Act and Anti-Global Warming Act.
The market-based figure is calculated using factors specified in Keidanren's/JCIA's Commitment to a Low Carbon Society.
Gross CO_2 emissions decreased as the production volume decreased due to the spread of COVID-19.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO2e

736,831

Emissions calculation methodology

To calculate emissions here, we multiplied the purchased amount of raw materials and other materials needed for business (activity data) by values stated in the "Emission Intensity Database for Calculating GHG Emissions of Organizations throughout the Supply Chain" (intensity). Because the relevant intensity includes emissions during transportation of purchased goods, Category 4 upstream transportation emissions are included in the emissions amount calculated for said category.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

We do not acquire data from suppliers.

Capital goods

Evaluation status

Relevant, calculated

Metric tonnes CO2e

81,969

Emissions calculation methodology

To calculate emissions here, we multiplied the amount for purchasing property, plant, and equipment (annual amount for the acquisition, including those outside of Japan) as published in the annual securities report (activity data) by the value for organic chemical products (excluding basic petrochemical products) in DB Ver. 3.0 published by the Ministry of the Environment of Japan (MOE) (intensity). Property, plant and equipment here include property, plant and equipment as well as intangible assets.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

We do not acquire data from suppliers.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, calculated

Metric tonnes CO2e

7,970

Emissions calculation methodology

To calculate emissions here, we multiplied the numerical values for by-fuel-type energy consumption data at all domestic sites of all of our consolidated subsidiaries, whose calculated values must be reported, (activity data) by the by-fuel-type values from DB Ver. 3.0 and LCA DB (IDEA Ver. 2.3) published by the MOE (intensity).

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

We do not acquire data from suppliers.

Upstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Please explain

The amount of emissions for the relevant category is included in the amount of emissions reported for Category 1 (purchased products and services).

Waste generated in operations

Evaluation status

Relevant, calculated

Metric tonnes CO2e

17,499

Emissions calculation methodology

To calculate emissions here, we multiplied the amount of waste treated annually for each type of waste (activity data) by the values of intensity for each type of waste from DB Ver. 3.0 published by the MOE (intensity).

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

We do not acquire data from suppliers.

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

456

Emissions calculation methodology

To calculate emissions here, we multiplied the numbers of employees on a consolidated basis (in Japan) (activity data) by the values of emissions intensity for the corresponding numbers of employees from DB Ver. 3.0 published by the MOE (intensity).

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

We do not acquire data from suppliers.

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1,550

Emissions calculation methodology

To calculate emissions here, we multiplied the number of employees in Japan (activity data) by the most conservative (largest) corresponding value from among the value of emissions intensity for the scale of sites from DB Ver. 3.0 published by the MOE (intensity).

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

We do not acquire data from suppliers.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

Because all the assets we lease fall under Scopes 1 or 2, they are not included in Scope 3 (= zero emissions).
Examples
Scope 1 (using fuel purchased by the company): leased vehicles, forklifts

Scope 2 (using electricity purchased by the company): printers, computers, measuring instruments, forklifts (rechargeable)

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

42,914

Emissions calculation methodology

Using NPTU's reported emissions amount compiled in accordance with the Energy Saving Act of Japan, we used the traffic volume and ratio of sales to estimate the emissions amount by other domestic Group companies to calculate the total emissions amount associated with downstream transportation in Japan. In addition to the amount of their emissions in Japan, we calculated the emissions amount for transportation by sea to overseas destinations as well. To calculate emissions here, we multiplied the total traffic volume to overseas destinations (weight) (activity data) by the value of the emissions intensity for vessels from DB Ver. 3.0 published by the MOE (intensity). Both those for domestic and international transportation are included in the emissions amounts thus calculated.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

We do not acquire data from suppliers.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Please explain

In accordance with WBCSD's guidance for the chemical sector, the relevant category is out of the scope of calculation (zero emissions amount).

Use of sold products

Evaluation status

Not relevant, explanation provided

Please explain

In accordance with WBCSD's guidance for the chemical sector, the relevant category is out of the scope of calculation (zero emissions amount).

