

# Information Disclosure Based on the TCFD Recommendations

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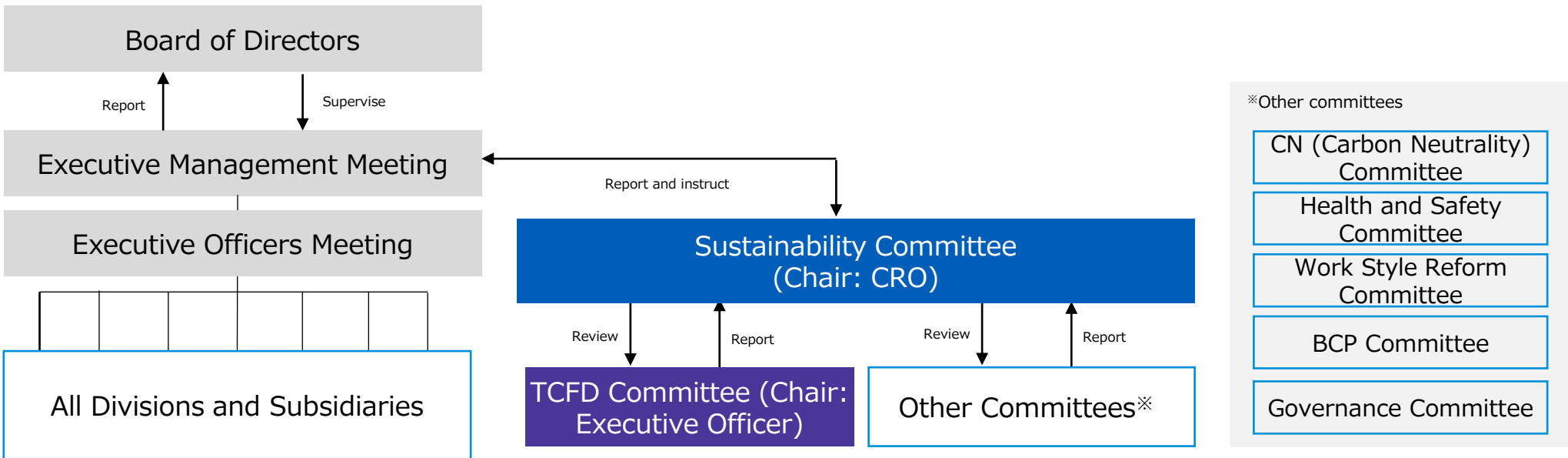
Recognizing climate change as a key management issue, the Aisan Group endorsed the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) in May 2022 and has disclosed related information.

Based on the TCFD recommendations, we will continue to analyze and respond to the risks and opportunities climate change presents to our business and will strive for improved and enhanced disclosure.

### Governance

The Sustainability Committee, chaired by the CRO, oversees directions and appropriateness concerning all sustainability areas, including climate change. Regarding climate change, the TCFD Committee, a subcommittee of the Sustainability Committee that meets at least every three months, is responsible for drawing up, executing, and managing related plans.

The Sustainability Committee, which meets twice a year, considers and deliberates on reports from the TCFD Committee and other committees. Key decisions from these deliberations are reported to the Board of Directors and the Executive Management Meeting.



### Results and Main Agenda Items for 2024

	Board of Directors	Sustainability Committee	TCFD Committee
Number of meetings*1	3 meetings*2	2 meetings	4 meetings
Agenda	<ul style="list-style-type: none"><li>New Medium-term Management Plan</li></ul>	<ul style="list-style-type: none"><li>Progress of Sustainability Management</li><li>Japanese version of IFRS disclosure standards</li></ul>	<ul style="list-style-type: none"><li>TCFD Promotion Plan</li><li>Progress in estimating financial impacts</li><li>Review of financial impact estimation results</li><li>TCFD Disclosure Content</li></ul>

\*1: Number of meetings that included climate change-related agenda items      \*2: One was an offsite meeting

### Strategy

#### Premises for Scenario Analysis

The Aisan Group has conducted scenario analysis on the group-wide (consolidated) impact of vehicle electrification as a turning point in 2030 and the impact of the carbon-neutral target for 2050. Scenario analysis was performed using several scenarios (1.5°C/2°C and 4°C) to enhance sustainable competitiveness by appropriately responding to an uncertain future. For these scenarios, references included the International Energy Agency’s World Energy Outlook 2022 for transition risks, and the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report for physical risks.

