Ajinomoto Co., Inc. CDP Water Security 2022

W0. Introduction

W0.1

(W0.1) Give a general description of 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.

W-FB0.1a

(W-FB0.1a) Which activities in the food, beverage, and tobacco sector does your organization engage in?

Processing/Manufacturing

W0.2

(W0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date
Reporting year	April 1, 2021	March 31, 2022

W0.3

(W0.3) Select the countries/areas in which you operate.

Belgium
Brazil
Cambodia
China
France
India
Indonesia
Japan
Malaysia
Myanmar
Peru
Philippines
Thailand
United States of America

Viet Nam

W0.4

(W0.4) Select the currency used for all financial information disclosed throughout your response.

JPY

W0.5

(W0.5) Select the option that best describes the reporting boundary for companies, entities, or groups for which water impacts on your business are being reported.

Companies, entities or groups over which operational control is exercised

W0.6

(W0.6) Within this boundary, are there any geographies, facilities, water aspects, or other exclusions from your disclosure?

No

W0.7

(W0.7) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization.	Provide your unique identifier
Yes, an ISIN code	3119600009

W1. Current state

W1.1

(W1.1) Rate the importance (current and future) of water quality and water quantity to the success of your business.

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Vital	Vital	Ajinomoto group produces amino acid, processed food and seasoning. We have recognized that a great deal of good fresh water is used for direct amino acid production operation such as dilution of raw material and cleaning for amino acid crystal. We have recognized that a great deal of good fresh water is used for indirect production such as cultivation of agricultural crop for raw

			material and steam for sterilization of equipment. Therefore, we have regarded this type of water as important. In our business, for direct operations and indirect operations, the sufficient amounts of good quality fresh water will be also important in the future because we will continue to produce processed food and seasoning in the future.
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Important	Ajinomoto group has regarded this type of water as important, because recycled water is used in direct production operation for cooling our products such as amino acid and frozen food, and in indirect production such as cooling raw material. We have been developing a new production technology to decrease recycled water in our plants. In order for effective water use in our value chain, recycled water have been regarded as important in our supply chain. In our business, for direct operations and indirect operations, the recycled water will be also important in the future, because we will continue to cool our products such as processed food and raw material in the future.

W-FB1.1a

(W-FB1.1a) Which water-intensive agricultural commodities that your organization produces and/or sources are the most significant to your business by revenue? Select up to five.

Agricultural commodities	% of revenue dependent on these agricultural commodities	Produced and/or sourced	Please explain
Maize	Less than 10%	Sourced	Ajinomoto group factories in USA use starch of Maize for raw material of Amino acid fermentation. Maize need much fresh water while nurturing.

W1.2

(W1.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?

	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	100%	We monthly grasp and monitor total volumes of water withdrawals of all relevant sites through

		Ajinomoto group environmental performance survey. The parameter of water have been measured in our facilities of 100% for Ajinomoto group. Ajinomoto group has recognized that it is necessary to minimize the environmental impact by operation of our factories. We have recognized that it is the important step for plan implementation to measure general quantity and quality of total water intake. Therefore, we had made a plan non-financial targets of environment. According to targets, it is important for Ajinomoto group to measure the amount of withdrawals water and the quality of water. Therefore, we monthly monitor water amount used by water flowmeter such as Karman vortex, and consider its reduction based on the results.
Water withdrawals – volumes by source	100%	We monthly grasp and monitor volumes by source of all relevant sites through Ajinomoto group environmental performance survey. The parameter of water have been measured in our facilities of 100% for Ajinomoto group. Ajinomoto group has recognized that it is necessary to minimize the environmental impact by operation of our factories. We have recognized that it is the important step for plan implementation to measure general quantity and quality of water intake. Therefore, we had made a plan non-financial targets of environment. According to targets, it is important for Ajinomoto group to measure the amount of withdrawals water and the quality of water. Therefore, we monthly monitor water amount used by water flowmeter such as Karman vortex, and consider its reduction based on the results.
Water withdrawals quality	100%	We monthly grasp and monitor the quality of water withdrawals of all relevant sites through Ajinomoto group environmental performance survey. The parameter of water have been measured in our facilities of 100% for Ajinomoto group. Ajinomoto group has recognized that it is necessary to minimize the environmental impact by operation of our factories. We have recognized that it is the important step for plan implementation to measure general quantity and