End of life treatment of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

66,632

Emissions calculation methodology

For the sake of this calculation, we deducted the amount emitted during transportation between our own sites from the annual total distribution volume in Japan (based on weight), and used the difference as the weight of products shipped in a year. In accordance with WBCSD's guidance for the chemical sector, we assumed 80% of the annual product shipment was used for reclamation and 20% for incineration. To calculate emissions here, we multiplied the relevant weight of products shipped in a year (activity data) by the value of emissions intensity for each type of waste treatment from LCA DB (IDEA Ver. 2.3) (intensity).

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

We do not acquire data from suppliers.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

Out of the scope of calculation as we do not own lease assets for renting (zero emissions).

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

Out of the scope of calculation as we do not maintain franchise contracts (zero emissions).

Investments

Evaluation status

Not relevant, explanation provided

Please explain

Out of the scope of calculation as we do not make investments for profits (zero emissions).

Other (upstream)

Evaluation status

Not relevant, explanation provided

Please explain

Out of the scope of calculation as we do not emit any CO_2 here (zero emissions).

Other (downstream)

Evaluation status

Not relevant, explanation provided

Please explain

Out of the scope of calculation as we do not emit any CO_2 here (zero emissions).

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.0000002084

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

42,374

Metric denominator

unit total revenue

Metric denominator: Unit total

203,294,000,000

Scope 2 figure used

Market-based

% change from previous year

0.1

Direction of change

Decreased

Reason for change

Reduced from 0.0000002110 tCO_2/yen to 0.0000002084 tCO_2/yen

As a result of the emission reduction initiatives (improving the energy efficiency of buildings by replacing air conditioners, lighting apparatuses, etc. for higher efficiency, increasing energy efficiency at production processes by replacing machinery/equipment, etc.) in C4.3b above, we succeeded in reducing the intensity.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

No

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
Japan	15,065

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
Automotive coatings business	7,072
General industrial coatings business	2,914
Decorative paints business (for construction, heavy-duty anticorrosive structures, etc.)	4,801
Surface treatment business	204
Marine coatings business (almost all production is outsourced)	26
Export/import of raw materials and finished products	27
Group supervisory functions	21

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Comment

Chemicals production activities	14,109	CO_2 emissions were calculated by adding up the amounts of fuel consumed at domestic production bases. Accordingly, reported here are the total Scope 1 emissions, excluding those from R&D centers, the Osaka Head Office, and sales offices.

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Japan	30,344	27,309	170,082	0

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Automotive coatings business	11,024	9,922
General industrial coatings business	7,599	6,839
Decorative paints business (for construction, heavy-duty anticorrosive structures, etc.)	9,880	8,892
Surface treatment business	825	743
Marine coatings business (almost all production is outsourced)	475	427
Export/import of raw materials and finished products	54	49
Group supervisory functions	487	438

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Chemicals production activities	25,425	22,883	The location-based figure was calculated using the factors (alternative value: 0.000470) specified in the Energy Saving Act / Anti-Global Warming Act. The market-based figure was calculated using the factors specified in Keidanren's/JCIA's Commitment to a Low Carbon Society. CO_2 emissions were calculated by adding up the amounts of electricity consumed at domestic production bases. Accordingly, reported here are the total Scope 2 emissions, excluding those from R&D centers, the Osaka Head Office, and sales offices.

C-CH7.8

(C-CH7.8) Disclose the percentage of your organization's Scope 3, Category 1 emissions by purchased chemical feedstock.

