Ajinomoto Co., Inc. CDP Climate Change 2021

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Ajinomoto Co., Inc. is a Japanese company that produces food seasonings, processed foods, sweeteners, amino acids and pharmaceuticals. Ajinomoto is active in 130 countries and regions worldwide, employing around 34,000 people. Yearly net sales stands at 1,100 billion yen.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Reporting year	April 1, 2020	March 31, 2021	No

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

Bangladesh
Belgium
Brazil
Cambodia
Canada
China
Côte d'Ivoire
Egypt
France
India
Indonesia
Japan
Malaysia
Mexico
Myanmar
Nigeria
Pakistan

Peru
Philippines
Poland
Republic of Korea
Russian Federation
Singapore
Taiwan, Greater China
Thailand
Turkey
United States of America
Viet Nam

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

JPY

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C-AC0.6/C-FB0.6/C-PF0.6

(C-AC0.6/C-FB0.6/C-PF0.6) Are emissions from agricultural/forestry, processing/manufacturing, distribution activities or emissions from the consumption of your products – whether in your direct operations or in other parts of your value chain – relevant to your current CDP climate change disclosure?

	Relevance
Agriculture/Forestry	Elsewhere in the value chain only [Agriculture/Forestry/processing/manufacturing/Distribution only]
Processing/Manufacturing	Both direct operations and elsewhere in the value chain [Processing/manufacturing/Distribution only]
Distribution	Both direct operations and elsewhere in the value chain [Processing/manufacturing/Distribution only]
Consumption	Yes [Consumption only]

C-AC0.6b/C-FB0.6b/C-PF0.6b

(C-AC0.6b/C-FB0.6b/C-PF0.6b) Why are emissions from agricultural/forestry activities undertaken on your own land not relevant to your current CDP climate change disclosure?

Row 1

Primary reason

Do not own/manage land

Please explain

Ajinomoto group does not own land for our raw material of agriculture/forestry.

C-AC0.7/C-FB0.7/C-PF0.7

(C-AC0.7/C-FB0.7/C-PF0.7) Which agricultural commodity(ies) that your organization produces and/or sources are the most significant to your business by revenue? Select up to five.

Agricultural commodity

Fish and seafood from aquaculture

% of revenue dependent on this agricultural commodity

Less than 10%

Produced or sourced

Sourced

Please explain

Ajinomoto group manufactures and sells frozen foods which used shrimp. Scope-3 category-1 of frozen foods is less than 4% of Scope 1, 2, 3. Majority ingredient of our frozen foods are vegetables and poultry and pork. Therefore, % of revenue of shrimp frozen food is less than 10%.

Agricultural commodity

Palm Oil

% of revenue dependent on this agricultural commodity

Less than 10%

Produced or sourced

Sourced

Please explain

Ajinomoto group used Palm oil for our products which are instant noodle, seasonings, cosmetic ingredients. The Group consumed 37,000 tones/year of Palm oil to manufacture 2,680,000 tones /year of entire our products. Therefore, % of revenue of Palm oil product is less than 10%.

Agricultural commodity

Soy

% of revenue dependent on this agricultural commodity

Less than 10%

Produced or sourced

Sourced

Please explain

Ajinomoto group used soy for our product of soy source. Revenue of our soy source product is around 4 bill. JPY. Therefore, % of revenue of soy source product is less than 10%.

Agricultural commodity

Timber

% of revenue dependent on this agricultural commodity

Less than 10%

Produced or sourced

Sourced

Please explain

Ajinomoto group used timber for our package. Therefore, % of revenue of usage timber is less than 10%.

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Chief Executive Officer (CEO)	The Ajinomoto group recognizes Climate Change a significant issue and it possibly effects to our business operation negatively. In order to prevent it, CEO, “Representative Director, President and Chief Executive Officer”, is responsible for environmental issues, including climate change which the Management Risk Committee and the environmental committee have determined the action policy. The CEO also nominated the chairperson of the Management Risk Committee

	who is the senior vice president. The Group views climate change at the management level as both a risk and an opportunity. To track and improve the Group's environmental performance, the Management Risk Committee and Environmental Committee under the Executive Committee monitor the Group's progress toward attaining target indicators and consider necessary measures. As climate-related issues, the CEO decided new environment medium- and long-term targets and approved to entry targets to SBTi on Feb 2020.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – all meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Setting performance objectives Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues	Ajinomoto Co., Inc. enhance its sustainability promotion framework in order to continuously increase corporate value from the perspective of sustainability. Effective April 1, 2021, we establish the Sustainability Advisory Council under the Board of Directors and the Sustainability Committee under the Executive Committee. In addition, the following decision was made on the appointment of Sustainability Advisory Council members. The Sustainability Advisory Council is responsible for the following 1) to 4): 1) Discuss Materiality with a long-term perspective (up to 2050) and reflect it into Materiality and the strategy for the Medium-Term Management Plan. 2) Review Materiality from a multi-stakeholder perspective and response plans to environmental changes (risks and opportunities) linked to Materiality, and in turn report to the Board of Directors. Among our risks, we also consider global climate change risk and water related issues because our main raw materials are crops dependence to water. 3) Examine key points expected or requested of companies in 2030 and beyond along with review of appropriate involvement in the creation of social rules. 4) Discuss and review targets beyond 2030 concerning the creation of social value, including commitment to extend healthy life expectancy and environmental impact reduction. The Sustainability Advisory Council meet semi-annually and actively disclose the details of its

		discussions by publishing meeting minutes and press releases. The Sustainability Committee, based on the reports of the Sustainability Advisory Council, hold discussions on countermeasures to risks and opportunities posed by company-wide management issues and how to reflect these in business strategy, pursuant to Materiality and the strategic direction approved by the Board of Directors. The Sustainability Committee report to the Executive Committee.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

The Ajinomoto group recognizes Climate Change a significant issue and it possibly effects to our business operation negatively. In order to prevent it, CEO, “Representative Director, President and Chief Executive Officer”, is responsible for environmental issues, including climate change.
Ajinomoto Co., Inc. enhance its sustainability promotion framework in order to continuously increase corporate value from the perspective of sustainability. Effective April 1, 2021, we establish the Sustainability Advisory Council under the Board of Directors and the Sustainability Committee under the Executive Committee. CEO is member of the Council and has responsible of climate-related issues. In addition, the following decision was made on the appointment of Sustainability Advisory Council members.
The Sustainability Advisory Council is responsible for the following 1) to 4):
1) Discuss Materiality with a long-term perspective (up to 2050) and reflect it into Materiality and the strategy for the Medium-Term Management Plan.
2) Review Materiality from a multi-stakeholder perspective and response plans to environmental changes (risks and opportunities) linked to Materiality, and in turn report to the Board of Directors. Among our risks, we also consider global climate change risk and water related issues because our main raw materials are crops dependence to water.

3) Examine key points expected or requested of companies in 2030 and beyond along with review of appropriate involvement in the creation of social rules.
4) Discuss and review targets beyond 2030 concerning the creation of social value, including commitment to extend healthy life expectancy and environmental impact reduction.
The Sustainability Advisory Council meet semi-annually and actively disclose the details of its discussions by publishing meeting minutes and press releases.
The Sustainability Committee, based on the reports of the Sustainability Advisory Council, hold discussions on countermeasures to risks and opportunities posed by company-wide management issues and how to reflect these in business strategy, pursuant to Materiality and the strategic direction approved by the Board of Directors. The Sustainability Committee report to the Executive Committee.
The group recognizes risk management as an important instrument for internal control, which is a part of management responsibilities. The Group's business domain of products ranges from seasonings and coffee to frozen foods and its business activities extend into Life Support and Healthcare. The geographic range of its operations spans the globe. Climate change can impact the Group's operations in many ways, such as a major natural disaster halting its business activities, affecting its ability to procure raw materials and fuel, and altering consumption of its products. In conjunction with group management strategies and individual business strategies, the Group takes necessary actions to enhance response capabilities against significant risks. Taking into account the business environment and political, economic, and social conditions around the globe, the Group has identified and compiled Group-wide risks that require cross-organizational management. The group recognizes that our risks are geopolitical macro environmental risk, global competitive risk, global climate change risk, reputation risk, ICT and technological innovation risk, and legal risk. Among our risks, we also consider global climate change risk and water related issues because our main raw materials are crops dependence to water. By promoting strategic risk management, we had made the Group resilient to risks, and increase the Group's value.
The scope of the Environmental Activities includes the direct business activities including producing and sale of products (i.e., each of the processes of research and development, procurement, production and storage, marketing, communications, and sales and logistics) and the potential effects on suppliers, waste management companies, consumers, and other stakeholders will also be taken into account.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity inventivized	Comment

Director on board	Monetary reward	Emissions reduction target	Directors on board including CEO have responsibility for Climate Change. Ajinomoto Co., Inc. enhance its sustainability promotion framework in order to continuously increase corporate value from the perspective of sustainability. Effective April 1, 2021, we establish the Sustainability Advisory Council under the Board of Directors and the Sustainability Committee under the Executive Committee. The Sustainability Committee, based on the reports of the Sustainability Advisory Council, hold discussions on countermeasures to risks and opportunities posed by company-wide management issues and how to reflect these in business strategy, pursuant to Materiality and the strategic direction approved by the Board of Directors. The Sustainability Committee report to the Executive Committee. The compensation of Directors, excluding outside Directors, comprises monthly compensation, short-term company performance-linked compensation, and medium-term company performance-linked stock compensation. Medium-term company performance-linked stock compensation, with the goals of increasing corporate value and sustainably improving the Ajinomoto Group's performance across the medium and long-term, uses ROIC (Return on invested capital) achievement rate (consolidated basis), sales achievement ratio of core businesses (consolidated basis), relative TSR (total return on equity), employee engagement and ESG goals as evaluation criteria.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	1	The Ajinomoto group conducts the “Environmental Activities” by using the environmental management system as a key tool under the “Group

			Shared Policy on Environment". The scope of the Environmental Activities includes the direct business activities and suppliers, and other stakeholders. We have made every year targets and reviewed results.
Medium-term	1	3	The Ajinomoto group has made every 3 years Medium-term management plan at management committee. The Group sets "Management Risk committee" and "Environmental Committee" under the control of the Executive Committee in order to deliberate policies and measures relating to Environmental Activities.
Long-term	3	30	The Ajinomoto group aim to contribute to the global environment throughout the procurement, production and consumption processes via initiatives ahead of standard international targets for 2050.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

The Ajinomoto Group conducts an annual review of the materiality items which have a substantial impact on our ability to create value through ASV. Operational risks that may affect the Ajinomoto Group's performance and financial position are listed as follow by risk factor. Taking into account the business environment including financial, material issues across the globe, the Ajinomoto Group has identified Group-wide risks that require cross-organizational management based on comprehensive consideration of factors including the magnitude of impact (Major, Moderate, Small), probability and timing of manifestation (High, Moderate, Low). Materiality issues identified Group-wide risks are as follow: Climate change adaptation and mitigation, Contribution to a circular economy, Reduction of food loss and waste, Sustainable materials sourcing, Conservation of water resources, management of production plants' water usage and wastewater discharge. When the materiality issue is evaluated comprehensive factors which one is Moderate and another one is Major or High, the Group assess that the materiality is very material. In addition, the Group is formulating Group-wide response measures and working to monitor and manage the progress of its response to risk on a regular basis.

The Group has developed various responses and mechanisms to minimize such management and operational risks.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

1) A Description of a process for managing climate-related risks and opportunities
The Ajinomoto Group's business domain of products ranges from seasonings and coffee to frozen foods and its business activities extend into Healthcare. The Group has addressed to contribute to the future progress of humanity and the earth. The group has sold products over 130 countries and regions.
Company level:
The Group establishes the Sustainability Advisory Council under the Board of Directors and the Sustainability Committee under the Executive Committee. The Sustainability Advisory Council will be responsible for discussing and reviewing targets beyond 2030 concerning the creation of social value, including commitment to extend healthy life expectancy and environmental impact reduction. The Sustainability Advisory Council will meet semi-annually and actively disclose the details of its discussions. The Sustainability Committee, based on the reports of the Sustainability Advisory Council, hold discussions on countermeasures to risks and opportunities posed by company-wide management issues and how to reflect these in business strategy, pursuant to Materiality and the strategic direction approved by the Board of Directors. The Sustainability Committee report to the Executive Committee.
The Sustainability Committee conducts an annual review of the materiality items which have a substantial impact on our ability to create value through the Ajinomoto Group Creating Shared Value. Taking into account the business environment including financial, material issues across the globe, the Group has identified Group-wide risks that require cross-organizational management based on comprehensive consideration of factors including the magnitude of impact (Major, Moderate, Small), probability and timing of manifestation (High, Moderate, Low). Materiality issues identified Group-wide risks are as follow: Climate change adaptation and mitigation, Contribution to a circular economy, Reduction of food loss and waste, Sustainable materials sourcing, Conservation of water resources, management of production plants' water usage and wastewater discharge. When the materiality issue is evaluated comprehensive factors which one is Moderate and another one is Major or High, the Group assess that the materiality is very material. In addition, the Group is formulating Group-wide response measures and working to monitor and manage the progress of its response to risk on a regular basis. The Group has developed various responses and mechanisms to minimize such management and operational risks. Climate-related risks and opportunities of the Group have assessed by scenario analysis.
Asset level:
We set on ECP (enterprise continuation plan) by each business establishment, dig the

risk peculiar to each business establishment including a climate change up and we consider a measure. The group has accelerated research and development decreasing natural resources for our raw material. The monitoring process is implemented six-monthly or more frequently about important risk over 6 years later and the result is reported to a management conference.
2) Case study/example of how process is applied to physical risks and opportunities
[Situation] Global organization make all concerns decrease CO2 emission more and more.
[Task] The Group had revised the non-financial target of environment at the beginning of 2020 because Management Risk committee was influenced by Paris agreement and SDG's. Our revised targets have changed more strengthened than previous targets. In concrete term, we aim for 50% reduction of greenhouse gas intensity FY 2030 as based on FY 2018.
[Action] The Group targets of greenhouse effect gas reduction toward 2030 were approved by SBTi. The Group conducted a scenario analysis of potential impact from the climate change risk until 2050, about some of the Group's major products, under the scenario of a 2ºC rise in average global temperature in 2100. The analysis examined droughts, floods, rising sea levels and changes in yield of main raw materials as physical risks. For physical risks, the Group had anticipated by scenario analysis of FY2020 under the Sustainability Committee that any agricultural and livestock raw materials will be affected by the droughts and infections.
[Results] By the scenario analysis, the Group aims to assess stability these raw materials demand and strengthen raw material management formulation.
3) Case study/example of how process is applied to transitional risks and opportunities
[Situation] Global organization make all concerns decrease CO2 emission more and more.
[Task] The Group had revised the non-financial target of environment at the beginning of 2020 because Management Risk committee was influenced by Paris agreement and SDG's. Our revised targets have changed more strengthened than previous targets. In concrete term, we aim for 50% reduction of greenhouse gas intensity FY 2030 as based on FY 2018. Environmental regulation and energy cost may affect our group targets for efficiency (ROIC) in Medium-term Management Plan for 2020-2025, fuel costs will increase.
[Action] The Group targets of greenhouse effect gas reduction toward 2030 were approved by SBTi. The Group conducted a scenario analysis of potential impact from the climate change risk until 2050 for Southeast Asia using the model of umami seasoning AJI-NOMOTO®, one of the Group's major products, under the scenario of a 2ºC rise in average global temperature in 2100. The analysis on FY2019 examined droughts, floods, rising sea levels and changes in yield of main raw materials as physical risks, as well as rising energy prices, tight supply and demand, and price increases due to competition for major raw materials with other food sources and biofuels as transition risks.
The analysis revealed that rising energy prices and carbon tax increases in case of a shift to a lower carbon economy as the impact of climate change worsens may have a significant impact on the production costs of AJI-NO-MOTO® and business profits.
[Results] The Group aims to fast-track ongoing measures, such as the switch to renewable energy and low-GHG energy sources and the development of production

