



Reduce Our Environmental Impact by 50%



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Environmental Management

Environmental management

Environmental management framework

Framework

GRI2-24, GRI3-3

The Ajinomoto Group has established the Sustainability Advisory Council as a subordinate body of the Board of Directors, and the Sustainability Committee as a subordinate body of the Executive Committee. These promote sustainability management, and include deliberations on policies and measures related to environmental activities. Each Group company will appoint one environmental manager from among manager class

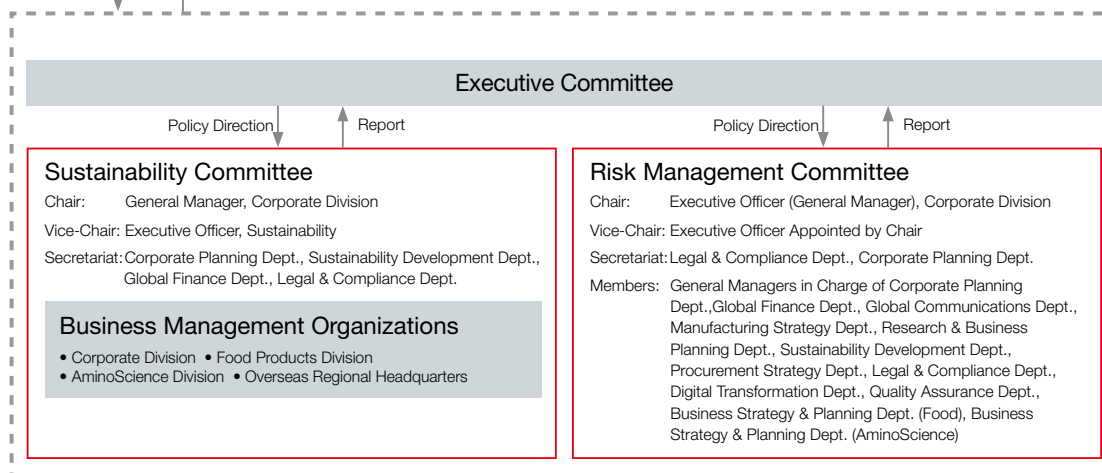
employees. Environmental managers formulate their company's own plans based on the Group Shared Policy on Environment and biodiversity, and the decisions made by the Sustainability Committee, and disseminate the plan throughout the company. Then, they report to the presidents of Group companies and give advice and recommendations regarding the performance status of environmental activities and improvement issues, etc., and also contact and report to Ajinomoto Co., Inc. Manufacturing Strategy Dept., Sustainability Development Dept. and other related organizations.

Framework for ESG and sustainability

[Supervision]



[Execution]

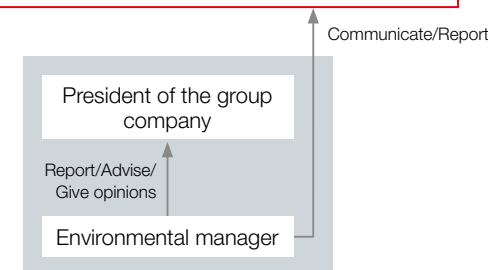


[1] The council is made up of outside experts from various disciplines, such as academia, emerging country perspectives, millennial and Gen Z perspectives, ESG/impact investors, as well as outside directors, and internal officers of the Company, including the president & CEO.

[2] Works together with the Sustainability Committee to formulate policies and strategies, offers recommendations for business plans from a sustainability perspective, and conducts reviews of policies and implemented measures.

Management framework at group companies

Ajinomoto Co., Inc. Manufacturing Strategy Dept., Sustainability Development Dept.



Status of ISO 14001 certification

As of March 2023, the Ajinomoto Group has acquired ISO 14001 certification at 69 of subject 100 eligible factories. Even those companies not yet certified are conducting management based on the ISO 14001 approach.

Environmental Management

Environmental assessments

When the Ajinomoto Group launches new products and businesses, or when we change the use of existing raw materials or production processes, we assess the potential environmental impact of our business plans. We then take any necessary measures to minimize future risks.

Environmental assessments at Group companies are performed by relevant departments in accordance with internal rules. The results of these assessments are reviewed from a Group-level perspective by the environmental management departments.

Environmental assessment items

1. Legal compliance	—
2. Seven types of typical pollution	Air pollution, water pollution, soil contamination, noise, vibration, land subsidence, and odor
3. Global environmental issues	GHG emissions, energy savings, renewable energy use, fluorocarbons, distribution efficiency, etc.
4. Food loss and waste reduction	Extension of “best-before” periods, month-year 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, waste generator responsibilities, 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, PCBs, asbestos, etc.
10. Impact of buildings and structures	Right to sunlight, radio wave disturbance, etc.
11. Consumer awareness of green living	Environmental labeling

Environmental audits

The Ajinomoto Group receives external audits for compliance with ISO 14001. In addition, locations experiencing issues are audited by the Ajinomoto Co., Inc. Manufacturing Strategy Dept. based on the Environmental Audit Outline. There were no sites subject to environmental audits in fiscal 2022.

Response to environmental laws and accidents

Performance

GRI2-27, GRI307-1

We established measures to quickly address any legal violations or accidents related to the environment. In fiscal 2022, there were three legal violations, and we made appropriate corrective actions in response to administrative guidance. Two incidents affecting the environment outside work sites occurred in Japan (two noise complaints) and one incident occurred overseas (ammonia leak). We reported the incidents to the government promptly as required, and we investigated the causes, taking necessary measures. We have established measures to quickly address any

violations of environmental laws or accidents related to the environment.

Amount of fines paid

(Thousands of yen)

Fiscal year	2018	2019	2020	2021	2022
Amount of fines paid	0	0	0	0	1,130 ^[1]

[1] One fine was assessed overseas during FY2021 for exceeding effluent standards; however, the validity of this fine is currently pending in court.

Environmental education

Performance

The Ajinomoto Group conducts environmental education for employees to acquire the expertise and skills for environmentally responsible business operations. In Japan, we provide ongoing education to the environmental officers, managers, and staff in each organization as well as environmental assessment training for staff in business and research departments responsible for developing new businesses and products. We also conduct environmental law seminars for relevant staff to stay up-to-date with the frequent revisions in environmental regulations and to ensure compliance.

■ Main programs in fiscal 2022 (Japan)

- Environmental law training (Seminar on trends in revisions to laws)
- Training on waste treatment laws

In addition to the above, we conducted training with technology-related staff before postings overseas, ensuring they understand environmental management. We also carried out education at each employee grade.

Environmental Management

Material balance

The Ajinomoto Group aggregates carbon footprint results for products and administrative office data, calculating the overall environmental impact of our business activities as Scope 1, 2, and 3^[1] data.

Total Scope 1 and 2 GHG emissions for fiscal 2022 were essentially level with the previous year. While power purchases increased due to the unstable gas supply in Indonesia, we reduced emissions through the purchase of non-fossil certificates at the Tokai Plant and direct contracts with renewable energy power plants in Peru.

[1] |Scope 1: Direct greenhouse gas emissions from sources that are owned or controlled by the organization (burning fuel, industrial processes, vehicle use, etc.)

Scope 2: Indirect emissions from the generation of purchased electricity, heat, or steam consumed by the company

Scope 3: Other indirect emissions (product use, disposal and transport, employee commuting and business travel, investment, etc.)

INPUT

GRI2-4, GRI301-1, GRI302-1, GRI302-2, GRI302-4, GRI303-3

	FY2019	FY2020	FY2021	FY2022
Main raw material (kt)	1,439	1,282	1,137	1,217
Sub raw material (kt)	2,378	2,069	2,006	2,011
Acids/alkalis (kt)	486	482	421	464
Other (kt)	1,892	1,588	1,585	1,547
Packaging material(kt)	250 ^[2]	244	259	251
Plastic(kt)	71 ^[2]	70	71 ^[2]	69
Paper, cardboard (kt)	154	148	165	157
Other (kt)	25	26	24	25
Fuel (TJ)	25,230	24,494	24,557	24,952
Oil (TJ)	1,802	1,653	1,556	1,722
Coal (TJ)	2,314	3,157	3,593	3,334
Biomass (TJ)	7,129	6,875	7,132	7,989
Natural gas (TJ)	13,985	12,809	12,277	11,906
Purchased electricity (derived from fossil fuels) (TJ)	7,588	7,200	4,440	4,381
Purchased electricity (derived from renewable energy) (TJ)	38	60 ^[2]	2,174	2,249
Purchased steam, etc. (TJ)	1,801	1,800	563	542
Water (1,000 kl)	66,926	64,406	59,979	60,039
Surface water (1,000 kl)	19,630	17,004	17,259	17,890
Municipal water (1,000 kl)	6,210	5,316	5,152	5,099
Municipal water (Industrial) (1,000 kl)	26,717	29,041	23,794	23,677
Ground water (1,000 kl)	14,366	13,041	13,769	13,369
Other (rainwater, etc.) (1,000 kl)	3	4	4	4
Transportation distance (km)	2,804	2,872	2,886	3,974
Use (soups, frozen foods, coffee) (t)	596,264	603,420	583,737	521,302

[2] Correction has been made as a result of a review of totals.

> Environmental Data: Third-party assurance
 > Environmental Data: Ajinomoto Group products carbon footprint
 > Environmental Data: Composition of consumed energy
 > CDP Climate Change

Environmental Management

OUTPUT

GRI302-1, GRI302-2, GRI305-1, GRI305-2, GRI305-3

(t-CO₂e)

	FY2019	FY2020	FY2021	FY2022
Scope 3 Category 1:Raw materials	7,784,783	7,614,734	6,960,412	6,610,392
Scope 1:	1,013,315	1,008,811	1,005,363	973,780
Scope 3 Category 3: Production	625,142	630,823	583,499	604,719
Scope 2:	Market-based method 960,375 Location-based method 978,066	Market-based method 901,789 Location-based method 910,791	Market-based method 606,594 Location-based method 622,059	Market-based method 611,7222 Location-based method 620,751
Scope 3 Category 4: Transport	1,256,044	1,210,741	1,121,673	1,037,133
Scope 3 Category 11: Use	1,353,234	1,355,477	1,396,947	1,386,049
Scope 3 Category 12: Disposal	431,048	425,003	409,500	405,337
Scope 3 Category 2: Capital goods	255,910	262,711	232,674	219,172
Scope 3 Category 5: Waste generated in operations	85,666	85,714	92,884	97,854
Scope 3 Category 6: Business travel	4,486	4,226	4,350	4,446
Scope 3 Category 7: Employee commuting	16,231	15,292	15,740	16,087
Scope 3 Category 8:Upstream leased assets	Included in category 1	Included in category 1	Included in category 1	Included in category 1
Scope 3 Category 9: Downstream transportation and distribution	3,503	3,183	3,448	2,535
Scope 3 Category 10: Processing of sold products	5,517	179,801	126,716	108,585
Scope 3 Category 13:Downstream leased assets	0	0	0	0
Scope 3 Category 14:Franchises	0	0	0	0
Scope 3 Category 15: Investments	0	0	0	0
Scope 3 total	11,821,564	11,787,705	10,947,844	10,492,309
Scope 1, 2 and 3 total	13,795,254	13,698,305	12,599,801	12,077,801

Data calculation

Scope of reporting: All 142 business sites covered by ISO 14064-1 (100%)

Reporting period: April 1, 2022 to March 31, 2023

The Ajinomoto Group refers to ISO 14064-1 and uses the latest CO₂e emission factor to calculate the CO₂e emissions in the above material balance table.These CO₂e emissions are independently verified in accordance with ISO 14064-3 requirements by LRQA Limited.

Disclosures Based on the TCFD Recommendations

Response to climate change risks

Approach

The Ajinomoto Group uses the bounty of nature such as agricultural products. We understand that responding to climate change is an urgent issue in conducting business in a sustainable manner. Therefore, the Group considers measures to address this climate change in accordance with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), and discloses related information.

Disclosures Based on the TCFD Recommendations

GRI3-3, GRI201-2, GRI305-5

Governance

The Ajinomoto Group Policies (AGP) show the ideal way of thinking and actions with which Group companies, officers, and employees should comply. The Ajinomoto Group is committed to complying honestly with this policy, and we will continue to develop and operate our internal control system properly. We also strengthen our system that considers sustainability as an active risk-taking system, and continuously enhance our corporate value.

The Board of Directors has established the Sustainability Advisory Council, and establishes a system to recommend the Group's approach to sustainability and ESG. It determines the important issues (materiality) related to sustainability that serve as guidelines for ASV management and supervises the execution of initiatives related to sustainability.

The Executive Committee has established the Sustainability Committee as its subordinate body and selects and extracts risks and opportunities based on materiality,

and assesses the degree of impact, formulates measures, and manages their progress. In fiscal 2022, the Executive Committee received two reports from the Sustainability Committee.

> Group Shared Policy on Environment
> Financial Report
> ASV Report 2023 (Integrated Report) P076-077
> CDP Climate Change

Strategy

The Ajinomoto Group has a wide range of product areas in the food business, from seasonings and foods to frozen foods, and is also expanding its business into fields such as healthcare. Climate change affects the Group's business in many ways, including delays to business due to large-scale natural disasters, impact on procuring raw materials such as agricultural produce and fuels, and changes in product consumption.

(1) Scenario analysis assumptions

Based on the scenarios that the average global temperature will rise from post-industrial revolution levels by 1.5°C or 4°C

by 2100^[1], in fiscal 2022, we conducted a scenario analysis on the impact of climate change between 2030 and 2050 for global umami seasonings and mainstay domestic and overseas products.

Among the effects of climate change impacting production over the short, medium, and long term, drought, floods, rising sea levels, and changing yields of raw materials were analyzed as physical risks, while the introduction of carbon taxes and tightening of other laws and regulations, rising energy prices, and changes in consumer preferences were analyzed as transition risks.

Opportunities show the scenario analysis risks and opportunities when the average temperature difference between the 1.5°C and 4°C scenarios as of 2030 is considered to be about 0.2°C with no significant difference in physical risk, and when the average temperature difference as of 2050 is expected to be about 1°C with differences in physical risks.

The following is a summary of the changes in the assumptions used in our scenario analysis to date.

[1] Scenarios referenced are SSP1-1.9 (1.5°C scenario) and SSP5-8.5 (4°C scenario) by the UN Intergovernmental Panel on Climate Change (IPCC) and scenarios by the International Energy Agency (IEA).

