

Environmental Management

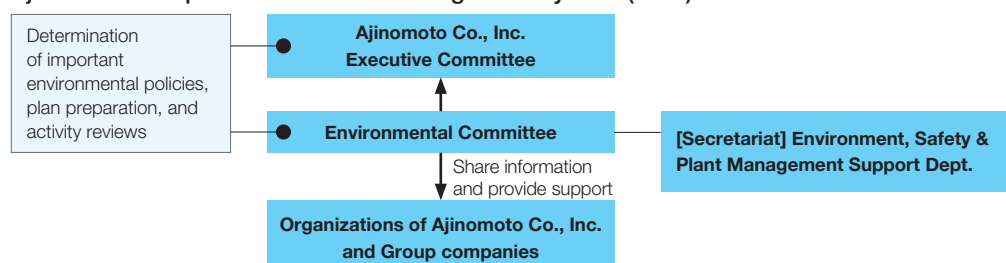
Framework

GRI301-DMA
GRI302-DMA
GRI303-DMA
GRI304-DMA
GRI305-DMA
GRI306-DMA
GRI307-DMA
GRI308-DMA

Promotion Framework

The Ajinomoto Group established the Environmental Committee under the Executive Committee to decide important environmental policies, prepare plans and conduct activity reviews.

Ajinomoto Group's environmental management system (EMS)



Status of ISO 14001 certification

As of March 2019, the Ajinomoto Group has acquired ISO 14001 certification at 49 out of 98 subject Group companies. Those not yet certified are advancing management based on the ISO 14001 approach. Note that the number of ISO 14001-certified Group companies decreased compared with the previous fiscal year-end due to corporate consolidation and other factors.

Environmental assessments

When the Ajinomoto Group launches new products and businesses, or changes the use of conventional raw materials or production processes, it assesses the environmental impact of business plans before they are conducted, and takes necessary measures to minimize future risks. At Ajinomoto Co., Inc., environmental assessments are performed by departments in charge in accordance with internal rules, and their results are reviewed from a Group-level perspective by the Environment, Safety & Plant Management Support Dept. Group companies also carry out their own assessments based on company rules and regulations.

Environmental assessment items

1. Legal compliance	
2. Seven types of typical pollution	Air pollution, water pollution, noise, odor, soil contamination, etc.
3. Global environmental issues	Saving energy, renewable energy use, fluorocarbons, distribution efficiency, etc.
4. Food loss and waste reduction	Extension of best-before dates, MMY labeling, etc.
5. Sustainable procurement	Biodiversity conservation, certified ingredients, certified paper, bioplastics, etc.
6. Water resources	Water use and wastewater reduction
7. Waste disposal	Proper waste disposal, responsibilities of waste generator, etc.
8. Creation of a recycling-oriented society	3Rs, excess packaging, effective use of by-products, waste generation reduction, etc.
9. Management of hazardous substances	New chemical substances, PCB, asbestos, etc.
10. Effects of buildings	Right to sunlight, radio wave disturbance, etc.
11. Consumer awareness of green living	Environmental labeling

Environmental audits

The Ajinomoto Group conducts external audits for compliance with ISO 14001. In addition, audits for sites having issues are also conducted by the Environment, Safety & Plant Management Support Dept. based on the Environmental Audit Outline. There were no sites subject to environmental audits in fiscal 2018.

Performance

GRI306-3
GRI307-1

Response to Environmental Laws and Accidents

The Ajinomoto Group has quickly addressed any legal violations or accidents related to the environment. In fiscal 2018, there were four violations of the Air Pollution Control Act of Japan, Effluent Standards, and other environmental laws, and proper corrective actions and legal measures based on administrative guidance have been performed. There were also seven accidents that affected the environment outside the worksite (two complaints related to offensive odor and herbicide spray, two fluorocarbon leaks, two diesel oil leaks, and one liquid product leak). None of these had serious environmental effects. The accidents were immediately reported to authorities and investigated for their causes to take necessary measures.

Environmental Education

Specialized education

The Ajinomoto Group conducts environmental education for employees to acquire the expertise and skills for environmentally responsible business operations.

In Japan, the Group provides ongoing education to the environmental officers, managers and members in each organization, as well as environmental assessment training for members of business and research departments developing new businesses and products. The Group also conducts environmental law seminars for staff in charge to stay up-to-date with the frequent revisions in environmental regulations and ensure compliance.

■ Main programs in fiscal 2018

- Two-day training course for internal environmental auditors: Twice, 41 participants
- One-day training course for internal environmental auditors: Twice, 23 participants
- Environmental law seminar: Five times, 119 participants

General education

In Japan, the Environment, Safety & Plant Management Support Dept. collaborates with human resources, general affairs, risk management and other departments to provide ongoing education tailored to each employee grade and ensure everyone understands the Group's environmental management.