		quality of water intake. Therefore, we had made a plan non-financial targets of environment. According to targets, it is important for Ajinomoto group to measure the amount of withdrawals water and the quality of water. Therefore, we monthly monitor water quality by PH meter, and consider its reduction based on the results.
Water discharges – total volumes	100%	We monthly grasp and monitor total volumes of water discharges of all relevant sites through Ajinomoto group environmental performance survey. The parameter of water have been measured in our facilities of 100% for Ajinomoto group. Ajinomoto group has recognized that it is necessary to conserve the environment by operation of our factories. We have recognized that it is the important step for plan implementation to measure discharges water volumes and quality. Therefore, we had made a plan non-financial targets of environment. According to targets, it is important for Ajinomoto group to measure the quantity and quality of discharges water. Therefore, we monthly monitor water amount used by water flowmeter such as Karman vortex, and consider its reduction based on the results.
Water discharges – volumes by destination	100%	We monthly grasp and monitor volumes by destination of water discharges of all relevant sites through Ajinomoto group environmental performance survey. The parameter of water have been measured in our facilities of 100% for Ajinomoto group. Ajinomoto group has recognized that it is necessary to conserve the environment by operation of our factories. We have recognized that it is the important step for plan implementation to measure discharges water volumes and quality. Therefore, we had made a plan non-financial targets of environment. According to targets, it is important for Ajinomoto group to measure the quantity and quality of discharges water by destination. Therefore, we monthly monitor water amount used by water flowmeter such as Karman vortex, and consider its reduction based on the results.

Water discharges – volumes by treatment method	100%	We monthly grasp and monitor volumes by treatment method of water discharges of all relevant sites through Ajinomoto group environmental performance survey. The parameter of water have been measured in our facilities of 100% for Ajinomoto group. Ajinomoto group has recognized that it is necessary to conserve the environment by operation of our factories. We have recognized that it is the important step for plan implementation to measure discharges water volumes and quality. Therefore, we had made a plan non-financial targets of environment. According to targets, it is important for Ajinomoto group to measure the quantity and quality of discharges water by treatment method. Therefore, we monthly monitor water amount used by water flowmeter such as Karman vortex, and consider its reduction based on the results.
Water discharge quality – by standard effluent parameters	100%	We monthly grasp and monitor water discharge quality by standard effluent parameters of all relevant sites through Ajinomoto group environmental performance survey. The parameter of water have been measured in our facilities of 100% for Ajinomoto group. Ajinomoto group has recognized that it is necessary to conserve the environment by operation of our factories. We have recognized that it is the important step for plan implementation to measure discharges water quality. Therefore, we had made a plan non-financial targets of environment. According to targets, it is important for Ajinomoto group to measure the quality of discharges water by standard effluent parameters. Therefore, we monthly monitor water quality by PH and TOC meter, and consider its reduction based on the results.
Water discharge quality – temperature	100%	We monthly grasp and monitor this data of all relevant sites through Ajinomoto group environmental performance survey. The parameter of water have been measured in our facilities of less than 25% for Ajinomoto group. Ajinomoto group has recognized that it is important to conserve the environment by

