

Macnica Holdings, Inc.

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Disclosure Based on TCFD Recommendations

In June 2022, Macnica Holdings expressed support for TCFD^{*1} (Task Force on Climate-related Financial Disclosure) and joined the TCFD Consortium^{*2}, a forum for discussion among supporting companies and financial institutions.

Continuing through FY2022, Macnica qualitatively analyzed and assessed climate-related risks, opportunities, and countermeasures for the Group's main businesses, using multiple climate scenarios to identify key items, and summarizing these contents in accordance with TCFD's disclosure framework. Macnica will continue efforts to enhance the disclosure of climate change-related information, contributing to the realization of a sustainable society.

*1: TCFD, established in 2015 by the FSB (Financial Stability Board) in response to a request from G20, evaluates the financial impact of climate change-related risks and opportunities on management operations. TCFD recommends the disclosure of information about governance, strategy, risk management, metrics and targets. FSB-TCFD at <https://www.fsb-tcdf.org>.

*2: TCFD Consortium, established in Japan, 2019, serves as a forum to discuss effective corporate disclosure, and efforts to link disclosed Information to appropriate investors and financial institutions. Companies that have formally expressed their support of the TCFD framework are promoting the global initiative. TCFD Consortium at <https://tcfd-consortium.jp>.

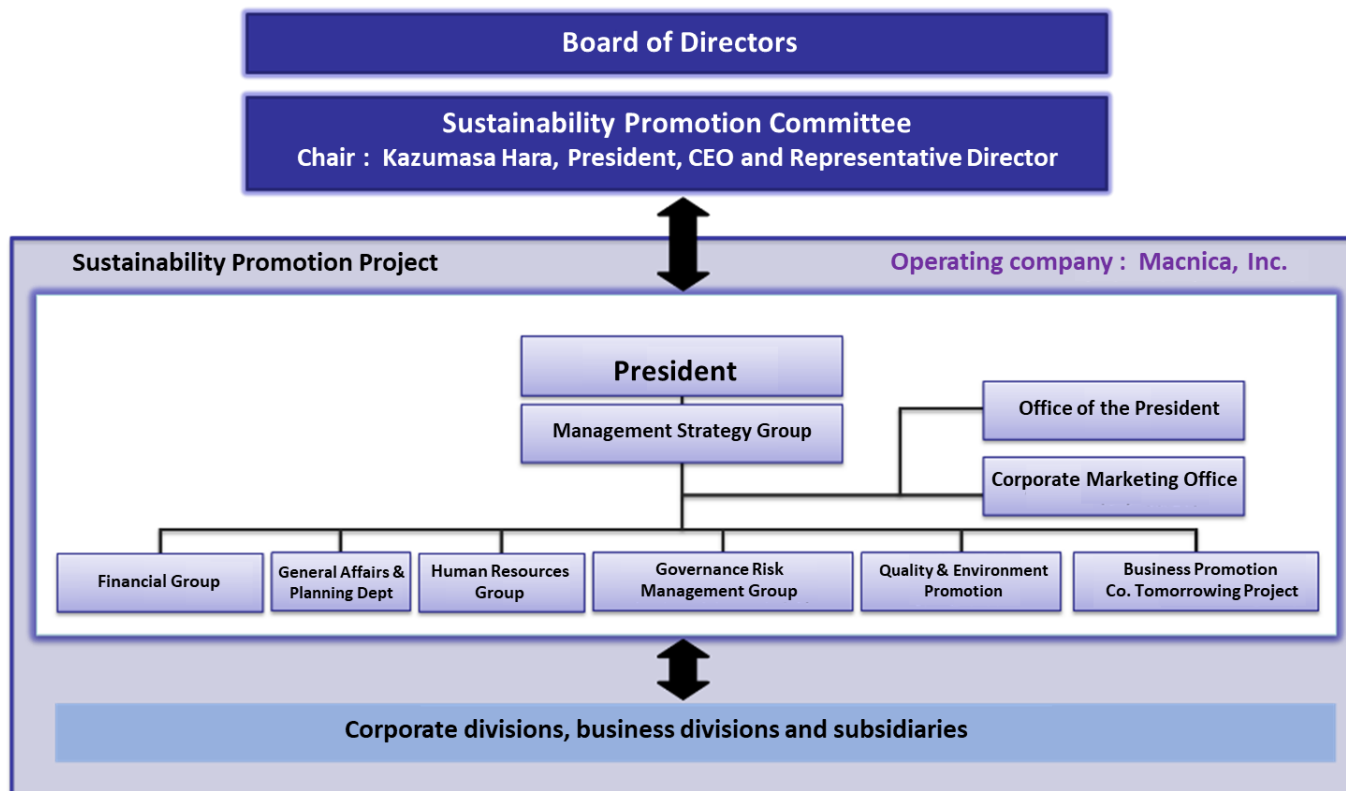
Governance

In April 2021, Macnica established the Sustainability Promotion Committee, chaired by the President and Representative Director, to promote sustainability management across the entire Group. Specific measures for environmental issues are formulated by the Sustainability Promotion Committee and discussed and resolved by the Group Management Committee, the highest decision-making body for business execution. In addition, the Sustainability Promotion Committee formulates action plans for measures to address unresolved environmental issues and monitors the progress.

The Board of Directors receives reports from the Sustainability Promotion Committee and discusses and supervises policies, measures, and action plans to address the Group's environmental issues.

The President and Representative Director chairs the Group Management Committee and the Sustainability Promotion Committee, which reports to him, and is responsible for making management decisions related to environmental issues. The details formulated by the Sustainability Promotion Committee and discussed and resolved by the Group Management Committee are reported to the Board of Directors.

Sustainability Promotion System



Strategy

Based on TCFD recommendation, Macnica conducted scenario analysis with three major domestic businesses in 2030^{*3} in order to identify and evaluate risks and opportunities, and to understand the medium- to long-term impact of climate-related issues on our business.