technologies using non-edible raw materials to curb rising production costs of AJI-NO-MOTO® while contributing to global sustainability in case of rising raw material prices and carbon tax increases due to climate change. As Ayutthaya factory in Thailand and Limeira factory in Brazil, some factories decided to purchase biomass fuels from multi-places.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	We make several kinds of amino acid, many processed food and seasoning. It consumes much energy to manufacture these products such as Mono-sodium glutamate. MSG is a purified form of glutamate, the amino acid responsible for umami (savory) flavor. By using it to increase the savoriness of a dish, the dish will taste richer and meatier. The savory flavor from MSG will also balance out other flavors like sweet and sour, and cancel out the bitter flavor found naturally in many vegetables. There are emission regulations of NOx/SOx in Thailand and so on. Our company has considered one of our risk of emission regulations increasing. In our plants such as Thailand, fuel consumption and NOx/SOx emission and Soot and dust are monitored. How it is included in climate-related risk assessment. Regarding emission regulation, we collect information by using Internal company knowledge. We also collect information about regulations each of our plant from regulators. We have evaluated this issue by all technologies.
Emerging regulation	Relevant, always included	We make several kinds of amino acid, many processed food and seasoning. It consumes much energy to manufacture these products such as Phenyl-alanine. There is carbon tax in Japan, where Phenyl-alanine manufacture in Japanese factory. The Japanese government has committed carbon neutral by 2050 and reduction 46% GHG emissions by 2030. The Government is considering increase carbon tax rate. Our company has considered one of our risk of carbon tax increasing. In our plants such as Japan, fuel consumption has been monitored. The price of the fuel and electricity are also important elements for us. How it is included in climate-related risk assessment. Regarding tax, we collect information by using Internal company knowledge. We also collect information about regulations each of our plant from regulators. We have evaluated this issue by all technologies. We revise assets investment plan with middle term management plan. We have set key targets which are reducing GHG emission by 50% compared to FY 2018. We have assessed emerging regulation every time.

Technology	Relevant, always included	We make several kinds of amino acid, many processed food and seasoning. It consumes much energy to manufacture amino acid among these products. In particular, amino acid manufacturing ways are exposed competitive circumstances. If innovative microorganism is applied at competitor process, we could not achieve same energy efficiency. Therefore, we are developing new technologies of manufacturing amino acid.
Legal	Relevant, always included	We make several kinds of amino acid, many processed food and seasoning. It consumes much energy to manufacture these products such as Mono-sodium glutamate. MSG is a purified form of glutamate, the amino acid responsible for umami (savory) flavor. By using it to increase the savoriness of a dish, the dish will taste richer and meatier. The savory flavor from MSG will also balance out other flavors like sweet and sour, and cancel out the bitter flavor found naturally in many vegetables. Our 2 factories used coal for fuel, have identified litigation risk by neighborhood resident, if a huge amount of CO2 emissions and dust by miss-operation or no-maintenance of our factories cause global warming and health damage. Therefore, these factories have paid attention operation and maintenance, have monitored fuel consumption and dust. How it is included in climate-related risk assessment. If these factories continue using coal for fuel, these factories have carbon tax risk in future and legal risk by neglecting reduction of CO2 emissions. These risks have reflected on our scenario analysis. We revise assets investment plan with middle term management plan.
Market	Relevant, always included	We make several kinds of amino acid, many processed food and seasoning. The demand for lower emission products and services can be one of our risks as our products use much energy in the process of manufacturing. If consumer behavior shift to lower emission products and our products could not decrease unit GHG emission of product, our products may decrease amount of sales. In order to adjust to the market needs, the Ajinomoto Group has been exploiting worldwide markets for amino acids. How it is included in climate-related risk assessment. All our factories have not yet shift renewable energy. If food market suddenly shifts to low carbon emission, our products are going to expose difficult situation. Our company has committed RE100.
Reputation	Relevant, always included	We make several kinds of amino acid, many processed food and seasoning. It consumes much energy to manufacture these products such as Mono-sodium glutamate. MSG is a purified form of glutamate, the amino acid responsible for umami (savory) flavor. By using it to increase the savoriness of a dish, the dish will taste richer and meatier. The savory flavor from MSG will also balance out other flavors like sweet and sour, and cancel out the bitter flavor found naturally in many vegetables. When climate change related issues get more attention from our customers, it would affect to our company reputation as we

		use much energy to manufacture our products mentioned earlier. If consumer behavior shift to lower emission products and our products could not decrease unit GHG emission of product, our products may decrease amount of sales. How it is included in climate-related risk assessment. We have always evaluated cutting-edge technologies not to leave business category movement. If we may consider shifting to one new technology, we are going to develop and install applying the technology.
Acute physical	Relevant, always included	The beginning of the 21st century has seen many record-breaking natural disasters all around the world. There is a risk of the production base of the Ajinomoto group suffering a great deal of damage, and it becomes impossible to operate by a catastrophic natural disaster. These natural disasters are unforeseeable and powerful, and it is impossible for humans to prevent them from causing any damage at all. However, what we can do is prepare ourselves, take steps to lessen their impact and have in place appropriate measures to minimize the damage afterwards. Thailand suffered widespread, serious damage in the major flooding that occurred October–November 2011. Five production sites of the Ajinomoto Group suffered major damage. The Ajinomoto Group took a variety of actions to cope with the flooding. Both in its business activities and its social contribution initiatives, the Ajinomoto Group always seeks to do what it can to protect lives and local communities when disaster strikes. How it is included in climate-related risk assessment: Reviewing our risk assumptions worldwide and taking a variety actions, including our supply chain, by natural disasters. For example, we had installed high wall at Ayutthaya factory which was 1 m higher than original design.
Chronic physical	Relevant, always included	Food resources are essential to the business of the Ajinomoto Group. Global food demand continues to increase, and this may complicate food procurement in the future. Physical risk of a climate change as well as this can think we have an influence important to Ajinomoto group on a drought in particular. For example, Vietnam where one of our factories is located, there is danger to which a drought happens beyond the border by the case that large-scale dam development and water utilization start at an upstream region. This can't harvest any more the agricultural produce which becomes a raw material, and we think it leads to risk of operation in our facilities. How it is included in climate-related risk assessment; The following management technique is achieved, and we will plan also to continue from now on. (1) We advise a raw material farmer in agriculture. (2) Improvement of the agricultural efficiency by the amino acid combination fertilizer which is a product of Ajinomoto group. (3) We are continuously developing the technology of utilize non-edible biomass as raw material for amino acid production.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical

Increased severity and frequency of extreme weather events such as cyclones and floods

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

The beginning of the 21st century has seen many record-breaking natural disasters all around the world. There is a risk of the production base of the Ajinomoto group suffering a great deal of damage, and it becomes impossible to operate by a catastrophic natural disaster. These natural disasters are unforeseeable and powerful, and it is impossible for humans to prevent them from causing any damage at all. However what we can do is to prepare ourselves, take steps to lessen their impact and have in place appropriate measures to minimize the damage afterwards. The Ajinomoto Group has own sites in the areas where possibly occur extreme weather events such as cyclones and floods. For example, in Thailand, they suffered widespread, serious damage in the major flooding that occurred October–November 2011. Five production sites of the Ajinomoto Group suffered major damage. The occurrence caused impact for the Ajinomoto Group in terms of both business activities and social contribution initiatives. The Ajinomoto Group took a variety of actions to cope with the flooding. Both in its business activities and its social contribution initiatives, the Ajinomoto Group always seeks to do what it can to protect lives and local communities when disaster strikes.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

2,000,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

[Risk identification] If the forecast of flood water level in Thailand is higher than ever, the Group factories in Thailand identify risk which suffer more serious damage such as broken equipment and suspend productions. If one week suspension occur, our sales (1,000,000,000,000 yen) lose 0.2% sales.

Cost of response to risk

150,000,000

Description of response and explanation of cost calculation

[Situation] There is flood risk in Thailand, because elevation difference between north and south is small.
[Task] To prevent all equipment from exposing flood, factory should install high wall and set important equipment at 2nd floor.
[Action] Our factories in Thailand had installed high wall in2011 and set important equipment at 2nd floor by spending 150 million yen (The material cost: 30,000,000 yen + the construction fee: 120,000,000 yen = 150,000,000 yen).
[Result] At October 2011, our factories in Thailand had started operation after finishing flood. Our equipment had almost no damage.

Comment

Nothing

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation
Carbon pricing mechanisms

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

Ajinomoto group makes several kinds of amino acid, many processed food and seasoning, frozen food. The Group factories in Japan emits approximately 500 kilo-tons CO2 in 2020 to manufacture these products such as seasoning and frozen food. Ajinomoto group has implemented business in Japan where accounts for 50% of our company's total revenue. If carbon tax in Japan will increase, it can be a big risk for the Ajinomoto group. Tax rate corresponding to the amount of CO2 emissions for all the fossil fuels (JPY 289/t-CO2).

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

100,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Estimation of carbon tax to Ajinomoto group in Japan is approximately 100 million yen that consumption of fuel oil and gas multiplied by unit carbon tax of petroleum oil 760 (yen/kilo L), gases 780 (yen/ton), respectively. The carbon tax of natural gas: 80,000,000 yen + the carbon tax of oil: 20,000,000 yen = 100,000,000 yen. If Japanese carbon tax rate rise to twice, Ajinomoto group in Japan should spend 100 million yen for additional carbon tax.

Cost of response to risk

500,000,000

Description of response and explanation of cost calculation

[Situation] There is risk for increasing carbon tax rate in Japan, because the Japanese government decide to be going to stop coal power plant.
[Task] To decrease not only carbon tax impact but also global warming, our factories in Japan should shift from petroleum oil to other kind of fuel and purchase renewable power.

[Action] On April 28, 2020, the Ajinomoto Group's greenhouse effect gas reduction targets toward 2030 were approved by Science Based Targets (SBT) initiative as to limit global warming to less than 1.5 degrees Celsius compared to pre-industrial temperatures.
The targets approved by SBT initiative:
Scope 1 + 2 FY2030: Reduce by 50% (vs. FY2018)
Scope 3 FY2030: Reduce by 24% (vs. FY2018)
By fiscal 2030, we aim to reduce Scope 1 and Scope 2 emissions by 50% from the fiscal 2018 level. We will achieve this goal by implementing energy conservation activities, switching to fuels with lower greenhouse gas emissions, using renewable energy, such as biomass and solar power, and introducing processes that use less energy. The Ajinomoto factory in China had switched fuel form light oil to natural gas in 2020, the Group factories in Brazil have purchased renewable energy power in 2021.
Our fiscal 2030 target for Scope 3 is to reduce emissions by 24% from the fiscal 2018 level. We will focus in particular on raw materials, which account for approximately 60% of total lifecycle greenhouse gas emissions. In addition to encouraging suppliers to reduce emissions, we are also considering the introduction of new technologies, including on-site production of ammonia.
[Result] The Group will decrease carbon tax impact in Japan by 2030. We assume rough estimation that additional cost for renewable energy power is 500 million yen per year for decreasing carbon tax impact.

Comment

Nothing

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Chronic physical

Changes in precipitation patterns and extreme variability in weather patterns

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

Ajinomoto group makes several kinds of amino acid, many processed food and seasoning, frozen food. It consumes much water to manufacture these products such as Monosodium Glutamate, clean production facilities such as seasoning "Hon-dashi". The Group factories consume approximately 70,000 megaliters as total water withdrawal, approximately 55,000 megaliters as total water discharge, approximately 15,000 megaliters as total water use in 2020. There is a risk of the production base of the Ajinomoto group suffering damage, and it becomes impossible to operate by a natural disaster. If it changes in precipitation patterns such as drought in Japan and Thailand,

our factories should stop withdrawing river water and may suspend production. It is impossible for humans to prevent them from causing any damage at all. However, what we can do is to prepare ourselves, take steps to lessen their impact and have in place appropriate measures to minimize the damage afterwards. The Ajinomoto Group has own sites in the areas where possibly occur water scarcity.

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

2,000,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

[Risk identification] If the forecast of drought term in Thailand is longer than ever, the Group factories in Thailand identify risk which suspend productions. If one week suspension occur, our sales (1,000,000,000,000 yen) lose 0.2% sales.

Cost of response to risk

100,000,000

Description of response and explanation of cost calculation

[Situation] There are water scarcity risk in Japan, Thailand, Brazil, because these countries have already suffered water scarcity.
[Task] To prevent from suspending production by water scarcity.
[Action] Our factories in Japan, Thailand, Brazil had installed water pond (minimum capacity is over 1 week.) before starting operation by spending approximately 100 million yen. (The material cost: 20,000,000 yen + the construction fee: 80,000,000 yen = 100,000,000 yen) There are at least 9 ponds in Ajinomoto Group.
[Result] In concrete, at April 2013, our factories in Thailand had started operation after installing pond. Our operation had almost no damage of drought.

Comment

Nothing

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

GHG emission control may be applied to livestock industry. The Ajinomoto Group has been exploiting worldwide markets for feed-use amino acids for more than 40 years, FY 2020 sales 239.5 billion yen of health care business division account for 25% of the Group total sales. With lysine, threonine, and tryptophan as its main feed-use amino acids, the Group has long been a leader in the markets for these products. Feeds with a good balance of amino acids help to reduce impact on soil and water from livestock manure and greatly reduce greenhouse gas emissions. They also help to reduce the amount of land required for feed crop cultivation. The Ajinomoto Group's feed products are gaining worldwide attention. Conventional livestock feed is a combination of soybean meal and energy-giving grains like corn and wheat. However, it contains more of certain amino acids than can be effectively used by the animal's body. As a result, amino acids are excreted as nitrogen compounds. In addition to having a negative impact on soil and water quality, part of this nitrogen is released into the atmosphere as N2O, which promotes global warming. The greenhouse gas effect of N2O is 300 times greater than that of CO2. By giving low-protein feed fortified with feed-use amino acids to livestock, it is possible to reduce the amount of nitrogen in the animal waste by 30% for example, which helps to curtail the greenhouse gas effect.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

23,950,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Suppressing the GHG emission in livestock industry, the demand rise for feed-use amino acid will become about three to ten % per year according to the effect of lowering environmental impact. Moreover, the sales amount will be increased. We think there is opportunity to get in touch with reduction in energy and amount of consumption of water by development of more efficient production. We will be able to increase around 10% sales of our health care business division. Sales of health care business division at FY2020 is 239.5 billion JPY.