		operation of our factories. We have recognized that it is the important step for plan implementation to measure discharges water quality. Therefore, we had made a plan non-financial targets of environment. According to targets, it is important for Ajinomoto group to measure the quality of discharges water by standard effluent parameters. Therefore, we monthly monitor amount of water discharged by thermoelectric couple temperature meter.
Water consumption – total volume	100%	We monthly grasp and monitor water consumption volumes of all relevant sites through Ajinomoto group environmental performance survey. The parameter of water have been calculated in our facilities of 100% for Ajinomoto group. Ajinomoto group has recognized that it is necessary to conserve the environment by operation of our factories. We have calculated water consumption volumes. Therefore, we monthly monitor water amount used by water flowmeter such as Karman vortex, and consider its reduction based on the results.
Water recycled/reused	100%	We monthly grasp and monitor water recycled/reused data of all relevant sites through Ajinomoto group environmental performance survey. The parameter of water have been calculated in our facilities of 100% for Ajinomoto group. Ajinomoto group has recognized that it is necessary to conserve the environment by operation of our factories. We have measured amount of recycled/reused water. Therefore, we monthly monitor water amount used by water flowmeter such as Karman vortex, and consider its reduction based on the results.
The provision of fully-functioning, safely managed WASH services to all workers	100%	We monthly grasp and monitor this and information about the provision of fully-functioning, safely managed WASH services to all workers of all relevant sites through Ajinomoto group environmental performance survey. The parameter of water is watched in our facilities of 100% for Ajinomoto group. We consider it is important for our employee to lead healthy and comfortable life. Therefore, we recognize that offering safe water and the clean

		environment to the employee is obligation for us. Therefore, we monthly monitor water quality by chlorine residual meter, and consider keep quality based on the results.

W1.2b

(W1.2b) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, and how do these volumes compare to the previous reporting year?

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	60,000	Lower	Total withdrawals in FY2021 is lower than that of previous fiscal year by 7%, mainly because our effort to reduce water intensity succeeded, and the amount of production was lower than that of previous year by 3%. We are trying to reduce water consumption intensity by technology development, reducing, reusing, or recycling, therefore expect total consumption to be decreased in the future.
Total discharges	48,000	Lower	Total discharges in FY2021 is lower than that of previous fiscal year by 7%, mainly because our effort to reduce water intensity succeeded, and the amount of production was lower than that of previous year by 3%.We are trying to reduce water consumption intensity by technology development, reducing, reusing, or recycling, therefore expect total consumption to be decreased in the future.
Total consumption	12,000	Lower	Total consumption is lower than that of previous fiscal year by 6%, mainly because our effort to reduce water intensity succeeded, and the amount of production was lower than that of previous year by 3%. We are trying to reduce water consumption intensity by technology development, reducing, reusing, or recycling, therefore expect total consumption to be decreased in the future.

W1.2d

(W1.2d) Indicate whether water is withdrawn from areas with water stress and provide the proportion.

	Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Identification tool	Please explain
Row 1	Yes	Less than 1%	About the same	WRI Aqueduct	Ajinomoto group factories producing amino acid use much withdrawal water. We have assessed these 21 factories by AQUEDUCT and factory detail information. We input factories location latitude longitude data to AQUEDUCT, and utilized output information such as water related risk. By utilizing AQUEDUCT (Physical risk quantity, physical risk quality, regulatory & reputation risk) and detail information, we recognize which a few factories are exposed to high water stress. We have selected factory located in water stressed area in terms of focusing Baseline Water Stress and Groundwater Stress of the assessment results. The factory located in water stressed area among Ajinomoto group is only Peru. From the previous reporting fiscal year, the amount of water withdrawals from area with water stress has decreased by 3%.

W-FB1.2e

(W-FB1.2e) For each commodity reported in question W-FB1.1a, do you know the proportion that is produced/sourced from areas with water stress?

Agricultural commodities	The proportion of this commodity produced in areas with water stress is known	The proportion of this commodity sourced from areas with water stress is known	Please explain

Maize	Not applicable	Yes	We do not produce Maize. We do not source Maize from area under water stress (0%), because Ajinomoto Group Policies commit to fulfill social responsibility including environmental preservation. We assess suppliers based on “Ajinomoto Group Policies” (4.4 We involve our subcontractors and suppliers in our efforts to fulfill our social responsibilities, including environmental preservation and protection of human rights.) and “Group Shared Policy for Suppliers (5. Taking into Consideration the Global Environment), Guidelines for Group Shared Policy for Suppliers (5. Taking into Consideration the Global Environment). Therefore, we have not purchased raw material from water stress area. By using Aqueduct and factory detail information, we identify the area around Peru factory as water stressed area. Peru factory has used Sucrose or Cane Molasses for raw material. The factory has never used maize starch.