■ Main programs in fiscal 2018

- Compliance training
- Training for technology-related staff before posting overseas
- Training for future overseas production engineers

Environmental Management

Approach

GRI102-12
GRI201-2

▶ Integrated Report
2019 P58

Endorsing the TCFD, Joining the TCFD Consortium

Ajinomoto Co., Inc. has endorsed the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) established by the Financial Stability Board^[1], and has announced its participation in the TCFD Consortium^[2] launched in May 2019. Moving forward, the Ajinomoto Group will evaluate the risks and opportunities of climate change on business, and actively disclose relevant information in four areas: governance, strategy, risk management and metrics and targets, based on TCFD recommendations.

Information disclosure in four areas based on TCFD recommendations

Governance	<p>The Management Risk Committee and Environmental Committee under the Executive Committee review the appropriate responses to the risks and opportunities related to climate change.</p> <p>The Management Risk Committee identifies the risks and opportunities related to climate change and considers the appropriate responses to them. The Environmental Committee develops the environmental targets and plans and monitors performance in keeping with the environmental management system. These are all reported to the Executive Committee at least once a year, which are then reported to the Board of Directors and included in the corporate strategy.</p> <p>The Board of Directors makes decisions on capital investments from an overall perspective, taking into account the environmental assessment results, including the impact of climate change.</p>
Strategy	<p>The Ajinomoto Group's business domains of products range from seasonings and coffee to frozen foods, and its business activities extend into Life Support and Healthcare. The geographic range of its operations spans the globe. Climate change can impact the Group's operations in many ways, such as a major natural disaster halting its business activities, affecting its ability to procure raw materials and fuel, and altering consumption of its products.</p> <p>For production in the short, medium and long term, the Group reviews the physical risks of climate change such as droughts, floods, rising sea levels and changes in yield of major raw materials, as well as transition risks such as rising energy prices, tight supply and demand, and price increases due to competition for major raw materials with other food sources and biofuels.</p> <p>From fiscal 2018, the Group included scenario analysis of the impacts of climate change on business and established a framework for a more quantitative assessment of the risks based on the TCFD recommendations.</p> <p>As a result of the scenario analysis, the Group will review counterstrategies against the physical and transition risks identified above, such as switching to energy sources with low GHG emissions.</p>
Risk management	<p>In light of the circumstances surrounding the Group, including global politics, economics, social conditions and climate change, the Management Risk Committee determines the overall level of risks based on the impact on business and likelihood of occurrence, selects the significant risks Group-wide and considers strategies to address them.</p> <p>Climate-related risks are regarded as part of Group-wide significant risks, and the impacts of physical risks and transition risks, such as legal risks and market risks, are evaluated based on published reports and expert advice.</p> <p>The Committee's review and recommendations are reported to the Executive Committee and the Board of Directors at least once a year.</p>
Metrics and targets	<p>In its medium and long-term environmental targets, the Group aims to reduce GHG emission volume vs. emission intensity by 50% and water usage vs. production volume unit by 80% compared to fiscal 2005 by fiscal 2030.</p> <p>In addition, CO₂ emissions and water consumption have been measured and disclosed since 1996.</p>

[1] An international organization of representatives of central banks, financial supervisory agencies, and finance ministries.

[2] A consortium for investors and companies supporting the TCFD to jointly develop and use industry-specific scenario analysis and quantification techniques.

Performance

GRI201-2

▶ Integrated Report
2019 P58

Summary of Scenario Analysis Conducted in Fiscal 2018

In fiscal 2018, the Ajinomoto Group conducted a scenario analysis of potential impact from the climate change risk until 2050 for Southeast Asia using the model of umami seasoning *AJI-NO-MOTO*[®], one of the Group's major products, under the scenario of a 2°C rise in average global temperature in 2100. The analysis examined droughts, floods, rising sea levels and changes in yield of main raw materials as physical risks, as well as rising energy prices, tight supply and demand, and price increases due to competition for major raw materials with other food sources and biofuels as transition risks.

For physical risks, the Group had anticipated that main raw materials will be affected by the rising frequency of floods, droughts and pests, but the scenario analysis showed that the impact of the physical risks on profits is not large in Southeast Asia, where the main production plant of *AJI-NO-MOTO*[®] is located.

On the other hand, the analysis revealed that rising energy prices and carbon tax increases in case of a shift to a lower carbon economy as the impact of climate change worsens may have a significant impact on the production costs of *AJI-NO-MOTO*[®] and business profits. The Group aims to fast-track ongoing measures, such as the switch to renewable energy and low-GHG energy sources and the development of production technologies using non-edible raw materials to curb rising production costs of *AJI-NO-MOTO*[®] while contributing to global sustainability in case of rising raw material prices and carbon tax increases due to climate change.