Cost to realize opportunity

30,173,600

Strategy to realize opportunity and explanation of cost calculation

Our management methods are as follows.
[Situation] Among the major compound feeds used in the livestock sector, corn and wheat provide high levels of energy to animals, but they are deficient in amino acids such as lysine and others, limiting livestock production performances. Soybean is the main protein source used for animal feeding providing all amino acids but only lysine can be fully utilized by the animals, the other amino acids being wasted, excreted as nitrogen compounds. The utilization of industrial lysine has opened the way to the reduction of the use of soybean through amino acid balancing practices all over the world. Supplementing the deficient amino acids with feed-use amino acids improves the efficiency with which the livestock's bodies utilize amino acids. The use of lysine and other feed-use amino acids leads to a lower amount of livestock waste and can contribute to the prevention of global warming. While feed balancing by industrial amino acid, appropriate nitrogen content decreases burden being imposed on soil, air and water quality. Especially, Japanese livestock industry does not use not so much industrial amino acid, because farmers do not know profit of feed balanced by amino acid.
[Task] To announce profit of feed balanced by amino acid and increase using industrial feed amino acid, Japanese livestock industry decrease environment burden of soil, air

and water quality.
[Action] To exploit the opportunity and maximize its potential realization we have been promoting our "feed-use amino acid" on academic journals in 2019 and some exhibit in 2018. For example, our staff had published an article on Water resources and Industry of Elsevier, whose title is Carbon and water footprints of pig feed in France: Environmental contributions of pig feed with industrial amino acid supplements.
[Result] In concrete term, December 8, 2016 – Ajinomoto Co., Inc. and its consolidated subsidiary were awarded Eco Products Grand Prize “The Minister of Agriculture, Forestry and Fisheries Prize”, one of the highest honor in Japan to commend the products for environmental protection.
[Estimation of cost to realize opportunity] Sales and general administrative expenses for the FY 2016 was "the listing fees for academic journals: 10,000,000 yen” + ”exhibit fees for the exhibitions: 20,173,600 yen” = 30,173,600. These expenses include advertising expenses such as the listing fees for academic journals and exhibit fees for the exhibitions (ex."EcoPro2016")

Comment

Sales and general administrative expenses for the FY 2016 was 30173600 yen. These expenses include advertising expenses such as the listing fees for academic journals and exhibit fees for the exhibitions (ex."EcoPro2016")

Identifier

Opp2

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Markets

Primary climate-related opportunity driver

Access to new markets

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Ajinomoto group while 112 years manufacture several kinds of amino acid such as Leucine and Amino-vital, FY2020 sales of health care business division are 239.5-billion-yen account for 25% of the Group total sales. Human body is composed 20% protein as amino acid. If average temperature goes up, people would desire to have more the intake of protein as amino acid. Therefore, our sales of amino acid such as Leucine and Amino-vital will increase by selling to consumers and other food manufacturers.

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

700,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

If sales of our Amino-vital increases 1% / year, the amount of our sales will be expected to increase as 700000 JPY / year.

Cost to realize opportunity

100,000,000

Strategy to realize opportunity and explanation of cost calculation

[Situation] By global warming, human decrease food appetite by hot temperature and humidity. But human should intake appropriate protein such as amino acid.
[Task] The Ajinomoto Group need to work on improving the awareness of our amino acid products. People would consume more products contains amino acid. The Group aims to increase ROIC of Healthcare business of amino acid use from 0% at FY2019 to 12% at FY2025.
[Action] The Group has distributed product samples such Amino vital drink and has supported Olympic athlete of Swimming, Judo and Ping-pong by explaining benefit of amino acid since 2003 as Victory project®.
[Result] We also expect to improve the awareness of our products through the Tokyo Olympic and Paralympic Games as we are a special supporter of them as an amino acid supplier. As a result, the Group has launched "Amino vital® Tokyo 2020 Olympic athletes special" for increasing awareness of general consumers.
[Estimation of cost to realize opportunity] The amount of money of the supported Olympic athletes is 100,000,000 yen (Cost of employees: 90,000,000 + sample products: 10,000,000 yen) = 100,000,000 yen.

Comment

Nothing

Identifier

Opp3

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Markets

Primary climate-related opportunity driver

Access to new markets

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

When climate change related issues become more serious, customer would tend to buy ecological merchandises. Since Ajinomoto has been manufacturing and selling ecological goods, the sales of these products has been increasing. In addition to that, Ajinomoto has introduced "Aji-na-ECO" mark as own original mark which shows our products are low environment burden such as reduced package since 2010. The amount of articles was 138 in 2013, however, it achieved 185 articles in 2016 as we have been working on increasing the number.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

500,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

A 500 million JPY-sale raising increases. (When the goods to which the "Aji-na- ECO-" mark was attached sell in an excess 1%)

Cost to realize opportunity

10,000,000

Strategy to realize opportunity and explanation of cost calculation

[Situation] As the demand for ecological merchandises would be high, due to serious climate change related issues, there is an opportunity in ecological goods market.
[Task] Ecological goods need to be recognized easily ecological by consumer.
[Action] We have introduced "Aji-na-ECO" mark that proves our products are ecological goods. Types of "Aji-na Eco" mark, Plant-based plastics, Recycled plastic, Sustainable timber, Recycled paper, Reduced packaging, Refillable, No tray usage, Easy recycling and disposal, No box usage, Natural defrosting.
[Result] 210 goods had "Aji-na-ECO" mark in 2020. We have been working on increasing the number of articles that have the mark. The Ajinomoto Group deals in a wide range of containers and packaging for our products, including seasonings, packaged food products, frozen foods, coffee products, fats and oils, and more. We hold the Ajinomoto Group Food Conference and the Packaging Designers' Liaison Meeting, and other events for Group companies in Japan to share efforts and receive feedback in environmentally conscious container and packaging design. 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. In addition, Ajinomoto Co., Inc. assesses the details of product revisions using a points-based Eco-Index for Containers and Packaging.
[Estimation of cost to realize opportunity] Overhead cost as total manpower cost is approximately 10 million yen per year. (10 million yen per year per person * 5 persons * 0.2 year = 10 million yen.)

Comment

Nothing

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?

Yes, and we have developed a low-carbon transition plan

C3.1a

(C3.1a) Is your organization's low-carbon transition plan a scheduled resolution item at Annual General Meetings (AGMs)?

	Is your low-carbon transition plan a scheduled resolution item at AGMs?	Comment
Row 1	No, but we intend it to become a scheduled resolution item within the next two years	

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

Yes, qualitative and quantitative

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenarios and models applied	Details
2DS RCP 2.6 RCP 8.5	[Endorsement of the TCFD Recommendations] The Ajinomoto Group views climate change at the management level as both a risk and an opportunity. To track and improve the Group's environmental performance, the Sustainability Committee under the Executive Committee monitor the Group's progress toward attaining target indicators and consider necessary measures. In May 2019, the Ajinomoto Group endorsed the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) established by the Financial Stability Board in May 2015. The Group follows the international framework in fortifying its governance systems and reflecting climate-related risks and opportunities in its business strategies. [Scenario Analysis] [Situation] The Ajinomoto Group's business domain of products ranges from seasonings and coffee to frozen foods and its business activities extend into Life Support and Healthcare. The geographic range of its operations spans the globe. Climate change can impact the Group's operations in many ways, such as a major natural disaster halting its business activities, affecting its ability to procure raw materials such as crops and fuel, and altering consumption of its products. [Task] The Ajinomoto Group should conduct a scenario analysis of potential impact from the climate change risk until 2030 for globe, under the scenario of a 2ºC or 4 ºC rise in average global temperature in 2100. The reason of choosing 2030 as time horizon for first scenario analysis, 2030 business plans rather than 2050 ones should be linked to current business plans. The analysis examined droughts, floods, rising sea levels and changes in yield of main raw materials as physical risks, as well as rising energy prices, tight supply and demand, and price increases due to competition for major raw materials with other food sources and biofuels as transition risks. Our scenario analysis has been used assumptions which are IPCC, IEA WEO, World Bank Climate Change Knowledge Portal, AQUEDUCT Water Risk Atlas, AQUEDUCT FLOODS. [Action] In fiscal 2019 and 2020, the Ajinomoto Group conducted a scenario analysis of potential impact from the climate change risk until 2030 for globe (Thailand, Indonesia, Vietnam, USA, Brazil, France) using the model of umami seasoning AJI-NO-MOTO®, one of the Group's major products, under the scenario of a 2ºC rise in average global temperature in 2100. For physical risks, the Group had anticipated that main raw materials will be affected by the rising frequency of floods, droughts and pests, but the scenario analysis showed that the impact of the physical risks on profits is not large in Southeast Asia, where the main production plant of AJI-NO-MOTO® is located. On the other hand, the analysis revealed that rising energy prices and carbon tax

	increases in case of a shift to a lower carbon economy as the impact of climate change worsens may have a significant impact on the production costs of AJI-NO-MOTO® and business profits. [Result] In terms of the greenhouse gas problem, if we conduct scenario analysis in line with Task Force on Climate-related Financial Disclosures (TCFD) policy, the risk of environmental taxes for the fermentation business as a whole including MSG, nucleotides, and animal nutrition is around ¥8.0–10.0 billion. The Group had decided to plan study of Internal Carbon Pricing. Therefore, business objectives and strategies have been added as follow. The Group aims to fast-track ongoing measures, such as the switch to renewable energy and low-GHG energy sources and the development of production technologies using non-edible raw materials to curb rising production costs of AJI-NO-MOTO® while contributing to global sustainability in case of rising raw material prices and carbon tax increases due to climate change. As the result, Kyushu plant has decided to change fuel from heavy oil to natural gas in 2020.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	The Group has produced and sold amino acids, seasonings and processed foods in 130 countries. In our risk identification process, all of these countries have been considered. We consider that the change in consumer tastes is one of important aspect about the risks and the opportunities of products and service. [Situation] Increasing environmental interest by consumer. [Task] The Group should exhibit to consumer about low environmental burden of our products. [Action] The Group has introduced "Aji-na-ECO" mark as own original mark which shows our products are low environmental burden such as reduced package since 2010. (Types of "Aji-na Eco" mark, Plant-based plastics, Recycled plastic, Sustainable timber, Recycled paper, Reduced packaging, Refillable, No tray usage, Easy recycling and disposal, No box usage, Natural defrosting). [Result] Number of articles was 138 in 2013, however, it achieved 185 articles in 2016 as we have been working on increasing the number. 210 goods had "Aji-na-ECO" mark in 2020. We have been working on increasing the number of

		articles that have the mark. The Ajinomoto Group deals in a wide range of containers and packaging for our products, including seasonings, packaged food products, frozen foods, coffee products, fats and oils, and more. We hold the Ajinomoto Group Food Conference and the Packaging Designers' Liaison Meeting, and other events for Group companies in Japan to share efforts and receive feedback in environmentally conscious container and packaging design. 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. In addition, Ajinomoto Co., Inc. assesses the details of product revisions using a points-based Eco-Index for Containers and Packaging.
Supply chain and/or value chain	Yes	The Group has produced and sold amino acids, seasonings and processed foods in 130 countries. In our risk identification process, all of these countries have been considered. The risks and the opportunities have an impact on our major business area, especially raw materials from agricultural crops. Most of our suppliers are farmers, because raw materials of our products are mainly agricultural crops. [Situation] For the agricultural crops raw material, we think climate change risks will be mainly "transition risks driven by changes in climate". [Task] We will focus in particular on raw materials, which account for approximately 60% of total lifecycle greenhouse gas emissions. [Action] Ajinomoto group has joined CDP supply chain program in fiscal 2017. We have got information of GHG emissions and climate change strategies from our suppliers. We have requested answering CDP Supply chain program to our suppliers that are big chemical companies in Japan and the main raw material companies in Thailand and Brazil and France and USA. The reason why we selected these suppliers is carbon footprint account for over 50% by raw material such as amino acid. [Result] Our answering ratio of FY2020 was 79%. As engagement effect, some suppliers disclosed us Scope 1 and 2 emissions of allocated suppliers' emissions to us according to the goods suppliers have sold us in this reporting period. In addition, we issued the "Ajinomoto Supplier CSR Guidelines" in 2013. We request to minimize influence on global environment to our suppliers in this guideline. We

		have held a meeting for 400 important suppliers (in Japan) at the headquarters in Tokyo and explained this guideline. These 400 are chosen according to the purchase price and treatment of key materials, that are essential to produce our products. More than 90 % of our raw material purchase costs are from these 400 companies. We have audited and guided these suppliers. We check whether suppliers are obeying a guideline. We are also considering the introduction of new technologies, including on-site production of ammonia. The Group aims to fast-track ongoing measures, such as the development of production technologies using non-edible raw materials to curb rising production costs while contributing to global sustainability in case of rising raw material prices and carbon tax increases due to climate change.
Investment in R&D	Yes	The Group has produced and sold amino acids, seasonings and processed foods in 130 countries. The risks and opportunities have an impact on our major business area, especially production process. Fermentation process of amino acids have a big impact on production GHG emission efficiency, the Group is promoting Research and Development for the introduction of lower resource fermentation technology. [Situation] The Group purchases ammonia for our amino acid fermentation processes. Currently, ammonia is generally produced to need for high-temperature and high-pressure reaction conditions by consuming much fuel. [Task] 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. [Action] We are working toward the practical application of an innovative ammonia production technology using electride catalyst. Electride catalysts allow for highly efficient synthesis of ammonia, even under low-temperature and low-pressure conditions. In October 2019, we completed a pilot production facility at the Company's Kawasaki Plant, launching operations capable of small-scale production of several tens of tons per year. [Result] Moving forward, we intend to verify long-term durability and optimal operating conditions, preparing for commercialization of on-site ammonia production between 2021 and 2022.
Operations	Yes	The Group has produced and sold amino acids, seasonings and processed foods in 130 countries. In our risk identification process, all of these countries have been