The analysis employed two scenarios: the 4°C scenario, which assumes that the global average temperature will rise by around 4°C by 2100, compared with pre-industrial levels, and the 2°C scenario, which assumes an increase of around 2°C. In each scenario, analyses were conducted on the transition of policies and market trends (transitional risks and opportunities) and physical changes due to disasters (physical risks and opportunities). These typical scenarios include:

Scenarios used in the analysis of transition risks and opportunities :

- 4°C scenario : IEA^{*4} Stated Policy Scenario (STEPS)^{*5}
- 2°C scenario : IEA^{*4} Sustainable Development Scenario (SDS)^{*6}

Scenarios used in the analysis of physical risks and opportunities :

- 4°C scenario : IPCC^{*7} RCP 8.5^{*8}
- 2°C scenario : IPCC^{*7} RCP 2.6^{*9}

In the process of analysis, Macnica identified the impact factors related to climate change for each scenario, verified the degree of impact on the business of about 400 items, and identified the most important scenarios among them. For each of the scenarios identified, the degree of impact was verified quantitatively and qualitatively, and the importance assessed as large, medium, or small.

| | Risk, Opportunity Types | | Risk, Opportunity Factors | Business Impact | Assessment | Response Policy |
|-----------------------|--|-------------------------|---|---|------------|---|
| R i s k s | T r a n s i t i o n | Policy · Regulations | Introduction of carbon tax | Purchase prices will rise due to carbon taxes being passed on to manufacturing and logistics costs. | Large | Securing profitability through DX (Mid-Term Management Plan) |
| | | | Tightening regulations on internal combustion engine vehicles due to the transition to EVs ^{*10} | Expansion of EV market will reduce sales of existing internal combustion engine automotive parts | Middle | Focus on the EV market (Mid-Term Management Plan) |
| | | | Increase in energy and power procurement costs | Incurring additional costs due to the procurement of renewable energy | Small | Introduction and replacement of equipment with high energy-saving effects |
| | | Technology | Increased capital expenditure and fuel costs | Introduction of low-carbon technology in offices will increase capital investment costs | Small | Medium- to long-term neutral reduction of GHG emissions |
| | | | Growing penetration of low-GHG semiconductor products | Achieving low GHG in semiconductor manufacturing processes generates a large amount of EOL/PCN ^{*11} , which increases response costs. | Small | Promoting automation through DX (Medium-Term Management Plan) |
| | | Market | Accelerated direct sales between manufacturers and customers | In order to reduce GHG emissions in logistics, direct sales between manufacturers and customers are progressing | Large | Strengthening customer contact points and expanding direct transportation to customers through DX |
| | | | Transition to low-carbon technologies | Business stagnation sales decline due to slow adaptation to changes in customer demand and markets | Small | Shift to highly efficient power semiconductors and other products with environmental performance |