	FY2020	FY2021	FY2022	FY2023 (Plan)
Business	Umami seasonings (global), mainstay products in Japan	Umami seasonings (global), mainstay products in Japan	Umami seasonings (global), mainstay products in Japan and overseas	Umami seasonings (global), mainstay products and other packaged products in Japan and overseas
Time of occurrence	2030	2030/2050	2030/2050	2030/2050
Scenario	2°C/4°C	2°C/4°C	1.5°C/4°C	1.5°C/4°C
Sales basis coverage	24%	24%	55%	67%

> ASV Report 2023 (Integrated Report) P077

Disclosures Based on the TCFD Recommendations

(2) Scenario analysis: Risks

1.5°C Scenario (2050): When certain policy measures are taken to reduce GHG emissions and the use of fossil fuels decreases						
Risk	Average temperature increase	Increased severity and frequency of floods and droughts	Mandates and regulations on products	Changes in consumer preferences	Items to the right are for the Group as a whole	Carbon pricing mechanisms
Risk/Risk categories	Transition risks	Physical risks	Transition risks	Transition risks		Transition risks
Business impact	Increased raw material (e.g., coffee beans) procurement costs due to carbon taxes, etc.	Measures to ensure consistent supply taken since our founding	Cost increases due to tightening of laws and regulations regarding raw materials used (Assumption: Laws and regulations on the traceability of raw materials and recycling)	Reduced demand due to rising temperatures (Assumption: Miso soup, other soups, hot coffees, shift from heating element to microwave cooking)		Increased costs of fuels used due to introduction of carbon taxes, tax increases and emissions trading
Potential financial impact	0.2 billion yen/year	Insignificant	—	—		2030: 13 billion yen/year ^[1] 2050: 30 billion yen/year ^[1]
Countermeasures	<ul style="list-style-type: none">• Support for raw material production areas• Considering raw materials made by different production methods	<ul style="list-style-type: none">• More diversified areas of procurement• R&D on alternative raw materials	<ul style="list-style-type: none">• Construction of a comprehensive upstream/downstream cooperation system in the supply chain	<ul style="list-style-type: none">• Communication to create better eating habits through ASV PR activities (nutritional value)• Marketing toward chilled soup and iced coffee• Exploration/proposal of microwave cooking options		<ul style="list-style-type: none">• Visualization of financial impact with internal carbon pricing• Fossil fuel phase-out• Use of renewable energies• Development of eco-friendly manufacturing methods
4°C scenario (2050): In the event that no policy measures are taken to reduce GHG emissions						
Risk	Average temperature increase		Increased severity and frequency of floods and droughts	Changes in consumer preferences	Increasing fuel costs	
Risk categories	Physical risks		Physical risks	Transition risks	Transition risks	
Business impact	Increased costs from decline in productivity of agricultural, livestock, and fishery products (Assumption 1: Worsening aquaculture environment, Assumption 2: Decrease in livestock growth rate, Assumption 3: Decrease in milk yields from dairy cows, Assumption 4: Infectious disease epidemics in livestock, Assumption 5: Poor growth of agricultural produce and pest epidemics)		Increased raw material procurement costs, decreased sales due to shutdown of operations and delivery delays (Assumption 1: Flooding in Thailand, Assumption 2: Drought in Thailand, Assumption 3: Flooding from localized torrential rains in Japan)	Reduced demand due to rising temperatures (Assumption: Miso soup, other soups, hot coffees, shift from heating element to microwave cooking)	Rising prices of fossil fuels and electricity	
Potential financial impact	4.5 billion yen/year		0.1 billion yen/year	—	2.5 billion yen/year	
Countermeasures	<ul style="list-style-type: none">• More diversified areas of procurement• Stronger cooperation with suppliers/farmers• Development of recipes with reduced extracts• R&D on alternative raw materials• Introduction of high temperature-tolerant varieties• Reflection in sales price		<ul style="list-style-type: none">• More diversified areas of procurement• R&D on alternative raw materials• Continuation and improvement of water saving production• Improvement of supply and logistics systems	<ul style="list-style-type: none">• Communication to create better eating habits through ASV PR activities (nutritional value)• Improvement of communication about easy meals using heating elements• Marketing toward chilled soup and iced coffee• Exploration/proposal of microwave cooking options	<ul style="list-style-type: none">• Fossil fuel phase-out• Use of renewable energies• Development of ecofriendly manufacturing methods	

[1] Calculated by multiplying the Group's FY2018 standard GHG emissions (approved by the Science Based Targets initiative (SBTi)) by the International Energy Agency's (IEA) 1.5°C scenario carbon tax and emissions trading forecasts for 2030 of \$15/t-CO₂ for emerging countries, \$90/t-CO₂ for Brazil and China, and \$130/t-CO₂ for developed countries, and for 2050 carbon tax and emissions trading forecasts, \$55/t-CO₂ for emerging countries, \$200/t-CO₂ for Brazil and China, and \$250/t-CO₂ for developed countries. The 4°C scenario is the outcome of the current situation with no additional or higher carbon taxes or emissions trading expected.

Disclosures Based on the TCFD Recommendations

(3) Scenario analysis: Opportunities

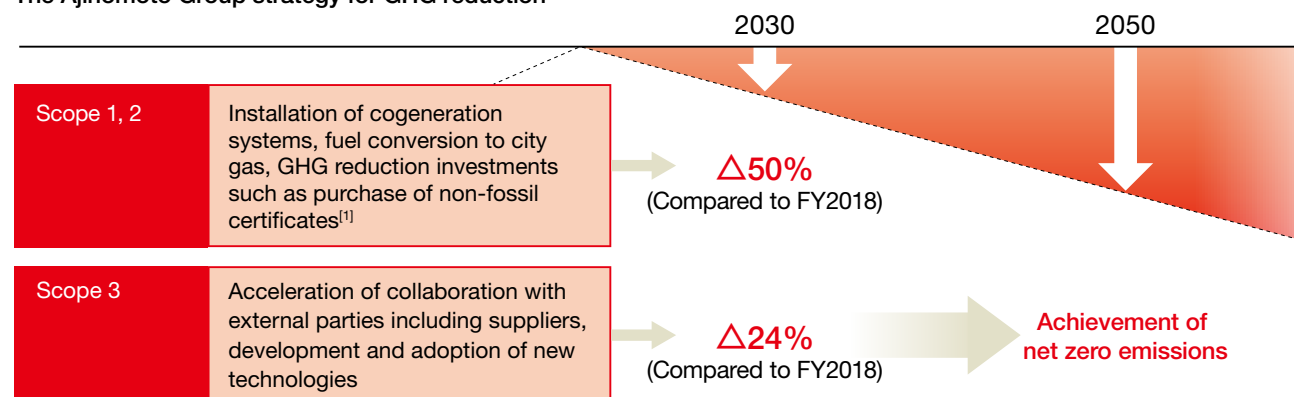
1.5°C scenario (2050): When certain policy measures are taken to reduce GHG emissions and the use of fossil fuels decreases		
Opportunities	Low emission products and services	Changes in consumer preferences
Opportunity categories	Products and services	Products and services
Business impact	Increased sales from products with low environmental impact due to rise in popularity of ethical-mindedness	<ul style="list-style-type: none"> Expanding needs due to health consciousness = Increase in sales Expanding needs for beverages due to rising temperatures = Increase in sales
Countermeasures	<ul style="list-style-type: none"> Development of eco-friendly manufacturing methods and products Initiatives to obtain favorable ESG rating Strengthen evidence to prove low environmental impact Measures to shift customer preferences toward medium- and large-quantity products 	<ul style="list-style-type: none"> Product development that improves nutritional value Communication to create better eating habits by highlighting nutritional value Development of eco-friendly manufacturing methods and products
4°C scenario (2050): In the event that no policy measures are taken to reduce GHG emissions		
Opportunities	Low Emission Products and Services	Changes in consumer preferences
Opportunity categories	Products and services	Products and services
Business impact	Increased sales from products with low environmental impact due to rise in popularity of ethical-mindedness	<ul style="list-style-type: none"> Expanding needs due to health consciousness = Increase in sales Expanding needs for beverages due to rising temperatures = Increase in sales
Countermeasures	<ul style="list-style-type: none"> Development of eco-friendly manufacturing methods and products Strengthening evidence to prove low environmental impact Measures to shift customer preferences toward medium- and large-quantity products 	<ul style="list-style-type: none"> Product development that improves nutritional value Communication to create better eating habits by highlighting nutritional value Development of eco-friendly manufacturing methods and products

(4) Reflecting scenario analysis results in strategy

(i) Reflection in our business strategy

Based on the impact of the scenario analysis on our business, we plan to invest in fossil fuel phase-out and the use of renewable energies, as well as eco-friendly manufacturing methods to further reduce our GHG emissions in the future. We will also work on formulating new business strategies to achieve ASV, where sustainability initiatives lead to greater added value for our products. Moreover, in our scenario analyses from fiscal 2023 onwards, we will expand the ranges of products and risks for analysis and improve our risk/opportunity analysis.

The Ajinomoto Group strategy for GHG reduction



[1] We are considering further investments to reduce GHG emissions, and will disclose the details as soon as they are determined.

Disclosures Based on the TCFD Recommendations

(ii) Reflection on financing strategy

Sustainable finance forms the basis for our acquiring the necessary funds for our various initiatives. Following the October 2021 issuance of our sustainability bonds (SDG bonds) and the committed credit line established in January 2022 through the Positive Impact Finance scheme, we concluded a committed credit line agreement through our Sustainability-Linked Loans in December 2022. Most recently, we also issued sustainability-linked bonds in June 2023.

Through this financing, we will further accelerate our efforts to realize one of our two outcomes by 2030, namely, to reduce our environmental impact by 50%, as well as to realize a sustainable society.

> Sustainable Finance

Risk management

The Management Risk Committee identifies risks that call for initiatives by management, assesses their impact on the Ajinomoto Group, and formulates countermeasures. The Sustainability Committee plans risk countermeasures for company-wide management issue based on materiality and manages the progress of said measures. Both committees work closely together to ensure that no risk is left out. The Management Risk Committee comprehensively grasps all risks and reports to the Board of Directors.

We implement risk management process at each domestic and overseas work site to identify risks and formulate countermeasures, taking individual business strategies and local political, economic, and social conditions into account. The Management Risk Committee improves this process and compiles the risks identified by each work site and addresses those that management should take the initiative to address. Each business and corporation formulates a business continuity plan (BCP) for emergencies overseen by the Management Risk Committee,

who organizes to constantly ensure plan effectiveness.

The Sustainability Committee formulates and implements Group-wide response strategies for risks analyzed and assessed based on Materiality, which they regularly monitor and manage.

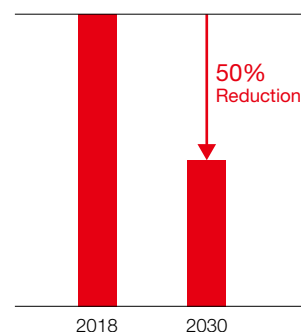
Metrics and targets GRI305-1, GRI305-2, GRI305-3, GRI305-4

The Ajinomoto Group submitted a commitment letter declaring our compliance with new GHG emission reduction targets, including net-zero emissions under the Science Based Targets (SBT) initiative. With this declaration, we review targets and strategies in line with the net zero standards to further accelerate our efforts towards the GHG emission reduction target of limiting temperature increase to 1.5°C, certified by the SBT initiative.

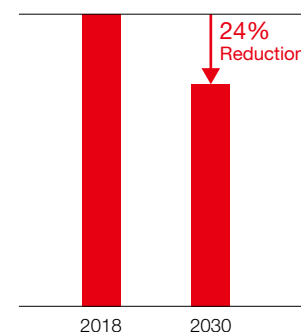
We set a target (total volume target) of 50% reduction in total Scope 1 and Scope 2 GHG emissions by fiscal 2030 in comparison with fiscal 2018.

We also plan to revise our fiscal 2030 24% reduction target (intensity target) for GHG emissions per ton of Scope 3 production (GHG emissions intensity) in comparison with fiscal 2018 levels.

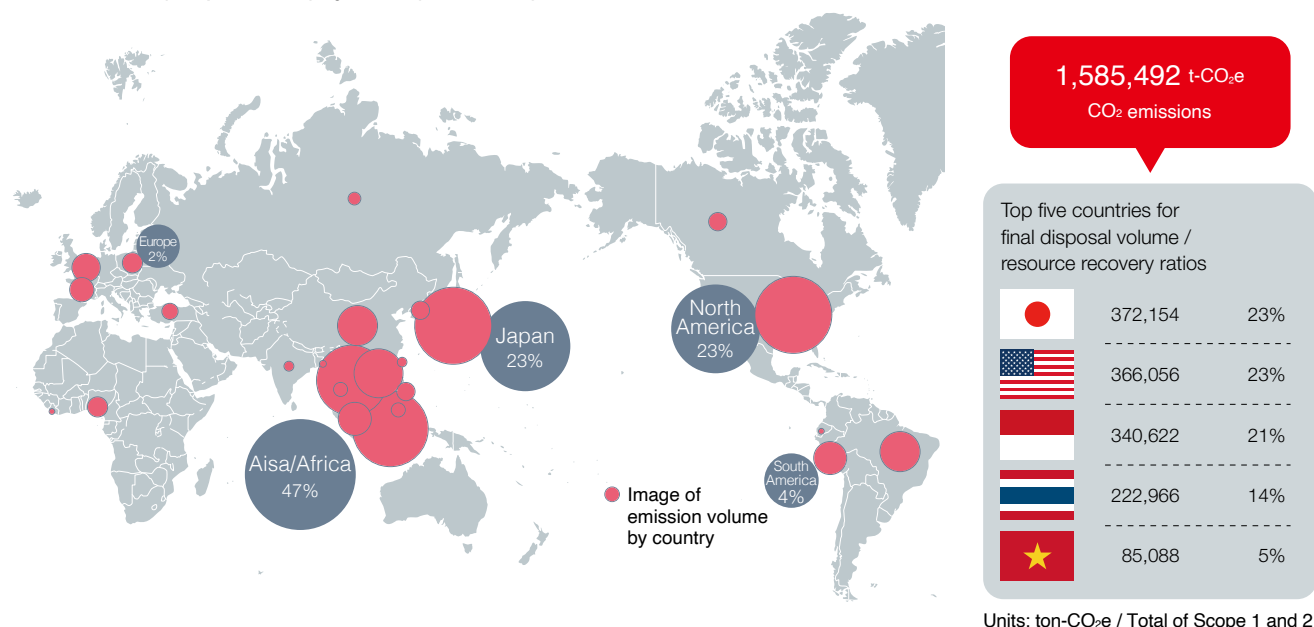
Scope 1 and 2
Total Emissions Target



Scope 3 Emissions Target
per Ton of Production



Disclosures Based on the TCFD Recommendations

CO₂ emissions (Scope 1 and 2) by area^[1] (Fiscal 2022)

[1] Turkey is included in Asia/Africa.

Scope 1 and 2 emissions declined by approximately 26,000t-CO₂e from the previous fiscal year. During this time, in-house power generation decreased due to the unstable city gas supply, and the amount of purchased power increased at some business sites. Regardless of this, emissions slightly declined through direct contracts with renewable energy power plants in Peru and the procurement of renewable energy certificates at Ajinomoto Co., Inc. Tokai Plant to counter these fall backs. Japan, the United States, Indonesia, Thailand, and Vietnam accounted for 87% of total. In fiscal 2018, base emissions were 1,962,000 tons of CO₂e, calculated by subtracting Scope 1 and 2 GHG emissions from companies that would become outside of the Group's scope on or after fiscal 2019 in accordance with SBTi standards. By comparison, emissions in fiscal 2022 were 1,585,000 tons of CO₂e, down 19% and exceeding

our target for the year. The Company is on track to achieve approximately 80% of our 2030 GHG emissions target (50% reduction from 2018 levels) based on our current plan, however we will consider further reduction activities to achieve even greater emissions reductions.

Scope 3 GHG emissions per volume unit of production decreased approximately 4% from the previous year and approximately 3% from the base year of fiscal 2018. This was due to the transfer of the production and sales of Ajinomoto AGF Blendy® bottled coffee to Suntory Beverage & Foods Ltd. In fiscal 2023, we will attempt to collaborate with a Scope 3 raw material suppliers. We will also accelerate our efforts to reduce GHG emissions by collaborating with external parties and suppliers going forward.

- Efforts to Achieve Targets

As measures to meet our Scope1 and Scope 2 targets, we are promoting energy-saving activities, a switch to fuels with low GHG emissions, the use of renewables such as biomass and solar power, and the introduction of lower energy-consumption processes (such as considering the conversion from fossil fuels to biomass fuels and procuring renewable energy certificates for China, Ajinomoto Co., Inc. Tokai Plant, etc.). For Scope 3 emissions, raw materials are causing approximately 60% of total GHG emissions over the whole product life cycle, therefore we are encouraging raw materials suppliers to reduce their GHGs, and are considering the introduction of new technologies such as on-site ammonia production.

Disclosures Based on the TCFD Recommendations

GHG emissions calculated from IEA^[1] CO₂ emissions factors(t-CO₂e)

	FY2018	FY2019	FY2020	FY2021	FY2022
Scope 1 emissions	1,196,969	1,013,315	1,008,811	1,005,363	973,780
Scope 2 emissions (Market-based method)	1,015,723	960,375	901,789	606,594	611,712
Scope 1 and 2 total emissions	2,212,692	1,973,690	1,910,600	1,611,957	1,585,492
Scope 3 emissions	11,933,270 ^[2]	11,821,564	11,787,705	10,947,844	10,492,309
Scope 1, 2, and 3 total emissions	14,145,962	13,795,254	13,698,305	12,559,801	12,077,801

[1] International Energy Agency

[2] Because former data only in FY2018 was calculated by Location based method, it was unified to be Market based method data.

GHG emissions per volume unit calculated from IEA^[3] CO₂ emissions factors

GRI2-4

	FY2018	FY2019	FY2020	FY2021	FY2022
Scope 1 and 2 emissions per volume unit (intensity per ton of production)	0.84	0.79	0.79	0.68	0.67
Scope 3 emissions per volume unit (intensity per ton of production) ^[4]	4.54	4.71	4.87	4.64	4.46
Reference value: Production volume (1,000 t) ^[5]	2,627	2,512	2,423	2,360	2,350
Scope 1 and 2 emissions per volume unit (intensity per million yen of sales)	1.99	1.79	1.78	1.40	1.17
Scope 3 emissions per volume unit (intensity per million yen of sales)	10.71	10.75	11.00	9.53	7.72
Consolidated sales (million yen)	1,114,308	1,100,039	1,071,453	1,149,370	1,359,115

[3] International Energy Agency

[4] The results scope 3 emissions per volume unit were revised because the coverage of organizations for calculation were different.

[5] We used data different from production volume set forth in other environmental data for convenience of aggregation.