		considered. The risks and the opportunities have an impact on our major business area, especially raw materials from agricultural crops. Throughout this process, we consider variety types of climate change risks such as “risks driven by changes in regulation”, “risks driven by changes in physical climate parameters” and “risks driven by changes in other climate-related developments”. We use fuels and electricity to produce our products, and climate change risks for these will be mainly “risks driven by changes in regulation”, such as the carbon tax. [Situation] There is risk for increasing carbon tax rate in Japan. [Task] To decrease not only carbon tax impact but also global warming, our factories in Japan should shift from petroleum oil to other kind of fuel and purchase renewable power. [Action] On April 28, 2020, the Group’s greenhouse effect gas reduction targets toward 2030 were approved by SBTi as to limit global warming to less than 1.5 degrees Celsius compared to pre-industrial temperatures. The targets approved by SBT initiative: Scope 1 + 2=FY2030: Reduce by 50% (vs. FY2018). [Result] The Group aims to fast-track ongoing measures, such as the switch to renewable energy and low-GHG energy sources while contributing to global sustainability in case of rising carbon tax increases due to climate change. As the result, Kyushu plant has decided to change fuel from heavy oil to natural gas in 2020.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Direct costs Indirect costs Access to capital	[Situation] The Ajinomoto Group’s business domain of products ranges from seasonings and coffee to frozen foods and its business activities extend into Life Support and Healthcare. The geographic range of its operations spans the globe. Climate change can impact the Group’s operations in many ways, such as a major natural disaster halting its business activities, affecting its ability to procure raw materials and fuel, and altering consumption of its products. [Task] In fiscal 2019, the Ajinomoto Group conducted a scenario analysis

		of potential impact from the climate change risk until 2050 for globe using the model of umami seasoning AJI-NO-MOTO®, one of the Group's major products, under the scenario of a 2ºC rise in average global temperature in 2100. The analysis examined droughts, floods, rising sea levels and changes in yield of main raw materials as physical risks, as well as rising energy prices, tight supply and demand, and price increases due to competition for major raw materials with other food sources and biofuels as transition risks. [Action] For physical risks, the Group had anticipated that main raw materials will be affected by the rising frequency of floods, droughts and pests, but the scenario analysis showed that the impact of the physical risks on profits is not large in Southeast Asia, where the main production plant of AJI-NO-MOTO® is located. On the other hand, the analysis revealed that rising energy prices and carbon tax increases in case of a shift to a lower carbon economy as the impact of climate change worsens may have a significant impact on the production costs of AJI-NO-MOTO® and business profits. The Group aims to fast-track ongoing measures, such as the switch to renewable energy and low-GHG energy sources and the development of production technologies using non-edible raw materials to curb rising production costs of AJI-NO-MOTO® while contributing to global sustainability in case of rising raw material prices and carbon tax increases due to climate change. [Result] In terms of the greenhouse gas problem, when we conduct scenario analysis in line with Task Force on Climate-related Financial Disclosures (TCFD) policy, the risk of environmental taxes for the fermentation business as a whole including MSG, nucleotides, and animal nutrition is around ￥8.0–10.0 billion. The Group had decided to plan study of Internal Carbon Pricing. December 15, 2020, Ajinomoto Co., Inc. has decided that its consolidated subsidiary AJINOMOTO (MALAYSIA) BERHAD ("AMB") will employ an ESG finance scheme with preferential contract terms according to the degree of achievement of a preset environmental target. The terms will be applied for a portion of AMB's capital procurement in connection with its relocation and construction of a new plant.

C3.4a

(C3.4a) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

I had already described further question.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Both absolute and intensity targets

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Year target was set

2020

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (market-based)

Base year

2018

Covered emissions in base year (metric tons CO2e)

2,212,692

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

100

Target year

2030

Targeted reduction from base year (%)

50

Covered emissions in target year (metric tons CO2e) [auto-calculated]

1,106,346

Covered emissions in reporting year (metric tons CO2e)

1,910,600

% of target achieved [auto-calculated]

27.3053818606

Target status in reporting year

Underway

Is this a science-based target?

Yes, and this target has been approved by the Science-Based Targets initiative

Target ambition

1.5°C aligned

Please explain (including target coverage)

Decision letter from SBTi as follow. (28 Apr, 2020)
Dear Ajinomoto Co., Inc.,
Thank you for submitting your greenhouse gas emission reduction target(s) to the Science Based Targets initiative (SBTi) for an official validation.
Our team has assessed your target(s) against the SBTi criteria (version 4) and, after careful review, we are happy to inform you that your submitted target(s) have been approved.
Basic information about your company and the approved target(s) will be listed on the Science Based Targets website. The following agreed target wording will be used:
“Ajinomoto Co., Inc. commits to reduce absolute scope 1 and 2 GHG emissions 50% by 2030 from a 2018 base year. Ajinomoto Co., Inc. also commits to reduce scope 3 GHG emissions 24% per ton of production over the same target period.”
The SBTi’s Target Validation Team has classified your company’s scope 1 and 2 target ambition and has determined that it is in line with a 1.5°C trajectory.

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number

Int 1

Year target was set

2020

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 3 (upstream & downstream)

Intensity metric

Metric tons CO2e per metric ton of product

Base year

2018

Intensity figure in base year (metric tons CO2e per unit of activity)

4.05

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure

100

Target year

2030

Targeted reduction from base year (%)

24

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]

3.078

% change anticipated in absolute Scope 1+2 emissions

4.2

% change anticipated in absolute Scope 3 emissions

2

Intensity figure in reporting year (metric tons CO2e per unit of activity)

4.31

% of target achieved [auto-calculated]

-26.7489711934

Target status in reporting year

Underway

Is this a science-based target?

Yes, and this target has been approved by the Science Based Targets initiative

Target ambition

1.5°C aligned

Please explain (including target coverage)

Ministry of Environment of Japan had changed twice of CO2 conversion factor on category 3. Therefore, intensity figure in reporting year was increase. If no change CO2 conversion factor on category 3, intensity figure is nearly same of base year.
Decision letter from SBTi as follow. (28 Apr, 2020)
Dear Ajinomoto Co., Inc.,
Thank you for submitting your greenhouse gas emission reduction target(s) to the Science Based Targets initiative (SBTi) for an official validation.
Our team has assessed your target(s) against the SBTi criteria (version 4) and, after careful review, we are happy to inform you that your submitted target(s) have been approved.
Basic information about your company and the approved target(s) will be listed on the Science Based Targets website. The following agreed target wording will be used:

"Ajinomoto Co., Inc. commits to reduce absolute scope 1 and 2 GHG emissions 50% by 2030 from a 2018 base year. Ajinomoto Co., Inc. also commits to reduce scope 3 GHG emissions 24% per ton of production over the same target period."
The SBTi's Target Validation Team has classified your company's scope 1 and 2 target ambition and has determined that it is in line with a 1.5°C trajectory.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Target(s) to increase low-carbon energy consumption or production

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number

Low 1

Year target was set

2020

Target coverage

Company-wide

Target type: absolute or intensity

Absolute

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Metric (target numerator if reporting an intensity target)

Percentage

Target denominator (intensity targets only)

Base year

2018

Figure or percentage in base year

1

Target year

2050

Figure or percentage in target year

100

Figure or percentage in reporting year

2

% of target achieved [auto-calculated]

1.0101010101

Target status in reporting year

Underway

Is this target part of an emissions target?

Abs 1

Decision letter from SBTi as follow. (28 Apr, 2020)

Dear Ajinomoto Co., Inc.,

Thank you for submitting your greenhouse gas emission reduction target(s) to the Science Based Targets initiative (SBTi) for an official validation.

Our team has assessed your target(s) against the SBTi criteria (version 4) and, after careful review, we are happy to inform you that your submitted target(s) have been approved.

Basic information about your company and the approved target(s) will be listed on the Science Based Targets website. The following agreed target wording will be used:

“Ajinomoto Co., Inc. commits to reduce absolute scope 1 and 2 GHG emissions 50% by 2030 from a 2018 base year. Ajinomoto Co., Inc. also commits to reduce scope 3 GHG emissions 24% per ton of production over the same target period.”

The SBTi’s Target Validation Team has classified your company’s scope 1 and 2 target ambition and has determined that it is in line with a 1.5°C trajectory.

Is this target part of an overarching initiative?

RE100

Please explain (including target coverage)

Decision letter from SBTi as follow. (28 Apr, 2020)

Dear Ajinomoto Co., Inc.,

Thank you for submitting your greenhouse gas emission reduction target(s) to the Science Based Targets initiative (SBTi) for an official validation.

Our team has assessed your target(s) against the SBTi criteria (version 4) and, after careful review, we are happy to inform you that your submitted target(s) have been approved.

Basic information about your company and the approved target(s) will be listed on the Science Based Targets website. The following agreed target wording will be used:

“Ajinomoto Co., Inc. commits to reduce absolute scope 1 and 2 GHG emissions 50% by 2030 from a 2018 base year. Ajinomoto Co., Inc. also commits to reduce scope 3 GHG emissions 24% per ton of production over the same target period.”

The SBTi's Target Validation Team has classified your company's scope 1 and 2 target ambition and has determined that it is in line with a 1.5°C trajectory.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	1	42,000
To be implemented*	3	15,050
Implementation commenced*	4	8,080
Implemented*	3	550
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Energy efficiency in production processes
Cooling technology

Estimated annual CO2e savings (metric tonnes CO2e)

160

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

10,000,000

Investment required (unit currency – as specified in C0.4)

1,000,000,000

Payback period

>25 years

Estimated lifetime of the initiative

11-15 years

Comment

Freezer replace from Freon to non-Freon.

Initiative category & Initiative type

Energy efficiency in buildings
Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

300

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

5,000,000

Investment required (unit currency – as specified in C0.4)

50,000,000

Payback period

4-10 years

Estimated lifetime of the initiative

16-20 years

Comment

Replace from mercury light to LED.

Initiative category & Initiative type

Energy efficiency in production processes
Cooling technology

Estimated annual CO2e savings (metric tonnes CO2e)

90

Scope(s)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

2,000,000

Investment required (unit currency – as specified in C0.4)

300,000,000

Payback period

>25 years

Estimated lifetime of the initiative

11-15 years

Comment

Replace new Chiller.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Internal finance mechanisms	When the Ajinomoto Group launches new products and businesses or changes the use of conventional raw materials in production processes, it assesses the environmental impact of business plans before they are implemented and takes necessary measures to minimize future environmental risks and impacts. Environmental assessments are performed by departments responsible for the proposed plans, and their results are reviewed by Manufacturing Management Department before final approval by management.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Product

Description of product/Group of products

The Ajinomoto Group has been exploiting worldwide markets for feed-use amino acids for more than 40 years. With lysine, threonine, and tryptophan as its main feed-use amino acids, the Group has long been a leader in the markets for these products. Feeds with a good balance of amino acids help to reduce impact on soil and water from livestock waste and greatly reduce greenhouse gas emissions. They also help to reduce the amount of land required for feed crop cultivation. The Ajinomoto Group's feed products are gaining worldwide attention. Typical livestock feed is a combination of soybean meal and energy-giving grains like corn and wheat. However, it contains more of certain amino acids than can be effectively used by the animal's body. As a result, amino acids are excreted as nitrogen compounds. In addition to having a negative impact on soil and water quality, part of this nitrogen is released into the atmosphere as N2O, which promotes global warming. The greenhouse gas effect of N2O is approximately 300 times greater than that of CO2. By giving low-protein feed fortified with feed-use amino acids to livestock, it is possible to reduce the amount of nitrogen in the animal waste by 30% for example, which helps to curtail the greenhouse gas effect by 30%.

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product and avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

J-credit methodology and other

% revenue from low carbon product(s) in the reporting year

10

Comment

CO2 reducible quantity: CO2(Equivalent Tons) = N2O X 300 (Tons) This amount of reduction is effective every year. Ajinomoto Co., Inc. applied to the Offsetting Credit (J-VER) Scheme1 (J-Credit as of 2016), announced by the Ministry of the Environment in November 2008, in order to obtain carbon offset credits for "low-protein feed fortified with feed-use amino acids" as a technology to reduce N2O emissions from pig farming. In July 2010 the project received J-VER certification for reducing N2O emissions generated from pig farming. The Japan Verified Emission Reduction Certification Scheme (Offsetting Credit [J-VER] Scheme, J-Credit as of 2016) is a system in which the Ministry of the Environment gives official carbon offset credits for the reductions of greenhouse gas emissions achieved by businesses (in this case pig famers), and the businesses can sell these credits to make a profit. Emissions trading in Japan has hitherto been limited to CO2, and this is the first time that N2O emissions have been traded. The company hopes that this accreditation will help to increase the popularization of low-protein feed fortified with feed-use amino acids in Japan, and progress in reducing greenhouse gases arising from livestock.

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start

April 1, 2018

Base year end

March 31, 2019

Base year emissions (metric tons CO2e)

1,196,969

Comment

Decision letter from SBTi as follow. (28 Apr, 2020)
Dear Ajinomoto Co., Inc.,
Thank you for submitting your greenhouse gas emission reduction target(s) to the Science Based Targets initiative (SBTi) for an official validation.
Our team has assessed your target(s) against the SBTi criteria (version 4) and, after careful review, we are happy to inform you that your submitted target(s) have been approved.
Basic information about your company and the approved target(s) will be listed on the Science Based Targets website. The following agreed target wording will be used:
“Ajinomoto Co., Inc. commits to reduce absolute scope 1 and 2 GHG emissions 50% by 2030 from a 2018 base year. Ajinomoto Co., Inc. also commits to reduce scope 3 GHG emissions 24% per ton of production over the same target period.”
The SBTi’s Target Validation Team has classified your company’s scope 1 and 2 target ambition and has determined that it is in line with a 1.5°C trajectory.

Scope 2 (location-based)

Base year start

April 1, 2018

Base year end

March 31, 2019

Base year emissions (metric tons CO2e)

1,026,764

Comment

Decision letter from SBTi as follow. (28 Apr, 2020)
Dear Ajinomoto Co., Inc.,
Thank you for submitting your greenhouse gas emission reduction target(s) to the Science Based Targets initiative (SBTi) for an official validation.

Our team has assessed your target(s) against the SBTi criteria (version 4) and, after careful review, we are happy to inform you that your submitted target(s) have been approved.
Basic information about your company and the approved target(s) will be listed on the Science Based Targets website. The following agreed target wording will be used: "Ajinomoto Co., Inc. commits to reduce absolute scope 1 and 2 GHG emissions 50% by 2030 from a 2018 base year. Ajinomoto Co., Inc. also commits to reduce scope 3 GHG emissions 24% per ton of production over the same target period."
The SBTi's Target Validation Team has classified your company's scope 1 and 2 target ambition and has determined that it is in line with a 1.5°C trajectory.

