

# Information Disclosure Based on the TCFD Recommendations

## Information Disclosure Based on the TCFD Recommendations

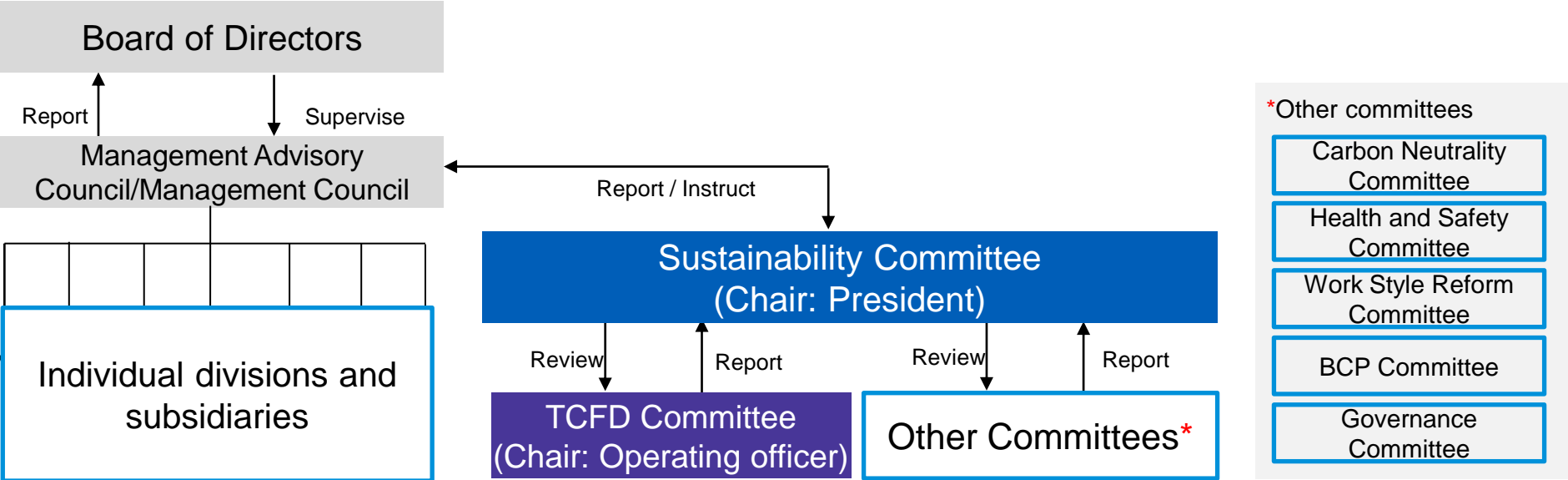
Recognizing that climate change is one of the material issues facing management, the Aisan Group endorsed the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) in May 2022 and made disclosures accordingly.

Based on the TCFD recommendations, we will continue to analyze and respond to the risks and opportunities that climate change poses to our business and strive to improve our information disclosure and enhance its quality.

## Governance

The Sustainability Committee, which is chaired by the President, verifies the directions and appropriateness of all issues concerning sustainability, including climate change. The TCFD Committee, a subcommittee of the Sustainability Committee, meets at least once every three months to formulate, execute and manage plans related to climate change issues.

The Sustainability Committee convenes meetings twice a year to receive reports from the TCFD Committee and the other committees and deliberate on their contents. Key outcomes of these deliberations are then reported to the Board of Directors and the Management Advisory Council/Management Council.



## Fiscal Year 2023 Performance and Main Agenda Items

	Board of Directors	Sustainability Committee	TCFD Committee
Number of Meetings*	2 times	2 times	4 times
Agenda Items	<div>•Progress on Carbon Neutrality Promotion</div> <div>•Overview of TCFD Disclosures</div>	<div>•Progress on Sustainability Management</div> <div>•Overview of TCFD Disclosures</div>	<div>•About the TCFD Promotion Plan</div> <div>•Long-term Global Perspective</div> <div>•Response to Risks and Opportunities</div> <div>•About TCFD Disclosure Content</div>

\*Number of times climate change-related topics were included

Strategy

Assumptions of scenario analysis

To identify the financial impacts of climate change, the Aisan Group conducted a scenario analysis on its business impacts for 2030, a potential milestone year in the popularization of vehicle electrification, and additionally for the carbon-neutral target year of 2050. This analysis covered the consolidated Aisan Group. We adopted several scenarios for the analysis, assuming temperature rises of 1.5°C/2°C and 4°C, with the aim of enhancing sustainable competitiveness by appropriately addressing an uncertain future. For these two scenarios, we mainly referred to the World Energy Outlook 2022, produced by the International Energy Agency (IEA), in the analysis of transition risks, and the Sixth Assessment Report (AR6) of the Intergovernmental Panel on Climate Change (IPCC) in the analysis of physical risks.