Scope 1 and 2 emissions and Scope 3 (excluding Category 11) intensity retroactively adjusted for companies that became outside of the Ajinomoto Co., Inc. Group's scope on or after fiscal 2019 in accordance with SBTi standards

GRI2-4

	FY2018	FY2019	FY2020	FY2021	FY2022
Scope 1 and 2 total emissions (market-based method)	1,961,516 t-CO ₂ e	1,779,380 t-CO ₂ e	1,752,812 t-CO ₂ e	1,611,957 t-CO ₂ e	1,585,492 t-CO ₂ e
Scope 3 emissions (excluding Category 11)	9,876,834 t-CO ₂ e	9,858,584 t-CO ₂ e	9,951,981 t-CO ₂ e	9,550,897 t-CO ₂ e	9,106,260 t-CO ₂ e
Scope 3 emissions per volume unit (excluding Category 11) ^[6]	4.01	4.12	4.26	4.05	3.87

[6] Per production volume unit was revised to line with the SBTi standard.

SBTi targets and progress

	FY2022		FY2025	FY2030
	Target	Result	Target	Target
Scope 1 and 2 GHG emission reduction rate (vs. FY2018)	At least 18% decrease	19% decrease	30% decrease	50% decrease
Scope 3 (excluding Category 11) GHG emissions per volume unit reduction rate (vs. FY2018)	8% decrease	3% decrease	14% decrease	24% decrease

Reduction of greenhouse gas emissions in the value chain

Internal carbon-pricing

We are bolstering our decarbonization measures through the utilization of internal carbon-pricing systems so that we can avoid or mitigate the financial risks from carbon taxes and emissions trading, and we are promoting measures such as alternative fuels and use of renewable energy.

GHG reduction initiatives in the BRIDGE project, with a unified global team across the value chain in the MSG and nucleic acid businesses

GRI302-4, GRI305-5

GHGs emitted during MSG and nucleic acid production account for more than 40% of the Group's GHG emissions. To tackle this and address climate change risk, we launched BRIDGE, a project with a unified global team that cuts across the value chain and engages our subsidiaries outside Japan. This project has taken on the challenge of significantly reducing GHG emissions by establishing a mechanism for sustainable innovation creation. Our R&D and production departments have built world-class resource-saving fermentation technologies and accelerated the introduction of this technology through collaboration with our overseas technology and production departments. We have also taken firm action on energy-saving activities based on knowledge sharing between each factory. As a result, GHG emissions during MSG and nucleic acid production were significantly reduced.

Scope 1+2: -132 kt^[1]

Scope 3: -336 kt^[1]

[1] FY2021 result vs. FY2018

Reducing environmental impact through on-site ammonia production

Performance

GRI305-5

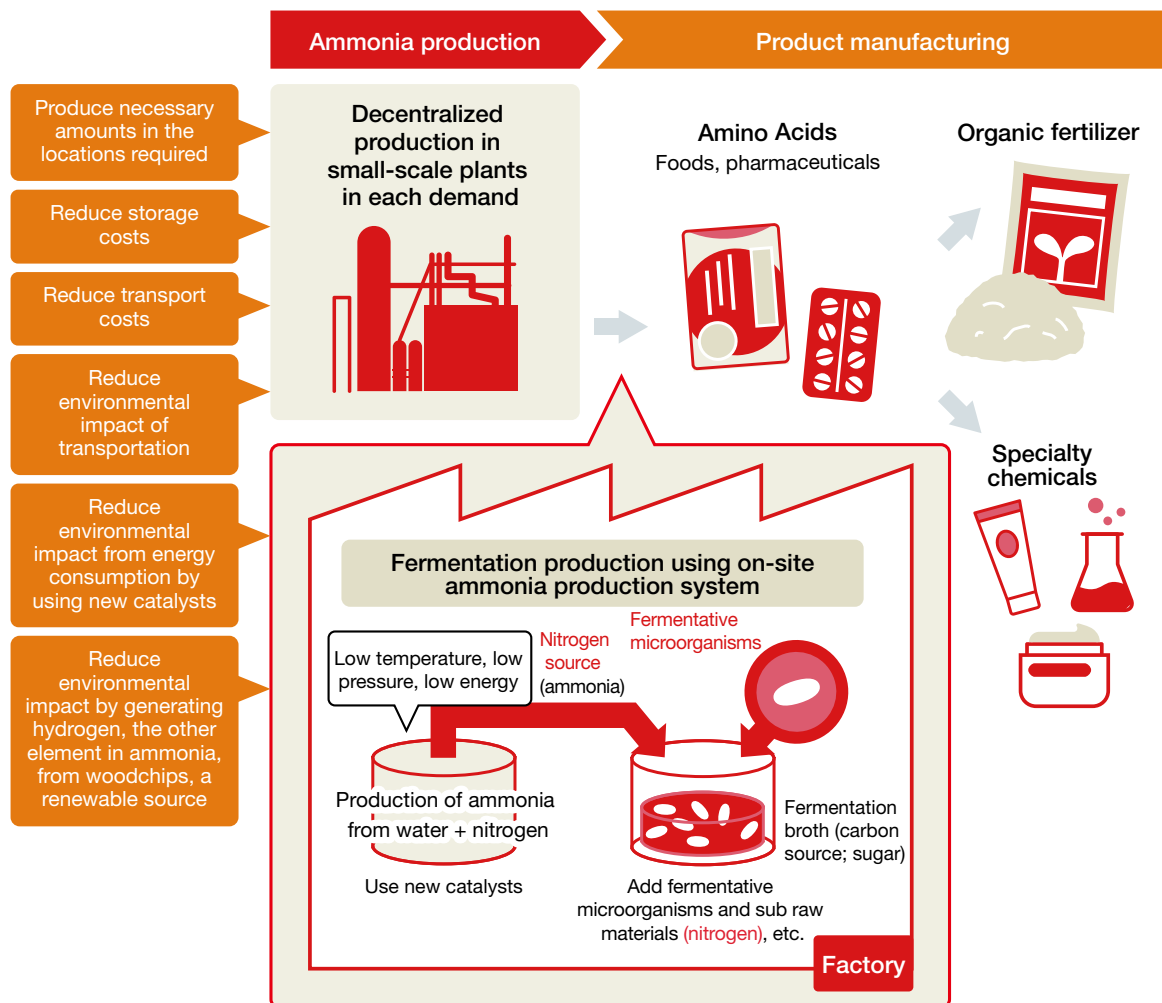
Currently, ammonia is produced worldwide using the Haber-Bosch process, and this generally uses natural gas as its raw material. This production method is carried out in large plants under high-temperature and high-pressure reaction conditions. It requires special equipment to transport the final product to where there is demand, and on transport, there is significant environmental impact in terms of CO₂ emissions, etc. The Ajinomoto Group procures ammonia externally as a raw material in the fermentation processes for amino acids, and to solve these problems, we are working toward practical implementation of on-site production to produce the necessary amount of ammonia where it is needed. In 2017, Ajinomoto Co., Inc., in partnership with Professor Hideo Hosono of the Tokyo Institute of Technology and others, established Tsubame BHB Co., Ltd., and we are working towards the commercialization of the world's first on-site production ammonia synthesis system using new catalysts discovered and developed by Professor Hosono. New catalysts allow to synthesize ammonia even under low-temperature and low-pressure conditions, which enables production in small-scale plants, something considered difficult to accomplish under the Haber-Bosch process. The small-scale plants can be located in the area of consumption, which will reduce costs and the environmental impact of transportation.

In October 2019, Tsubame BHB Co., Ltd. completed a bench facility at our Kawasaki Plant, launching operations capable of production of several tens of tons per year. We are moving forward with technical studies with the aim of commercializing this system. At Ajinomoto Co.,

Inc., we are also developing green hydrogen production technology for using local renewable materials (wood chips, etc.) to produce hydrogen, a raw material of ammonia. By combining this technology and Tsubame BHB's ammonia synthesis technology, we expect that we will gain a curbing effect on CO₂ emissions generated in the in-house production of ammonia.

Disclosures Based on the TCFD Recommendations

On-site ammonia production system



Shifting to renewable energy

GRI302-4

In August 2020, the Ajinomoto Group announced its participation in RE100, an international environmental initiative comprising companies aiming to achieve 100% renewable energy for electricity. Companies participating in RE100 are from diverse fields such as information technology through to automobile manufacturing. Member companies are asked to publicly announce their goals to use 100% renewable energy sources such as solar power, wind power, hydroelectric power, biomass, and geothermal power in their business activities by the year 2050. In FY2022, our plant in Peru signed a direct contract with a renewable energy power plant, and the Tokai Plant in Japan switched to purchasing 100% non-fossil fuel certificates for power, in efforts to shift to renewable energy.

Management of fluorocarbons, NOx, etc.

GRI305-7

The Ajinomoto Group aims to eliminate all Hydrofluorocarbons (HFCs) by fiscal 2030 at factories with equipment that use fluorocarbons. Our intent is to switch to natural refrigerants or refrigerants with low Global Warming Potential (GWP) of less than 150 when installing new or upgrading existing equipment. In 2001, when Japanese frozen food factories were not yet required to discontinue their use of equipment using specified Chlorofluorocarbons (CFCs), we started with an initiative to phase out the usage of freezers using these chemicals, and as of the end of March 2021, we have eliminated the use of those freezers in Ajinomoto Frozen Foods Co., Inc. We are continuing efforts at our plants to fully eliminate CFC substitutes by fiscal 2030, and will work to decrease use of fluorocarbons across the entire Ajinomoto Group.

Disclosures Based on the TCFD Recommendations

NOx and other atmospheric emissions

(t-CO₂e)

	FY2018	FY2019	FY2020	FY2021	FY2022
Nitrogen oxide (NOx)	9,421	5,224	6,637	5,673	4,730
Sulfur oxide (SOx)	10,701	6,779	7,016	7,676	5,311
Particulates	1,827	884	1,310	871	3,492
CFCs ^[1]	11	9	7	5	4

[1] Figures for fiscal 2019 and beyond exclude natural refrigerants and other non-fluorocarbons due to the redefinition of CFCs, HCFCs, and HFCs.

Initiatives and results of Ajinomoto Frozen Foods Co., Inc.

Ajinomoto Frozen Foods Co., Inc. efforts over the past 20 years to eliminate the use of specified CFCs in large freezers at all seven of its plants in Japan and to reduce CO₂ emissions by 2030, which were completed by the end of fiscal 2020, received the Minister of the Environment Award in the 25th Ozone Layer Protection and Global Warming Prevention Awards^[2] sponsored by the Nikkan Kogyo Shimbun newspaper and supported by the Ministry of Economy, Trade and Industry and the Ministry of the Environment. These efforts also were awarded the Gold Award at the 2nd sotokoto SDGs Award 2022^[3], sponsored by sotokoto planet.

[2] Awards recognizing outstanding achievements in technologies, products, activities, and research related to the prevention of ozone layer depletion and the suppression of global warming.

[3] An award that aims to create a world of well-being while broadly supporting SDG activities for a better society and future.

Initiatives in transportation

GRI305-5

The Ajinomoto Group is working to establish a sustainable logistics system. In Japan, the F-LINE Project launched in 2015 by six food manufacturers^[4] operates joint transport in Hokkaido and Kyushu, as well as a joint mainline trunk transport in Hokkaido, in a spirit of competing on products, but distribute in cooperation. In April 2019, we also established a joint logistics company, F-LINE CORPORATION, as an effort between five food manufacturers^[5], including Ajinomoto Co., Inc. Furthermore, activities in Phase 2 of the F-LINE Project were launched in the spring of 2022 to get ahead of the "2024 problem" in Japan, a logistics crisis set to emerge in 2024. In this second phase, four teams have been formed to discuss solutions to the various issues they handle. The three issue-facing teams are for front-end processes (medium- and long-distance transportation), core processes (delivery and distribution centers), and back-end processes (production, distribution, and sales logistics streamlining), respectively, and the fourth team is for promoting standardization and efficiency across all processes. Through activities in this project, we aim to strengthen cooperation among participating companies and streamline logistics in order to overcome the impending 2024 problem of Japan.

[4] House Foods Group Inc., Kagome Co., Ltd., Nisshin Seifun Weina Inc., Nisshin Oillio Group, Ltd., Mizkan Co., Ltd., and Ajinomoto Co., Inc.

[5] Five companies listed in above [4] excluding Mizkan Co., Ltd.

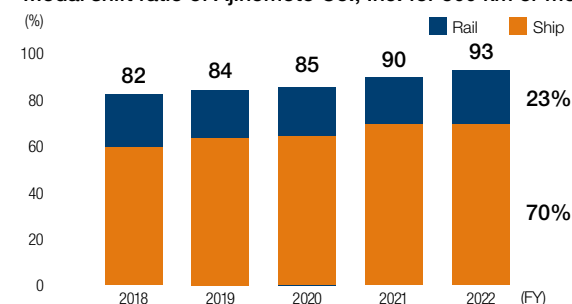
Modal shift ratio

GRI305-5

Even before calls to address the 2024 problem in Japan logistics, the Ajinomoto Group had been maintaining efforts to simultaneously enhance transportation capacity and environmental friendliness. We have been particularly focused on modal shift^[6], actions launched in 1995 to shift from trucks to railways and ships as means of transportation. During fiscal 2022, Ajinomoto Co., Inc. achieved an overall 93% long-distance transport modal shift by using ships for transport. As a result of these efforts, in June 2022, F-LINE CORPORATION, jointly with the Company, received the Low Carbon Logistics Promotion Award at the 23rd Logistics Environment Awards sponsored by the Japan Association for Logistics and Transport, and in May 2023, the Maritime Modal Shift Grand Prize at the Maritime Bureau Director-General's Awards for 2022 held by the Ministry of Land, Infrastructure, Transport and Tourism.

[6] Compared to commercial freight vehicles (trucks), railway container and ship transport results in CO₂ emissions of one-tenth and one-fifth, respectively.

Modal shift ratio of Ajinomoto Co., Inc. for 500 km or more



Disclosures Based on the TCFD Recommendations

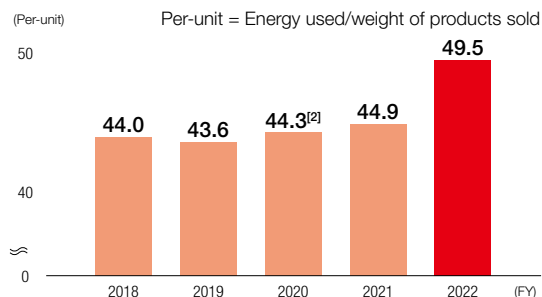
Per-unit energy use in logistics

GRI302-3, GRI302-4

Ajinomoto Co., Inc., Ajinomoto Frozen Foods Co., Inc., and Ajinomoto AGF, Inc. are considered specified consignors under the Energy Conservation Act. Each company is legally obligated to make efforts in reducing per-unit energy use (crude oil equivalent) within their cargo logistics by at least 1% per year on average over five years, reporting results to the Japanese government. Although we are reviewing our logistics network and conducting modal shifts to reduce per-unit energy use, the per-unit energy use of the three companies combined in fiscal 2022 increased by 4.6% compared with the previous fiscal year. This increase was due to Ajinomoto AGF, Inc. transferring the sales of liquid coffee to another company in fiscal 2022, resulting in a large decrease in shipment weight. Dry products, which are lighter and bulkier, accounted for a larger proportion of the weight of sales. As a result, the decrease in energy use and carbon dioxide emissions was less in proportion to the decrease in shipment weight.

Per-unit energy use in logistics^[1]

GRI2-4



[1] Combined results for Ajinomoto Co., Inc., Ajinomoto Frozen Foods Co., Inc., and Ajinomoto AGF, Inc.

[2] Correction has been made as a result of a review of totals.

Modal shift at Ajinomoto's Brazilian subsidiary

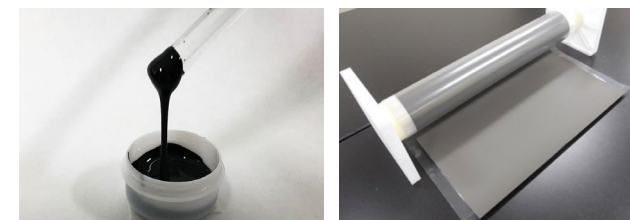
In Brazil, trucks are often used for cargo transportation, which poses challenges not only from an environmental perspective, but also in terms of traffic accident risk, cargo theft risk, high transportation costs, and large fluctuations in fuel prices due to oil price fluctuations and unstable exchange rates. AJINOMOTO DO BRASIL INDÚSTRIA E COMÉRCIO DE ALIMENTOS LTDA. (ABR) has switched a portion of its truck transportation to rail and ship transportation in order to balance the lives, safety, and health of its drivers and their families with reducing environmental impact in its food division, which accounts for about 50% of its sales. It was also able to reduce GHG emissions by 16% and the risk of accidents and death by 4% by reviewing delivery providers.