Scope 2 (market-based)

Base year start
April 1, 2018

Base year end
March 31, 2019

Base year emissions (metric tons CO2e)
1,015,723

Comment
Decision letter from SBTi as follow. (28 Apr, 2020)
Dear Ajinomoto Co., Inc.,
Thank you for submitting your greenhouse gas emission reduction target(s) to the Science Based Targets initiative (SBTi) for an official validation.
Our team has assessed your target(s) against the SBTi criteria (version 4) and, after careful review, we are happy to inform you that your submitted target(s) have been approved.
Basic information about your company and the approved target(s) will be listed on the Science Based Targets website. The following agreed target wording will be used: "Ajinomoto Co., Inc. commits to reduce absolute scope 1 and 2 GHG emissions 50% by 2030 from a 2018 base year. Ajinomoto Co., Inc. also commits to reduce scope 3 GHG emissions 24% per ton of production over the same target period."
The SBTi's Target Validation Team has classified your company's scope 1 and 2 target ambition and has determined that it is in line with a 1.5°C trajectory.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Act on the Rational Use of Energy
IPCC Guidelines for National Greenhouse Gas Inventories, 2006
ISO 14064-1
Japan Ministry of the Environment, Law Concerning the Promotion of the Measures to Cope with Global Warming, Superceded by Revision of the Act on Promotion of Global Warming Countermeasures (2005 Amendment)

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
The Greenhouse Gas Protocol Agricultural Guidance: Interpreting the Corporate Accounting and Reporting Standard for the Agricultural Sector
The Greenhouse Gas Protocol: Scope 2 Guidance
WBCSD: The Cement CO2 and Energy Protocol

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

1,008,811

Comment

We have certificated our Scope 1, 2, 3 emissions by third party.

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

We have certificated our Scope 1, 2, 3 emissions by third party.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

910,791

Scope 2, market-based (if applicable)

901,789

Comment

We have certificated our Scope 1, 2, 3 emissions by third party.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO2e

7,614,734

Emissions calculation methodology

For primary and secondary production for raw materials, CFP-PCR was applied for calculation. For transportation of raw materials, calculations are made by multiplying the CO2 emission factor by transport ton-kilometer for each means of transportation. Actual distance from suppliers are obtained and used for calculation.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

We have certificated our Scope 1, 2, 3 emissions by third party.

Capital goods

Evaluation status

Relevant, calculated

Metric tonnes CO2e

262,711

Emissions calculation methodology

Annual capital investment are collected and multiplied by the emission factor of MOE.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

We have certificated our Scope 1, 2, 3 emissions by third party.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, calculated

Metric tonnes CO2e

630,823

Emissions calculation methodology

Energy consumption for electricity and steam generation and gasoline consumption associated with marketing operations is obtained. Then multiplied by the emission factor per energy used.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

We have certificated our Scope 1, 2, 3 emissions by third party.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1,210,741

Emissions calculation methodology

Calculations are made by multiplying the CO2 emission factor by transport ton-kilometer for each means of transportation. Transportation data by examining (purchased volume of raw materials) and (sold volume of products) and actual distance from suppliers and retailer are obtained and used for calculation.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

We have certificated our Scope 1, 2, 3 emissions by third party.

Waste generated in operations

Evaluation status

Relevant, calculated

Metric tonnes CO2e

85,714

Emissions calculation methodology

Weight of waste by product are collected and multiplied by emission factor based on the emission factor of MOE by material.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

We have certificated our Scope 1, 2, 3 emissions by third party.

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

4,226

Emissions calculation methodology

Calculations are made by multiplying the CO2 emission factor by number of employees.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

We have certificated our Scope 1, 2, 3 emissions by third party.

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO2e

15,292

Emissions calculation methodology

Calculations are made by multiplying the CO2 emission factor by number of employees.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

We have certificated our Scope 1, 2, 3 emissions by third party.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

Since CO2 emissions for upstream leased assets are include in scope 1 and 2, there are no emissions that should be reported for this category.

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

3,183

Emissions calculation methodology

Calculations are made by multiplying the CO2 emission factor by amount of production.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

We have certificated our Scope 1, 2, 3 emissions by third party.

Processing of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

179,801

Emissions calculation methodology

Calculations are made by multiplying the CO2 emission factor by amount of outsourced production.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

We have certificated our Scope 1, 2, 3 emissions by third party.

Use of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1,355,477

Emissions calculation methodology

Energy consumption obtained by assuming that the product is used in a standard way of cooking. Then multiplied by the emission factor per energy used. We had just calculated representative products which are cup soup, instant coffee, frozen food.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

We have certificated our Scope 1, 2, 3 emissions by third party.

End of life treatment of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

425,003

Emissions calculation methodology

Package of our products are the target of end treatment. We calculated weight of packages of end-of-life product based on volume sold. Then the emissions were calculated by using CFP-PCR by material.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

We have certificated our Scope 1, 2, 3 emissions by third party.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

Not relevant, because we don't have a downstream leased asset business.

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

Not relevant, because we don't have any Franchises.

Investments

Evaluation status

Not relevant, explanation provided

Please explain

Not relevant, because we are not involved in investment or financial service as a main business.

Other (upstream)

Evaluation status

Not relevant, calculated

Metric tonnes CO2e

0

Emissions calculation methodology

Not relevant, because we don't have any other upstream.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

We have certificated our Scope 1, 2, 3 emissions by third party.

Other (downstream)

Evaluation status

Not relevant, calculated

Metric tonnes CO2e

0

Emissions calculation methodology

Not relevant, because we don't have any other downstream.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

We have certificated our Scope 1, 2, 3 emissions by third party.

C-AC6.6/C-FB6.6/C-PF6.6

(C-AC6.6/C-FB6.6/C-PF6.6) Can you break down your Scope 3 emissions by relevant business activity area?

Yes

C-AC6.6a/C-FB6.6a/C-PF6.6a

(C-AC6.6a/C-FB6.6a/C-PF6.6a) Disclose your Scope 3 emissions for each of your relevant business activity areas.

Activity

Agriculture/Forestry

Scope 3 category

Purchased goods and services

Emissions (metric tons CO2e)

7,614,734

Please explain

For primary and secondary production for raw materials, CFP-PCR was applied for calculation. For transportation of raw materials, calculations are made by multiplying the CO2 emission factor by transport ton-kilometer for each means of transportation. Actual distance from suppliers are obtained and used for calculation.

C-AC6.8/C-FB6.8/C-PF6.8

(C-AC6.8/C-FB6.8/C-PF6.8) Is biogenic carbon pertaining to your direct operations relevant to your current CDP climate change disclosure?

No

C-AC6.9/C-FB6.9/C-PF6.9

(C-AC6.9/C-FB6.9/C-PF6.9) Do you collect or calculate greenhouse gas emissions for each commodity reported as significant to your business in C-AC0.7/FB0.7/PF0.7?

Agricultural commodities

Fish and seafood from aquaculture

Do you collect or calculate GHG emissions for this commodity?

Yes

Please explain

For primary and secondary production for raw materials, CFP-PCR was applied for calculation. For transportation of raw materials, calculations are made by multiplying the CO2 emission factor by transport ton-kilometer for each means of transportation. Actual distance from suppliers are obtained and used for calculation.

Agricultural commodities

Palm Oil

Do you collect or calculate GHG emissions for this commodity?

Yes

Please explain

For primary and secondary production for raw materials, CFP-PCR was applied for calculation. For transportation of raw materials, calculations are made by multiplying the CO2 emission factor by transport ton-kilometer for each means of transportation. Actual distance from suppliers are obtained and used for calculation.

Agricultural commodities

Soy

Do you collect or calculate GHG emissions for this commodity?

Yes

Please explain

For primary and secondary production for raw materials, CFP-PCR was applied for calculation. For transportation of raw materials, calculations are made by multiplying the CO2 emission factor by transport ton-kilometer for each means of transportation. Actual distance from suppliers are obtained and used for calculation.

Agricultural commodities

Timber

Do you collect or calculate GHG emissions for this commodity?

Yes

Please explain

For primary and secondary production for raw materials, CFP-PCR was applied for calculation. For transportation of raw materials, calculations are made by multiplying the CO2 emission factor by transport ton-kilometer for each means of transportation. Actual distance from suppliers are obtained and used for calculation.

C-AC6.9a/C-FB6.9a/C-PF6.9a

(C-AC6.9a/C-FB6.9a/C-PF6.9a) Report your greenhouse gas emissions figure(s) for your disclosing commodity(ies), explain your methodology, and include any exclusions.

Fish and seafood from aquaculture

Reporting emissions by

Total

Emissions (metric tons CO2e)

7,614,734

Change from last reporting year

About the same

Please explain

Amount of production and revenue is higher 5~6% than previous fiscal year. Therefore, CO2 emissions is higher 6% than previous fiscal year too.

Palm Oil

Reporting emissions by

Total

Emissions (metric tons CO2e)

7,614,734

Change from last reporting year

About the same

Please explain

Amount of production and revenue is higher 5~6% than previous fiscal year. Therefore, CO2 emissions is higher 6% than previous fiscal year too.

Soy

Reporting emissions by

Total

Emissions (metric tons CO2e)

7,614,734

Change from last reporting year

About the same

Please explain

Amount of production and revenue is higher 5~6% than previous fiscal year. Therefore, CO2 emissions is higher 6% than previous fiscal year too.

Timber

Reporting emissions by

Total

Emissions (metric tons CO2e)

7,614,734

Change from last reporting year

About the same

Please explain

Amount of production and revenue is higher 5~6% than previous fiscal year. Therefore, CO2 emissions is higher 6% than previous fiscal year too.

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.000001783

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

1,910,600

Metric denominator

unit total revenue

Metric denominator: Unit total

1,071,453,000,000

Scope 2 figure used

Market-based

% change from previous year

0.6

Direction of change

Decreased

Reason for change

This result 0.000001783ton/yen (=1.783 ton/ million yen) is an outcome of the energy conservation activity that it's being put into effect by the whole Ajinomoto group. (1.783-1.794)/1.794*100=-0.6%
About the same.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

No

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)

Japan	293,358
China	12,242
Asia, Australasia, Middle East and Africa	389,741
EU25	37,902
United States of America	221,691
Latin America (LATAM)	53,877

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division
By activity

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
Food division	436,813
Amino acid division	571,998

C7.3c

(C7.3c) Break down your total gross global Scope 1 emissions by business activity.

Activity	Scope 1 emissions (metric tons CO2e)
Production	970,831
Transportation	17,633
Others (office, sales, R&D, etc)	20,348

C-AC7.4/C-FB7.4/C-PF7.4

(C-AC7.4/C-FB7.4/C-PF7.4) Do you include emissions pertaining to your business activity(ies) in your direct operations as part of your global gross Scope 1 figure?

Yes

C-AC7.4b/C-FB7.4b/C-PF7.4b

(C-AC7.4b/C-FB7.4b/C-PF7.4b) Report the Scope 1 emissions pertaining to your business activity(ies) and explain any exclusions. If applicable, disaggregate your agricultural/forestry by GHG emissions category.

Activity

Processing/Manufacturing

Emissions (metric tons CO2e)

1,008,811

Methodology

Default emissions factor

Please explain

Japan Ministry of the Environment, Law Concerning the Promotion of the Measures to Cope with Global Warming, Superceded by Revision of the Act on Promotion of Global Warming Countermeasures (2005 Amendment)

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Japan	129,122	120,119	265,228	10,500
China	30,558	30,558	61,158	0
Asia, Australasia, Middle East and Africa	380,604	380,604	1,001,345	0
EU25	158,749	158,749	953,245	0
United States of America	179,067	179,067	429,969	0
Latin America (LATAM)	32,692	32,692	366,319	0

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

By activity

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)

Food division	386,501	384,067
Amino acid division	524,290	517,722

C7.6c

(C7.6c) Break down your total gross global Scope 2 emissions by business activity.

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Production	906,491	897,639
Transportation	2	2
Others (office, sales, R&D, etc)	4,298	4,148

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	0	No change	0	NA
Other emissions reduction activities	1,000	Decreased	0.05	Some factories had decreased GHG emissions by installing new production system. (106000-107000)/1973690=0.05%. The denominator 1973690 is total Scope 1 and Scope 2 emissions in the previous year.
Divestment	0	No change	0	NA
Acquisitions	0	No change	0	NA
Mergers	0	No change	0	NA

Change in output	62,090	Decreased	3.1	Some factories had decreased amount of production by corona pandemic. (1804600-1866690)/1973690 =3.1%. The denominator 1973690 is total Scope 1 and Scope 2 emissions in the previous year.
Change in methodology	0	No change	0	NA
Change in boundary	0	No change	0	NA
Change in physical operating conditions	0	No change	0	NA
Unidentified	0	No change	0	NA
Other	0	No change	0	NA

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 15% but less than or equal to 20%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes

Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	Yes
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	1,344,442	4,818,810	6,163,252
Consumption of purchased or acquired electricity		16,667	2,000,058	2,016,725
Consumption of purchased or acquired heat		0	830	830
Consumption of purchased or acquired steam		565,172	493,230	1,058,402
Consumption of purchased or acquired cooling		0	555	555
Consumption of self-generated non-fuel renewable energy		30,592		30,592
Total energy consumption		1,956,873	7,313,483	9,270,356

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes

Consumption of fuel for the generation of heat	No
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	Yes

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)

Liquefied Natural Gas (LNG)

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

3,444,937

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

1,905,248

MWh fuel consumed for self-cogeneration or self-trigeneration

1,539,689

Emission factor

2.19

Unit

kg CO2e per m3

Emissions factor source

Tokyo Gas Co., Ltd.　Natural Gas form : 13A. Heating value=45 (MJ). CO2 conversion factor=2.19 (kg/m3) as medium pressure.

Comment

Nothing

Fuels (excluding feedstocks)

Liquefied Petroleum Gas (LPG)

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

110,283

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

110,283

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.999

Unit

metric tons CO2e per m3

Emissions factor source

Ministry of the Environment and Ministry of Economy, Trade and Industry Government of Japan, Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain

Comment

Nothing

Fuels (excluding feedstocks)

Crude Oil Light

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

47,154

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

47,154

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.71

Unit

kg CO2e per liter

Emissions factor source

Ministry of the Environment and Ministry of Economy, Trade and Industry Government of Japan, Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain

Comment

Nothing

Fuels (excluding feedstocks)

Crude Oil Heavy

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

2,042

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

2,042

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.996

Unit

kg CO2e per liter

Emissions factor source

Ministry of the Environment and Ministry of Economy, Trade and Industry Government of Japan, Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain

Comment

Nothing

Fuels (excluding feedstocks)

Crude Oil Extra Heavy

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

257,512

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

17,253

MWh fuel consumed for self-cogeneration or self-trigeneration

240,258

Emission factor

2.996

Unit

kg CO2e per liter

Emissions factor source

Ministry of the Environment and Ministry of Economy, Trade and Industry Government of Japan, Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain

Comment

Nothing

Fuels (excluding feedstocks)

Burning Oil

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

11,990

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

11,990

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.489

Unit

kg CO2e per liter

Emissions factor source

Ministry of the Environment and Ministry of Economy, Trade and Industry Government of Japan, Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain

Comment

Nothing

Fuels (excluding feedstocks)

Diesel

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

67,840

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

67,840

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

2.585

Unit

kg CO2 per liter

Emissions factor source

Ministry of the Environment and Ministry of Economy, Trade and Industry Government of Japan, Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain

Comment

Nothing

Fuels (excluding feedstocks)

Coal

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

877,052

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

474,963

MWh fuel consumed for self-cogeneration or self-trigeneration

402,089

Emission factor

2.328

Unit

metric tons CO2e per metric ton

Emissions factor source

Ministry of the Environment and Ministry of Economy, Trade and Industry Government of Japan, Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain

Comment

Nothing

Fuels (excluding feedstocks)

Biomass Municipal Waste

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

1,344,442

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

1,344,442

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0

Unit

metric tons CO2e per metric ton

Emissions factor source

Ministry of the Environment and Ministry of Economy, Trade and Industry Government of Japan, Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain

Comment

Nothing

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	379,563	379,563	30,592	30,592
Heat	0	0	0	0
Steam	6,163,253	6,163,253	1,344,442	1,344,442
Cooling	0	0	0	0

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero emission factor in the market-based Scope 2 figure reported in C6.3.