		4°C scenario	1.5°C/2°C scenario
Assumed World		<b>Expansion of physical risks</b> <ul style="list-style-type: none"><li>Expansion of damages from extreme weather</li><li>If additional measures beyond current actions are not taken, global temperatures could rise by 3.3°C to 5.7°C above pre-industrial levels by 2100.</li></ul>	<b>Expansion of transition risks</b> <ul style="list-style-type: none"><li>Expansion of risks due to changes in policy and markets</li><li>If stringent measures are taken, a rise of 1.0°C to 2.4°C above pre-industrial levels is expected by 2100.</li></ul>
Representative scenarios	Transiti on Risks	<b>STEPS (Stated Policies Scenario)</b> Scenario reflecting national energy policies	<b>NZE (Net Zero Emissions by 2050 Scenario)</b> Scenario to achieve global net zero by 2050 <b>APS (Announced Pledges Scenario)</b> Scenario reflecting ambitions announced by leading countries
	Physical Risks	<b>SSP* 5-8.5</b> Maximum emissions scenario without climate policy, under fossil fuel-dependent development	<b>SSP* 1-1.9</b> Scenario to limit warming below 1.5°C under sustainable development

\*SSP: Shared Socio-economic Pathways

#### Societal assumptions 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 CO2 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 severe, and prolonger, resulting in supply chain disruptions, temporary halts of production, and other impacts.

Risks and opportunities expected due to climate change

Based on scenario-driven social perspectives, Aisan Group has mapped out its risks and opportunities considering both stakeholder and company significance. Risks and opportunities were identified considering country/region situations and business context, with a long-term time frame up to 2050. For items considered particularly important, we evaluated the financial impact in 2030 and are responding to mitigate risks and create opportunities.

■ Climate Change Risks, Opportunities, and Countermeasures

Category		Content		Time Horizon	Degree of Impact	Countermeasures
Transition Risks	Policies and Regulations	GHG Emission Regulations	Increase in manufacturing costs due to strengthened energy policies and use of renewable energy	Medium Term and Beyond Long Term	Medium	<ul style="list-style-type: none"><li>• Rigorous elimination of inefficiencies</li><li>• Global deployment of domestic improvement measures</li></ul>
		Introduction of carbon tax	Increase in production costs due to carbon tax introduction	Medium Term and Beyond Long Term	Medium	<ul style="list-style-type: none"><li>• High efficiency in energy use</li><li>• Implementation of renewable energy</li><li>• Creation of clean energy (e.g. ammonia/hydrogen generation)</li></ul>
			Increase in procurement costs through carbon tax price transfer	Medium Term and Beyond Long Term	Large	<ul style="list-style-type: none"><li>• Use of low CO2 materials</li><li>• Reduction and recycling of waste</li><li>• CO2 reduction initiatives with suppliers</li></ul>
	Technology	Expanding demand for low- and decarbonized products	Delayed recovery of investment costs due to slow transition to new areas	Medium Term and Beyond Long Term	Medium	<ul style="list-style-type: none"><li>• Business planning and focused resource allocation for future products, considering environmental changes</li></ul>
	Market	Changes in customer values	Decreased sales of engine parts due to increased BEV adoption*1	Medium Term and Beyond Long Term	Large	<ul style="list-style-type: none"><li>• Development of new decarbonization-related business leveraging technological strengths</li></ul>
	Reputation	Insufficient environmental initiatives or disclosure	Decreased corporate value Decrease in customer trust	Medium Term and Beyond Long Term	Medium	<ul style="list-style-type: none"><li>• Improvement of evaluation scores (CDP, etc.) through CO2 reduction initiatives</li></ul>
Physical Risks	Acute	Increased frequency and severity of natural disasters Longer duration	Temporary production suspension due to supply chain disruption	Medium Term and Beyond Long Term	Medium	<ul style="list-style-type: none"><li>• Further strengthening of BCP framework<ul style="list-style-type: none"><li>➢ Improved accuracy of inventory management</li><li>➢ Continued supply chain BCP measures</li></ul></li></ul>
Opportunities	Technology	Acceleration of electrification and industry restructuring	Increased market share of key products	Short to Medium Term	Large	<ul style="list-style-type: none"><li>• Establishing competitive advantage<ul style="list-style-type: none"><li>➢ Switching to next-generation leading products</li><li>➢ Enhancing manufacturing (multi-assembly)</li></ul></li></ul>
	Market	Expansion and development of low-carbon products	Increased revenue from hydrogen supply units as hydrogen energy use expands	Medium to Long Term	Medium	<ul style="list-style-type: none"><li>• Promotion of product development for next-generation FCVs/hydrogen engines</li></ul>
			Increased opportunities for entry into electrified product markets due to more BEVs/PHEVs/FCVs*1	Medium to Long Term	Large	<ul style="list-style-type: none"><li>• Provision of lightweight, high-efficiency, and low-cost systems/components</li><li>• Product development leveraging proprietary technology</li><li>• Construction of new production plants for future products</li><li>• Development of products for compact mobility applications</li></ul>
			Expansion of business opportunities in new carbon neutral fields	Medium to Long Term	Small	<ul style="list-style-type: none"><li>• Research and development of new technologies/fields<ul style="list-style-type: none"><li>➢ Ammonia supply system components</li><li>➢ Small fuel cell modules</li></ul></li></ul>
			Increased demand for products contributing to emission reductions	Medium to Long Term	Medium	<ul style="list-style-type: none"><li>• Development of automotive products applying existing technologies (FFV*2 technology)<ul style="list-style-type: none"><li>➢ Products compatible with synthetic and biofuels</li></ul></li></ul>