Contribution to CO₂ reductions through new magnetic materials

GRI302-4, GRI305-5

As we enter the data society, we are seeing a rapid increase in demand and acceleration of processing for semiconductors used in PCs, servers, 5G base stations, and similar, and consequently societal demands for reduced CO₂ emissions by making these semiconductors more energy efficient. The electronic materials business is one of the core businesses of the Ajinomoto Group, in which we focus on providing interlayer insulating materials for semiconductor packages. We are leveraging our long-cultivated technical expertise and knowledge and involving stakeholders in the supply chain, and have developed new magnetic materials that enable power savings in ever-faster semiconductors. The innovative semiconductor package substrate attained through use of this magnetic material will contribute greatly to reduce electricity consumption and associated CO₂ emissions. The magnetic performance of this material also

enables reductions in the size of the semiconductor power supply functions, which reduces the size of components to less than one-fifth that of conventional components. This also enables incorporation of a large number of these power supply functions into the semiconductor package substrate at a low cost, which helps with lower component counts thus achieving power savings, and contribute significantly towards the maintenance of a sustainable global environment. This magnetic material is beginning to be used in semiconductor package substrates for servers, AI, and other applications, and is being evaluated for introduction by our customers.



Newly developed magnetic materials (Left) Paste type (Right) Film type

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Disclosures Based on the TCFD Recommendations

Reducing GHGs emitted by livestock and achieving a sustainable dairy industry by utilizing amino acids for animal nutrition

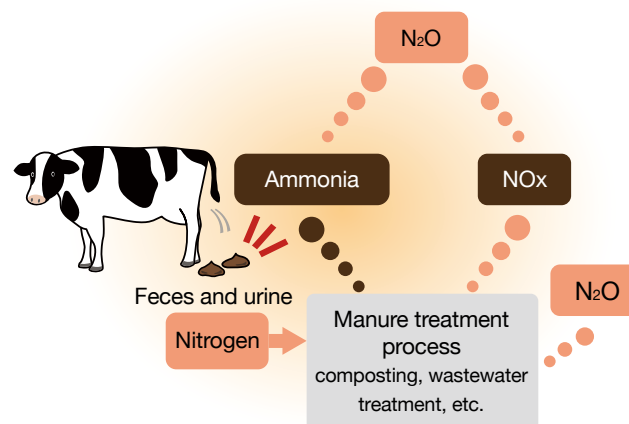
Performance

Animal bodies are made up of approximately 20 types of amino acids. Several of these amino acids cannot be synthesized internally in sufficient quantities. These amino acids, called essential amino acids, can be supplemented through animal feed. Adding amino acids for animal nutrition can improve the essential amino acid profile of feeds that consist mainly of wheat and/or corn and thus are poorly balanced.

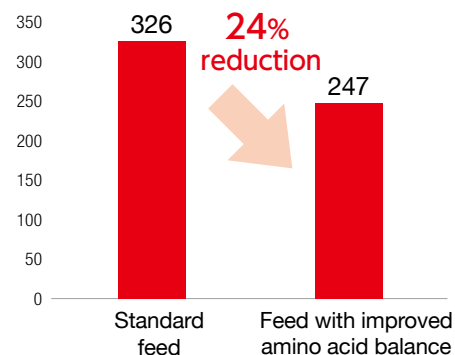
Feeds with poor amino acid balance result in an oversupply of unnecessary amino acids, which is not utilized within the animals and excreted in large quantities as nitrogen compounds. In the process of manure management, nitrogen compounds turn into nitrous oxide (N_2O), which has environment impact of approximately 300 times the greenhouse gas effect of CO_2 .

When the amino acid balance in feed is adjusted using amino acids for animal nutrition, the amount of nitrogen compounds in the manure can be reduced by 20% to 30%. This can also reduce life-cycle CO_2 (LC- CO_2). Utilizing amino acids for animal nutrition contribute to sustainable livestock production that is friendly to the global environment.

N_2O cycle



Nitrogen emissions per dairy cow (g/day)



Source: Higuchi et al., 17th AAAP ANIMAL SCIENCE CONGRESS, 2016

Disclosures Based on the TCFD Recommendations

Japan's first J-Credit Scheme project using amino acids in dairy farming

In March 2023, Ajinomoto Co., Inc. and the Meiji Group launched a collaboration for building a business model utilizing the J-Credit Scheme^[1] that simultaneously reduces GHG emissions and creates economic value in dairy farming and the dairy industry. This is the first J-Credit Scheme project in Japan (according to our research) that utilizes amino acids in dairy farming.

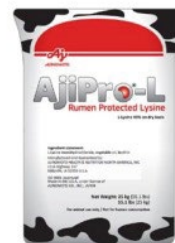
Under this business model, we will reduce GHG emissions by using our AjiPro[®]-L amino acid lysine formulation for dairy cows. Soybean meal, which is generally used as feed, is high in protein but is costly and contains a great deal of extra amino acids. In contrast, our formulation can be used to supplement and balance deficient amino acids while reducing use of feed such as soybean meal. As a result, feed costs can be reduced while maintaining milk production, and at the same time, excess nitrogen from manure can be reduced, thereby reducing emissions of N₂O, which is a GHG. We will convert the reduced GHG emissions into credits through the J-Credit Scheme.

The Meiji Group will purchase the credits that we acquire, and the proceeds from the purchased credits will be paid to dairy farmers, providing a new source of income for them in the future. The credits purchased by the Meiji Group can then be used to offset the Meiji Group's GHG emissions, thereby contributing to GHG reduction throughout the dairy industry.

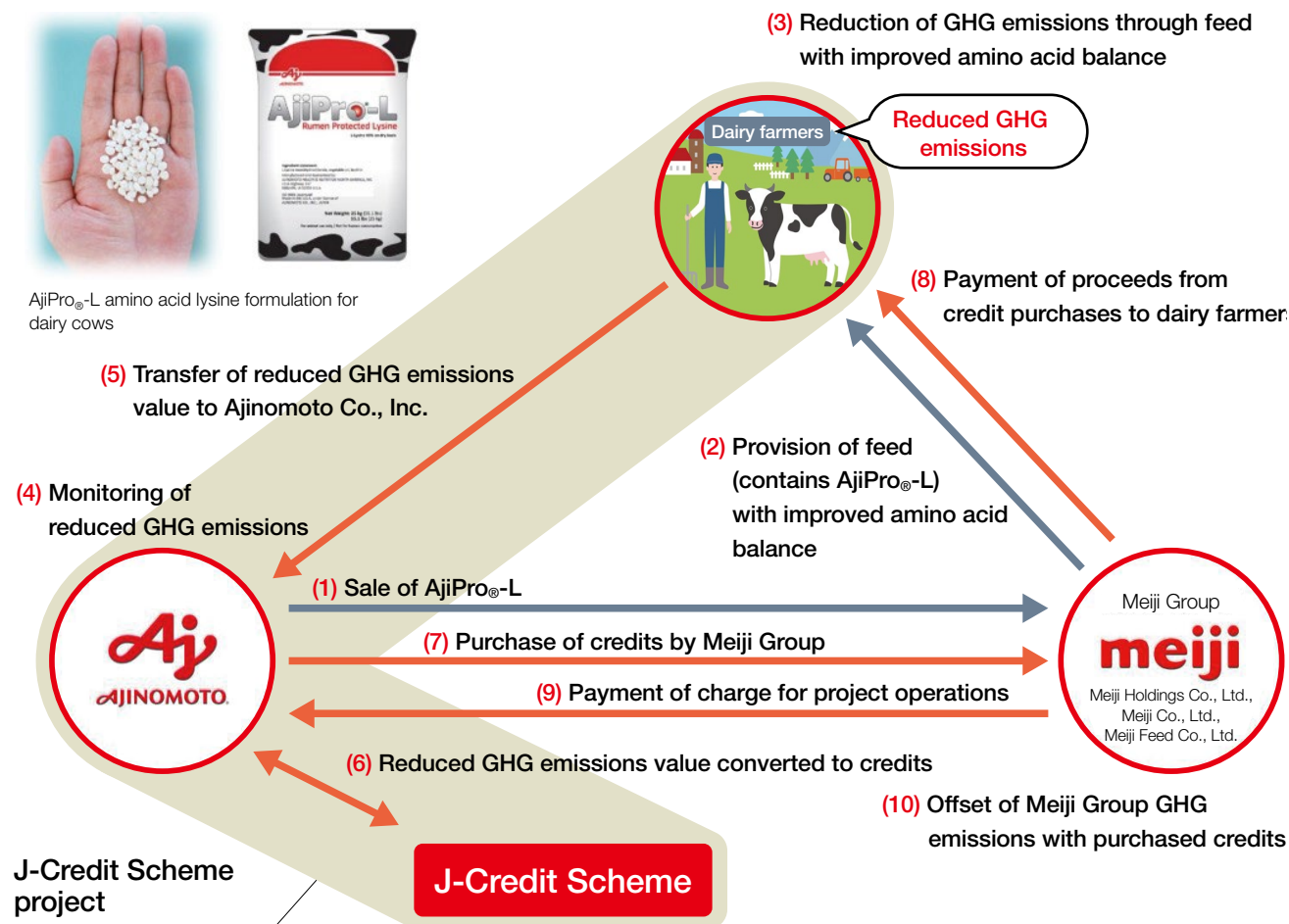
In the future, we plan to expand this initiative by soliciting participation from more dairy farmers, as well as to introduce new GHG reduction measures without increasing the cost burden on dairy farmers, such as using the cost savings from the use of AjiPro[®]-L to pay for additives that reduce methane (CH₄) emitted from cow belching, with the aim of achieving even greater GHG reductions. In addition, we will consider expanding these activities beyond dairy

cows to also cover beef cattle, as well as moving into territories outside Japan.

[1] A scheme in which the Japanese government certifies the amount of CO₂ and other GHG emissions reductions and removals as tradeable credits.



AjiPro[®]-L amino acid lysine formulation for dairy cows



Disclosures Based on the TCFD Recommendations

Creating new value through "with Earth" food

In order to achieve carbon neutrality (negativity) in the future and to meet the demand for protein from the growing population, it is important to wisely incorporate plant-based foods and other environmentally friendly ingredients and foods into our daily diet. We will utilize the Ajinomoto Group's unique strength, "AminoScience" to efficiently produce large quantities of environmentally friendly ingredients and deliver them to consumers as "with Earth" foods that are tastier and healthier.

With respect to plant-based foods, which have plant-derived proteins, our solution to the traditional concern that these foods lack deliciousness, texture, and nutritional value is Plant Answer®, which utilizes our proprietary enzyme technology and provides *umami* and *kokumi* (richness) flavors based on our Deliciousness Technologies and Nutritional Design Technology. We have invested in DAIZ Inc., a company developing an alternative protein using germinated soybeans to provide sustainable meat. We also provided development support to Japanese start-up TWO Inc., and in July 2023, began offering 2Protein, a plant-based protein supplement containing the ideal balance of essential amino acids needed to support body building through exercise.

With regard to cultivated meat, in March 2022, we invested in Israeli company SuperMeat the Essence of Meat Ltd., which develops and produces cultivated meat. Through this new investment, we are jointly developing cultivated meat technology.

With regard to microbial protein using CO₂ as a nutrient source, we have entered into a strategic alliance with Solar Foods, a Finnish food tech company, to develop products using Solein®, a protein developed by Solar Foods. Market feasibility studies are scheduled to begin in 2024. The Ajinomoto Group will continue to develop new technologies and materials based on "AminoScience" and collaborate

with startup companies to provide more delicious and healthy "with Earth" food, and to advance food standards for the future.

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Great Taste, Green Future.

"with Earth" Food Initiative

Contribution to a Circular Economy

Reduction of waste across product lifecycles

Performance

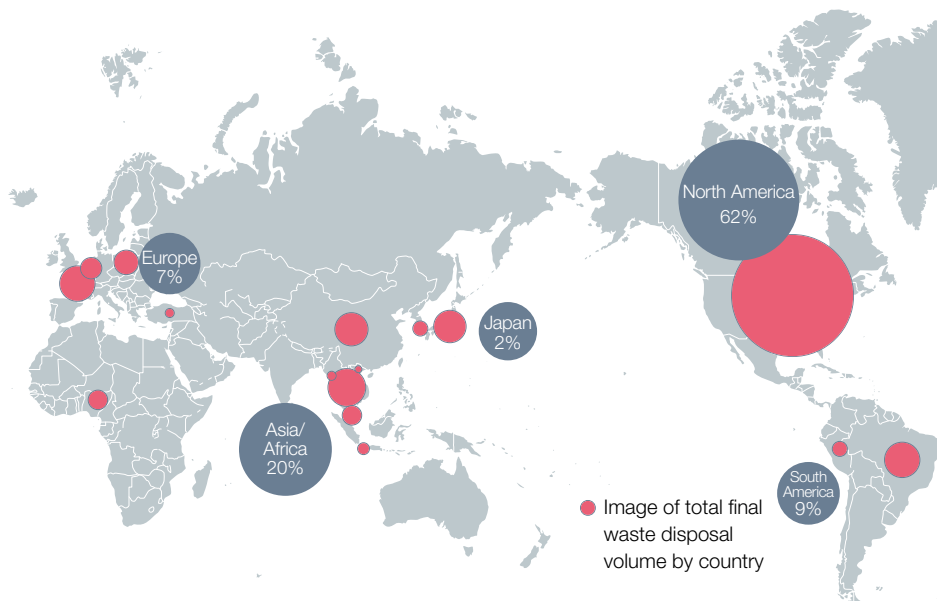
GRI306-1, GRI306-2, GRI306-3, GRI306-4, GRI306-5

The Ajinomoto Group strives to minimize the waste of limited resources, implementing initiatives to reduce waste. We are committed to the effective use of any waste that is produced, aiming to recover 99% or more of any waste arising from our business activities.

We seek to improve amino acid production efficiency by recovering by-products as resources and introducing new technologies. We are also engaged in a range of efforts in food production, including improving the precision of sales forecasts and conducting fine-tuned procurement. In this way, we minimize wasted raw materials and the amount of packaging materials used.

Our final waste disposal (emissions) distribution volume for the Group in fiscal 2022 was as shown to the right. Waste generated by the Ajinomoto Group amounted to approximately 1,784 thousand tons (99.7% of previous year), which was roughly in line with production volume (99.8% of the previous year). Final waste disposal amounted to approximately 25.4 thousand tons, or about 1.4% of the amount generated, indicating progress in resource recovery. Disposal in United States, Thailand, Brazil, France, and China accounted for about 91% of total final waste.

> P045

Total final waste disposal volume by area^[1] (FY2022)

[1] Turkey is included in Asia/Africa

25,415 t
Total final waste disposal volume (1.4%)

Top five countries for final disposal volume/resource recovery ratios

	15,797	92.9%
	3,410	98.2%
	2,170	99.5%
	975	98.9%
	779	67.0%

Unit: tons

We recovered 98.6% of waste as resources in fiscal 2022, compared to a resource recovery target of 99%. Our recovery ratio in fiscal 2022 increased slightly compared with the previous fiscal year due to the reuse of sludge as a soil conditioner and increased efficiency in the sludge drying

process. Although our adoption of biomass cogeneration increased the amount of cinders generated at some sites, there was no impact on the recovery ratios as we converted all cinders to resources.

Contribution to a Circular Economy

Volume of waste and by-products and resource recovery ratio

(tons)

	FY2018	FY2019	FY2020	FY2021	FY2022
Hazardous waste (waste acids, waste alkali, waste oil, cinder)					
Generated	69,991	83,834	81,216	83,770	106,161
Recycled	68,422	83,429	80,892	83,399	105,997
Incinerated	40	60	38	24	12
Landfills	1,529	345	286	347	152
Non-hazardous waste: By-products (sludge, bacteria, waste filter aids, etc.) ^[1]					
Generated	2,194,566	2,021,002	1,615,808	1,546,599	1,470,197
Composted	2,194,470	2,020,885	1,615,713	1,543,988	1,470,110
Incinerated	0	0	0	0	0
Landfills	96	117	95	2,611	87
Non-hazardous waste: Other (sludge, animal and plant residue, plastic waste, etc.) ^[2]					
Generated	174,651	181,246	173,310	195,832	208,120
Recycled	153,388	156,432	150,295	169,243	182,956
Incinerated	2,821	2,121	1,784	2,318	3,969
Landfills	18,442	22,693	21,231	24,271	21,195
Total generated	2,439,208	2,286,082	1,870,334	1,826,201	1,784,478
Total recycled	2,416,280	2,260,745	1,846,900	1,796,630	1,759,063
Total waste	22,928	25,337	23,434	29,571	25,415
Resource recovery ratio	99.1%	98.9%	98.7%	98.4%	98.6%

[1] Sludge, bacteria, humus carbon, waste activated carbon, gypsum sludge, salts, fermentation final concentrate, waste filter aids, etc.