W-FB1.2g

(W-FB1.2g) What proportion of the sourced agricultural commodities reported in W-FB1.1a originate from areas with water stress?

Agricultural commodities	% of total agricultural commodity sourced from areas with water stress	Please explain
Maize	0%	Our factories will never use raw material from water stress area in the future, because Ajinomoto Group Policies commit to be fulfilled social responsibility including environmental preservation. We assess supplier based on “Ajinomoto Group Policies” (4.4 We involve our subcontractors and suppliers in our efforts to fulfill our social responsibilities, including environmental preservation and protection of human rights.) and “Group Shared Policy for Suppliers (5. Taking into Consideration the Global Environment), Guidelines for Group Shared Policy for Suppliers (5. Taking into Consideration the Global Environment). Therefore, we have not purchased raw material from water stress area. The Group head quarter is reported every month kinds and

		quantities their raw material by all Group factories to confirm no water stress. Peru factory has used Sucrose or Cane Molasses for raw material. The factory has never used maize starch, and will not use it for the future, therefore the 0% will stay the same. We have a policy not to source raw materials from water stressed area as our strategy. We check compliance of this policy every year.

W1.2h

(W1.2h) Provide total water withdrawal data by source.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	17,300	About the same	The volume of fresh surface water in FY 2021 is about the same that of previous fiscal year (higher than that of previous fiscal year by 2%), because the amount of production was lower than that of previous year by 3%. Ajinomoto group has used industrial water meter that accuracy is plus-minus 5% at 100% scale. Therefore, the group consider that under 5% difference data from previous fiscal year is within the range of metering error. We estimate that amount used may increase accompanying our merger and acquisition in the future, however, at the same time, we will reduce water consumption intensity by technology development, reducing, reusing, or recycling.
Brackish surface water/Seawater	Not relevant			The Ajinomoto Group does not use brackish surface water/seawater. It is because the Group produces amino

				acid and frozen food using only fresh water for the safety of people who eat our products. We had answered 'not relevant' of this data in previous reporting year.
Groundwater – renewable	Relevant	13,800	Higher	Until last year, we misunderstood the definitions of "renewable" and "non renewable". The groundwater we use is "renewable". The volume of groundwater is higher than that of previous fiscal year by 6%, mainly because the production volume of overseas factories that use ground water has increased . We are trying to reduce water consumption intensity by technology development, reducing, reusing, or recycling, therefore expect total consumption to be decreased in the future.
Groundwater – non-renewable	Not relevant			Until last year, we misunderstood the definitions of "renewable" and "non renewable". The groundwater we use is "renewable", and we have not used non-renewable groundwater. It is because the group produces amino acid and frozen food using only fresh water for the safety of people who eat our products.
Produced/Entrained water	Not relevant			The Ajinomoto Group has not used this kind of water. Because the Group produces amino acid and frozen food using only fresh water for the safety of people who eat our products. We had answered

				not relevant of this data in previous reporting year.
Third party sources	Relevant	28,900	Lower	The volume of third party sources is lower than that of previous fiscal year by 16%, because the amount of production was lower than that of previous year by 3%. We are trying to reduce water consumption intensity by technology development, reducing, reusing, or recycling, therefore expect total consumption to be decreased in the future.