Purchased feedstock	Percentage of Scope 3, Category 1 tCO2e from purchased feedstock	Explain calculation methodology
Aromatics extraction	4	We calculated CO_2 emissions here by multiplying the emission factor from the "Emission Intensity Database for Calculating GHG Emissions of Organizations throughout the Supply Chain" by the amount of relevant raw materials purchased in 2020 (toluene, aromatic combined solvents). The resultant figure of 28,913 tons was divided by the C6.5 total emissions of 736,831 tons.
Polymers	51	We calculated CO_2 emissions here by multiplying the emission factor of the "Emission Intensity Database for Calculating GHG Emissions of Organizations throughout the Supply Chain" by the amount of relevant raw materials purchased in 2020 (alkyd resins, epoxy resins, etc.). The resultant figure of 374,553 tons was divided by the C6.5 total emissions of 736,831 tons.
Specialty chemicals	22	We calculated CO_2 emissions here by multiplying the emission factor of the "Emission Intensity Database for Calculating GHG Emissions of Organizations throughout the Supply Chain" by the amount of relevant raw materials purchased in 2020 (additive agents, special monomers, pigments, etc.). The resultant figure

		of 160,571 tons was divided by the C6.5 total emissions of 736,831 tons.
Other base chemicals	15	We calculated CO_2 emissions here by multiplying the emission factor of the "Emission Intensity Database for Calculating GHG Emissions of Organizations throughout the Supply Chain" by the amount of relevant raw materials purchased in 2020 (synthetic solvents, general monomers, soda chemicals, etc.). The resultant figure of 109,631 tons was divided by the C6.5 total emissions of 736,831 tons.

C-CH7.8a

(C-CH7.8a) Disclose sales of products that are greenhouse gases.

	Sales, metric tons	Comment
Carbon dioxide (CO2)	0	
Methane (CH4)	0	
Nitrous oxide (N2O)	0	
Hydrofluorocarbons (HFC)	0	
Perfluorocarbons (PFC)	0	
Sulphur hexafluoride (SF6)	0	
Nitrogen trifluoride (NF3)	0	

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	0	No change		
Other emissions	1,297.6	Decreased	2.84	We replaced air conditioners and lighting apparatuses with more efficient and LED equivalents. The higher energy

reduction activities				efficiency of buildings resulted in a reduction of CO_2 emissions by 117.8 tons. Replacement of other machinery for higher energy efficiency at production processes added 500.8 tons to the reduction amount. Also, fuel conversion from fuel oil to LNG led to an additional reduction of 679 tons, resulting in a total of 1,297.6 tons in emissions reductions. We then divided this number by the total of Scopes 1 and 2(market-based) in 2019 (45,713 t-CO_2) to gain a 2.84% change. 1,297.6 / 45,713 (total of 2019 Scopes 1 and 2 emissions) x 100 = 2.84%
Divestment	0	No change		
Acquisitions	0	No change		
Mergers	0	No change		
Change in output	2,042.4	Decreased	4.46	Due to the spread of COVID-19, the production volume decreased, which then triggered a decline in the energy use of plant equipment. We then divided this number by the total of Scopes 1 and 2 (market-based) in 2019 (45,713 t-CO_2) to gain a 4.46% change. 2,042.4 / 45,713 (total of 2019 Scopes 1 and 2 emissions) x 100 = 4.46%
Change in methodology	0	No change		
Change in boundary	0	No change		
Change in physical operating conditions	0	No change		
Unidentified	0	No change		
Other	0	No change		

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	Unable to confirm heating value	0	73,432	73,432
Consumption of purchased or acquired electricity		0	170,082	170,082
Consumption of self-generated non-fuel renewable energy		0		0
Total energy consumption		0	243,514	243,514

C-CH8.2a

(C-CH8.2a) Report your organization's energy consumption totals (excluding feedstocks) for chemical production activities in MWh.

	Heating value	Total MWh
Consumption of fuel (excluding feedstock)	Unable to confirm heating value	68,351
Consumption of purchased or acquired electricity		142,514
Consumption of self-generated non-fuel renewable energy		0
Total energy consumption		210,866

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	No
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	Yes
Consumption of fuel for co-generation or tri-generation	Yes

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)

Kerosene

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

2,188

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2,500

Unit

metric tons CO2 per liter

Emissions factor source

Calculated by using emission factors presented in Keidanren's/JCIA's Commitment to a Low Carbon Society

Comment

Fuels (excluding feedstocks)