Sourcing method

Standard product offering by an energy supplier supported by energy attribute certificates

Low-carbon technology type

Biomass

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Japan

MWh consumed accounted for at a zero emission factor

10,500

Comment

Ajinomoto Co., Inc. has purchased green power certification from island electricity company generated electric power by sugar cane.

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description

Waste

Metric value

23,434

Metric numerator

Metric tonnes per fiscal year.

Metric denominator (intensity metric only)

NA

% change from previous year

8

Direction of change

Decreased

Please explain

Amount of production was decreased by Corona pandemic. Therefore, amount of waste also was decreased.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

AS_Ajinomoto2020_EN_Fixed20210613rev1.pdf

CDP-verification _Ajinomoto_FY2020.pdf

Page/ section reference

P. 1-2

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach
Scope 2 location-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement

AS_Ajinomoto2020_EN_Fixed20210613rev1.pdf
CDP-verification _Ajinomoto_FY2020.pdf

Page/ section reference
P. 1-2

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 2 approach
Scope 2 market-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement

AS_Ajinomoto2020_EN_Fixed20210613rev1.pdf

CDP-verification _Ajinomoto_FY2020.pdf

Page/ section reference

P. 1-2

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category

Scope 3 (upstream & downstream)

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

AS_Ajinomoto2020_EN_Fixed20210613rev1.pdf

CDP-verification _Ajinomoto_FY2020.pdf

Page/section reference

P. 1-2

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C6. Emissions data	Year on year change in emissions (Scope 3)	ISO 14067	Ajinomoto Group created a carbon footprint calculation system compliant with ISO/TS 14067, the international standard on carbon footprint issued in May 2013(It was renewed in 2014.). It used the system to calculate the LC-CO2 (Carbon footprint) for seven seasoning products, including HON-DASHI and Ajinomoto KK Consommé. In August 2013, the calculation system and the results based on the calculations gained a third-party assurance statement on the basis of ISO/TS 14067 from Lloyd's Register Quality Assurance Limited, an international certification organization. In addition from 2012 to 2014, the Group had acquired certification of its calculation standards and values of LC-CO2 for not only nine amino acid-based products, including feed-use lysine but also individual stick coffee mixes, frozen items, and most of the Group's major household products.

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

Japan carbon tax

C11.1c

(C11.1c) Complete the following table for each of the tax systems you are regulated by.

Japan carbon tax

Period start date

April 1, 2020

Period end date

March 31, 2021

% of total Scope 1 emissions covered by tax

30

Total cost of tax paid

97,000,000

Comment

Japanese carbon taxes are petroleum oil 760 (yen/kilo L), gases 780 (yen/ton). Total cost of tax paid had been calculated amount of fuel consumption by each factory in Japan multiplied each Japanese carbon tax.

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

Ajinomoto group basically aim to reduce CO2 emissions of our targets by ourselves. If the group would not meet our targets, the group may comply with the systems.
[Situation] There is risk for increasing carbon tax rate in Japan, because the Japanese government decide to be going to stop coal power plant.
[Task] To decrease not only carbon tax impact but also global warming, our factories in Japan should shift from petroleum oil to other kind of fuel and purchase renewable power.
[Action] On April 28, 2020, the Ajinomoto Group's greenhouse effect gas reduction targets toward 2030 were approved by Science Based Targets (SBT) initiative as to limit global warming to less than 1.5 degrees Celsius compared to pre-industrial temperatures.
The targets approved by SBT initiative:
Scope 1 + 2 FY2030: Reduce by 50% (vs. FY2018)
Scope 3 FY2030: Reduce by 24% (vs. FY2018)
On the other hand, the analysis revealed that rising energy prices and carbon tax increases in case of a shift to a lower carbon economy as the impact of climate change worsens may have a significant impact on the production costs of AJI-NO-MOTO® and business profits.
[Result] The Group will decrease carbon tax impact in Japan by 2030. One factory in Japan has got approval to switch from heavy oil to natural gas in 2020. The factory in Japan will decrease carbon tax impact in Japan by 2023. The Group aims to fast-track ongoing measures by using internal carbon price, such as the switch to renewable energy and low-GHG energy sources.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price

Identify and seize low-carbon opportunities

GHG Scope

Scope 1

Scope 2

Application

The Ajinomoto Group's business domain of products ranges from seasonings and coffee to frozen foods. The geographic range of its operations spans the globe. Climate change can impact the Group's operations in many ways, such as a major natural disaster halting its business activities, affecting its ability to procure raw materials such as crops and fuel, and altering consumption of its products.
The Group should conduct a scenario analysis of potential impact from the climate change risk until 2030 for globe, under the scenario of a 2ºC or 4 ºC rise in average global temperature in 2100. The analysis examined droughts, floods, rising sea levels and changes in yield of main raw materials as physical risks, as well as rising energy prices. As visualizing for future carbon tax increase, we use internal price on carbon toward transition risk on scenario analysis of whole Ajinomoto group.

Actual price(s) used (Currency /metric ton)

12,500

Variance of price(s) used

The Ajinomoto Group's business domain of products ranges from seasonings and coffee to frozen foods. The geographic range of its operations spans the globe. Climate change can impact the Group's operations in many ways, such as a major natural disaster halting its business activities, affecting its ability to procure raw materials such as crops and fuel, and altering consumption of its products. The Group should conduct a scenario analysis of potential impact from the climate change risk until 2030 for globe. The analysis revealed that rising energy prices and carbon tax increases in case of a shift to a lower carbon economy as Internal Carbon Pricing by IEA WEO. We have applied Internal Carbon Pricing that IEA WEO mentioned CO2 differentiated price of advanced economies and developing economies, 140 USD/t-CO2, 125 USD/t-CO2, in 2040 respectively.

Type of internal carbon price

Shadow price

Impact & implication

In fiscal 2019 and 2020, the Ajinomoto Group conducted a scenario analysis of potential impact from the climate change risk until 2030 for globe (Thailand, Indonesia, Vietnam, USA, Brazil, France) using the model of umami seasoning AJI-NO-MOTO®, one of the Group's major products, under the scenario of a 2ºC rise in average global temperature in 2100. The analysis revealed that rising energy prices and carbon tax increases in case of a shift to a lower carbon economy as the impact of climate change worsens may have a significant impact on the production costs of AJI-NO-MOTO® and business profits. In terms of the greenhouse gas problem, if we conduct scenario analysis in line with Task Force on Climate-related Financial Disclosures (TCFD) policy, the risk of environmental taxes as Internal Carbon Pricing by IEA WEO for the fermentation business as a whole including MSG, nucleotides, and animal nutrition is around ￥8.0–10.0 billion. The Group factories in Japan emit approximately 400,000 t-CO2, these factories have approximately 56 million USD as future carbon tax risk by applying 140 USD/t-CO2 as internal carbon price. Business objectives and strategies have been added as follow. The Group aims to fast-track ongoing measures, such as the switch to renewable energy and low-GHG energy sources and the development of production technologies using non-edible raw materials to curb rising production costs of AJI-NO-MOTO® while contributing to global sustainability in case of rising raw material prices and carbon tax increases due to climate change.
As the result, Kyushu plant has decided to change fuel from heavy oil to natural gas in 2020.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers
Yes, our customers

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

1

% total procurement spend (direct and indirect)

1

% of supplier-related Scope 3 emissions as reported in C6.5

1

Rationale for the coverage of your engagement

We have requested answering CDP Supply chain program to our suppliers that are big chemical companies in Japan and the main raw material companies in Thailand and Brazil and France and USA. The reason why we selected these suppliers is carbon footprint account for over 50% by raw material such as amino acid. We consider that decreasing GHG emission should be tackled by cooperating with raw material suppliers. We consider that we are going to expand a number of our suppliers step by step. The first step as FY2017 had selected large suppliers which respond to CDP. The second step as FY2018-2020 has selected critical suppliers.

Impact of engagement, including measures of success

Ajinomoto group has joined CDP supply chain program in fiscal 2017. We have got information of GHG emissions and climate change strategies from our suppliers. Our successful indicator of this engagement is not less than average member ratio of the submitted CDP supply chain program. Our ratio of FY2020 was 79%, more than the average member 71%, our engagement of FY2020 was success. As engagement effect, some suppliers disclosed us Scope 1 and 2 emissions of allocated suppliers' emissions to us according to the goods suppliers have sold us in this reporting period.
In addition, we issued the "Ajinomoto Supplier CSR Guidelines" in 2013. We request to minimize influence on global environment to our suppliers in this guideline. We have held a meeting for 400 important suppliers (in Japan) in2018 at the headquarters in Tokyo and explained this guideline. These 400 are chosen according to the purchase price and treatment of key materials, that are essential to produce our products. More than 90 % of our raw material purchase costs are from these 400 companies. We have audited and guided these suppliers. We check whether suppliers are obeying a guideline. When activity of supplier is the very low value, we may cancel to trade. From the activities so far, we only have trades with suppliers that we can really trust. Also we are considering to start applying long term contract for good suppliers in the near future.

Comment

Ajinomoto group aims for decrease whole supply chain CO2 emissions by suppliers engagement.

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement

Education/information sharing

Details of engagement

Run an engagement campaign to education customers about your climate change performance and strategy

% of customers by number

30

% of customer - related Scope 3 emissions as reported in C6.5

26

Please explain the rationale for selecting this group of customers and scope of engagement

Ajinomoto group CO2 emissions is Scope 3 of category 11 (Use of sold products) account for around 10% of Scope 1, 2, 3. Therefore, the group has made engagement to consumers to aim for reduction of CO2 emissions. We have disclosed on web pages and package labels about features of decreasing use emissions of sold products. For example, the group has some frozen food products by no required heat thaw. There are “Aji-pen® ECO” label on these products package, and their features explain on web pages. Consumers easily identify low environmental burden by label, and can decrease CO2 emissions of thaw by purchasing these our products.

Impact of engagement, including measures of success

Our successful indicator of this engagement is not less than previous fiscal year sales amount of home-use products. FY2020 sales of home-use products increased due to the expansion in at-home dining demand by corona pandemic, our engagement of FY2020 was success. As engagement effect, under global warming, we recognize that consumers purchase our products since they recognize low environmental burden with our products.

C-AC12.2/C-FB12.2/C-PF12.2

(C-AC12.2/C-FB12.2/C-PF12.2) Do you encourage your suppliers to undertake any agricultural or forest management practices with climate change mitigation and/or adaptation benefits?

Yes

C-AC12.2a/C-FB12.2a/C-PF12.2a

(C-AC12.2a/C-FB12.2a/C-PF12.2a) Specify which agricultural or forest management practices with climate change mitigation and/or adaptation benefits you encourage your suppliers to undertake and describe your role in the implementation of each practice.

Management practice reference number

MP1

Management practice

Fertilizer management

Description of management practice

The Ajinomoto Group produces amino acids at 18 plants across nine countries worldwide. Since its establishment, the Group has produced these amino acids through a fermentation process using crops that are readily available in each region, such as sugar cane, cassava, corn, and sugar beet, as raw materials. In the process, amino acids are extracted from a fermentation liquor, leaving behind nutritionally rich by-products (co-products) that are then almost completely used locally as fertilizer for agricultural crops and as feed for livestock, including farmed fish.
The Ajinomoto Group has been employing such regional resource recycling processes (bio-cycles) in amino acid production worldwide for more than 40 years. Manufacturing amino acids without using the fermentation process would lead to the depletion of resources. The sustainability of the Group's business depends on the continued pursuit of a resource-efficient manufacturing process.
Although co-products by itself can be used as nutrient-rich organic fertilizer, research is also being conducted on further improving their effectiveness and turning them into higher value added agricultural materials with nutritionally balanced amino acids and minerals essential to plants. Through this research, the Group is helping add value and improve the productivity and quality of agricultural crops. Going forward, the Group will continue creating bio-cycle models that are beneficial to all three parties: local farmers, food processing industries, and the Ajinomoto Group.

Your role in the implementation

Knowledge sharing
Operational

Explanation of how you encourage implementation

Ajinomoto Co., (Thailand) Ltd. has been providing co-products as organic fertilizers to farmers near the plant for more than 40 years. Its agricultural subsidiary, FD Green (Thailand) Co., Ltd. (FDG), is handling the overall sales of co-products since 2001. Leveraging its accumulated expertise, FDG is also actively guiding farmers on raising value-added crops and quality control in recent years. FDG then purchases these crops for use in Ajinomoto Group products and new value-added local products, thereby creating a new cycle. The Group's relationship with farmers developed over many years helped to inexpensively and steadily procure raw materials of stable quality, as it brings profits to local farmers and food processing industries in a positive cycle.
Going forward, the Ajinomoto Group aims to develop a framework for compliance with the Supplier CSR Guidelines to further strengthen this relationship. Through the sales of co-products and raw material procurement, FDG will continue acting as the bridge connecting the Ajinomoto Group and the farmers.

Climate change related benefit

Emissions reductions (mitigation)
Increasing resilience to climate change (adaptation)

Comment

A new proposition called the circular economy is currently spreading across Europe. This concept encompasses reduction of waste and disposal, recycling, sharing, and more, along with environmental conservation as a strategy for economic growth.
The Ajinomoto Group has been continuously engaged in various initiatives that make

full use of energy and food resources without waste, such as bio-cycles. Through these initiatives, the Group takes pride in enriching local agriculture and economic activities in areas where it produces the ingredients required for its business growth.

However, the Group recognizes that there is still room for improvement to make consumer lifestyles more environmentally friendly. Although forming a complete cycle is difficult given the constraints, such as the legal system and organization, the Ajinomoto Group aims to be a hub for creating “circulation” for the whole society, in collaboration with every consumer.