W1.2i

(W1.2i) Provide total water discharge data by destination.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Relevant	36,700	Lower	The discharge volume of fresh surface water is lower than that of previous fiscal year by 9%, because the amount of production was lower than that of previous year by 3%, and we succeeded to implement measures to improve water efficiency such as technology development. Ajinomoto group produces amino acid, processed food and seasoning. We have recognized that a great deal of treated waste water have discharged to fresh surface water. Therefore, the Group has measured amount of this kind of water. Ajinomoto group has used water meter that accuracy is plus-minus 5% at 100% scale. Therefore the group consider that under 5% difference data from previous year is accident error. We assume that

				we are able to reduce approximately 5% volume/intensity of involved water after installing innovation new technology.
Brackish surface water/seawater	Not relevant			Ajinomoto group do not discharge to Brackish surface water/seawater. Because the group has produced amino acid and frozen food by fresh water for the safety of people eating our products. We had answered not relevant of this data from previous reporting year.
Groundwater	Not relevant			Ajinomoto group do not discharge to Groundwater. Because the group has produced amino acid and frozen food by fresh water for the safety of people eating our products, and doesn't use Groundwater, therefore we don't discharge to the groundwater. We had answered not relevant of this data from previous reporting year.
Third-party destinations	Relevant	11,300	About the same	Third party destinations is about the same (2% lower than the previous fiscal year). Because, amount of production was decreased by 3% from previous year, and we also succeeded in implementing measures to improve water efficiency such as technology development. Ajinomoto group produces amino acid, processed food and seasoning. We have recognized that a great deal of treated waste water have discharged to fresh surface water. Therefore, the Group has measured amount of this kind of water. Ajinomoto group has used water meter that accuracy is plus-minus 5% at 100% scale. Therefore the group consider that under 5% difference

				data from previous year is accident error. We assume that we are able to reduce approximately 5% volume/intensity of involved water after installing innovation new technology.

W1.2j

(W1.2j) Within your direct operations, indicate the highest level(s) to which you treat your discharge.

	Relevance of treatment level to discharge	Volume (megaliters/year)	Comparison of treated volume with previous reporting year	% of your sites/facilities/operations this volume applies to	Please explain
Tertiary treatment	Relevant	20,500	Lower	100%	Ajinomoto group has our own standard for the quality of water discharged, BOD is under 10ppm, TN is under 5ppm, which is confirmed to be higher than every local regulation. We have confirmed for reporting year that all of our discharged water pass our own standards, which is stricter than

					local regulation. If our factories treat waste water by themselves, our factories should install tertiary treatment for all of the water discharged from our production process. Our water discharge itself has decreased from last year, the amount of tertiary treatment also decreased.
Secondary treatment	Not relevant				Ajinomoto has a policy to provide tertiary treatment to all of our discharged water, therefore secondary treatment is not relevant.
Primary treatment only	Not relevant				Ajinomoto has a policy to provide tertiary treatment to all of our

					discharged water, therefore primary treatment is not relevant.
Discharge to the natural environment without treatment	Relevant	16,200	About the same	100%	Ajinomoto group has our own standard for the quality of water discharged, BOD is under 10ppm, TN is under 5ppm, which is confirmed to be higher than every local regulation. We have confirmed for reporting year that all of our discharged water pass our own standards, which is stricter than local regulation. Water discharged to the natural environment without treatment is limited to the water

					used for indirect cooling of surface water, and confirmed to pass Ajinomoto's standards for the reporting year.
Discharge to a third party without treatment	Relevant	11,300	About the same	100%	Ajinomoto group has our own standard for the quality of water discharged, BOD is under 10ppm, TN is under 5ppm, which is confirmed to be higher than every local regulation. We have confirmed for reporting year that all of our discharged water pass our own standards, which is stricter than local regulation. Water discharged to a theird

					party without treatment is limited to the water used for indirect cooling of surface water, and confirmed to pass Ajinomoto's standards for reporting year.
Other	Not relevant				We have no other water discharge rather than relevant types above. We have policy to make sure all discharged water is above our own standards, which are confirmed to be higher than local regulations.

W1.3

(W1.3) Provide a figure for your organization's total water withdrawal efficiency.

	Revenue	Total water withdrawal volume (megaliters)	Total water withdrawal efficiency	Anticipated forward trend

Row 1	1,149,370,000,000	60,000	19,156,166.6666667	We are trying to reduce water withdrawal intensity by technology development, reducing, reusing, or recycling, therefore expect total consumption to be decreased in the future.

