# **Information Disclosure Based on TCFD Recommendations**



Climate change is one of the most pressing issues facing global society. It is a highly urgent issue that seriously impacts people's lives and the natural environment as seen in the unprecedented extreme weather events that are already occurring with greater frequency and intensity around the world. The Paris Agreement, an international treaty on climate change measures, aims to hold the increase in the global average temperature to well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels, and states that this requires achieving a balance between anthropogenic greenhouse gas (GHG) emissions and removals by the second half of this century.

The Inabata Group fully recognizes the effects of climate change and the need for countermeasures, and has made it clear that the Group strives to conserve the global environment through business activities in its Sustainability Basic Policy, Sustainability Code of Conduct, and Declaration of Compliance. When we announced materiality in June 2022, we highlighted "contributing to a decarbonized and circular society" and identified global environmental problems, including climate change, as one of the key issues for management.

We consider climate change a risk to the Group, but one that also presents business opportunities. Therefore, as well as taking steps to reduce GHG emissions, we seek to provide products and solutions that contribute to a decarbonized society.

Having endorsed the recommendations issued in June 2017 by the Financial Stability Board's (FSB) Task Force on Climate-related Financial Disclosures (TCFD),\* we work to develop appropriate understanding of the impact of climate change on our business activities and disclose the details of such impact.

<sup>\*</sup> The TCFD was launched in 2015 at the request of the Group of Twenty (G20). Recognizing the significant impact that climate change will have on financial markets, the Final Report (Recommendations of the TCFD) released in 2017 called on companies and other entities to disclose information on the risks and opportunities presented by climate change.

■ TCFD's core elements of recommended climate-related financial disclosures and a summary of responses by the Inabata Group

Core elements	Description	Inabata Group response			
Governance		Sustainability issues, including climate change, are deliberated and examined at			
	Disclose the	the Sustainability Committee, which is chaired by the president.			
	organization's	The Regulations of the Board of Directors require the director in charge of			
	governance around	sustainability to report to the Board of Directors on the status of initiatives t			
	climate-related risks	address sustainability issues. The content of deliberations and examinations at the			
	and opportunities.	Sustainability Committee is also reported and escalated appropriately to the Board			
		of Directors as part of the abovementioned process.			
		Regarding the 4°C scenario, whereas the Group's bases in Japan and overseas are			
		assumed to suffer damage due to intensifying extreme weather events, the risk is			
		not estimated to be so great as to significantly impact business operations. In			
		terms of opportunities, demand for products adapted to rising temperatures and			
	Disclose the	changing weather patterns is expected to increase. Accordingly, it is concluded			
	impacts of climate-	that the Group will be able to maintain its resilience.			
	related risks and	Regarding the 1.5°C scenario, we identify the increase in operating costs due			
Strategy	opportunities on the	to carbon pricing introduction and steep rises in the electricity price as a risk.			
Strategy	organization's	However, the risk is projected to be more than offset by gaining revenue			
	businesses, strategy,	opportunities from future growth in technologies and products that contribute to			
	and financial	low-carbon economy and reduced environmental impact. We recognize once			
	planning.	again the great relevance of expanding sales of products that reduce			
		environmental load—which is part of our multi-faceted approach to markets with			
		potential for future growth and steady monetization efforts, a key initiative under			
		the New Challenge 2023 medium-term business plan—to our growth in the			
		decarbonized society of the future.			
		At the Group, the Sustainability Committee manages climate-related risks. The			
	Disclose how the	committee deliberates risks identified and examined from both qualitative and			
	organization	quantitative perspectives based on scenario analysis, and reports to the Board of			
Risk	identifies, assesses,	Directors as necessary.			
Management	and manages	The Board of Directors oversees Group-wide risks of high importance in an			
	climate-related	integrated manner, taking into account reports from the Sustainability Committee			
	risks.	as well as other risks reported by the Risk Management Office, the Financial			
		Management Office, the Compliance Committee, and other units.			

Metrics and Targets Disclose the metrics and targets used to assess and manage relevant climaterelated risks and opportunities. To commit to achieving the global goal of limiting the increase in temperatures to 1.5°C as stated in the Paris Agreement, the Inabata Group has set the long-term goal of carbon neutrality by FY2050 (covering Scopes 1 and 2 emissions of the consolidated Group). Since FY03/2022, we have calculated Scope 3 emissions in order to understand emissions for our entire supply chain. In the future, we will expand the scope of calculations and consider medium-term targets to achieve the long-term goal.