		4°C scenario	1.5°C/2°C scenario
Assumed world		<b>Increase in physical risks</b> <ul style="list-style-type: none"><li>• Expansion of damage due to extreme weather</li><li>• Unless measures exceeding the current ones in place are taken, 3.3°C to 5.7°C warming above pre-industrial levels by 2100 can be expected</li></ul>	<b>Increase in transition risks</b> <ul style="list-style-type: none"><li>• Increase in risks due to policy and market changes</li><li>• If stringent measures are taken, 1.0°C to 2.4°C warming above pre-industrial levels by 2100 can be expected</li></ul>
Representative scenario	Transition risks	<b>STEPS</b> <b>(Stated Policies Scenario)</b> Scenario that reflects energy policies announced by individual countries	<b>NZE</b> <b>(Net Zero Emissions by 2050 Scenario)</b> Scenario to achieve global net zero emissions by 2050 <b>APS</b> <b>(Announced Pledges Scenario)</b> Scenario that reflects aspirations declared by ambitious countries
	Physical risks	<b>SSP* 5-8.5</b> Maximum emissions scenario without implementation of climate policy, under fossil fuel-dependent development	<b>SSP* 1-1.9</b> Scenario to curb the temperature rise to no more than 1.5°C under sustainable development

\*SSP: Shared Socio-economic Pathways

Society envisaged in the scenarios

In the 1.5°C/2°C scenario, we anticipate the implementation of more sophisticated policies and legal systems aimed at the decarbonization of society, including the introduction of carbon taxes and the strengthening and stricter enforcement of greenhouse gas emissions restrictions. In our own automotive industry, we expect to see stronger and more stringent calls for the reduction of CO<sub>2</sub> emissions throughout the product life cycle, which spans the raw materials stage through vehicle operation and on to end-of-life disposal, in addition to emissions during the manufacturing process. Consequently, the market shares of battery electric vehicles (BEVs), plug-in hybrid electric vehicles (PHEVs), and fuel cell vehicles (FCVs) are expected to rise.

Meanwhile, in the 4°C scenario, we assumed that, as global warming progresses, natural disasters will become more frequent and severe, resulting in supply chain disruptions, temporary halts of production, and other impacts.

Anticipated risks and opportunities associated with climate change

We have compiled the risks and opportunities for the Aisan Group given their importance to our stakeholders and to the Aisan Group based on our vision for society under the scenarios. Assuming a long-term timeline towards 2050, we identified the risks and opportunities based on the situation in each country and region and the nature of their respective businesses. We have assessed the respective financial impact in fiscal 2030 of those identified risks and opportunities that we deemed to be of particular importance, and we are now working on the mitigation of risks and the creation of opportunities.