W-FB1.3

(W-FB1.3) Do you collect/calculate water intensity for each commodity reported in question W-FB1.1a?

Agricultural commodities	Water intensity information for this produced commodity is collected/calculated	Water intensity information for this sourced commodity is collected/calculated	Please explain
Maize	Not applicable	Yes	Ajinomoto group factories have measured and evaluated every month productivity based on input unit consumption of raw material and fuel and energy and water. Only Ajinomoto group factories in USA use maize starch. Ajinomoto group factories in USA also have measured and evaluated every month productivity based on unit consumption of raw material (Maize starch also) and so on. Ajinomoto group has assessed water footprint of some products for understanding water risk. Ajinomoto group had evaluated water footprint of products in USA using water inventory of maize starch and so on. Water risk of these products are not so serious. Water intensity in this question is cited from Water Footprint Network. Therefore, water intensity value of maize is the same as previous year. Comparison with the previous reporting year is same as this year because we had just referred from Water footprint

			Network. Water intensity will be lower in the future. Nevertheless, the group factories including in USA have been analyzing and decreasing input unit consumption of raw material by developing new strain.

W-FB1.3b

(W-FB1.3b) Provide water intensity information for each of the agricultural commodities identified in W-FB1.3 that you source.

Agricultural commodities

Maize

Water intensity value (m3)

757.8

Numerator: Water aspect

Freshwater withdrawals

Denominator

Tons

Comparison with previous reporting year

About the same

Please explain

Only Ajinomoto group factories in USA use maize starch. Ajinomoto group factories including in USA have measured and evaluated every month productivity based on unit consumption of raw material (Maize starch also) and so on. Ajinomoto group have assessed water footprint of some products for understanding water risk. Ajinomoto group had evaluated water footprint of products in USA using water inventory of maize starch and so on. Water risk of these products are not so serious. Water intensity in this question is cited from Water Footprint Network. Therefore, water intensity value of maize is the same as previous year. Comparison with the previous reporting year is same as this year because we had just referred from Water footprint Network. Water intensity will be lower in the future. Nevertheless, the group factories including in USA have been analyzing and decreasing input unit consumption of raw material by developing new strain.

W1.4

(W1.4) Do you engage with your value chain on water-related issues?

Yes, our suppliers

W1.4a

(W1.4a) What proportion of suppliers do you request to report on their water use, risks and/or management information and what proportion of your procurement spend does this represent?

Row 1

% of suppliers by number

Less than 1%

% of total procurement spend

1-25

Rationale for this coverage

We have requested answering CDP Supply chain program to our suppliers that are big chemical companies and the main raw material companies in Thailand and Brazil and France and USA. The reason why we selected these suppliers is water footprint account for 90% by raw material such as amino acid, although it only account for less than 25% of procurement spend. We consider that decreasing water dependency should be tackled by cooperating with raw material suppliers. We consider that we are going to expand the number of our suppliers step by step. The first step as 2017 had selected large suppliers which respond to CDP. The second step as 2018-2022 has added critical suppliers. Instead of requesting all of our suppliers on their water use, we have investigated the water consumption, the water risk and the management of water about raw material by Water Footprint and WBCSD global water tool and AQUEDUCT and choose suppliers in order to cover 90% of water footprint. Our major of success for this first step of our engagement is the response rate to the CDP supply chain program to exceed 80% of response rate. In the reporting year, the repose rate was 67%, therefore we were unable to achieve our measure of success. We are trying to improve the response rate by actively contacting our suppliers and requesting their cooperation. We use the information to understand which suppliers take necessary measure to manage water risk, and apply long-term contract for good suppliers.