#### Governance

In October 2021, the Inabata Group set up the Sustainability Committee, chaired by the president, to promote Group-wide initiatives further that address sustainability issues including climate change.

The committee members are the senior managing executive officer in charge of sustainability who serves as the vice-chair, two directors and one executive officer in charge of the four business segments, and six selected heads of administrative offices. In addition, seven outside directors, one non-executive director, and one audit and supervisory officer also participate as observers to verify fair and effective discussions and make recommendations as necessary.

Convened at least once a year (plus extraordinary meetings as needed) in principle, the committee formulates, authorizes, and monitors the Group's sustainability policies and measures.

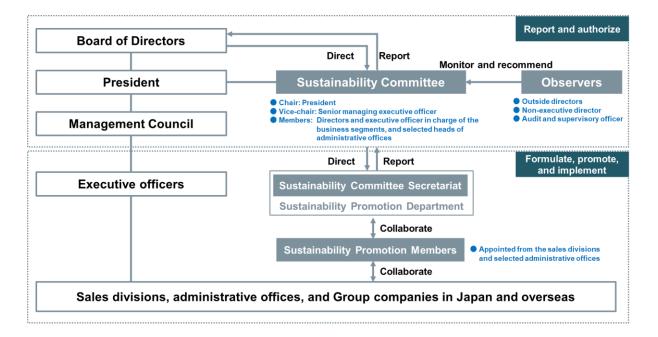
The Regulations of the Board of Directors require the director in charge of sustainability to report to the Board of Directors at least once a year on the status of initiatives to address sustainability issues (such as considerations for climate change and other global environmental issues, respect for human rights, considerations for employee health and working environment, fair and reasonable treatment of employees, fair and reasonable transactions with business partners, and crisis management for natural disasters). In addition, the status of these initiatives is reported to the Board of Directors through the quarterly reports on business execution. The content of deliberations and examinations at the Sustainability Committee is also reported and escalated to the Board of Directors as part of the abovementioned process.

Since the Inabata Group recognizes that addressing sustainability is an important management issue, it has set environmental, social, and governance (ESG) scores by multiple external evaluation organizations (FTSE Russell and MSCI) as the indicators for performance-linked remuneration\* for directors to enhance the effectiveness of the Board's approach to sustainability issues. To promote sustainability activities across the Group, matters resolved by the Board of Directors and the Sustainability Committee are implemented and managed through collaboration between the dedicated Sustainability Promotion Department and the Sustainability Committee Secretariat that comprises members appointed from selected administrative offices.

To support meaningful discussions at the Sustainability Committee, the Sustainability Promotion Department collates and provides Group-wide sustainability information, working together with Sustainability Promotion Members appointed from the sales divisions and selected administrative offices.

\* With the fixed remuneration for each position as the basis, we calculate performance-linked remuneration by applying a coefficient according to net income before taxes and other adjustments (excluding proceeds from sales of some cross-shareholdings), profitability in relation to capital (ROIC, ROE), stock price, and each level of ESG scores from multiple external evaluation organizations (FTSE Russell and MSCI).

# ■ Sustainability promotion system



■ Main climate-related matters reported to the Board of Directors in the past

FY03/2022	Establishment of Sustainability Basic Policy and Code of Conduct		
FY03/2023	Participation in the United Nations Global Compact		
	Carbon Neutrality Declaration 2050		
	Identification of materiality		
	Information disclosure in accordance with TCFD recommendations		
	Status of evaluations by FTSE Russell and MSCI		
	Progress on calculation of GHG emissions (Scopes 1, 2, and 3) and		
	TCFD-compliant scenario analysis		

# **Strategy**

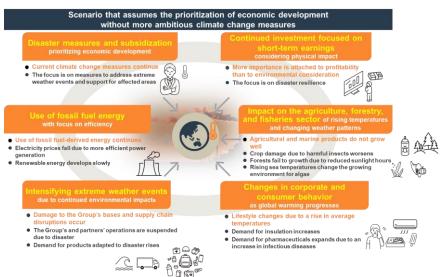
The Inabata Group strives to understand the business risks and opportunities arising from the transition risks and physical risks of climate change, and to reflect this in the formulation of climate change countermeasures and business strategies.

In addition to 2030, which is the year for achieving our long-term vision IK Vision 2030, the scenario analysis below assumes 2050, which is the year for achieving our carbon neutrality target. We consider both qualitative and quantitative aspects with reference to the 4°C scenario, which assumes no implementation of more ambitious climate change measures and intensifying extreme weather events, and the 1.5°C scenario (partly combined with the 2°C scenario), which assumes implementation of more ambitious climate change measures aimed at decarbonization.