\*1 Number of units based on 2°C scenario assumptions

\*2 FFV: Flexible-Fuel Vehicle

[Time horizon] Short term: 2025; Medium term: 2030; Long term: 2050

[Degree of Impact] Impact on single-year operating profit:

Large: ¥2 billion or more; Medium: over ¥100 million and less than ¥2 billion; Small: less than ¥100 million

[Aisan Group Initiatives] We are promoting initiatives that incorporate both decarbonization measures and efforts to mitigate climate-related risks and create opportunities into our business activities, as outlined in the Medium-term Management Plan announced in February 2025. For details, please see the following website:

<https://www.aisan-ind.co.jp/en/news/Medium-term%20Management%20Plan%202025-2030.pdf>

Financial Impact

[1.5°C (“less than 2°C”) Scenario: Transition toward a decarbonized society]  
The estimated financial impact (risk) in 2030, due to factors such as cost increases from implementation of a carbon tax and decreased sales of engine parts, would be about 31 billion yen.  
On the other hand, the estimated positive impact (opportunity) of expansion/development of low-carbon products and industry reorganization due to accelerated electrification in 2030 would be about 25 billion yen.

[4°C Scenario: Global Warming Accelerates]  
The estimated financial impact (risk) in 2030 from the increasing frequency and severity of natural disasters is approximately ¥600 million\*1.

\*1 Non-consolidated

Risk Management

Aisan Group implements comprehensive risk management through the Sustainability Committee, which receives reports of climate-related risks from the TCFD Committee and manages other major management risks reported by other committees.\* Specifically, the company is addressing carbon footprint (CFP) regulations for batteries in Europe, improving understanding of environmental risk in its products, and enhancing added value in low-carbon products.

Each committee checks the status of their respective measures and the latest risk situation and reports regularly to the Sustainability Committee. The Sustainability Committee provides instructions and oversight on risk management based on these reports. The Governance Committee conducts company-wide risk assessments, including for climate change, and identifies ‘priority risks.’

\* Committees: CN Committee, Safety & Health Committee, Work Style Reform Committee, BCP Committee, Governance Committee.

Metrics and Targets

In FY2024, international climate change response entered a new phase: at COP29, the need for countries to raise their reduction targets to achieve the Paris Agreement 1.5°C goal was widely required. Japan's 7th Strategic Energy Plan also outlined future policy issues and course of action for achieving carbon neutrality by 2040 or later, emphasizing the necessity of simultaneously ensuring stable energy supply, economic growth, and decarbonization.

Reflecting these external factors, our Medium-term Management Plan (2025–2030) includes a transition plan to address climate change risks, promotes GHG emissions reduction, and incorporates CN (carbon neutral) investments utilizing internal carbon pricing (ICP). We also aim to contribute to solving social issues not only in all evolving energy and mobility fields but also in domains beyond the mobility sector, laying the foundation for new future products.

[Carbon Neutral Targets for 2030]

Classification	Item	Target Value
Carbon Neutrality	Scope 1 & 2	Down 60% versus FY 2019
	Scope 3	Down 28% versus FY 2019
	Renewable energy	55%
	Power generation	5%
Circular Economy	Zero waste emissions	Down 5% versus FY2019 (per unit)
Nature positive	Water usage	Down 5% versus FY2019 (per unit)

[Carbon Neutral Results]

[See environmental data here](#)



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 1,2, and 3 emissions for fiscal 2023.

Verification Opinion

SGS

5 September 2024  
Opinion No : SGS24/109

Mr. Tokuhsa 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, Scope 3 emissions, and the amount of water intake. The period subject to report is from 1 April 2023 to 31 March 2024. 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 Honsha Plant and Headquarters, 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, Basic Guidelines on Accounting for Greenhouse Gas Emissions throughout the Supply Chain, Ver. 2.6, Emission Factor Database on the same Accounting Ver. 3.4, 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 I  
134, Godo-cho, Hodogaya-ku, Yokohama  
Business Assurance  
Head of Certification/Accreditation

Yuji Takeuchi

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SGS

Attached file

5 September 2024  
Opinion No : SGS24/109

The details of the scope of verification

The Scope	The Boundary	The Statement
1 Scope 1 and 2 from energy related carbon dioxide emissions.	The Organization and all of its consolidated subsidiaries	Scope1: 15,793 t- CO <sub>2</sub> Scope2: Location base: 82,888 t- CO <sub>2</sub> Market base: 71,057 t- CO <sub>2</sub>
2 Scope3 (category 3)	The Organization and all of its consolidated subsidiaries	15,630 t- CO <sub>2</sub>
3 Scope3 (category 5)	The Organization 27 non-consolidated and consolidated domestic offices (Including some estimates by the amount of money)	661 t- CO <sub>2</sub>
4 Scope3 (category 6)	The Organization and all of its consolidated subsidiaries	1,422 t- CO <sub>2</sub>
5 Scope3 (category 7)	The Organization and all of its consolidated subsidiaries	5,190 t- CO <sub>2</sub>
6 Amount of water intake	5 domestic bases	228,027 m <sup>3</sup>

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