Impact of the engagement and measures of success

The information that we asked for suppliers; Ajinomoto group had asked selected suppliers to answer and disclose all water information such as water use, risk and/or management at CDP Supply chain program. How we use the information; The group had analyzed water withdrawal intensity compared same business category from CDP Supply chain program. The measures of success; The group considers the engagement as a success, when water consumption of our suppliers start to decrease. We make efforts to get suppliers' information of water use, risk and/or management. In order to collect the information effectively, we have requested our suppliers to mention about their environmental protection and CSR active by showing "Guideline for Group Shared Policy for Suppliers". By using the information that we get from suppliers, we try to decrease water-related impact by suppliers. We will apply long-term contract for good suppliers.

Comment

Ajinomoto group has joined CDP supply chain program and SEDEX. Therefore, via CDP supply chain program, they are to be evaluated in our supplier score card.

W1.4b

(W1.4b) Provide details of any other water-related supplier engagement activity.

Type of engagement

Innovation & collaboration

Details of engagement

Provide training and support on sustainable agriculture practices to improve water stewardship

% of suppliers by number

1-25

% of total procurement spend

1-25

Rationale for the coverage of your engagement

The Ajinomoto Group produces the amino acids used in its products through fermentation processes from crops that are easily available in each region. Nearly 100% of the nutritionally rich by-products (co-products) that remain after extracting amino acids in the fermentation process are then used as fertilizer and feed. The Group considers such recycling-based amino acid fermentation processes that procure sustainable agricultural production while enriching regional agriculture as “bio-cycles.” These bio-cycles are a means of simultaneously contributing to reliable supplies of food resources and realizing sustainable agriculture. For this reason, the Group is introducing these cycles at its fermentation factories worldwide. Leveraging its accumulated expertise, the Group is also actively guiding farmers on raising value-added crops and quality control, provide training and support on sustainable agriculture practices to improve water stewardship.

Impact of the engagement and measures of success

For example, 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.

Comment

None

Type of engagement

Innovation & collaboration

Details of engagement

Provide training and support on sustainable agriculture practices to improve water stewardship

% of suppliers by number

Less than 1%

% of total procurement spend

Less than 1%

Rationale for the coverage of your engagement

Water is an indispensable ingredient in the bottled and instant coffee products made by Ajinomoto AGF, Inc. The company's production bases, AGF Suzuka, Inc. and AGF Kanto, Inc., withdraw water from the Suzuka River and Arato River (a tributary of the Tone River), whose sources trace back to forests located in the foothills of the Suzuka Mountains and the south foothills of Mount Akagi, respectively. Forest of Blendy ® is an initiative aimed at conserving these forests for future generations by actively managing a portion of them and learning the importance of sustaining wildlife and clean water.

Impact of the engagement and measures of success

The company's production bases, AGF Suzuka, Inc. and AGF Kanto, Inc., withdraw water from the Suzuka River and Arato River (a tributary of the Tone River), whose sources trace back to forests located in the foothills of the Suzuka Mountains and the south foothills of Mount Akagi, respectively. Forest of Blendy ® is an initiative aimed at conserving these forests for future generations by actively managing a portion of them and learning the importance of sustaining wildlife and clean water. As of March 2017, groundwater (recharge volume) from the Forest of Blendy ® accounted for about 20% of the water used in Blendy ® bottled coffee produced at two factories. Ajinomoto AGF, Inc. aims to expand the area to five times compared to the size as of March 2017 by fiscal 2025 to cover all of the water used in the product with groundwater (recharge volume) supplied by Forest of Blendy ®. As of March 2018, the contract area was expanded to 21.8 ha in sum, which is about 4.2 times.

Comment

None

Type of engagement

Onboarding & compliance

Details of engagement

Requirement to adhere to our code of conduct regarding water stewardship and management

% of suppliers by number

76-100

% of total procurement spend

76-100

Rationale for the coverage of your engagement

We have asked all suppliers for Ajinomoto Co., Inc. to abide "Guideline for Group Shared Policy for Suppliers".
In fiscal 2018, the Group held explanatory meetings and issued written notices to primary suppliers in Japan in preparation for requesting that they join and share data through Sedex.