C-AC12.2b/C-FB12.2b/C-PF12.2b

(C-AC12.2b/C-FB12.2b/C-PF12.2b) Do you collect information from your suppliers about the outcomes of any implemented agricultural/forest management practices you have encouraged?

Yes

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Direct engagement with policy makers

Trade associations

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Mandatory carbon reporting	Support	Ajinomoto group participated in environmental information elucidation foundation maintenance business from 2016. The Ministry of the Environment puts this business into effect, and data of CDP aims at appropriate elucidation of environmental information, and is utilized about variation in climate. Environmental information was input to an environmental information elucidation foundation of the pilot edition the Ministry of the Environment offers specifically as well as such as inquiring in a report meeting, we proposed about the problem motion/state of the future.	Ajinomoto group agrees to this business.
Energy efficiency	Support	Ministry of Economy, Trade and Industry have investigated to conduct the pilot regulation of improving energy efficiency to all enterprises. METI asked Ajinomoto how to consider to conduct the pilot regulation at 2016.	Ajinomoto had proposed some idea to METI at 2016.

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

Kanto Nourinsuisan Kanren Kigyou Kankyoutaisaku Kyougikai (Kan-kan-kyou), (Business association on environmental conservation by companies of agriculture, forestry and fishery-related industries in Kanto, Japan)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

To make best available efforts positively to reduce environmental burdens (including GHGs) caused through the industry, in collaboration with the Japanese governmental policy.

How have you influenced, or are you attempting to influence their position?

We have been one of the top steering committee members of the association for decades. We lead the argument in the committee.

Trade association

Japan Food Industry Association

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

A request about administrative policy and work about proposal and cooperation are being conducted in Japan Food Industry Association. It corresponds to a climate change, container wrapping and a food loss by doing an investigation and guidance about an environment measure to a food business.

How have you influenced, or are you attempting to influence their position?

Ajinomoto is concluding an opinion of industry as well as is proposing to a government as a chairperson of Japan Food Industry Association.

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

Ajinomoto Co., Inc. will enhance its sustainability promotion framework in order to continuously increase corporate value from the perspective of sustainability. Effective April 1, 2021, we will establish the Sustainability Advisory Council under the Board of Directors and the Sustainability Committee under the Executive Committee. In addition, the following decision was made on the appointment of Sustainability Advisory Council members.
1. Enhancements to the sustainability promotion framework
(1) The Sustainability Advisory Council will be responsible for the following 1) to 4):
1) During Phase 1 (FY2020 to 2022) of the 2020-2025 Medium-Term Management Plan, discuss Materiality with a long-term perspective (up to 2050) and reflect it into Materiality and the strategy for Phase 2 (FY2023 to 2025) of the Medium-Term Management Plan.
2) Review Materiality from a multi-stakeholder perspective and response plans to environmental changes (risks and opportunities) linked to Materiality, and in turn report to the Board of Directors.
3) Examine key points expected or requested of companies in 2030 and beyond along with review of appropriate involvement in the creation of social rules.
4) Discuss and review targets beyond 2030 concerning the creation of social value, including commitment to extend healthy life expectancy and environmental impact reduction.
(2) The Sustainability Advisory Council will meet semi-annually and actively disclose the details of its discussions by publishing meeting minutes and press releases.
(3) The Sustainability Committee will, based on the reports of the Sustainability Advisory Council, hold discussions on countermeasures to risks and opportunities posed by company-wide management issues and how to reflect these in business strategy, pursuant to Materiality and the strategic direction approved by the Board of Directors. The Sustainability Committee will report to the Executive Committee.
The sustainability promotion framework is managed by the Board of Directors and the Executive Committee, any departments and any regions should comply with the framework. All departments should report climate change activity to the framework.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In mainstream reports

Status

Complete

Attach the document

Securities report FY2020.pdf

Page/Section reference

P. 15-22, 61

Content elements

Governance
Strategy
Risks & opportunities

Comment

Please see attachment securities report FY2020 pages 15-22, 61.

Publication

In voluntary sustainability report

Status

Underway – previous year attached

Attach the document

SDB2020_all_en.pdf
Integrated Report_2020_20Sep23【EN A4】.pdf

Page/Section reference

Integrated report FY2020: P. 41-43.
Sustainability data book FY2020: P. 61-66

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets

Comment

Please see Integrated report FY2020: P. 41-43, Sustainability data book FY2020: P. 61-66.

C13. Other land management impacts

C-AC13.2/C-FB13.2/C-PF13.2

(C-AC13.2/C-FB13.2/C-PF13.2) Do you know if any of the management practices mentioned in C-AC12.2a/C-FB12.2a/C-PF12.2a that were implemented by your suppliers have other impacts besides climate change mitigation/adaptation?

Yes

C-AC13.2a/C-FB13.2a/C-PF13.2a

(C-AC13.2a/C-FB13.2a/C-PF13.2a) Provide details of those management practices implemented by your suppliers that have other impacts besides climate change mitigation/adaptation.

Management practice reference number

MP1

Overall effect

Positive

Which of the following has been impacted?

Yield

Description of impacts

The Ajinomoto Group produces amino acids at 18 plants across nine countries worldwide. Since its establishment, the Group has produced these amino acids through a fermentation process using crops that are readily available in each region, such as sugar cane, cassava, corn, and sugar beet, as raw materials. In the process, amino acids are extracted from a fermentation liquor, leaving behind nutritionally rich by-products (co-products) that are then almost completely used locally as fertilizer for agricultural crops and as feed for livestock, including farmed fish.

The Ajinomoto Group has been employing such regional resource recycling processes (bio-cycles) in amino acid production worldwide for more than 40 years. Manufacturing amino acids without using the fermentation process would lead to the depletion of resources. The sustainability of the Group's business depends on the continued pursuit of a resource-efficient manufacturing process.

Although co-products by itself can be used as nutrient-rich organic fertilizer, research is also being conducted on further improving their effectiveness and turning them into higher value added agricultural materials with nutritionally balanced amino acids and minerals essential to plants. Through this research, the Group is helping add value and improve the productivity and quality of agricultural crops. Going forward, the Group will continue creating bio-cycle models that are beneficial to all three parties: local farmers, food processing industries, and the Ajinomoto Group.

Have any response to these impacts been implemented?

Yes

Description of the response(s)

Ajinomoto Co., (Thailand) Ltd. has been providing co-products as organic fertilizers to farmers near the plant for more than 40 years. Its agricultural subsidiary, FD Green (Thailand) Co., Ltd. (FDG), is handling the overall sales of co-products since 2001. Leveraging its accumulated expertise, FDG is also actively guiding farmers on raising value-added crops and quality control in recent years. FDG then purchases these crops for use in Ajinomoto Group products and new value-added local products, thereby creating a new cycle. The Group's relationship with farmers developed over many years helped to inexpensively and steadily procure raw materials of stable quality, as it brings profits to local farmers and food processing industries in a positive cycle.
Going forward, the Ajinomoto Group aims to develop a framework for compliance with the Supplier CSR Guidelines to further strengthen this relationship. Through the sales of co-products and raw material procurement, FDG will continue acting as the bridge connecting the Ajinomoto Group and the farmers.

C15. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

Evolving ASV management aimed at achieving the SDGs The SDGs advocated by the United Nations comprise 17 goals and 169 targets for the world to achieve sustainable development by 2030. The Ajinomoto Group is focusing in particular on addressing issues concerning health and the environment. Since our founding, we have consistently worked on resolving social issues. In 1899, when Dr. Kikunae Ikeda studied abroad in Germany, he was surprised at the physique and nutritional status of German people at the time, which developed into a strong desire to improve the nutrition of Japanese people. Saburosuke Suzuki II, who shared this desire, launched the business in 1909 with the release of the world's first umami seasoning called AJI-NO-MOTO®. The roots of the Ajinomoto Group can be found in our founding aspiration of "Eat Well, Live Well." ASV management is a form of management that aspires to create both social and economic value. As a multinational corporation, and as a company deeply involved in food, we are committed to contributing to the achievement of the SDGs. As for environmental issues, we will work toward reducing greenhouse gas emissions by 50% by fiscal 2030 and mitigating economic risks determined using scenario analysis following the TCFD recommendations by 8 to 10 billion yen, as key measures. At the same time, we will work alongside stakeholders to reduce the impacts of other important issues concerning water risk, plastic waste, food loss and waste, and sustainable procurement. Ajinomoto group has made environmental long-term plans as follow. To decrease 50% of amount of CO2 emission from FY 2018 to FY 2030 as Scope 1 & 2. To decrease 24% of intensity CO2 emission per product from FY 2018 to FY 2030 as Scope 3. Reduction of the

amount of the used water per the production 80 % to fiscal year 2005 Reduction of the amount of waste water per the production 80 % to fiscal year 2005.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Member of the Board	Director on board

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

Ajinomoto Group aim to grow sustainably through ASV. Ajinomoto group is implementing following items.
(ASV (Ajinomoto group Shared Value): ASV represents our unchanging commitment, with our stakeholders and businesses, we help solve society's issues, leading to the creation of economic value.)
1. Contribute to the future progress of humanity and the earth
2. Possess our own industry-leading technologies and business domains
3. Assemble a group of diverse, globally capable talent
4. Achieve the business and profit scale of a global company
5. Meet global efficiency standards to generate profit

Expansion of business portfolio with new business pillars which launch integrated food solutions business.
Deepen our deliciousness technologies
- Deeper understandings of biological mechanism for deliciousness
(Mechanism of each of taste, flavor and texture. Mechanism of interaction among taste, flavor and texture.)
- Technologies to control deliciousness freely
(Simulation and control tech (Retronasal aroma, etc).
Acquisition of key ingredients and establishment of natural production methods.)
- Technologies to optimize deliciousness for local preferences
(Analysis of preference in each country. Optimal applications adapted to local preferences.)
Establish key account sales team
- Form customer-centric sales structure via internal and external collaboration
- Establish the teams globally through external partnerships

Sweeteners
Pursue specialties with retail business, and reduce costs.
- Reorganize the brand portfolio to clarify focus of investments, expand sales to food services

(low-carb menus, etc)
- Reduce manufacturing and SG&A costs, and expand sales of products with price premium

Amino-science
Specialty products with health functions of amino acid
- New health functions of amino acids and plant materials discovered over a century of research, and their safety, usefulness and mechanisms are supported by scientific evidence.
Shift from small-molecules to med./large-molecules
- Medium/Large-molecules: Invest in Fill and Finish and launch ADC business.
- Small-molecules: Integrate with medium/large-molecules business and build external partnerships for wider range of service offerings

On April 28, 2020, the Ajinomoto Group's greenhouse effect gas reduction targets toward 2030 were approved by Science Based Targets (SBT) initiative as to limit global warming to less than 1.5 degrees Celsius compared to pre-industrial temperatures.
The targets approved by SBT initiative:
Scope 1 + 2 FY2030: Reduce by 50% (vs. FY2018)
Scope 3 FY2030: Reduce by 24% (vs. FY2018)
Also, the Group joined RE100 at August 04, 2020.
Another environment target of the Group is reduction of the amount of the used water per the production 80 % to fiscal year 2005.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	1,071,453,000,000

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

Yes

SC0.2a

(SC0.2a) Please use the table below to share your ISIN.

	ISIN country code (2 letters)	ISIN numeric identifier and single check digit (10 numbers overall)
Row 1	JP	311960

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member

AstraZeneca

Scope of emissions

Allocation level

Allocation level detail

Emissions in metric tonnes of CO2e

Uncertainty (±%)

Major sources of emissions

Verified

Allocation method

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

The figure of the total sales of the Ajinomoto Group is 1,071,453,000,000 (about one trillion) JPY in FY 2020. And Our GHG emission is as follow (FY2020). The figure of Scope1 is 1,008,811 metric tons CO2e, as of Scope 2 is 901,789 metric tons CO2e. Could you please estimate the GHG emission of our products from these data by yourself?

Requesting member

Clorox Company

Scope of emissions

Allocation level

Allocation level detail

Emissions in metric tonnes of CO2e

Uncertainty (±%)

Major sources of emissions

Verified

Allocation method

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

The figure of the total sales of the Ajinomoto Group is 1,071,453,000,000 (about one trillion) JPY in FY 2020. And Our GHG emission is as follow (FY2020). The figure of Scope1 is 1,008,811 metric tons CO2e, as of Scope 2 is 901,789 metric tons CO2e. Could you please estimate the GHG emission of our products from these data by yourself?

Requesting member

Colgate Palmolive Company

Scope of emissions

Allocation level

Allocation level detail

Emissions in metric tonnes of CO2e

Uncertainty (±%)

Major sources of emissions

Verified

Allocation method

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

The figure of the total sales of the Ajinomoto Group is 1,071,453,000,000 (about one trillion) JPY in FY 2020. And Our GHG emission is as follow (FY2020). The figure of Scope1 is 1,008,811 metric tons CO2e, as of Scope 2 is 901,789 metric tons CO2e. Could you please estimate the GHG emission of our products from these data by yourself?

Requesting member

Givaudan SA

Scope of emissions

Allocation level

Allocation level detail

Emissions in metric tonnes of CO2e

Uncertainty (±%)

Major sources of emissions

Verified

Allocation method

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

The figure of the total sales of the Ajinomoto Group is 1,071,453,000,000 (about one trillion) JPY in FY 2020. And Our GHG emission is as follow (FY2020). The figure of

Scope1 is 1,008,811 metric tons CO2e, as of Scope 2 is 901,789 metric tons CO2e. Could you please estimate the GHG emission of our products from these data by yourself?

Requesting member

International Flavors & Fragrances Inc.

Scope of emissions

Allocation level

Allocation level detail

Emissions in metric tonnes of CO2e

Uncertainty (±%)

Major sources of emissions

Verified

Allocation method

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

The figure of the total sales of the Ajinomoto Group is 1,071,453,000,000 (about one trillion) JPY in FY 2020. And Our GHG emission is as follow (FY2020). The figure of Scope1 is 1,008,811 metric tons CO2e, as of Scope 2 is 901,789 metric tons CO2e. Could you please estimate the GHG emission of our products from these data by yourself?

Requesting member

Johnson & Johnson

Scope of emissions

Allocation level

Allocation level detail

Emissions in metric tonnes of CO2e

Uncertainty (±%)

Major sources of emissions

Verified

Allocation method

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

The figure of the total sales of the Ajinomoto Group is 1,071,453,000,000 (about one trillion) JPY in FY 2020. And Our GHG emission is as follow (FY2020). The figure of Scope1 is 1,008,811 metric tons CO2e, as of Scope 2 is 901,789 metric tons CO2e. Could you please estimate the GHG emission of our products from these data by yourself?