Gas Oil

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

212

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2,620

Unit

metric tons CO2 per liter

Emissions factor source

Calculated by using emission factors presented in Keidanren's/JCIA's Commitment to a Low Carbon Society

Comment

Fuels (excluding feedstocks)

Other, please specify

A fuel oil

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

17,990

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2,750

Unit

metric tons CO2 per liter

Emissions factor source

Calculated by using emission factors presented in Keidanren's/JCIA's Commitment to a Low Carbon Society

Comment

Fuels (excluding feedstocks)

Liquefied Petroleum Gas (LPG)

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

2,032

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

3.01

Unit

metric tons CO2 per metric ton

Emissions factor source

Calculated by using emission factors presented in Keidanren's/JCIA's Commitment to a Low Carbon Society

Comment

Fuels (excluding feedstocks)

Natural Gas

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0.2

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0.00224

Unit

metric tons CO2 per m3

Emissions factor source

Calculated by using emission factors presented in Keidanren's/JCIA's Commitment to a Low Carbon Society

Comment

Fuels (excluding feedstocks)

Town Gas

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

50,637.6

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0.00231

Unit

metric tons CO2 per m3

Emissions factor source

Calculated by using emission factors presented in Keidanren's/JCIA's Commitment to a Low Carbon Society

12A：0.00198 tCO2/㎥

13A：0.00231 tCO2/㎥

Comment

Fuels (excluding feedstocks)

Petrol

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

373

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2,290

Unit

metric tons CO2 per liter

Emissions factor source

Calculated by using emission factors presented in Keidanren's/JCIA's Commitment to a Low Carbon Society

Comment

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	5,837	5,837	0	0
Heat	18,538	18,538	0	0
Steam	243,881	243,881	0	0
Cooling	45,820	45,820	0	0

C-CH8.2d

(C-CH8.2d) Provide details on electricity, heat, steam, and cooling your organization has generated and consumed for chemical production activities.

	Total gross generation (MWh) inside chemicals sector boundary	Generation that is consumed (MWh) inside chemicals sector boundary
Electricity	5,837	5,837
Heat	18,538	18,538
Steam	98,698	98,698
Cooling	39,263	39,263

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero emission factor in the market-based Scope 2 figure reported in C6.3.

Sourcing method

None (no purchases of low-carbon electricity, heat, steam or cooling)

Low-carbon technology type

Country/area of consumption of low-carbon electricity, heat, steam or cooling

MWh consumed accounted for at a zero emission factor

Comment

C-CH8.3

(C-CH8.3) Does your organization consume fuels as feedstocks for chemical production activities?

No

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

C-CH9.3a

(C-CH9.3a) Provide details on your organization's chemical products.

Output product

Other, please specify

Paints

Production (metric tons)

239,996

Capacity (metric tons)

306,677

Direct emissions intensity (metric tons CO2e per metric ton of product)

0.17

Electricity intensity (MWh per metric ton of product)

0.97

Steam intensity (MWh per metric ton of product)

0

Steam/ heat recovered (MWh per metric ton of product)

0

Comment

The direct emissions intensity used here is a market-based CO_2 conversion factor, which was calculated using a factor specified in Keidanren's/JCIA's Commitment to a Low Carbon Society.

Within the scope of calculation were paint/coating products grouped by application into the categories of automotives, general industry, and construction and heavy-duty anticorrosive structures.

Marine coatings are outside of the scope as their production is outsourced.

Output product

Specialty chemicals

Production (metric tons)

20,430

Capacity (metric tons)

22,819

Direct emissions intensity (metric tons CO2e per metric ton of product)

0.05

Electricity intensity (MWh per metric ton of product)

0.27

Steam intensity (MWh per metric ton of product)

0

Steam/ heat recovered (MWh per metric ton of product)

0

Comment

The direct emissions intensity used here is a market-based CO_2 conversion factor, which was calculated using a factor specified in Keidanren's/JCIA's Commitment to a Low Carbon Society.

The above responses were prepared by limiting the scope of calculation to our surface treatment business only.