| | | | | | | |
|---|--------------------------------------|-----------------------|---|--|-------|---|
| | | Reputation | Changes in the behavior of investors, customers, applicants, and other stakeholders | Delayed or low level of environmental consideration may lead to loss of business opportunities and damage to corporate and brand value | Small | Proactive and continuous efforts to address climate change |
| | P h y s i c a l | Acute physical risk | Impact of flooding on offices and logistics bases | With increased severe weather business activities decline due to employee inability to work | Small | Preparation of BCP countermeasure manuals |
| | | | Impact of storm surge on offices and logistics bases | Losses due to storm surge damage to offices in coastal areas | Small | Preparation of BCP countermeasure manuals |
| | | Chronic physical risk | Sea level rise | Due to rising sea levels, relocation of Shinkoyasu Logi or construction of new logistics bases | Small | Continued consideration in the long-term business plan |
| O p p o r t u n i t y | M a r k e t | | New business opportunities | Increases in new business opportunities in renewable energy, foodtech, etc. | Large | Active expansion to related markets (Medium-Term Management Plan) |
| | | | Increased sales in line with the expansion of the EV market | Semiconductor sales for EVs increase due to expansion of EV market | Large | Focus on the EV market (Medium-Term Management Plan) |

***3:** The three businesses are the Semiconductor business, Network business, and Services & Solutions business.

***4:** IEA is the International Energy Agency, an international organization that aims to ensure energy security, economic growth, environmental protection and global engagement, covering all aspects of energy policy.

***5:** A scenario that assumes environmental policies presently announced by each country will be realized, but long-term goals of the COP21 Paris Agreement will not be achieved, and the temperature rise by 2100 due to climate change will be about 4°C.

***6:** A scenario that assumes temperature rise by 2100 due to climate change will be kept below 2°C compared to pre-industrial levels, due to progress in international cooperation toward achieving the long-term goals of the COP21 Paris Agreement.

***7:** IPCC is the Intergovernmental Panel on Climate Change, established 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP), conducting assessments of anthropogenic climate change, impacts, adaptation, and mitigation measures from scientific, technical, and socioeconomic perspectives.

***8:** A scenario that assumes measures to control greenhouse gas emissions will be ineffective, and the temperature will rise by 2.6 ~ 4.8°C, compared to the pre-Industrial Revolution.

***9:** A scenario assuming that greenhouse gas emissions will be minimized and the temperature rise will remain at about 0.3~1.7°C compared to the pre-Industrial Revolution.

***10:** An EV is an electric vehicle, without an internal combustion engine, which runs with a motor on reduced electricity.

***11:** EOL/ (End of Life/Product Change Notice): A notice issued by a manufacturer referencing the discontinuation of production or sales, or a change or addition to the manufacturing process or production plant, or a change in product specifications.

Risk Management

The Compliance and Risk Management Committee, chaired by the President and Representative Director, assesses the status of risk management and compliance in the Group's business operations, reports to the Board of Directors and the Group Management Committee, and plans and formulates necessary measures.

The Sustainability Promotion Committee conducts scenario analysis to identify climate change risks and opportunities, to understand and evaluate the impact of climate change on our business. The identified risks and opportunities are managed by the Compliance and Risk Management Committee and the Sustainability Promotion Committee in both strategy formulation and individual business operations.

Metrics and Targets

We have set greenhouse gas emission (GMG) reduction targets and are promoting initiatives to reduce CO2 emissions in our business activities. We have set CO2 reduction targets based on SBT^{*12} and will actively work to reduce our environmental impact.

| item | Scope | Emissions (t-CO2) | | |
|--------------------|---|-------------------|--------------|---------------------------------|
| | | FY2021 | FY2022 | Year-over-year |
| Scope1 | Including overseas consolidated subsidiaries | 794.31 | 719.88 | -9.4% |
| Scope2 | Including overseas consolidated subsidiaries | 2,453.96 | 1,267.48 | -48.3% |
| Scope3 | Total of categories 1 ~ 8 (Domestic sites only) | 1,705,997.65 | 2,548,482.34 | +49.4% |
| | Total of categories 1 ~ 8 (Including overseas consolidated subsidiaries) | — | 4,745,613.80 | First calculation for FY2022 |
| Total emissions | Comparison based on same calculation method (scope) as in FY2021 | 1,709,245.92 | 2,550,469.70 | +49.2% |
| | Scope 1 ~ 3 (Global support) | — | 4,747,601.16 | First calculation for FY2022 |

***12:** SBT is an abbreviation for Science Based Targets, greenhouse gas emission (GHG) reduction targets set by companies based on scientific research, to achieve the long-term goals of the COP21 Paris Agreement to limit the rise in temperatures due to climate change and other factors to less than 2°C.