## ■ Climate change risks, opportunities, and responses

Category		Details		Time frame	Impact level	Aisan Group's response
Transition risks	Policy/ Regulation	Greenhouse gas emissions regulations	Strengthened energy policies and increased manufacturing costs due to the use of renewable energy	Medium to Long-term	Medium	<ul style="list-style-type: none"><li>• Thorough elimination of wastefulness</li><li>• Global roll-out of improvements made in Japan</li></ul>
		Introduction of carbon tax	Increased production costs due to the implementation of carbon tax	Medium to Long-term	Medium	<ul style="list-style-type: none"><li>• Improvement of energy efficiency</li><li>• Introduction of renewable energy</li><li>• Generation of clean energy by ammonia/hydrogen power generation, etc.</li></ul>
			Increased procurement costs due to passing on of carbon tax to prices	Medium to Long-term	Medium	<ul style="list-style-type: none"><li>• Adoption of low-carbon materials</li><li>• Waste reduction and recycling</li><li>• CO<sub>2</sub> improvement activities with suppliers</li></ul>
	Technology	Increased demand for low-carbon products	Delay in recovering investment costs due to delay in transition in new areas	Medium to Long-term	Large	<ul style="list-style-type: none"><li>• Business planning for future products and intensive input of resources considering environmental changes</li></ul>
	Market	Shift in customers' values	Decreased sales of engine parts due to the prevalence of battery electric vehicles (BEVs)*1	Medium to Long-term	Large	<ul style="list-style-type: none"><li>• Business development in new areas that contribute to decarbonization leveraging technologies and strengths</li></ul>
	Reputation	Insufficient environmental initiatives and disclosures	Decline in corporate value Decline in customer trust	Medium to Long-term	Medium	<ul style="list-style-type: none"><li>• Improvement of the score by rating agency through CO<sub>2</sub> reduction initiatives (CDP, etc.)</li></ul>
Physical risks	Acute	More frequent, severe, and prolonged natural disasters	Temporary production halts caused by supply chain disruptions	Medium to Long-term	Medium	<ul style="list-style-type: none"><li>• Further strengthening of BCP structure<ul style="list-style-type: none"><li>➢ Improvement of inventory management precision</li><li>➢ Continuation of supply chain BCP</li></ul></li></ul>
Opportunities	Technology	Acceleration of electrification and industry restructuring	Increase in share of core products	Short to Medium-term	Large	<ul style="list-style-type: none"><li>• Establish advantages over competitors<ul style="list-style-type: none"><li>➢ Switch to next-generation elite products</li><li>➢ Strengthening of manufacturing (multi-assembly)</li></ul></li></ul>
	Market	Expansion and development of low-carbon products	Increased revenue from hydrogen supply units following expanded utilization of hydrogen energy	Medium to Long-term	Medium	<ul style="list-style-type: none"><li>• Promotion of the development of products for next-generation FCVs/hydrogen engines</li></ul>
			Increase in opportunities to enter markets for electrified products due to increase in electric vehicles (BEV/PHEV/FCV)*1	Medium to Long-term	Medium	<ul style="list-style-type: none"><li>• Provision of lightweight, high-efficiency, and low-cost systems/components</li><li>• Product development leveraging proprietary technologies</li><li>• Establishment of future product production factories</li><li>• Product development for compact mobility</li></ul>
			Expanding business opportunities in new areas of carbon neutrality	Medium to Long-term	Medium	<ul style="list-style-type: none"><li>• Research and development of new technologies and new areas<ul style="list-style-type: none"><li>➢ Components for ammonia supply system</li><li>➢ Compact FC module</li></ul></li></ul>
		Growing demand for products that contribute to lower emissions	Medium to Long-term	Small	<ul style="list-style-type: none"><li>• Development of products for vehicles applying existing technologies (FFV<sup>*2</sup> technology)<ul style="list-style-type: none"><li>➢ Products compatible with synthetic fuels/biofuels</li></ul></li></ul>	

[Time frame] Short-term: until 2025, Medium-term: until 2030, Long-term: until 2050

[Impact level] Impact on single-year operating profit: Large, ¥2.0 billion or more; Medium, ¥0.1 billion to less than ¥ 2.0 billion; Small, less than ¥0.1 billion

[Aisan Group's response] We have incorporated initiatives for mitigating risks and creating opportunities related to climate change in the Medium-term Management Plan announced in November 2022 and are promoting activities accordingly. For details, see the following website: [https://www.aisan-ind.co.jp/en/ir/221129\\_en.pdf](https://www.aisan-ind.co.jp/en/ir/221129_en.pdf)

\*1 Assumption of the number of units is calculated based on the 2°C scenario

\*2 FFV: Flexible-Fuel Vehicle

Risk Management

In the Aisan Group, the Sustainability Committee comprehensively manages risks, including climate change risks that may have a major impact on management as reported by the TCFD Committee, as well as other risks that also may have a major impact on management reported by other individual committees.\* Risks requiring a priority response are identified based on the extraction, analysis, and assessment of risks reported by the individual committees, with considerations for their likelihood of occurrence and impact. Following this, the departments in charge take the lead in implementing risk reduction measures.