- Future forecasts based on climate-related scenarios
  - The world envisioned in the 1.5°C scenario



The world envisioned in the 4°C scenario



#### Reference scenarios

4°C scenario: Stated Policies Scenario, International Energy Agency (IEA); and Representative Concentration Pathway

(RCP) 8.5 scenario, Intergovernmental Panel on Climate Change (IPCC).

2°C scenario: Sustainable Development Scenario, IEA; and RCP2.6 scenario, IPCC.

1.5°C scenario: Net Zero Emissions by 2050 Scenario, IEA.

The Inabata Group operates in a wide range of businesses, with trading at the core. There are shared risks and opportunities, as well as different risks and opportunities, for each of the four business segments: Information & Electronics, Chemicals, Life Industry, and Plastics. Therefore, we have examined the relevance of climate-related issues to each business segment. The findings are summarized in the table below.

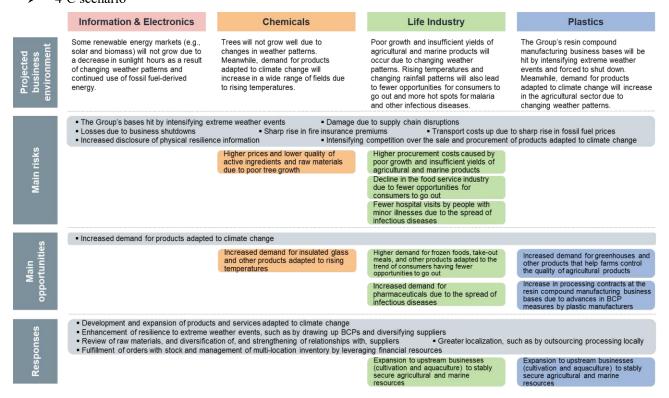
		Information & Electronics	Chemicals	Life Industry	Plastics
	1.5°C	Display components, semiconductor materials, internet of things (IoT) products, etc.	Functional chemicals, coating materials, construction materials, etc.	Pharmaceuticals, home products, agricultural products, processed marine products, etc.	Plastic compounds, film, sheets, etc.
	Introduction of carbon pricing	0	0	0	0
bu us	Plastics regulations	0	Δ	$\triangle$	0
es a atio	Recycling regulations	0	0	0	0
Policies and regulations	Regulations on use of renewable energy	0	0	Δ	0
	Energy-saving regulations	0	Δ	Δ	Δ
Tech	Diffusion of renewable energy technologies	0	Δ	×	×
	Diffusion of low-carbon technologies	0	0	Δ	0
	Change in energy costs	Δ	Δ	$\triangle$	$\triangle$
et	Change in raw materials costs	0	0	0	0
Market	Change in demand for important products	0	0	0	0
	Change in customer behavior	0	0	0	0
putatic	Change in the Group's reputation among customers	0	0	0	0
	Change in the Group's reputation among investors	Δ	Δ	Δ	Δ

	4°C	Information & Electronics	Chemicals	Life Industry	Plastics
		Display components, semiconductor materials, IoT products, etc.	Functional chemicals, coating materials, construction materials, etc.	Pharmaceuticals, home products, agricultural products, processed marine products, etc.	Plastic compounds, film, sheets, etc.
Acute problem	Intensifying extreme weather events	0	0	0	0
	Rise in average temperatures	Δ	0	0	0
SE SE	Changes in rainfall and weather patterns	Δ	0	0	Δ
aldo.	Decline in biodiversity	×	×	0	×
ic pr	Poor growth of raw materials	×	0	0	×
Chronic problems	Changing ocean environment	×	×	0	Δ
U	Proliferation of harmful insects	×	Δ	0	Δ
	Increase in infectious diseases	×	×	0	Δ
Reputation	Change in the Group's reputation among customers	0	0	0	0
	Change in the Group's reputation among investors	Δ	Δ	Δ	Δ

■ Results of scenario analysis and key responses for each business segment (qualitative)