[2] Sludge, animal and plant residues, plastic wastes, glass and ceramic wastes, metal scraps, paper wastes, wood wastes, rubber scraps, waste construction materials, office wastes, etc.

Reducing plastic waste

GRI3-3, GRI306-1, GRI306-2

In recent years, the problem of marine plastics has become a pressing global issue. The Ajinomoto Group set a goal to reduce plastic waste to zero by fiscal 2030. This means that we intend to eliminate all plastics released to the environment that are not used effectively. Through our Group-wide project launched in March 2020, we are working strategically toward the following goals.

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Goals for fiscal 2030

- Choose to use plastics in the minimum quantity and purpose required for safety and quality (reduce)
- Switch to using only plastic packaging made of mono-material or recyclable products (recycle)
- Support and contribute to measures for social implementation of collection, sorting, and recycling in countries and regions where our products are manufactured and sold

Under our plan to achieve zero plastic waste, while promoting the technological development of mono-materialization, we will also promote reduction. This reduction will be completed by fiscal 2025, and our conversion to recyclable materials will also be completed by fiscal 2030. After confirming barrier property requirements for each product, we will implement new technologies for packaging materials that use aluminum foil currently, starting from those with a relatively low required barrier.

Contribution to a Circular Economy

Roadmap to achieving zero plastic waste

Stage 1: Reduce (e.g., thinner packaging, switching to paper)

★: Established technology

Area	Details	FY2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Japan	Elimination/reduction of secondary packaging			From adoption to completion								
Japan	Thinner packaging	★	From adoption to completion									
Overseas	Switching to paper		★	From adoption to completion								

Stage 2: Recycle (mono-materials)

Area	Details	FY2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Japan	Non-barrier items	★	From adoption to completion									
Japan	Barrier items (moderate properties)			★	From adoption to completion							
Japan	Barrier items (high properties)						★	From adoption to completion				
Overseas	Barrier items (high properties)						★	From adoption to completion				

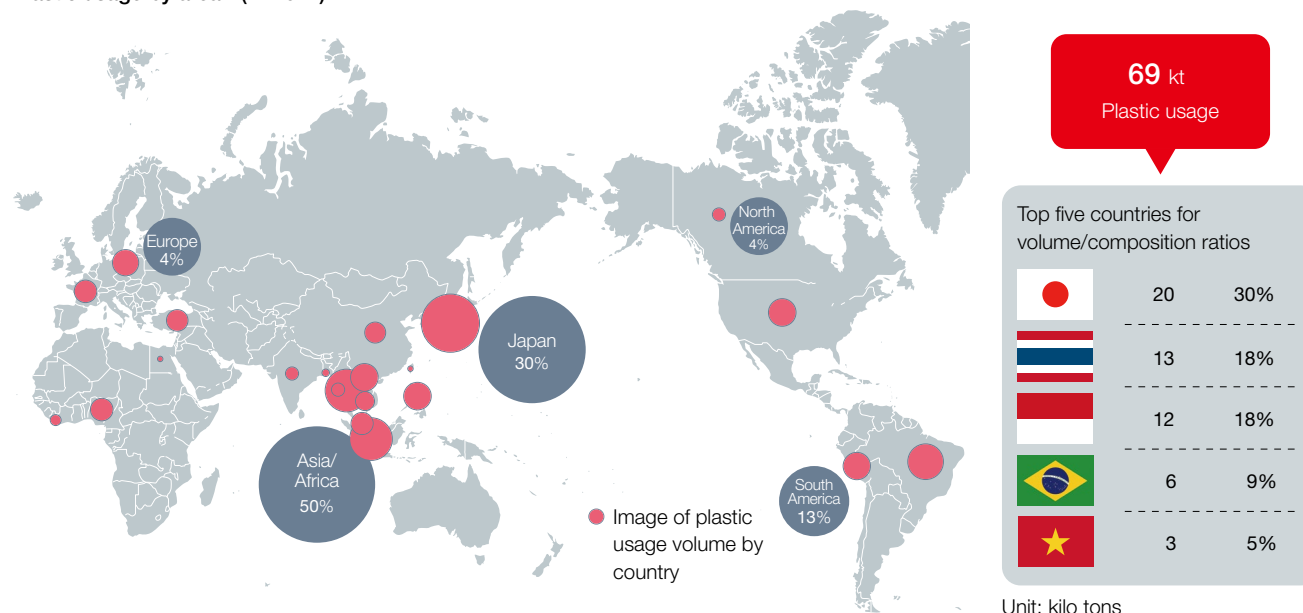
Confirm necessary barrier properties

Lateral deployment

Contribution to a Circular Economy

Performance

The distribution of plastic usage volumes for the Group in fiscal 2022 was as follows.

Plastic usage by area^[1] (FY2022)

[1] Turkey is included in Asia/Africa.

Ajinomoto Group total plastic usage volumes

GRI2-4

	FY2019	FY2020	FY2021	FY2022
Plastic usage (Of which, product packaging materials ^[2])	71 kilo tons ^[2] (94%)	70 kilo tons (94%)	71 kilo tons ^[2] (93%)	69 kilo tons (93%)

[2] Correction has been made as a result of a review of totals.

The total amount of plastic used by the entire Group was 69 kilo tons, a decrease year on year. Japan, Thailand, Indonesia, Brazil, and Vietnam accounted for 80% of total use. Of these 69 kilo tons, more than 90% were used in product packaging materials. In addition, we have already converted approximately 33,000 tons^[3] to mono-materials and other easily recyclable packaging materials. Excluding increases and decreases in sales, we made progress in fiscal 2022 in reducing plastic usage by approximately 800 tons per year. These gains were mainly due to efforts to reduce plastic usage by making products thinner. We also converted approximately 900 tons per year of packaging materials to more easily recyclable designs such as mono-materials. In addition, waste collection efforts have begun in Indonesia and other countries. Going forward, we will explore possible topics further for technology development and possible contributions to building mechanisms for collection and recycling in various countries.

[3] We revised our definition of recyclable packaging materials.

Contribution to a Circular Economy

Example of plastic usage reduction (Indonesia)

In Indonesia, the increase in plastic waste due to population growth and economic growth has become a serious social issue. Estimates say that Indonesia's discharge of plastic waste into the ocean is second only to that of China, and is a significant source of ocean pollution. Given this situation, the Indonesian government requires its manufacturing, food and beverage, and retail industries to reduce collective waste emissions by 30% by the year 2029. Japanese companies in the country are also becoming more active in conducting environmental measures.

PT Ajinomoto Indonesia is reducing plastic waste by changing certain packaging materials to paper and by adding a larger variety of sachet sizes than before.

For example, the company used to use polypropylene as a packaging material for AJI-NO-MOTO® (120 grams) as a packaging material for products of approximately the same capacity. By changing the front of the package bag to paper, the company reduced plastic usage by 30%. The product package received *eco-label certification* from a certification organization under the Ministry of Environment and Forestry of Indonesia. The Indonesian version of the Guinness Book of World Records, MURI, registered this package as the first eco-friendly packaging for umami seasonings in Indonesia.

In addition, PT Ajinomoto Indonesia reduced plastic usage in Masako® by 630 tons per year by reducing the packaging header area and inner bag.



New Paper Packaging for AJI-NO-MOTO®



Container and packaging design for the environment

Approach

GRI306-1, GRI306-2

The Ajinomoto Group engages in environmentally friendly container and packaging design in accordance with ISO 18600 series and JIS Z 0130. We pursue the 3Rs by minimizing the amount of packaging material to the extent such does not interfere with original function considering how to easily separate and sort our packaging by material for recycling. We select and develop optimal containers and packaging, engaging in environmentally friendly design tailored to the different characteristics and shapes of our products. Containers and packaging include everything from plastic, pouches to trays, bottles, glass bottles, PET bottles, paper boxes, and exterior packaging (cardboard boxes). The Group also strives to reduce the amount of food loss and waste generated by extending “best-before” dates through the use of containers and packaging that better maintain product freshness. Our efforts here include adopting single-serve packaging that leaves no food waste.

Contribution to a Circular Economy

Environmental assessments of containers and packaging

GRI3-3, GRI306-1, GRI306-2

Before releasing new or revised products, the Ajinomoto Group conducts an environmental assessment based on a

checklist. We use this assessment to confirm compliance with product-specific regulations and compatibility with Group environmental targets (Table 1). In addition, Ajinomoto Co., Inc. assesses the details of product revisions using a points-based Eco-Index for Containers and Packaging (Table 2).

Table 1: Environmental assessment checklist

Objective		Checklist Item
Compliance	Waste 3Rs	Compliance with environmental laws and regulations
	Food loss and waste reduction	Prevention of product degradation and damage
	Risk	Prevention of usage of packaging materials with environmental issues
Compatibility with Group environmental targets	Waste 3Rs	Use of packaging materials compatible with the 3Rs
	Sustainable procurement	Use of sustainable packaging material(s)
	Food loss and waste reduction	Use of packaging materials that reduce food loss and waste
	GHG emissions reduction	Reduction of environmental impact in the supply chain
	Fostering consumer awareness of green living	Display of environmental labels

Table 2: Eco-Index for containers and packaging

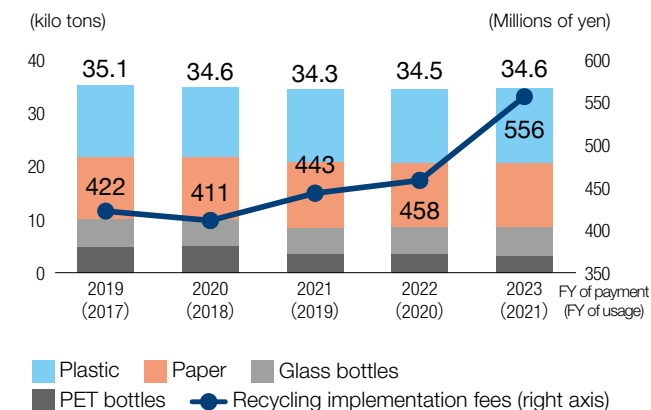
Environmental plan item	Assessment item (example)	Assessment standard (example)
Transition to zero plastic waste	Plastic container/packaging weight reduction	At least 450 kg reduced per year
	Space per packaging volume	No more than 15%
	Compatibility with recycling systems	Easily recyclable materials used in all areas
GHG emissions reduction	LC-CO ₂ emissions reduction	Transport efficiency
	Reduction compared to previous product version	At least 80% loading efficiency
Sustainable procurement	Use of eco-friendly materials	Use of forest-certified paper
Realization of a recycling-oriented society	Environmental labeling	Display of the Aji-na Eco mark
Food loss and waste reduction	Food loss and waste reduction	Extension of shelf life
		Adoption of single-serve packaging

The recycling of containers and packaging waste in Japan

Under the Containers and Packaging Recycling Act in Japan, the recycling of containers and packaging waste from households is consigned to the Japan Containers and Packaging Recycling Association. In fiscal 2021, Ajinomoto Co., Inc., Ajinomoto Frozen Foods Co., Inc., and Ajinomoto AGF, Inc. used a combined 34.6 kilo tons of containers and packaging subject to recycling requirements, essentially level with the previous fiscal year. Based on this usage, recycling implementation fee payments for fiscal 2023 amounted to 556 million yen, 122% compared with the previous fiscal year. Although the usage volume of glass bottles and plastics increased, at 108% and 102% of previous fiscal year levels, respectively, usage of PET bottles decreased 89%, and overall usage was level year on year. Per-unit recycling contract costs also increased, leading to higher payment amounts in fiscal 2023.

Use of containers and packaging and recycling implementation fee payments for household products for Ajinomoto Co., Inc., Ajinomoto Frozen Foods Co., Inc., and Ajinomoto AGF, Inc.^[1]

GRI2-4



[1] Correction has been made as a result of a review of totals.

Contribution to a Circular Economy

Cooperation with outside organizations

The Ajinomoto Group works with Japanese container and packaging recycling groups and government-related organizations to implement social recycling of plastic resources.

As part of our efforts to reduce plastic waste, we participate as a founding member company of CLOMA^[1], a platform for accelerating innovation by strengthening cross-industry cooperation across a wide range of stakeholders and industries. We are active in secretary and chair positions in the Promotion Subcommittee and other bodies, and we take part in activities that include proof-of-concept tests for large-scale waste collection methods.

CLOMA established the *Design for the Future Task Force*, which works actively to envision an ideal future in the year 2050 and to achieve the organization's goals, which include increasing the materials recovery ratios.

[1] Japan Clean Ocean Material Alliance

> Participation in Initiatives

Reducing environmental impact through the supply of highly biodegradable amino acid-based cosmetics ingredients

Expanding the amino acid-based cosmetics ingredients business

Ajinomoto Co., Inc. has provided amino acid-based personal care ingredients to more than 5,000 companies in 55 countries since the company launched the world's first amino acid-based surfactant, made from glutamic acid, in 1972. Amino acid-based surfactants reduce environmental impact due to high biodegradability. These surfactants are also mild on the skin. Growing concern about the global environment in recent years has resulted in a rapidly expanding market for amino acid-based surfactants. We

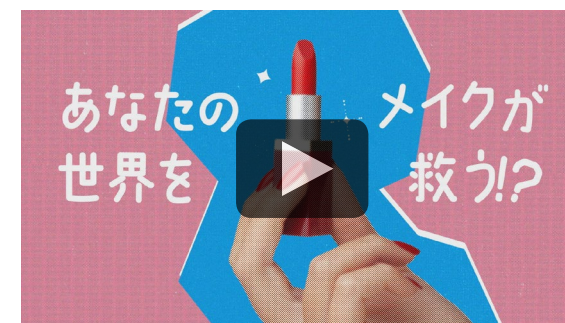
have been expanding our supply system to meet the global demand.

For example, in fiscal 2021, the Group constructed a new plant for amino acid-based surfactants Amisoft® in Brazil, and we are increasing production capacity.

Launch of sales for alternative to plastic microbeads used in cosmetics products

In recent years, various countries and regions have introduced regulations to ban or reduce the use of polymer plastics that have a substantial adverse impact on the environment, such as marine pollution. These regulations either prohibit use or requiring usage reductions. For example, tighter regulations have been imposed on rinse-off personal care products using plastic microbeads. The trend now is to replace these materials with alternatives. However, developing alternatives to plastic microbeads used in skin care and make-up products has been considered difficult in the areas of retaining their feel and user experience.

Amid these conditions, Ajinomoto Co., Inc. has succeeded in using its unique technologies harnessing amino acid-based personal care ingredients to develop a product replacing conventional microplastic beads. This new product launched in 2022. The alternative we developed uses only naturally derived raw materials, and is therefore highly biodegradable and helps to reduce environmental impact. We have already seen positive feedback from numerous cosmetics manufacturers.

Developing alternatives to plastic microbeads for cosmetics products

Video (YouTube)
The cosmetics you use could save the world!?

Contribution to a Circular Economy

Ajinomoto Group eco-labels

Performance

GRI417-1

In response to feedback from consumers such as wanting to choose products that are as good for the environment as possible and wanting to know the eco-friendliness of a product at a glance, the Ajinomoto Group has labeled products with our original *Aji-na Eco* and *Hotto-suru Eco* marks since 2010. We strive to provide easy-to-understand explanations of improvements in packaging and details of our environmental initiatives, considering the environment in which customers use our products and throughout the value chain.

> Aji-na Eco Mark (Japanese only)



Number of *Aji-na Eco* mark products
205

As of March 2023

What is *Aji-na Eco*?

Aji-na Eco is a term describing smart and ecological products. The logo mark expresses the image of the green of the earth, the pleasure of eating, and a global environment made even better through food.



Number of *Hotto-suru Eco* mark products
320

As of March 2023

What is *Hotto-suru Eco*?

Hotto-suru Eco identifies Ajinomoto AGF, Inc. products that have special environmental features. The logo mark expresses the comfort felt when drinking one's favorite beverage, colored in the green of the earth. The *Hotto-suru Eco* label was introduced in 2015.



Number of *Aji-pen Eco* mark products
28

As of March 2023

What is *Aji-pen Eco*?