The individual committees check the progress of various measures and the latest status of risks and report their findings to the Sustainability Committee. The Sustainability Committee provides direction and supervision regarding risk management based on these reports.

\* Individual committees: Carbon Neutrality Committee, Health and Safety Committee, Work Style Reform Committee, BCP Committee, and Governance Committee

Metrics and Targets

At COP28, the need for urgent action to achieve the 1.5°C goal, peaking emissions by 2025, and reducing emissions across all gases and sectors were explicitly stated. Moreover, there is an increased demand for greenhouse gas emission reductions and environmental contributions than last year, as environmental regulations are being strengthened in Europe and other regions.

As an environmental company, Aisan Group will respond to international initiatives on information disclosure and evaluation regarding climate change measures and promote the decarbonization of the global environment.

Currently, our greenhouse gas reduction activities across the entire supply chain are deepening into on-site improvements and technological innovations at the product level, advancing the development of clean energy technologies such as ammonia and hydrogen that contribute to decarbonization, and moving forward with product development for next-generation mobility, including e-fuel/hydrogen engines and batteries, to steadily reduce greenhouse gases.

Additionally, we are promoting collaborative initiatives across the entire supply chain on resource recycling for the entire product lifecycle, including the 3Rs (Reduction in waste generation, Reuse of recycled resources, Recycling) + Renewable (utilization of biomass and recycled materials), to reduce greenhouse gas emissions.

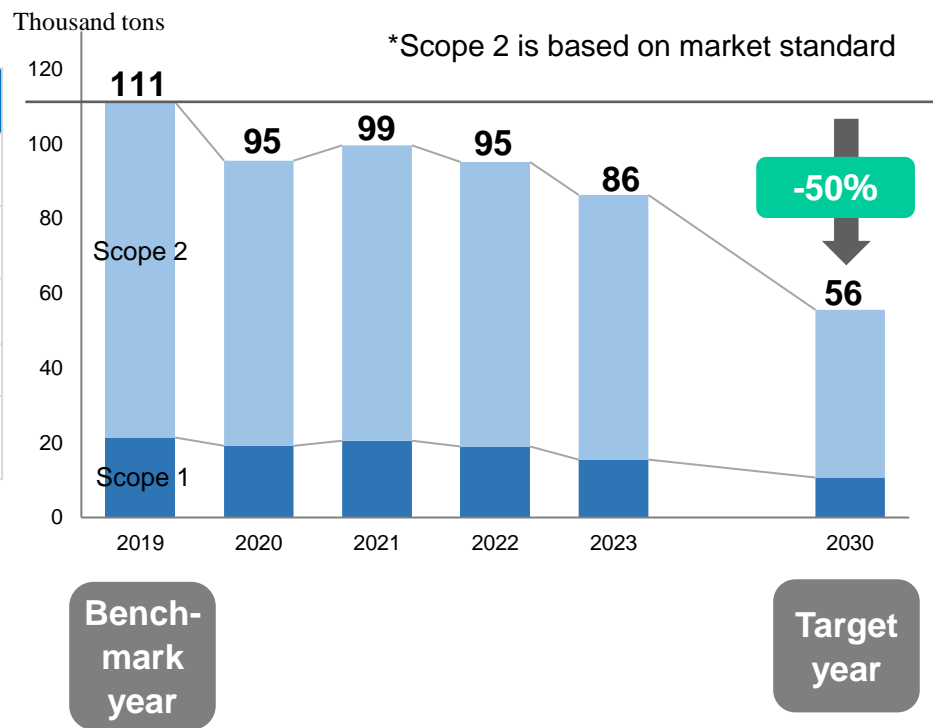
Furthermore, we will cooperate with academia, government, and local communities to engage in environmental activities such as the conservation and restoration of the natural environment and biodiversity around our business sites and surrounding areas, and the development of environmental human resources, to reduce environmental impact.

Major carbon neutrality targets for 2030

Category	Item	Target
CO <sub>2</sub> emissions reduction (vs. 2019)	(1) Scope 1 & 2	50% reduction
	(2) Scope 3	50% reduction*1
Clean energy	Renewable energy	20% usage
	Energy creation	5%*2
Resource Recycling	Waste	Zero Emissions

\*1 Categories and scope are under consideration  
\*2 Self-sufficiency of energy other than renewable energy

(1) Scope 1&2\* Aisan Group global emissions



Note: Data prior to 2021 has been partially revised in line with the acquisition of third-party verification in 2022.