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	In the automotive coatings field, we are developing and bringing to market eco-friendly paints such as paints that reduce the amount of organic solvents at coating processes, water-based paints that do not use organic solvents as diluents, and electrodeposition paints with high throwing power that can be applied evenly without much paint waste. We also own paints that reduce coating processes and lower hardening temperature. In the decorative paints field, we have high solid paints that reduce the amount of organic solvents at coating processes, powder paints that use no organic solvents as diluents, and paints that control temperature increases in coated objects by forming a film that reflects infrared rays after being applied. In the marine paint field, we have antifouling paints on ship bottoms, which controls energy consumption while cruising. And in the fine chemical field, we have low-temperature treatment agents and others that shorten pre-coating treatment processes.

C-CH9.6a

(C-CH9.6a) Provide details of your organization's investments in low-carbon R&D for chemical production activities over the last three years.

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Product redesign	Large scale commercial deployment	21 - 40%		
Product redesign	Basic academic/theoretical research	≤20%		
Radical process redesign	Small scale commercial deployment	≤20%		
Other, please specify Powder paints	Large scale commercial deployment	≤20%		
Other, please specify Heat-shielding paints (roads, construction materials)	Large scale commercial deployment	≤20%		

Other, please specify Electrodeposition paints	Large scale commercial deployment	≤20%		

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	No third-party verification or assurance
Scope 2 (location-based or market-based)	No third-party verification or assurance
Scope 3	No third-party verification or assurance

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

No, but we are actively considering verifying within the next two years

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

No, and we do not anticipate being regulated in the next three years

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

No, but we anticipate doing so in the next two years

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

24

% total procurement spend (direct and indirect)

90

% of supplier-related Scope 3 emissions as reported in C6.5

Rationale for the coverage of your engagement

Fifty-six suppliers were chosen because together they account for 90% of our total purchase of raw materials. The top 56 suppliers account for 24% of all our 230 suppliers.

Impact of engagement, including measures of success

[Clear explanation of how we measure progress]

We are working to reduce GHG emissions throughout our supply chain from procurement of raw materials, production, distribution, use of products, disposal, to recycling. We conduct surveys to see what our suppliers are doing in this regard to determine which ones are proactive in environmental activities, including GHG reduction, and which ones are not.

We send a questionnaire survey to 56 suppliers, which together account for 90% of our total purchase of raw materials. Based on the survey findings, we rank them into A (90%+), B (80-89%), C (70-79%), D (60-69%), E (50-59%), and F (below 50%). Those scoring below 70 points are urged to improve, while we preferentially purchase raw materials from suppliers whose efforts are exemplary.

[Explanation unique to the responding company of the impact of collaboration with suppliers (including explanations of the chosen measurement method) in accordance with the chosen measurement method]

Until 2019, we used to consult with suppliers whose score was below 60 to confirm the details of their activities and what they are doing to improve. More recently, however, because the overall scores have risen, we also consulted with those scoring below 70 in

the 2020 survey and discussed a broader range of topics with those suppliers. Also, in the 2020 survey, we invited nine suppliers (accounting for 7% of the total amount of purchases) who scored low to discuss possible improvement ideas. Forty-seven suppliers (accounting for 83% of the total amount of purchases) were deemed to be without problems with their efforts.
For this survey, the United Nations Global Compact (UNGC) Japan's self-assessment questionnaire (CSR: systems for promoting/correcting corporate governance, human rights, labor, environment, fair corporate activities, quality/safety, information security, supply chains, and social contributions; Environment: international norms, domestic laws/regulations, understanding of overseas acts on chemical substance management, efforts to utilize water and other resources in a sustainable manner and reduce drainage, and systems for correction, as necessary) was used. Each item was weighted to produce a 100 point scale.
To further promote collaboration with suppliers, in 2020, we began organizing training sessions to share information and disseminate our policies in this regard. In that year, we introduced our Group's ESG-oriented management and explained checkpoints for preparing raw materials specifications. Because of the pandemic, the session was given as a webinar, but over 300 suppliers (78% of the total) participated. Going forward, we will continue with supplier surveys to promote GHG reduction throughout the supply chain.