This mark indicates the eco-friendliness of Ajinomoto Frozen Foods Co., Inc. products. The *Aji-pen Eco* logo mark using the company's penguin mascot in 2020, taking the place of the *Aji-na Eco* logo mark.

Contribution to a Circular Economy

Contribution to sustainable agriculture

Bio-cycles contribute to reductions in greenhouse gas emissions

Approach

The Ajinomoto Group produces amino acids through fermentation processes from crops that are easily available in each region. We use as fertilizer and feed nearly 100% of the nutritionally rich by-products (co-products) that remain after extracting amino acids in the fermentation process. We call this type of circular amino acid fermentation processing a bio-cycle, and by introducing this in fermentation facilities around the world, we are working to reduce GHG emissions associated with production of ordinary chemical fertilizer and support sustainable agriculture.

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Effective Use of By-Products (Coproducts)

Approach

GRI203-2

Plants synthesize amino acids from absorbed nitrogen and sugars gained through photosynthesis, then use amino acids to synthesize proteins necessary for growth. Even under poor photosynthesis conditions caused by cloudy weather or low temperatures, plant growth can be stimulated by supplying amino acids as fertilizer.

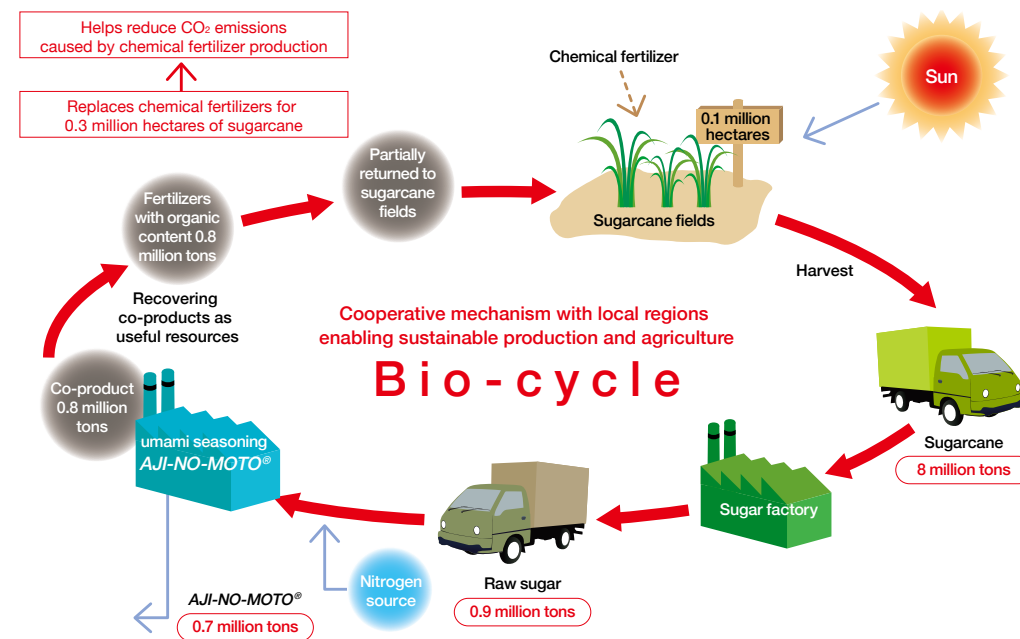
For more than 40 years, the Ajinomoto Group has effectively utilized the nutrient-rich co-products of amino acid production as amino acid fertilizers. Overseas offices in Thailand, Vietnam, Brazil, and other countries sell co-products that are used by local farmers, thereby contributing to improved agricultural productivity.

By fortifying these co-products with suitable amounts

of phosphoric acid and potassium, for example, we have developed fertilizers with higher added value. Continued experiments and research have made it clear that these

amino acid-enriched fertilizers enhance root development, plant growth, and harvest yields.

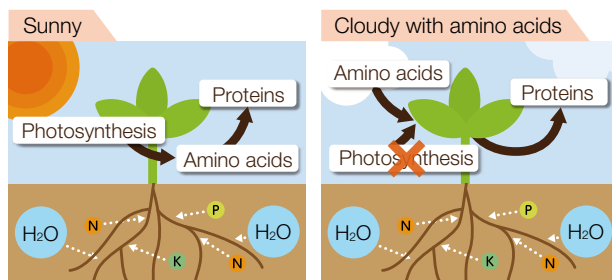
The Ajinomoto Group Bio-cycles



[1] The chart assumes worldwide annual Group production of approximately 0.7 million tons of the umami seasoning AJI-NO-MOTO® using only sugarcane. The figures for sugarcane grown and sugar production are commonly used global figures. The figures related to resources used for producing AJI-NO-MOTO® are based on actual statistics from the Group. Bio-cycle concept and image were revised considering the changes of production process and raw material procurement situation.

Contribution to a Circular Economy

By fortifying these co-products with suitable amounts of phosphoric acid and potassium, for example, we have developed fertilizers with higher added value. Continued experiments and research have made it clear that these amino acid-enriched fertilizers enhance root development, plant growth, and harvest yields.



Ajinomoto Group company Agro2Agri, S.L. (Spain) is an agricultural materials manufacturer that sells biostimulant^[1] products, based mainly on amino acids. The company operates both a B2B business that supplies raw materials to agrochemical and fertilizer manufacturers and a B2C business that sells and services farmer needs. With strengths in advanced product development based on knowledge and expertise in amino acids, the company operates in more than 50 countries around the world, contributing to sustainable agriculture through improved yields and quality of agricultural products.

[1] Agricultural materials that promote plant natural immunity and plant growth by blending natural materials (fermented microorganism-derived ingredients such as amino acids) and natural extracts.

Ajinomoto Group agriculture initiatives around the world

Performance

GRI203-2

■ Japan

The Ajinomoto Co., Inc. Kyushu Plant produces high-quality fertilizers, making effective use of co-products derived from the amino acid and nucleic acid manufacturing process. In the past, the plant dried co-products for use as solid fertilizer. However, the amount of fuel oil necessary for drying amounted to 600 kiloliters per year and released 2,000 tons of CO₂ into the atmosphere. Through trial and error, the Ajinomoto Co., Inc. Kyushu Plant worked with AEON Kyushu to find a solution for using co-products as compost. The heat generated during the fermentation of compost is used to dry the compost naturally at between 60°C and 80 °C. This approach not only reduces environmental impact, but also improves the quality of crops by increasing amino acid and sugar content. The vegetables produced using this compost are called *Kyushu Rikisaku Vegetables*®, and the project serves as a means to revitalize local agriculture under a campaign called *Energizing Kyushu Agriculture!*, building a cooperative value chain including agricultural professionals and distributors.

■ Vietnam

Vietnam is one of the world's leading exporters of rice. The Mekong Delta in the south is a center of rice production, where rice cultivation takes place two or three times a year. Continued use of nonorganic fertilizers in this region has degraded soil fertility, resulting in unstable quality and yields, making farmers difficult to make a living through rice cultivation. In 2007, AJINOMOTO VIETNAM CO., LTD. began conducting research using a co-product called AMI-AMI® (liquid fertilizer) in small-scale test farms. Today, this co-product business in Vietnam, which maintains soil fertility while keeping farm production costs down, is essential

among local communities, leading to sustainable agriculture.

■ China

Improving crop yields, soil fertility, and soil conservation are primary goals in China. In fiscal 2022, we improved wheat yields by 15% through the use of grain-specific biostimulants and amino acid fertilizers containing trace elements marketed by AGRITECNO FERTILIZANTES, S.L.(Spain). In addition, we sponsored 45 online trainings and offline meetings for farmers and pesticide traders to improve and conserve soil, one of the key factors in agricultural productivity and sustainability. The meetings provided information on the importance of healthy soil and the excellent function of biostimulants.

■ Thailand

In Thailand, a major cause of PM2.5 particulates is the burning of sugar cane leaves after harvest. However, spraying the co-product AMI-AMI® (liquid fertilizer) on the fields fosters promotes the composting of leaves and is helpful in preventing burn-offs. The Ajinomoto Group also launched a project in fiscal 2020 to support farmer autonomy, contributing to the sustainability of food resources in Thailand. The project works with more than 500 cassava farmers in Kamphaeng Phet Province, where an Ajinomoto Group's factory is located, to improve productivity and incomes. We have seen a more than 20% improvement in productivity and incomes through proper fertilizer management based on soil diagnosis, the use of microbial materials, access to seed stalks uninfected with cassava mosaic disease, and educational programs. The number of participating farmers is increasing year by year, and collaboration with government, universities, and other companies is flourishing. This program is quickly becoming a model for sustainable raw materials procurement.

Contribution to a Circular Economy

■ Brazil

AJINOMOTO DO BRASIL INDÚSTRIA E COMÉRCIO DE ALIMENTOS LTDA. (ABR) sells co-products such as liquid foliar fertilizer and fertilizing material AJIFOL[®] and soil mineral fertilizer AMIORGAN[®] mainly to coffee and fruit plantations. More recently, we have seen a movement among plantations toward sustainable management, making a full-scale transition from chemical fertilizers to co-products from ABR. In fiscal 2022, we launched *Amino Imune*, a new high-value-added liquid foliar fertilizer offering enhanced plant immunity. This product has received high praise from the market and continues to grow in sales.

In addition, we continue to use AJIFOL[®] at coffee plantations that Ajinomoto AGF, Inc. supports in the production region to further improve quality. We undertook three initiatives to this end: (1) Reduce N₂O^[1] through the use of AMIORGAN[®], which applies the function of amino acids to fertilizers; (2) Reduce CO₂eq in agricultural operations through the use of AMINO Plus[®], which contains glutamic acid; and (3) Engage in soil carbon sequestration through the use of AMINO Arginine, which contains arginine. As a result of these efforts, we reduced greenhouse gas emissions by 3,400 t-CO₂e^[2] in 2020 and 3,800 t-CO₂e^[2] in 2021, increased soil carbon sequestration by 1,100 t-CO₂e^[2] in 2020 and 1,200 t-CO₂e^[2] in 2021. We not only improved productivity and quality for farmers, but also contributed to the preservation of the global environment.

[1] A gas that has a greenhouse effect about 300 times greater than that of CO₂; N₂O is an ozone-depleting substance.

[2] vs. FY2021

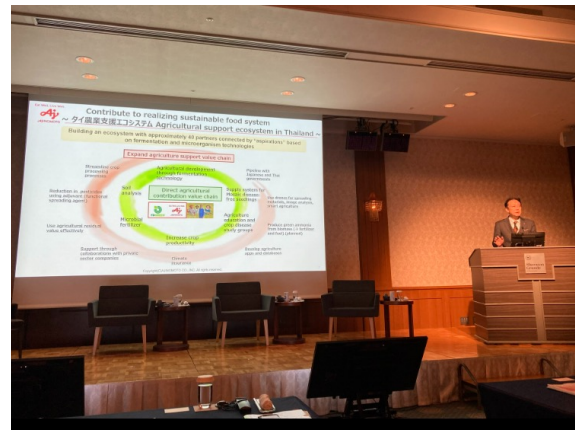
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TOPIC

Toward Building a Resilient and Sustainable Agrifood System: The Contributions of the Food Industry in the Food Supply Chain

The G7 Agriculture Ministers' Meeting was held in Miyazaki Prefecture in April 2023. At a subsidiary event, Ajinomoto president and CEO Taro Fujie participated in a session titled, *Toward Building a Resilient and Sustainable Agrifood System: The Contributions of the Food Industry in the Food Supply Chain*. At this seminar, Mr. Fujie presented the Ajinomoto Group efforts to build a sustainable food systems, including a case study of our project supporting cassava farmers in Thailand. In the panel discussion that followed, President Kazuo

Kawamura of Meiji Holdings Co., Ltd., Ms. Julia Harnal, chair of the German Agribusiness Alliance, and Mr. Alvaro Lario, president of the International Fund for Agriculture Development (IFAD), provided their insights into building sustainable agri-food systems. During the G7 Agriculture Ministers' Meeting, President Fujie also participated in dialogues on private-sector sustainable food systems during bilateral meetings with UN agencies.



Reduction of Food Loss and Waste

Contribution to reducing food loss and waste

Food loss and waste: definition and scope

Performance

GRI3-3, GRI306-1, GRI306-2
GRI306-3, GRI306-4, GRI306-5

The Ajinomoto Group defines food loss and waste as food (edible portions) that is treated or disposed of in waste water treatment, landfill, or incineration. This definition excludes food ultimately redistributed for food use or used for feed or fertilizer.

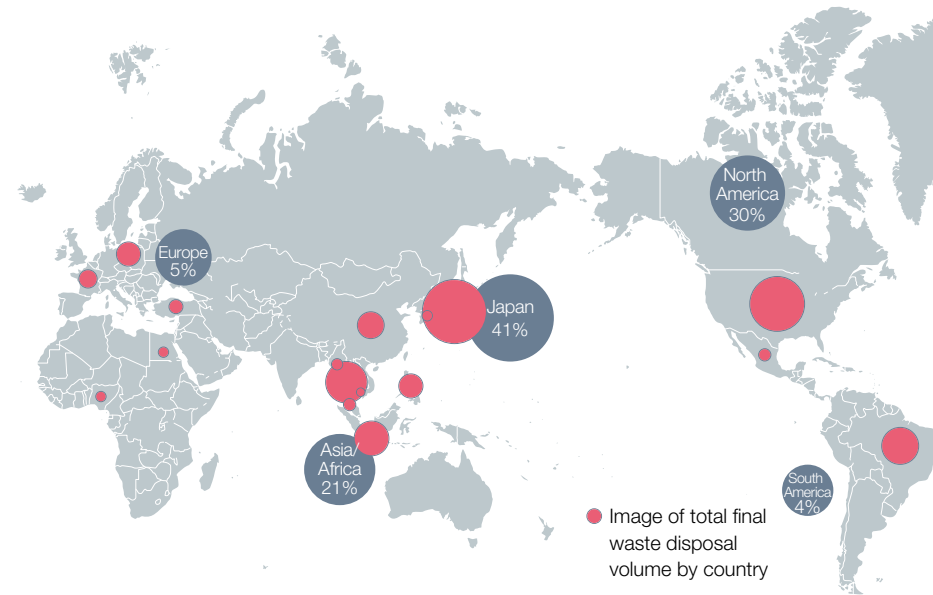
The major food loss and waste categories generated by the Group are as follows:

- Raw materials and materials in process: Disposal due to product revisions, production item changes, expired use-by dates, production incidents, etc.
- Products: Expired sales time limit caused by product revisions or inaccurate demand forecasting, product returns due to erroneous shipment, goods damaged at warehouse or at the time of delivery, disposal of sample items
- Loss due to standard factory operations: Waste generated by standard operations, including line cleaning to switch products and sample inspections

As a result, the Group generated 15,167 tons of food loss and waste in fiscal 2022. Ratio by area is shown at right.

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> P045

Distribution of food loss and waste by area^[1] (fiscal 2022)



[1] Turkey is included in Asia/Africa.

Final food loss and waste volume
15,167 tons

Top five countries for final disposal volume/resource recovery ratios

	6,212	41%
	4,487	30%
	1,349	9%
	1,083	7%
	508	3%

Unit: tons

Reduction of Food Loss and Waste

Food loss and waste reduction targets

Performance

GRI3-3, GRI306-1, GRI306-2
GRI306-3, GRI306-4, GRI306-5

The Ajinomoto Group is committed to a long-term vision to halve food loss and waste generated throughout the entire product lifecycle by fiscal 2050 as compared to fiscal 2018. Our first target is to reduce food loss and waste between the acceptance of raw materials and the delivery of products to customers by 50% by fiscal 2025 (compared to fiscal 2018).

The food loss and waste generated in fiscal 2022 decreased 39% compared with the base year of fiscal 2018. This decrease was mainly due to progress in reducing the food loss and waste among businesses that have generated relatively large amounts of food loss and waste in the past, as well as effectively utilizing waste by either redistributing for food use or converting to feed or fertilizer.

We believe that this theme is closely related not only to the importance of utilizing limited food resources, but also to various environmental and social issues.

In addition to the efforts made in our direct business activities (from acceptance of raw materials to delivery to customers), we will work to further reduce losses generated at the production stage of accepted raw materials and in the households of the consumers by collaborating with suppliers and promoting activities to spread awareness among society and consumers with a view to the entire product life cycle.