## (2) Scope 3: Aisan Industry (non-consolidated) emissions

Category	Description	FY2021	FY2022
1	Purchased goods and services	146,138 t	146,799t
2	Capital goods	13,386 t	47,465t
3	Fuel- and energy-related activities (not included in scope 1 or scope 2)	6,241 t	5,940t
4	Upstream transportation and distribution	326 t	562t
5	Waste generated in operations	763 t	375t
6	Business travel	414 t	428t
7	Employee commuting	1,466 t	1,536t
8	Upstream leased assets	Not covered	Not covered
9	Downstream transportation and distribution		
10	Processing of sold products		
11	Use of sold products		
12	End-of-life treatment of sold products		
13	Downstream leased assets		
14	Franchise		
15	Investments		

## Third-party verification

In order to enhance the reliability of our data, we have obtained third-party verification from SGS Japan Co., Ltd. for the actual results of our Scope 1 and 2 emissions for fiscal 2022.



22 April 2024  
Opinion No : SGS24/109

Mr. Tokuhisa Nomura  
President  
Aisan Industry Co., Ltd.  
1-1-1 Kyowa-cho, Obu, Aichi

**Objective**  
SGS Japan Inc. (hereinafter referred to as "SGS") was commissioned by Aisan Industry Co., Ltd. (hereinafter referred to as "the Organization") to conduct independent verification based on Criteria of Verification (ISO14064-3: 2019 and the SGS verification protocol) regarding the data prepared by the Organization on the scope of verification (hereinafter referred to as "the Statement"). The objective of this verification is to confirm that the Statement in the Organization's applicable scope has been correctly calculated and reported in the Statement in conformance with the criteria, and to express our views as a third party. The Organization is responsible for the preparation and fair presentation of the Statement.

**Scope**  
The scope of verification is Scope 1 and Scope 2 emissions.  
The period subject to report is from 1 April 2022 to 31 March 2023 for Japan and from 1 January 2022 to 31 December 2022 for overseas.  
Refer to the attached sheet for the detailed scope of verification.

**Procedure of Verification**  
The Statement was verified in accordance with Criteria of Verification, and the following processes were implemented at a limited level of assurance:  

- Verification of the calculation system: Interviews on the measurement, tabulation, calculation, and reporting methods employed by the Organization as well as review of related documents and records
- Verification of the Statement: On-site verification and voucher review conducted at Toyota Plant and Anjo Plant, and analytical procedures and interviews for the other sites in the scope of verification carried out at Headquarters

The criteria for this review are based on the GHG protocol and the protocol specified by the Organization (GHG Emissions Calculation Procedure).


**Conclusion**  
Within the scope of the verification activities employing the methodologies mentioned above, nothing has come to our attention that caused us to believe that the Organization's Statement was not calculated and reported in conformance with the criteria.  
SGS Japan Inc. affirms our independence from the Organization, being free from bias and conflicts of interest with the Organization.

For and on behalf of SGS Japan Inc.  
Yokohama business Park North Square 1  
134, Godo-cho, Hodogaya-ku, Yokohama  
Business Assurance  
Head of Certification/Accreditation

Yuji Takeuchi

1 / 2

This document is issued by the Company under its General Conditions of Service accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm).  
Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings as the time of its intervention only and within the limits of Client's information, if any. The Company's sole responsibility is to Client and this document does not exonerate parties to transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



Attached file

22 April 2024  
Opinion No : SGS24/109

**The details of the scope of verification**

The Scope	The Boundary	The Statement
1 The performance data Scope 1 and 2 include energy related carbon dioxide emissions.	The Organization and all of its consolidated subsidiaries	Scope1: 19,014 t-CO <sub>2</sub> Scope2: Location base: 83,687 t-CO <sub>2</sub> Market base: 76,122 t-CO <sub>2</sub>

2 / 2

This document is issued by the Company under its General Conditions of Service accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm).  
Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings as the time of its intervention only and within the limits of Client's information, if any. The Company's sole responsibility is to Client and this document does not exonerate parties to transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.