Comment

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Trade associations
Other

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

Japan Chemical Industry Association (JCIA)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Global warming initiatives

Our planet maintains a temperature comfortable for human, animal, and plant life thanks to "greenhouse gases (GHG)" that surround the atmosphere, such as carbon dioxide (CO_2) and methane. However, it is said that our planet is warming; because of the increase in oil and coal consumption on the back of intensifying industrial activities and deforestation, GHG concentrations keep increasing, throwing our planet off balance and causing a temperature rise on a global scale. If our planet keeps warming, it is believed that we will see all kinds of serious consequences, such as desertification, rising sea levels, and ecosystem disruptions.

■ Chemical industry's initiatives to reduce CO_2 emissions

To face these circumstances, the chemical industry in Japan joined Keidanren Voluntary Action Plan on the Environment from fiscal 1997 to fiscal 2012 to engage in continued efforts to promote energy conservation and curb CO_2 emissions. From fiscal 2013, they participated in Keidanren's Commitment to a Low Carbon Society to forge ahead with anti-global warming measures built on the pillars of: 1) Emission reductions from domestic business operations, 2) Strengthening cooperation with other interested groups by spreading low carbon products/technologies to curb CO_2 emissions throughout the supply chain, 3) Promoting contribution on an international scale by transferring Japan's chemical products and processes overseas, and 4) Developing innovative technologies over the mid- and long-term with their practical application in 2020 and beyond in mind.

How have you influenced, or are you attempting to influence their position?

We endorse the goals and initiatives by the JCIA and, as a leading player in the paint industry, cooperate with them in advancing their initiatives.

C12.3e

(C12.3e) Provide details of the other engagement activities that you undertake.

Members from our Group participate in the chemical technology working group of the Assessing Low Carbon Transition (ACT) initiative to contribute to the development of ACT methodology for evaluating a strategic alignment with private enterprises' shifts towards a low carbon economy.
The technology working group also serves as a consultative body, and the final decision on the methodology thus proposed will be made by CDP and ADEME, both board members of ACT.
The methodology developed by this project will be made available for free to all stakeholders with the purpose of supporting alignment with the Paris Agreement.

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

Having a JCIA membership, we constantly check to see if our strategy is aligned with their policies. Direct/indirect activities with key external organizations are reported at quarterly ESG Committee meetings to ensure that such activities are in line with Nippon Paint's climate change-related strategies. We have had many inquiries from our customers and external organizations about our efforts to reduce GHG emissions and our climate change-related strategies. To ensure consistency in our initiatives, the ESG Promotion Department, which serves as a secretariat of the ESG Committee, checks if each activity is aligned with our climate change-related strategy. Any important project is deliberated on by relevant subcommittees and global teams or included in the agenda for the ESG Committee meetings. Agenda items that need approval are first presented to the ESG Committee for discussions and then sent to the Board of Directors (chaired by the ESG Committee chairperson <CEO>) for approval, thus ensuring that they are aligned with our climate change-related strategy.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In mainstream reports

Status

Complete

Attach the document

Annual Securities Report (195th Business Term).pdf

Page/Section reference

Annual Securities Report (195th Business Term) (From January 1, 2020 to December 31, 2020)
(8) Risks Associated with Climate Change,① Long-Term Risks, ② Short-Term Risks, p. 27/188

Content elements

Risks & opportunities

Comment

Publication

In voluntary sustainability report

Status

Underway – previous year attached

Attach the document

IntegratedReport2020Jp.pdf

Page/Section reference

Value Creation Model (p. 9 - p. 12)
Materiality (p. 15 - p. 16)
Risks and Opportunities (p. 17 - p. 18)
ESG management - Ensuring sustainable growth (p. 29 - p. 30)
Value Creation through ESG Practices (p. 59 - p. 84)
Major Financial and Non-Financial Data over 11 Years (p. 85 - p. 86)

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

C15. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Managing Executive Officer and CAO	Other C-Suite Officer