Food loss and waste reduction rate per production volume unit

	FY2022 Target	FY2022 Result	FY2023 Target	FY2025 Target
Food loss and waste reduction rate from the acceptance of raw materials to delivery to customers (vs. FY2018)	30% decrease	39% decrease	43% decrease	50% decrease

Volumes of food loss and waste^[1]

		FY2018 (Base year)	FY2019	FY2020	FY2021	FY2022
Ref.: Production volume (1,000 t) ^[2]		2,609	2,542	2,423	2,357	2,354
Food Loss and Waste	Total volume (t)	27,710	25,507	22,267	19,262	15,167
	Per production volume unit (per ton of product) (kg/t)	10.6	10.0	9.2	8.2	6.4
	vs. FY2018 (%)	-	95	87	77	61

[1] Measured with reference to the Food Loss & Waste Accounting and Reporting Standard. (Measurement methods may differ between target organizations.)

[2] We used data different from production volume set forth in other environmental data for convenience of aggregation.

Reduction of Food Loss and Waste

Food loss and waste reductions in the supply chain

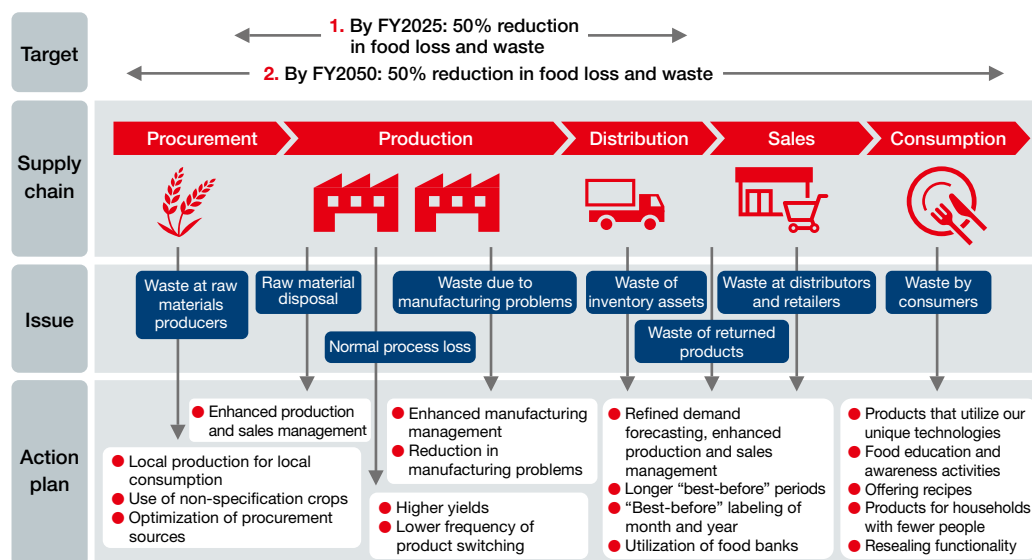
Approach

GRI3-3, GRI306-1, GRI306-2

The Ajinomoto Group has been promoting a range of measures to reduce issues with food loss and waste in each process of the supply chain, from raw material procurement through to consumption by customers. In production, we face the issue of raw material losses. To deal with this, we are promoting measures such as enhanced production and sales management, reducing manufacturing problems,

improving yields, and reducing the frequency of product switching. Issues in logistics and sales include disposal of inventory and returned products, and disposal at distributors and retailers. Our efforts include improved demand forecasting, enhanced sales management, longer “best-before” periods, “best-before” labeling of month and year, and utilizing food banks. To respond to the issue of waste by consumers, we are offering products that utilize our unique technologies and providing recipes with less food loss and waste.

Measures to achieve food loss and waste reductions in the supply chain



The circulation cycle of super sweet corn

Performance

In Japan, we use the entirety of super sweet corn, an ingredient in Knorr® Cup Soup. Leaves and stalks left over from corn harvests are used as fertilizer to nourish fields, eliminating waste. We separate corn delivered to the factory into kernels, husks, and cores. The kernels go into our soup, while the husks and cores do not go to waste, but are rather used to feed cattle. The amount of feed generated is approximately 6,500 tons per year. Corn feed is rich in nutrients not found in grass, and cattle manure also becomes compost. Cattle manure from pastures is returned to the fields in a cycle of corn production.

Unique technology to address food loss and waste

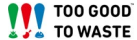
Performance

Enzymes are used in the food industry to manufacture a variety of products. In 1993, Ajinomoto Co. Inc. successfully commercialized Activa®, the world's first food-use preparation based on transglutaminase, an enzyme that binds proteins together. We have been engaged in a range of applied research projects and product developments with the goal of enhancing transglutaminase functionality in response to challenges in various food products. We use this enzyme in the production of a wide variety of food products worldwide, including meat products, dairy products, processed fisheries products, noodles, bread, and plant-based proteins, by improving texture, physical properties, and by enhancing formability. In addition, this enzyme contributes the effective use of food resources by reducing deterioration over time, extending freshness, and reducing food loss among our customers.

Reduction of Food Loss and Waste

Recipes and content to reduce food loss and waste

Performance

In Japan, annual food loss and waste from households amounts to 2.47 million tons (Ministry of Agriculture, Forestry and Fisheries estimate for fiscal 2020), which equals to about half of the total food loss and waste in the country (5.22 million tons). In August 2022, the Ajinomoto Group launched the brand, *TOO GOOD TO WASTE™*, to promote the reduction of household food loss and waste. Ajinomoto Group created a dedicated site to deliver valuable experiences through food within **AJINOMOTO PARK**. The site offers a collection of recipes that reduces food loss and waste— recipes—and tips and ideas for incorporating food loss and waste reduction into daily life in fun ways.

Since 2009, the Ajinomoto Group has published Eco-Uma Recipes® (eco-friendly and delicious recipes) through websites and events, encouraging consumers to create delicious everyday meals without waste.

- > Recipes Within the *TOO GOOD TO WASTE™* Website (Japanese only)
- > *Eco-Uma Recipes®* (Japanese only)
- > *PARK MAGAZINE* (Japanese only)
 - (1) *Tips and Ideas to Reduce Household Food Loss and Waste Series*
 - (2) *Menu Ideas to Use Up Food Ingredients Series*

Initiatives in Brazil

Performance

Production, logistics, and marketing departments worked together across the supply chain (upstream and downstream) of Sazón®, a powdered seasoning used in Brazilian households. Upstream, we partnered with Comida Invisível, a startup that collects and donates surplus food, to reduce food loss and waste by connecting sources of excess food supplies with areas of shortage. Mid-stream, we reduced food loss and waste in each area through reduce, reuse, and recycle activities conducted by the food division. Downstream, we launched a campaign titled *Xepa com Amor* for consumers to participate in food loss and waste reduction in the home. As a result, our plant in Brazil reduced food loss and waste by 210 tons and reuses 480 tons of food annually. On a consumer basis, Sazón® produced a food loss and waste reduction of 4.5 tons.

Biodiversity

Consideration of natural capital risks and opportunities

Biodiversity approach

Approach

GRI3-3

The Ajinomoto Group sells products in more than 130 countries and regions. The entirety of our business activities, from the procurement of raw materials to manufacturing and sales, are dependent on the bounty of nature, or in other words, ecosystem services that include agriculture, livestock, and fishery resources, genetic resources, water and soil, and pollinators such as insects. This bounty of nature stems from healthy biodiversity shaped by the diversity of living organisms and related interactions.

However, biodiversity is disappearing at an unprecedented rate, making biodiversity conservation a pressing issue worldwide. The Ajinomoto Group recognizes the importance of reducing our impact on biodiversity and protecting the global environment as we continue to conduct our business. Issues related to biodiversity are also closely related to environmental boundaries, including human rights, and social issues that include climate change, water and soil, waste, and human rights. We strive to solve these issues in ways that create synergies. To conserve biodiversity will require systems that stop and reverse the loss of biodiversity through our business activities. We support and contribute to the achievement of the Kunming-Montreal Biodiversity Framework^[1] adopted at the 15th meeting of the Conference of the Parties (COP-15) held in 2022.

[1] Global Biodiversity Targets adopted in December 2022 consisting of a vision and global goals for 2050, as well as a mission and global targets for 2030.
Original document: <https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-en.pdf>

> Biodiversity

Guidelines

In July 2023, the Ajinomoto Group published the Ajinomoto Group Biodiversity Guidelines. These guidelines describe issues related to biodiversity, our approach, action principles, and targets. We believe biodiversity is related intrinsically to environmental and social issues in connection with our sustainable procurement efforts, including issues related to deforestation and other land modification in the production of raw materials, pesticide use and waste, child labor, and slave labor. In addition to existing palm oil and paper procurement guidelines, we restructured our coffee and soybean procurement guidelines in July 2023. The Group requires suppliers to comply with laws and regulations, as well as to consider and endorse the human rights and environment stipulated in the Group Shared Policy Guide lines for Suppliers.

- > Ajinomoto Group Biodiversity Guidelines
- > Ajinomoto Group Paper Procurement Guidelines
- > Ajinomoto Group Palm Oil Procurement Guidelines
- > Ajinomoto Group Soy Procurement Guidelines
- > Ajinomoto Group Coffee Procurement Guidelines
- > Guidelines for Group Shared Policy for Suppliers
- > ASV Report 2023 (Integrated Report) P079

Examining risks and opportunities in line with the LEAP approach

GRI3-3, GRI303-1, GRI304-2

The LEAP Approach

We selected three products involving significant procurement costs and volumes as model cases: AJI-NO-MOTO®, coffee, and HONDASHI®, which uses natural ingredients. We conducted risks assessments based on dependencies and impacts in accordance with the Task Force on Nature-Related Financial Disclosures (TNFD) beta framework. The LEAP approach is guidance proposed by TNFD that provides a process for the systematic, science-based assessment of nature-related risks and opportunities within corporations and financial institutions.

> TNFD: LEAP – the risk and opportunity assessment approach

Business dependence and impact on nature

We assessed the status of dependence on nature throughout the value chain using a variety of publicly available assessment tools. As a result, we determined that the highest dependence was in procurement (production of raw materials), indicating that agricultural production is highly dependent on ecosystems in many aspects. We found that procurement is also highly dependent on factors related to water and pollinators needed for crop cultivation, soil conditioning, flood mitigation functions important for stable cultivation, and climate regulation.

We also determined that within the Ajinomoto Group exists the potential to impact our value chain with respect to nature. This potential stems from how we source diverse agricultural products and operate in areas of high ecological importance, having the strong potential for impacting nature

Biodiversity

through soil contamination and land modification.

We intend to conduct further in-depth analyses for raw materials identified through the assessment tool as having risks, managing opportunities for impact reduction, and developing response strategies. While we have addressed only three products to date, we plan to expand the scope of our analysis in the future.

Ajinomoto Group biodiversity initiatives

The Ajinomoto Group has established group policies related to the environment and guidelines related to biodiversity and procurement. We endeavor to engage in sustainable procurement and efficient water usage based on these policies and guidelines. We also strive to resolve issues of natural capital and biodiversity, including skipjack tuna ecological surveys and plastic waste reduction. We continue to reduce risks at each stage of the value chain identified in the risk assessment based on the LEAP approach, while also looking for and developing opportunities related to nature.

- > Aiming for sustainable skipjack fishing and resource utilization (skipjack ecological survey) (Japanese only)
- > P063

Initiatives related to priority raw materials

Identification of priority raw materials

Approach

GRI3-3

The Ajinomoto Group identifies Priority raw material derived from agriculture, forestry, and fishery sources which demand more focused action. The identification process involves determining all the raw materials used in business operations, which are then analyzed by internal divisions and external experts, including NGOs. We base our assessment on an overall perspective that includes several factors such as dependency on the materials used, availability of alternative materials, and relevance to global environmental sustainability. Priority raw material are reviewed every year in line with changes in business and global environmental conditions.

In addition to palm oil and paper procurement guidelines, the Ajinomoto Group formulated guidelines for the mainstay raw materials coffee beans and soybeans, which we designated priority raw materials in fiscal 2021. These guidelines provide procurement policies through 2030 for inside and outside the Group. At the same time, we strive to procure certified raw materials, collaborate with various initiatives, establish our own traceability and auditing, and engage in other measures. In the future, we plan to establish policies for sugarcane and beef, as well as other priority raw materials, to pursue sustainable procurement.

- > Ajinomoto Group Palm Oil Procurement Guidelines
- > Ajinomoto Group Paper Procurement Guidelines
- > Participation in Initiatives
- > CDP Forests
- > ASV Report 2023 (Integrated Report) P079

Ajinomoto Group priority raw materials

	Priority raw materials	Major countries and regions of procurement
Agriculture and forestry resources	Palm oil, an ingredient in packaged food products and specialty chemicals	Indonesia, the Philippines, Vietnam, Malaysia, Thailand, Colombia, Brazil, Peru, Papua New Guinea
	Paper, used as office paper and in containers and packaging for packaged food products	China, Indonesia, Cambodia, the Philippines, Vietnam, Malaysia, Thailand, Bangladesh, EU, Türkiye, West Africa, the United States, Canada, Mexico, Argentina, Uruguay, Colombia, Paraguay, Brazil, Peru, Bolivia, Australia, New Zealand, Papua New Guinea
	Sugarcane	Brazil, Thailand, Vietnam, Peru, Indonesia
	Coffee beans	Indonesia, Vietnam, East Africa, Mexico, Colombia, Brazil, Papua New Guinea
	Beef, an ingredient in frozen foods, etc.	Japan, China, Thailand, India, EU, Türkiye, the United States, Canada, Mexico, Argentina, Uruguay, Brazil, Australia, New Zealand
	Soybeans, an ingredient in packaged food products, etc.	Japan, China, South Korea, Indonesia, Cambodia, Thailand, India, EU, Türkiye, the United States, Canada, Mexico, Argentina, Brazil, Australia, New Zealand

Initiatives related to raw materials

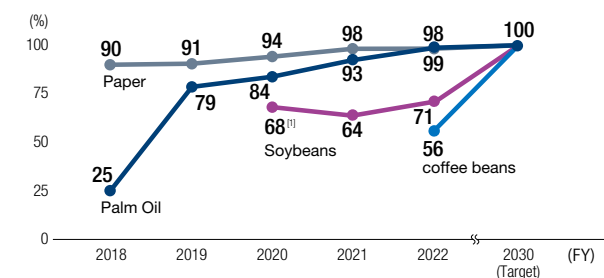
Performance

To ensure sustainable raw materials procurement, we must reduce risks across a range of categories, including climate change, waste, biodiversity, and human rights. We believe in the importance of recognizing the relationship between each of these initiatives and pursuing efforts toward synergistic effectiveness. We establish individual procurement guidelines for the raw materials identified as priorities, striving to identify procurement status and ensure traceability. We also prioritize initiatives for certified products that meet our procurement policy, believing that this, too, is a way to reduce risk. The Ajinomoto Group also collaborates actively with external organizations, including international initiatives and certification bodies.

> Participation in Initiatives

Sustainable procurement ratio

- Paper, Palm Oil, Soybeans, coffee beans



[1] Procurement conversion for businesses in Japan

- FY2030 target of sugarcane, and beef: 100%

Sustainable Materials Sourcing

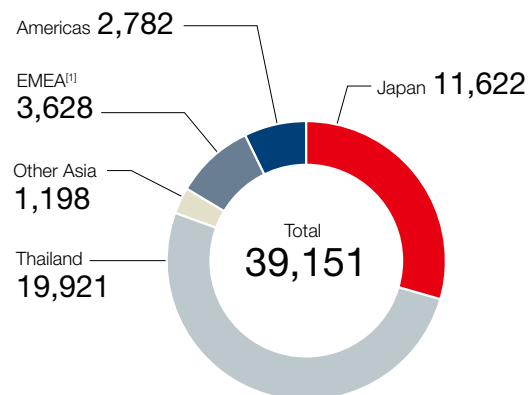
Sustainable procurement of palm oil

Performance

The Ajinomoto Group has established Palm Oil Procurement Guidelines which stipulate criteria that must be met by the palm oil we procure. The Ajinomoto Group uses palm oil in a variety of products and applications, from packaged food products such as cup soup, instant noodle, and coffee creamer, to specialty chemicals made in Japan, Southeast Asia, Europe, and South America. Certain products use palm kernel oil, which is harder to procure in certified form. Further, certain regions have limited supplies of certified palm oil. Therefore, the Group defines palm oil certified by RSPO or traceable by the Group to sustainable sources as a sustainable material. In regions where it is difficult to procure RSPO-certified oil, we make every effort to procure palm oil that is confirmed as traceable. In so doing, we ascertain whether production takes place in regions where environmental destruction is a concern. In addition, we can respond quickly if human rights violations or other problems occur.