#### 1.5°C scenario Information & Electronics Chemicals Life Industry **Plastics** Green transformation (GX) and eco-GX and eco-friendly products will Local production for local consumption will The distribution volume of plastics friendly products will progress in a wide range of fields. In particular, progress in a wide range of fields, resulting in increased demand for new be more needed to reduce GHG derived from fossil fuels will be emissions from transport. Laws and regulated from an eco-friendly advances in renewable energy and products and technologies. regulations will be adopted to reduce food perspective. There will be a gradual energy-saving technologies, including loss and waste. GHG emissions from shift to biomass or recycled plastics livestock will be deemed problematic. Poor electrified vehicles (xEVs) and (post-consumer, post-industrial, and chemically recycled plastics) and biodegradable plastics. hydrogen technology, will lead to growth and insufficient yields of significant market expansion. agricultural and marine products will occur due to changing weather patterns. • Operating costs up due to rising electricity prices Costs incurred to respond to energy-saying regulations at the Group's bases Introduction of carbon pricing Gradual reduction of existing products derived from fossil fuels resulting in less demand for related products Increased disclosure of climate-related information Rising raw materials prices due to shift to decarbonized society Damage to supply chain due to increased frequency of extreme weather events Poor growth and insufficient yields of agricultural and marine products causing procurement costs to rise Higher demand for domestically produced raw materials as need for local production for local consumption, and ethical consumption, grow Proliferation of xEVs leading to Proliferation of xEVs leading to Proliferation of xEVs leading to increased demand for related products increased demand for related products increased demand for related products Increased demand for biomass or recycled plastics, and biodegradable plastic materials Higher demand for domestically produced raw materials as need for local production for local consumption, and ethical consumption, grow Increased demand for non-fossil and recycling technologies Increased demand for products related to renewable energy and energy-saving technologies Diffusion of DX and hydrogen technologies resulting in higher demand for related products Shift to renewable electricity at high-emission manufacturing bases Electrification and switch to more energy-efficient equipment at manufacturing bases Introduction of power consumption systems Pass-through of higher raw materials prices to selling prices Enhancement of resilience to extreme weather events, such as by drawing up business continuity plans (BCPs) and diversifying suppliers Preemptive development of new and alternative low-carbon technologies, and formation of partnerships Fulfillment of orders with stock and management of multi-location inventory by leveraging financial resources Gathering of information about alternative low-carbon technologies, new low-carbon materials and services, etc. Actively considering the purchasing of non-fossil certificates Responses to requests from CDP and other organizations Phased shift of head offices and branches to eco-friendly buildings Greater localization, such as by outsourcing processing locally Preemptive development of low-carbon and decarbonized businesses including mergers and acquisitions Construction and operation of biomass power plant in Sakaiminato City, Tottori Prefecture (planning to go into operation in May 2026) Formation of partnerships to develop domestically made products with the aim of reducing transport CO<sub>2</sub> emissions through local production for local consumption

#### 4°C scenario



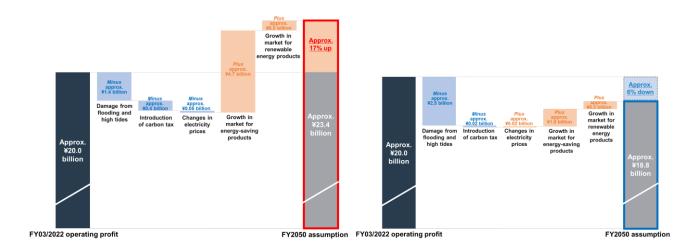
#### ■ Financial impact estimates

We have estimated the financial impact based on predicted values for the future.

Note that these financial impact estimates were obtained by narrowing down the scope of the analysis and establishing hypothetical situations based on the limited information and data available at this point in time.

#### Reference: Formula for the estimates

- Carbon tax
  - Estimates based on GHG emissions by the Inabata Group and future CO<sub>2</sub> prices.\*1
  - (\*1. Refer to values under the Net Zero Emissions by 2050 Scenario in the IEA's World Energy Outlook 2021)
- Electricity prices
  - Estimates based on power consumption by the Inabata Group and future electricity prices.\*2
  - (\*2. Refer to values under the Stated Policies and Sustainable Development Scenarios in the IEA's World Energy Outlook 2019)
- Diffusion of renewable energy and energy-saving products
  - Estimates based on projections of the Group's related product sales as well as of future electrical capacity and market size for clean energy technologies.\*3
  - (\*3. Refer to Stated Policies, Sustainable Development, and Net Zero Emissions by 2050 Scenarios in the IEA's World Energy Outlook 2021)
- Physical damage from flooding and high tides
  - Estimates of amounts of disaster damage at each Group base by reference to *Manual for Economic Evaluation of Flood Control Investment* by the Ministry of Land, Infrastructure, Transport, and Tourism. Damage information (rates of damage and number of days of business stoppage) for each base specified using the hazards map.