- (1) The Macnica Group has been calculating GHG emissions since FY2021, when Scope 3 (the total of categories 1 - 7) was set at 1,705,990 t-CO₂. Recalculating, Scope 3 was reset at 1,705,997 t-CO₂, including category 8. (In addition, category 8 is not generated by our company → 0t).
- (2) From this year (FY2022), Scope 3 is calculated globally, including our overseas consolidated subsidiaries.
- (3) Last year, we obtained and calculated Scope 2 data for offices covering 95% of our total office area, but this year we have obtained and calculated data for all offices. In addition, the introduction of electricity generated by hydroelectric power (renewable energy) to our offices and the switch to EVs significantly reduced our own GHG emissions (Scope 1 and 2).
- (4) In Scope 3, Category 4 (logistics), we were able to calculate more appropriate figures than the previous year as a result of changing the data extraction and calculation method to match actual conditions.
- (5) Due to the significant increase in sales from FY2021 to FY2022, emissions related to Scope 3, Category 1 (products), which calculate based on "purchase amount × emission factor," increased substantially, resulting in a significant increase in total emissions. We intend to review and optimize the Scope 3 calculation logic to reflect the reduction efforts of our suppliers by obtaining primary information on emissions from them.

| Index | Base year | Target year | objective |
|---------------------------|-----------------------|-------------|-----------|
| Scope 1~2 reduction rates | FY2022 ^{*13} | 2030 | ▲ 42.0% |
| | | 2050 | ▲ 100% |
| Scope 3 reduction rate | FY2022 ^{*13} | 2030 | ▲ 25.0% |

^{*13}: From FY2022, we could calculate Scope 3 GHG emissions for consolidation, including overseas subsidiaries (as a global response) as with Scopes 1 and 2. We have decided to change all base years from FY2021 to FY2022 for Scope 1~3.

The Macnica Group formulated a new Environmental Vision and Environmental Policy, in February 2023, based on "2.1 Sustainability (2) Promotion of global management, with consideration for the environment and human rights, and strengthening the supply chain" and "2.2 Materiality (3) Creating a sustainable global environment", as announced in the "Notice regarding Long-Term Management Concept and Mid-term Management Plan (FY 2022 – 24)" dated May 9, 2022. Contents are also announced below.

1. Environmental Vision

The Macnica Group considers the creation of a sustainable global environment to be its most important issue (materiality), along with the realization of "contributing to economic development through the resolution of customer issues" and "creating safe, secure, and comfortable lifestyles."

Therefore, the Macnica Group will not only reduce its own CO₂ emissions and achieve carbon neutrality in Scope 1 and 2, but also contribute to the realization of a carbon neutral world by 2050 through our business activities and supply chain. We will do our utmost to solve social issues such as global environmental conservation and restoration, and the reduction of environmental burdens through our business activities and supply chains.

2. Environmental Policy

The Macnica Group is committed to environmental conservation activities based on three basic policies, which combine our "Spirit of Leading Change," our business activities, the products we handle, and the corporate culture and social contribution activities that the Group has cultivated over the years to create a "decarbonized" x "unique" company. We will engage in environmental conservation activities in accordance with the following three basic policies.

1. Achieving carbon neutrality for the entire Macnica Group
2. Realizing a green society through company business activities
3. Contributing to society as a good corporate citizen

3. Promoting Environmental Management

Based on the above Environmental Vision and Environmental Policy, the Macnica Group promotes the following environmental management activities to continuously reduce environmental impact.

1) Establishing an environmental management system

We will establish an environmental management system and strive for continuous improvement in consideration of the impact on the environment.

2) Compliance with environmental laws and regulations

We will comply with environmental laws, regulations, ordinances, and other requirements.

3) Reduction of environmental impact

To reduce the impact on the environment caused by our corporate activities, we will strive to protect the environment by promoting resource and energy conservation, recycling, and waste reduction.

In addition, we will strive to prevent pollution of the natural environment by hazardous chemical substances and waste, and to prevent the loss of biodiversity.

4) Setting and reviewing environmental objectives and targets

In order that we achieve our environmental vision and policy, we will set environmental objectives and targets, review them regularly, and revise as necessary.

5) In-house Education and Enlightenment

Through internal public relations activities, we will raise awareness so that all employees will understand and promote our environmental philosophy and policies.

6) Public Disclosure

Our Environmental Vision and Environmental Policy will be published, and made available to the public.