We had set a fiscal 2020 target of 100% sustainable procurement of palm oil, but were unable to achieve this due to difficulty in procuring certified oil for some areas/products. We have set a new target of 100% by 2030, and continue to work towards this goal. In fiscal 2022, we achieved 99% sustainable procurement owing to progress in ensuring the traceability of palm kernel oil for chemical products and a shift to certified products for Peruvian palm oil. The rate of RSPO-certified palm oil procurement was 37%. From fiscal 2023 onwards, we plan to focus on establishing traceability for palm oil in applications and regions for which certification and traceability have not yet been established, and further expanding initiatives toward achieving this goal.

Fiscal 2022 palm oil procurement (tons)



[1] Europe, the Middle East and Africa

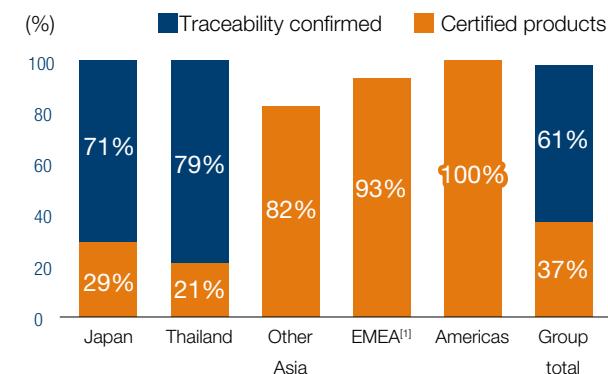
Sustainable procurement of paper

Performance

GRI301-2

The Ajinomoto Group has established Paper Procurement Guidelines which stipulate criteria that must be met by the paper we procure. These guidelines define sustainable paper as paper that is not derived from deforestation in areas of high conservation value and paper that is procured from suppliers who use proper production procedures in accordance with local laws and regulations, as well as in line

Fiscal 2022 sustainable palm oil procurement ratio



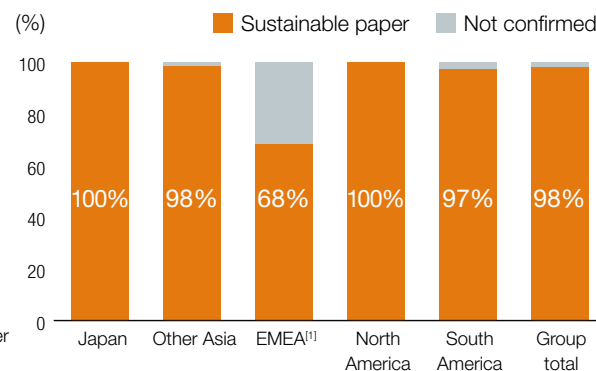
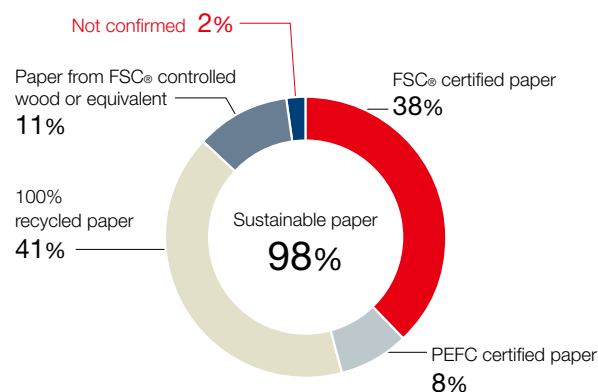
[1] Europe, the Middle East and Africa

with international human rights standards. Sustainable paper includes paper certified by FSC®, as well as recycled paper and paper made from FSC® controlled wood.

We had set a fiscal 2020 target of 100% sustainable procurement of paper, but were unable to achieve this because neither certified nor recycled paper are widely used in some areas. We have set a new target of 100% by 2030, and continue to work towards this goal. In fiscal 2022, we achieved a figure of 98% sustainable paper usage in packaging.

Sustainable Materials Sourcing

FY2022 Sustainable paper procurement ratio



[1] Europe, the Middle East and Africa

Promoting procurement of sustainable sugarcane

Performance

The Ajinomoto Group uses sugar obtained from various crops such as sugarcane, sugar beet, cassava, and corn as a raw material in the fermentation process. We identify sugarcane in particular as a priority raw material. As part of the risk assessment based on TNFD LEAP approach, in fiscal 2022, we conducted a survey of MSG raw materials to form a preliminary picture of the Ajinomoto Group dependence and impact on sugarcane, as well as the state of related risks and opportunities. In fiscal 2023 and beyond, we will continue to perform risk assessments based on this LEAP approach, developing related guidelines. We also plan to develop activities for sustainable sugarcane procurement in collaboration with producers and suppliers in conjunction with other issues such as Scope 3 climate change.

Sustainable procurement of coffee beans

Performance

Coffee beans are grown in areas of the world rich in biodiversity, often by small farms. In procuring coffee beans, we recognize the need for safer, more secure working environments for producers and the importance of working to improve agricultural productivity, in addition to acting with concern for the global environment.

The Ajinomoto Group has endeavored to procure coffee beans produced at farms that adhere to standards set by the 4C certification system. This system aims to improve environmental conditions at coffee farms and better the lives of farm workers, while encouraging sustainable production and distribution. In fiscal 2022, Ajinomoto AGF established coffee procurement guidelines, procurement policies, and KPIs. Ajinomoto AGF procured 56% of its coffee beans in fiscal 2022 from 4C-compliant farms. Starting with the first 4C certification logo in Asia on the packaging for stick coffee released in August 2020, we have promoted ethical consumption related to the sustainable procurement of

coffee beans. As of March, 2023, a total of 43 products now have the 4C certification logo. The Group has been continuing with tests in different coffee-producing regions with the goal of using high value-added fertilizers made from by-products (co-products) of fermentation processing of amino acids. Our hope is that, eventually, this coffee will be part of a Group circular economy. In particular in Indonesia, Brazil, and Vietnam, we are expanding support to farms with *AJIFOL*® co-product fertilizer, and have started putting together a system for improving product value and communicating value to consumers.

■ Indonesia

We will expand and continue to support the application of *AJIFOL*® co-product fertilizer in the Pagalar Alam, and Sidikaran areas of Sumatra and in the Surabaya area of Java. We have also started surveying the effects (sugar content, ratio of red fruit, size) on the yield and maturity of the harvested crops.

■ Vietnam

We will expand and continue to support the application of high value-added fertilizer in the Krong Nang/Ea H'leo districts of Dak Lak province, and the Ham Rong/Dak Doa districts of Gia Lai province. We have also started surveying the effects (sugar content, ratio of red fruit, size) on the yield and maturity of the harvested crops.

■ Brazil

We will continue to work to bring to market beans from supported farms, such as BAU farms and the Kopelkam Agricultural Cooperative, by providing *AJIFOL*® co-product fertilizer. We have also started surveying the effects (sugar content, ratio of red fruit, size) on the yield and maturity of the harvested crops.

Sustainable Materials Sourcing

Sustainable procurement of beef

Approach

The Ajinomoto Group aims to procure 100% sustainable beef by fiscal 2030. We are currently considering specific initiatives such as ensuring traceability. We conducted a comprehensive assessment in fiscal 2021, which identified Brazil and Australia as high-risk regions for beef. During fiscal 2023, we plan to create guidelines clarifying the Group's standards and targets. In this way, we expect to work with priority businesses to bring greater visibility to our beef supply chain.

> P079

Sustainable procurement of soybeans

Performance

The Ajinomoto Group aims to procure 100% sustainable soybeans by fiscal 2030. We are currently considering specific initiatives such as ensuring traceability. In fiscal 2022, the percentage of soybeans and soy oil used in Japan by the Ajinomoto Group that conformed to the United States Soybean Sustainable Assurance Protocol was 71%. At the same time, the remainder of the soy products included materials from South America, which is considered be at high risk of deforestation or from countries whose origin was unknown. In fiscal 2023, we plan to initiate dialogue with suppliers and work with businesses to bring greater visibility to our supply chain for businesses that purchase soybeans of an unknown country of origin.

Sustainable procurement of fishery resources

Performance

The Ajinomoto Group uses skipjack as an ingredient in *HON-DASHI*®, our popular flavor seasoning product in Japan. We are committed to conserving resources and sustainable procurement. Therefore, we have conducted the joint skipjack tagging survey with the Research Institute of Fisheries Resources in Japan since 2009. In fiscal 2020 and fiscal 2021, due to the impact of the COVID-19 pandemic, travel to Taiwan and the remote islands of Okinawa Prefecture, where we had previously conducted skipjack tagging surveys, proved difficult, and we were unable to conduct further tagging surveys. In fiscal 2022, however, we resumed skipjack tagging surveys in the waters around Amami Oshima Island, where previous surveys confirmed skipjack are migrating. In fiscal 2023, we will begin accumulating data on skipjack migration routes in the Nansei Islands and western Kyushu. By these means, we intend to identify the impacts of the winding Kuroshio Current and rising sea water temperature on the distribution of skipjack.

> WCPFC

Conservation of Water Resources

Conservation of water resources in production processes

Performance

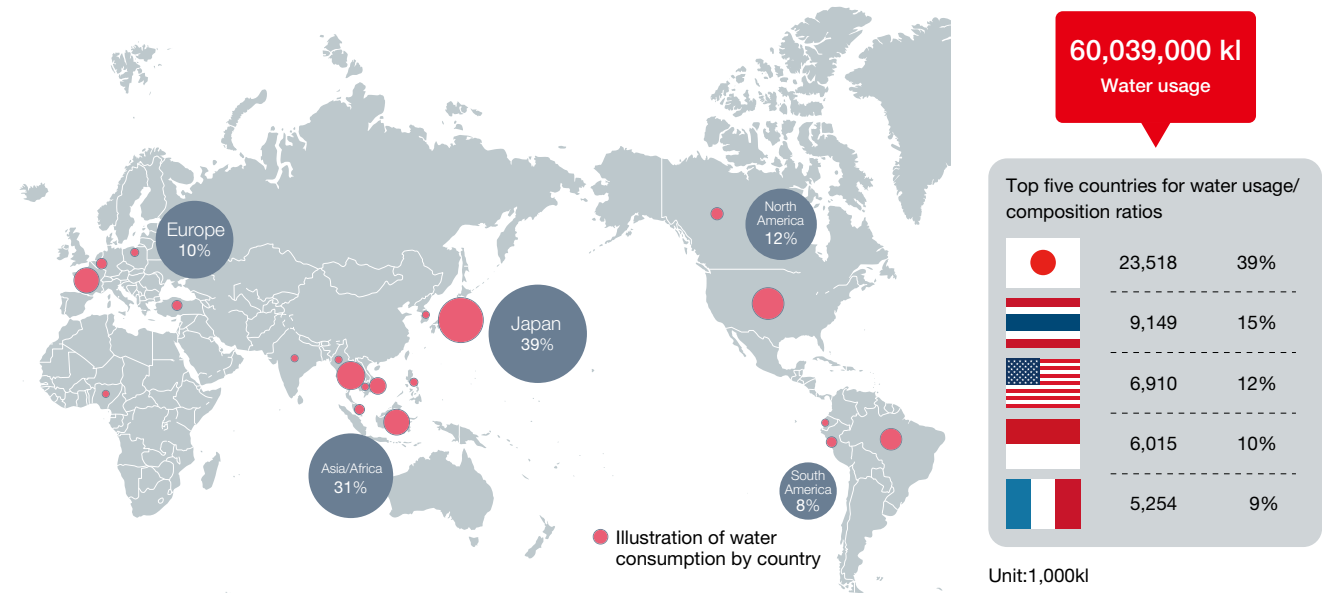
GRI3-3, GRI303-1, GRI303-3
GRI303-4, GRI303-5

Ajinomoto Group water consumption in fiscal 2022 was 60,039,000 kiloliters, with the top five countries (including Japan, Thailand, and the United States) accounting for approximately 85% of the total. The ratio of water withdrawal in regions with high water stress^[1] was less than 1%. The Group aims to reduce water consumption per production volume unit (intensity) by 80% by fiscal 2030 (compared with fiscal 2005). This figure achieved our yearly goal in water usage reduction per production volume unit (intensity), at approximately 79%. Typical indicators of suspended substances in wastewater are BOD (biochemical oxygen demand) and total nitrogen. In fiscal 2022, total emissions were 269 tons for BOD and 327 tons for total nitrogen. We will continue in fiscal 2023 to implement water-saving measures and improve production processes in every facility. We encourage our suppliers to disclose water impacts in our supply chains through the CDP supply chain program.

[1] Only Peru is applicable for the Ajinomoto Group.

> P045
> Environmental Data
> CDP Water Security

Distribution of water consumption by area (Fiscal 2022)



[1] Turkey is included in Asia/Africa.

Reduction rate of water consumption per production volume unit

	FY2022		FY2023	FY2030
	Target	Result	Target	Target
Reduction rate of water consumption per production volume unit (vs. FY2005)	78%	79%	79%	80%

Conservation of Water Resources

Water use/intensity

(1,000 kl)

	FY2005 (Base year)	FY2018	FY2019	FY2020	FY2021	FY2022
Total water withdrawal ^[1]	221,863	69,892	66,926	64,406	59,979	60,039
Fresh surface water	180,363	20,672	19,630	17,004	17,259	17,890
Brackish surface water, seawater	0	0	0	0	0	0
Fresh groundwater, renewable	0	15,076	14,366	13,041	13,769	13,369
Fresh groundwater, non-renewable	—	0	0	0	0	0
Produced water	0	0	0	0	0	0
Municipal water (including industrial water)	41,500	34,144	32,930	34,361	28,950	28,781
Water consumption per production volume unit (intensity per ton of product)	123	27	27	27	25	26
Reduction rate (vs. FY2005)	—	78%	78%	78%	79%	79%
Ref.: Production volume (1,000 t) ^[2]	1,800	2,627	2,512	2,423	2,360	2,354
Total water discharge ^[1]	201,300	55,800	52,342	51,564	48,034	46,353
Fresh surface water (processed by the Group)	47,000	27,498	24,297	24,088	20,490	19,655
Brackish surface water, seawater	0	0	0	0	0	0
Groundwater	0	0	0	0	0	0
Third-party destinations	10,300	11,273	11,291	11,139	11,360	11,245
Total water recycled or reused (Drainage of indirect cooling water into rivers)	144,000	17,029	16,754	16,338	16,184	15,453
Proportion of water recycled or reused	65%	24%	25%	25%	27%	26%
Total water consumption	20,563	14,092	14,584	12,842	11,945	13,685
BOD (tons)	550	312	283	284	263	269
Nitrogen (tons)	3,200	501	506	583	430	327

[1] Water withdrawal is disclosed as the volume measured and invoiced in accordance with the laws of each country and region, or as a converted volume based on pump power use and pipe water speed. Data for quantity and quality of wastewater is aggregated in accordance with the laws of each country and region.

[2] We used data different from production volume set forth in other environmental data for convenience of aggregation.

Conservation of Water Resources

Water use/intensity in regions with high water stress (Peru)

(1,000 kl)

	FY2018	FY2019	FY2020	FY2021	FY2022
Total water withdrawal	575	521	481	496	535
Fresh surface water	0	0	0	0	0
Brackish surface water, seawater	0	0	0	0	0
Fresh groundwater, renewable	572	518	480	494	533
Fresh groundwater, non-renewable	0	0	0	0	0
Produced water	0	0	0	0	0
Municipal water (including industrial water)	3	3	1	2	2
Water consumption per production volume unit (intensity per ton of product)	15	13	13	11	11
Reduction rate (vs. FY2005)	10%	22%	23%	37%	32%
Ref.: Production volume (1,000 t)	38	40	37	46	47
Total water discharge	234	220	198	214	213
Fresh surface water (processed by the Group)	215	211	188	207	207
Brackish surface water, seawater	0	0	0	0	0
Groundwater	0	0	0	0	0
Third-party destinations	19	10	10	7	6
Total water recycled or reused	0	0	0	0	0
Proportion of water recycled or reused	0%	0%	0%	0%	0%
Total water consumption	341	301	283	282	322

Conservation of Water Resources

Performance

GRI303-1

TOPIC

PT Ajinomoto Indonesia Initiatives

PT Ajinomoto Indonesia, which markets the flavor seasoning Masako® etc. is committed to the conservation and efficient use of water resources in all production processes. One of these efforts is rainwater harvesting. Indonesia has a tropical rainforest climate with heavy rainfall. The company stores large amounts of rain water in tanks for use in toilets, sprinklers, and other purposes. In addition, the company's plant has

treated wastewater carefully for many years, returning wastewater to the river cleaner than when originally pumped. PT Ajinomoto Indonesia also uses amino acid-based hand soap, which is highly biodegradable, at the head office, branch offices, and plants to reduce the environmental impact of wastewater as much as possible. Through these efforts, PT Ajinomoto Indonesia reduced water consumption by up to 35%.