Requesting member

KAO Corporation

Scope of emissions

Scope 1

Allocation level

Facility

Allocation level detail

Emissions in metric tonnes of CO2e

1,100

Uncertainty (±%)

10

Major sources of emissions

Major sources of emissions by our products is natural gas for co-generation covered 100% our products.

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

We had identified amount of usage fuel by fuel supplier bill.

Requesting member

Kellogg Company

Scope of emissions

Scope 1

Allocation level

Facility

Allocation level detail

Emissions in metric tonnes of CO2e

58

Uncertainty (±%)

10

Major sources of emissions

Major sources of emissions by our products is fossil fuel for boiler.

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

We had identified amount of usage fuel by fuel supplier bill.

Requesting member

Kellogg Company

Scope of emissions

Scope 2

Allocation level

Facility

Allocation level detail

Emissions in metric tonnes of CO2e

40

Uncertainty (±%)

10

Major sources of emissions

Major sources of emissions by our products is electricity for motors.

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

We had identified amount of usage electricity by power supplier bill.

Requesting member

L'Oréal

Scope of emissions

Scope 1

Allocation level

Facility

Allocation level detail

Emissions in metric tonnes of CO2e

494

Uncertainty (±%)

10

Major sources of emissions

Major sources of emissions by our products is natural gas for co-generation covered 100% our products.

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

We had identified amount of usage fuel by fuel supplier bill.

Requesting member

PepsiCo, Inc.

Scope of emissions

Scope 1

Allocation level

Facility

Allocation level detail

Emissions in metric tonnes of CO2e

8,571

Uncertainty (±%)

10

Major sources of emissions

Major sources of emissions by our products is fossil fuel for boiler.

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

We had identified amount of usage fuel by fuel supplier bill.

Requesting member

Symrise AG

Scope of emissions

Allocation level

Allocation level detail

Emissions in metric tonnes of CO2e

Uncertainty (±%)

Major sources of emissions

Verified

Allocation method

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

The figure of the total sales of the Ajinomoto Group is 1,071,453,000,000 (about one trillion) JPY in FY 2020. And Our GHG emission is as follow (FY2020). The figure of Scope1 is 1,008,811 metric tons CO2e, as of Scope 2 is 901,789 metric tons CO2e. Could you please estimate the GHG emission of our products from these data by yourself?

Requesting member

Unilever plc

Scope of emissions

Scope 1

Allocation level

Facility

Allocation level detail

Emissions in metric tonnes of CO2e

153

Uncertainty (±%)

10

Major sources of emissions

Major sources of emissions by our products is natural gas for co-generation covered 100% our products.

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

We had identified amount of usage fuel by fuel supplier bill.

Requesting member

Walmart, Inc.

Scope of emissions

Allocation level

Allocation level detail

Emissions in metric tonnes of CO2e

Uncertainty (±%)

Major sources of emissions

Verified

Allocation method

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

The figure of the total sales of the Ajinomoto Group is 1,071,453,000,000 (about one trillion) JPY in FY 2020. And Our GHG emission is as follow (FY2020). The figure of Scope1 is 1,008,811 metric tons CO2e, as of Scope 2 is 901,789 metric tons CO2e.

Could you please estimate the GHG emission of our products from these data by yourself?

Requesting member

PepsiCo, Inc.

Scope of emissions

Scope 2

Allocation level

Facility

Allocation level detail

Emissions in metric tonnes of CO2e

1,690

Uncertainty (±%)

10

Major sources of emissions

Major sources of emissions by our products is electricity for motors.

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

We had identified amount of usage electricity by power supplier bill.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

We have published Ajinomoto group CO2 emission data as below link. Please see below link.
https://www.ajinomoto.co.jp/company/en/ir/library/databook/main/08/teaserItems1/0/linkList/00/link/SDB2021_appendix_env_en.pdf

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Customer base is too large and diverse to accurately track emissions to the customer level	We have many customers and many factories and many products. Therefore, it is difficult for us that Carbon Footprint of each product is calculated for each customer.

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

Yes

SC1.4a

(SC1.4a) Describe how you plan to develop your capabilities.

We have calculated the carbon footprint about nine kinds of amino acid including the lysine for feed,
and about 13 kinds of consumer processed food and seasoning.
These calculation results have been verified by the 3rd party.
We make a plan of the calculation system of carbon footprint.
However, it is very hard for us to make calculating system for every goods and every customer.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

Yes, I will provide data

SC4.1a

(SC4.1a) Give the overall percentage of total emissions, for all Scopes, that are covered by these products.

30

SC4.2a

(SC4.2a) Complete the following table for the goods/services for which you want to provide data.

Name of good/ service
L-Lysine Monohydrochloride(For Feed)

Description of good/ service
Feed-use amino acid Nutritional reinforcement goods for stockbreeding feed. Essential amino-acid.

Type of product
Intermediate

SKU (Stock Keeping Unit)
25kg

Total emissions in kg CO2e per unit
130

±% change from previous figure supplied
0

Date of previous figure supplied
July 31, 2017

Explanation of change
No Change

Methods used to estimate lifecycle emissions
ISO 14040 & 14044

Name of good/ service
Aspartame

Description of good/ service
Sweetner made from amino acids

Type of product
Intermediate

SKU (Stock Keeping Unit)
25kg

Total emissions in kg CO2e per unit
780

±% change from previous figure supplied
0

Date of previous figure supplied
July 31, 2017

Explanation of change
No change

Methods used to estimate lifecycle emissions
ISO 14040 & 14044

Name of good/ service
Di-sodium 5'-Inosinate

Description of good/ service
Kind of nucleic acid for food additives

Type of product
Intermediate

SKU (Stock Keeping Unit)
12kg

Total emissions in kg CO2e per unit
155

±% change from previous figure supplied
0

Date of previous figure supplied
July 31, 2017

Explanation of change
No change

Methods used to estimate lifecycle emissions
ISO 14040 & 14044

Name of good/ service
Monosodium L-Glutamate

Description of good/ service
Amino acid for food additives

Type of product
Intermediate

SKU (Stock Keeping Unit)

20kg

Total emissions in kg CO2e per unit

58

±% change from previous figure supplied

0

Date of previous figure supplied

July 31, 2017

Explanation of change

No Change

Methods used to estimate lifecycle emissions

ISO 14040 & 14044

Name of good/ service

L-Arginine

Description of good/ service

Amino acid for food additives

Type of product

Intermediate

SKU (Stock Keeping Unit)

20kg

Total emissions in kg CO2e per unit

301

±% change from previous figure supplied

0

Date of previous figure supplied

July 31, 2017

Explanation of change

No change

Methods used to estimate lifecycle emissions

ISO 14040 & 14044

Name of good/ service

L-Glutamine

Description of good/ service

Amino acid for food additives

Type of product

Intermediate

SKU (Stock Keeping Unit)

25kg

Total emissions in kg CO2e per unit

319

±% change from previous figure supplied

0

Date of previous figure supplied

July 31, 2017

Explanation of change

No change

Methods used to estimate lifecycle emissions

ISO 14040 & 14044

Name of good/ service

L-Valine

Description of good/ service

Amino acid for food additives

Type of product

Intermediate

SKU (Stock Keeping Unit)

20kg

Total emissions in kg CO2e per unit

393

±% change from previous figure supplied

0

Date of previous figure supplied

July 31, 2017

Explanation of change

No change

Methods used to estimate lifecycle emissions

ISO 14040 & 14044

Name of good/ service

L-leucine

Description of good/ service

Amino acid for food additives

Type of product

Intermediate

SKU (Stock Keeping Unit)

20kg

Total emissions in kg CO2e per unit

585

±% change from previous figure supplied

0

Date of previous figure supplied

July 31, 2017

Explanation of change

No change

Methods used to estimate lifecycle emissions

ISO 14040 & 14044

Name of good/ service

L-Isoleucine

Description of good/ service

Amino acid for food additives

Type of product

Intermediate

SKU (Stock Keeping Unit)

20kg

Total emissions in kg CO2e per unit

433

±% change from previous figure supplied

0

Date of previous figure supplied

July 31, 2017

Explanation of change

No change

Methods used to estimate lifecycle emissions

ISO 14040 & 14044

Name of good/ service

HON-DASHI(R)

Description of good/ service

Manufacture of basic dried bonito flake ingredients (seasoning)

Type of product

Final

SKU (Stock Keeping Unit)

0.12kg

Total emissions in kg CO2e per unit

1.69

±% change from previous figure supplied

0

Date of previous figure supplied

July 31, 2017

Explanation of change

No change

Methods used to estimate lifecycle emissions

ISO 14040 & 14044

Name of good/ service

Ajinomoto KK Consomme(Granules)

Description of good/ service

Granules tiped Consomme seasoning

Type of product

Final

SKU (Stock Keeping Unit)

0.085kg

Total emissions in kg CO2e per unit

0.58

±% change from previous figure supplied

0

Date of previous figure supplied

July 31, 2017

Explanation of change

No change

Methods used to estimate lifecycle emissions

ISO 14040 & 14044

Name of good/ service

Knorr(R) Cup Soup Tsubu Tappuri Corn Cream

Description of good/ service

Freeze-dried soup

Type of product

Final

SKU (Stock Keeping Unit)

0.0465kg

Total emissions in kg CO2e per unit

0.33

±% change from previous figure supplied

0

Date of previous figure supplied

July 31, 2017

Explanation of change

No change

Methods used to estimate lifecycle emissions

ISO 14040 & 14044

Name of good/ service

Ajinomoto KK Shirogayu 250g

Description of good/ service

Retort-pouched rice foods

Type of product

Final

SKU (Stock Keeping Unit)

0.25kg

Total emissions in kg CO2e per unit

0.2

±% change from previous figure supplied

0

Date of previous figure supplied

July 31, 2017

Explanation of change

No change

Methods used to estimate lifecycle emissions

ISO 14040 & 14044

Name of good/ service

Cook Do(R) Hoikoro

Description of good/ service

Chinese taste liquid-based seasoning

Type of product

Final

SKU (Stock Keeping Unit)

0.09kg

Total emissions in kg CO2e per unit

0.27

±% change from previous figure supplied

0

Date of previous figure supplied

July 31, 2017

Explanation of change

No change

Methods used to estimate lifecycle emissions

ISO 14040 & 14044

Name of good/ service

Cook Do(R) kyo-no Ozara Butabara Daikon

Description of good/ service

Japanese taste liquid-based seasoning

Type of product

Final

SKU (Stock Keeping Unit)

0.1kg

Total emissions in kg CO2e per unit

0.23

±% change from previous figure supplied

0

Date of previous figure supplied

July 31, 2017

Explanation of change

No change

Methods used to estimate lifecycle emissions

ISO 14040 & 14044

Name of good/ service

Nabe Cube(R) Toridashi Umashio

Description of good/ service

Cubed seasoning

Type of product

Final

SKU (Stock Keeping Unit)

0.058kg

Total emissions in kg CO2e per unit

0.5

±% change from previous figure supplied

0

Date of previous figure supplied

July 31, 2017

Explanation of change

No change

Methods used to estimate lifecycle emissions

ISO 14040 & 14044

Name of good/ service

AGF Blendy Stick Cafe au Lait

Description of good/ service

Coffee mixes

Type of product

Final

SKU (Stock Keeping Unit)

0.12kg

Total emissions in kg CO2e per unit

0.58

±% change from previous figure supplied

0

Date of previous figure supplied

July 31, 2017

Explanation of change

No change

Methods used to estimate lifecycle emissions

ISO 14040 & 14044

Name of good/ service

Lemon and Basil Fried Chicken

Description of good/ service

Frozen foods

Type of product

Final

SKU (Stock Keeping Unit)

0.126kg

Total emissions in kg CO2e per unit

0.74

±% change from previous figure supplied

0

Date of previous figure supplied

July 31, 2017

Explanation of change

No change

Methods used to estimate lifecycle emissions

ISO 14040 & 14044

Name of good/ service

Mentsuyu

Description of good/ service

Liquid seasoning

Type of product

Final

SKU (Stock Keeping Unit)

0.4kg

Total emissions in kg CO2e per unit

0.81

±% change from previous figure supplied

0

Date of previous figure supplied

July 31, 2017

Explanation of change

No change

Methods used to estimate lifecycle emissions

ISO 14040 & 14044

Name of good/ service

Masako Ayam

Description of good/ service

Indonesian dried seasoning

Type of product

Final

SKU (Stock Keeping Unit)

0.011kg

Total emissions in kg CO2e per unit

0.03

±% change from previous figure supplied

0

Date of previous figure supplied

July 31, 2017

Explanation of change

No change

Methods used to estimate lifecycle emissions

ISO 14040 & 14044

Name of good/ service

Aji-ngon Pork

Description of good/ service

Vietnamese dried seasoning

Type of product

Final

SKU (Stock Keeping Unit)

0.4kg

Total emissions in kg CO2e per unit

1.07

±% change from previous figure supplied

0

Date of previous figure supplied

July 31, 2017

Explanation of change

No change

Methods used to estimate lifecycle emissions

ISO 14040 & 14044

Name of good/ service

Rosdee Pork

Description of good/ service

Thai dried seasoning

Type of product

Final

SKU (Stock Keeping Unit)

0.075kg

Total emissions in kg CO2e per unit

0.24

±% change from previous figure supplied

0

Date of previous figure supplied

July 31, 2017

Explanation of change

No change

Methods used to estimate lifecycle emissions

ISO 14040 & 14044

SC4.2b

(SC4.2b) Complete the following table with data for lifecycle stages of your goods and/or services.

Name of good/ service

Japan Aspartame

Please select the scope

Scope 1

Please select the lifecycle stage

Manufacturing

Emissions at the lifecycle stage in kg CO2e per unit

6.09

Is this stage under your ownership or control?

Yes

Type of data used

Primary

Data quality

Based on GHG inventory conducted annually with third party verification.
Emissions are in Kg CO2e/MT.

If you are verifying/assuring this product emission data, please tell us how

Emissions inventory verified annually.

Name of good/ service

Japan Aspartame

Please select the scope

Scope 2

Please select the lifecycle stage

Manufacturing

Emissions at the lifecycle stage in kg CO2e per unit

1.19

Is this stage under your ownership or control?

Yes

Type of data used

Primary

Data quality

Based on GHG inventory conducted annualy with third party verification.
Emissions are in Kg CO2e/MT.

If you are verifying/assuring this product emission data, please tell us how

Emissions inventory verified annually.

SC4.2c

(SC4.2c) Please detail emissions reduction initiatives completed or planned for this product.

Name of good/ service	Initiative ID	Description of initiative	Completed or planned	Emission reductions in kg CO2e per unit

SC4.2d

(SC4.2d) Have any of the initiatives described in SC4.2c been driven by requesting CDP Supply Chain members?

No

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain questions?
I am submitting my response	Investors Customers	Public	Yes, I will submit the Supply Chain questions now

Please confirm below

I have read and accept the applicable Terms