#### ■ Scenario analysis results

Regarding the 4°C scenario, whereas the Group's bases in Japan and overseas are assumed to suffer damage due to intensifying extreme weather events, the risk is not estimated to be so great as to significantly impact business operations. In terms of opportunities, demand for products adapted to rising temperatures and changing weather patterns is expected to increase. This has made us recognize anew the potential to contribute to society by helping society as a whole adapt to global warming while maintaining the Group's resilience.

Regarding the 1.5°C scenario, we identify the increase in operating costs due to carbon pricing introduction and steep rises in electricity prices as a risk. However, the risk is projected to be more than offset by gaining revenue opportunities from future growth in technologies and products that contribute to low-carbon economy and reduced environmental impact. We recognize once again the great relevance of expanding sales of products that reduce environmental load—which is part of our multi-faceted approach to markets with potential for future growth and steady monetization efforts, a key initiative under the New Challenge 2023 medium-term business plan—to our growth in the decarbonized society of the future.

Reference: Fields of products the Group sells that reduce environmental load and net sales for FY2021

Field	Main items	Net sales	
		FY03/2022	FY03/2023
Energy & Power	Renewable energy- and battery-related items	¥13.5 billion	¥17.5billion
Resources & Environment	Sustainable raw materials, recycling, and water- related items	¥4.2 billion	¥7.5billion
Materials & Chemicals	Low-carbon materials and environmental pollutant reduction	¥0.7 billion	¥1.5billion
Agriculture & Food	Food waste reduction and soil improvement	0	0
Transportation & Logistics	EV charging and green logistics	0	0
Environmental certification	Certifications by the Forest Stewardship Council, the Programme for the Endorsement of Forest Certification, the Marine Stewardship Council, and the Aquaculture Stewardship Council	¥0.3 billion	¥0.3 billion
Total (simple sum)		¥18.7 billion	¥26.9billion

#### Notes:

- Scope: Inabata Group (domestic and overseas consolidated companies).
- No sales for the Agriculture & Food and Transportation & Logistics fields in FY2021.
- In FY2023, we revised and partly reclassified items for each field, and recalculated net sales for FY03/2022 accordingly. As a result, the field-based values that had already been published on our corporate website and in our integrated reports changed, but the total figures remain unchanged.

#### Risk Management

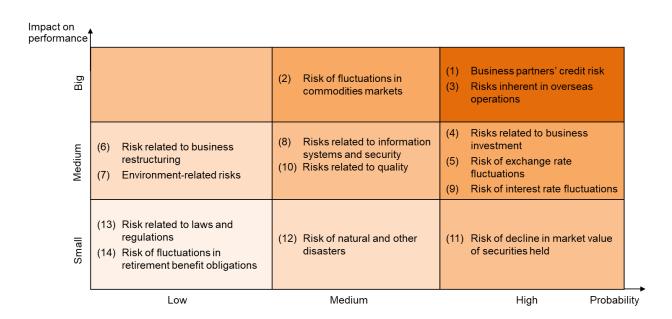
At the Inabata Group, climate-related risks are managed by the Sustainability Committee as we believe that traditional risk management methods alone are insufficient to manage long-term impacts that include elements of uncertainty. The committee discusses risks identified and examined from both qualitative and quantitative aspects based on scenario analysis, monitors the progress, and reports to the Board of Directors as required.

Regarding Group-wide risk management, the Risk Management Office, the Financial Management Office, the Compliance Committee, and other units implement risk management by applying their individual expertise to analyze and evaluate risks related to partners, products, import and export, financial management, compliance, and so forth. Important matters are reported to the Board of Directors as needed.

The Board of Directors oversees Group-wide risks of high importance in an integrated manner, taking into account reports from the Sustainability Committee as well as other risks reported by abovementioned expert units.

In addition, each risk is assessed from the dual perspectives of assumed impact on performance and probability, as part of the annual Board of Directors effectiveness evaluation.

#### ■ Main risks as assessed in the FY03/2023 Board of Directors effectiveness evaluation



In June 2022, we identified materiality (key issues) for sustainable growth at the Inabata Group. Contributing to a decarbonized and circular society was once again identified as important materiality.

When identifying materiality, it is essential to identify the items that are important for the Group's growth by narrowing down wide-ranging, comprehensive content from multiple internal and external perspectives. To do so, we followed the process outlined below.

■The Process of Identifying Materiality

#### **Step 1: List social issues**

Refer to international guidelines (e.g., Global Reporting Initiative standards, Sustainability Accounting Standards Board standards, United Nations Sustainable Development Goals, ISO 26000, and United Nations Global Compact's Ten Principles).

Refer to external evaluations and requests (e.g., environmental, social, and governance surveys by FTSE Russel and MSCI, and investor requests).

## **Step 2: Extract issues and evaluate importance**

Narrow down issues and evaluate their importance through discussion by the Sustainability Committee Secretariat and the Sustainability Promotion Members.

Deliberate on tentatively identified materiality issues at a Sustainability Committee meeting.

#### Step 3: Verify validity from an external perspective

Hold stakeholder dialogues with external experts.

## **Step 4: Decide at the management level**

Discuss candidate issues selected based on external opinions and make the final decision at a Sustainability Committee meeting.

# ■Inabata Group Materiality



#### **Metrics and Targets**

In June 2022, the Inabata Group set the long-term goal of carbon neutrality by FY2050\* in order to commit to achieving the global goal of limiting the increase in temperatures to 1.5°C as stated in the Paris Agreement.

Climate change is one of most pressing issues facing global society. There are calls for climate action worldwide, and moves towards decarbonization are accelerating in Japan and abroad. The Inabata Group's Carbon Neutrality Declaration 2050 responds to global calls for climate action and declares that the Group will further accelerate climate change measures.

While we have already established an environmental management system compliant with ISO 14001 and have been implementing energy management and other initiatives, we will further strengthen decarbonization initiatives going forward to achieve carbon neutrality. We are also focusing our business activities on providing various products and solutions that contribute to a decarbonized society.

Since FY2021, we have calculated Scope 3 emissions in order to understand emissions for our entire supply chain. In the future, we will expand the scope of calculations and consider medium-term targets to achieve the long-term goal.

#### ■ Inabata supply chain emissions (FY03/2022)

	FY03/2022		
Inabata supply chain emissions	GHG emissions (tons-CO <sub>2</sub> eq)	Ratio of total	
Scope 1 <sup>-1</sup>	747	0.03%	
Scope 2 <sup>-2</sup>	36,930	1.50%	
Scope 3 <sup>-3</sup>	2,423,453	98.47%	
Total for Scopes 1, 2, and 3	2,461,130	100.00%	

		Scope 3 breakdown by category	GHG emissions (tons-CO₂eq)	Scope 3 ratio
	Category 1	Purchased goods and services	1,827,367	75.403%
	Category 2	Capital goods	1,394	0.058%
	Category 3	Fuel- and energy-related activities not included in Scope 1 or Scope 2	4,129	0.170%
	Category 4	Upstream transportation and distribution	52,547	2.168%
Upstream	Category 5	Waste generated in operations	52	0.002%
	Category 6	Business travel	888	0.037%
	Category 7	Employee commuting	218	0.009%
	Category 8	Upstream leased assets	Not applicable since the category is included in Scopes 1 and 2.	_
	Category 9	Downstream transportation and distribution	Excluded from calculations since it is difficult to ascertain actual conditions and make reasonable estimates for the wide variety of products sold and of transportation destinations.	_
	Category 10	Processing of sold products	Excluded from calculations since it is difficult to ascertain actual conditions and make reasonable estimates for the wide variety of products sold and of transportation destinations.	1
	Category 11	Use of sold products	Not applicable since there are no activities in this category.	_
Downstream	Category 12	End-of-life treatment of sold products	536,788	22.150%
	Category 13	Downstream leased assets	70	0.003%
	Category 14	Franchises	Not applicable since there are no activities in this category.	_
	Category 15	Investments	Not applicable since there are no activities in this category.	_

<sup>\*</sup> Covers GHG emissions from the business activities of the consolidated Group (Scopes 1 and 2).

#### Scope of calculations

- Scopes 1 and 2: Inabata & Co., Ltd., seven domestic consolidated subsidiaries, and seven overses resin compound manufacturing business bases.
- Scope 3: Inabata & Co., Ltd.
- \*1. Scope 1: Direct GHG emissions from Inabata's own sources (burning fuel and manufacturing processes).
- \*2. Scope 2: Indirect emissions from the use of electricity, heat, and steam provided by other companies, calculated based on market standards.
- \*3. Scope 3: Indirect emissions other than Scopes 1 and 2 (emissions at other companies related to Inabata's business activities).

Please consult this page for past performance data.