Impact of the engagement and measures of success

In 2016, the Group had conducted another supplier survey to promote mutual understanding by confirming whether the Group and its suppliers were achieving adequate two-way communication in accordance with company standards, and by incorporating supplier requests into future policies and actions. The Group also developed a self-assessment questionnaire (SAQ) for suppliers to assess performance on socially responsible procurement. It has periodically asked suppliers to answer the SAQ and we provide feedback on their responses. SAQ include items on fostering pleasant working environments, fulfilling social responsibility obligations, and food defense management in production bases. The measures of success; The Group has evaluated and communicated with suppliers using Sedex from fiscal 2019, it also collect information from suppliers that do not join by asking them to respond to a self-assessment questionnaire similar to that used by Sedex. We set the response rate of self-assessment questionnaire as as our measure of success, and consider achieving 100% as success. Participation in 2018: 340 suppliers.

Comment

The Group held explanatory meetings and issued written notices to primary suppliers in Japan in preparation for requesting that they join and share data through Sedex. The Group has evaluated and communicated with suppliers using Sedex from fiscal 2019, and it also collect information from suppliers that do not join by asking them to respond to a self-assessment questionnaire similar to that used by Sedex.

W2. Business impacts

W2.1

(W2.1) Has your organization experienced any detrimental water-related impacts?

No

W2.2

(W2.2) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?

No

W3. Procedures

W-FB3.1

(W-FB3.1) How does your organization identify and classify potential water pollutants associated with its food, beverage, and tobacco sector activities that could have a detrimental impact on water ecosystems or human health?

The method used to identify the potential water pollutants and details on whether the company follows an established standard; Ajinomoto group manufactures several kinds of amino acid, many processed food and seasoning. The Group factories which produce several kinds of amino acids among the Group products, have used much water for starch raw material dissolution and products/facilities for cleaning, and have used much nitrogen for fermentation. Discharged waste water from these Group factories contain nitrogen and biochemical oxygen demand (BOD). There are waste water quality regulations of nitrogen and BOD for preventing detrimental impacts on water ecosystems and human health at all concerned area of these Group factories. The group has set voluntary waste water standard about nitrogen and BOD, there is no country with regulations that go beyond our voluntary standard now. Our voluntary waste water standards are BOD ≦10ppm and total-nitrogen <5ppm. The Group factories have measured every day BOD and total-nitrogen of their treated waste water before discharge to confirm preserving the Group voluntary standard and prevent water pollution. The Group is committed to developing water-saving processes. Our target is: Water consumed per unit of production 80% or more reduction (compared to fiscal 2005).
What types of water-related impacts on ecosystems and human health; Among the Group, factories producing amino acid consume much water and much ammonia and so on. There are discharged waste water contained high concentration nitrogen from facilities in these factories. There are waste water quality regulations of nitrogen and BOD for preventing detrimental impacts on water ecosystems and human health at all concerned area of these Group factories. The group has identified potential water pollutants associated with its discharged treatment waste water that could have a detrimental impact on water ecosystem and human health. Therefore, to reduce the high concentration of nitrogen and high levels of biochemical oxygen demand (BOD) in process effluent from the production of amino acid fermentation-related products, the Ajinomoto Group has implemented measures to control pollutant sources, and has developed advanced treatment technologies best suited to the quality of effluent water at each site. Our voluntary waste water standards are BOD ≦10ppm and total-nitrogen <5ppm. This is half the harshest requirement value (20ppm) from any regulation in the world. In addition, based on its belief that it is vital to minimize water usage, the Group is committed to developing water-saving processes. Our target is Water consumed per unit of production 80% or more reduction (compared to fiscal 2005). The Group factories have measured every day

BOD and total-nitrogen of their treated waste water before discharge to confirm preserving the Group voluntary standard and prevent water pollution. The group have assessed water footprint of amino acid products for identifying potential water pollutants associated with entire our value chain. The group had evaluated water footprint of products in USA using water inventory of maize starch and so on. Water risk of these products are not so serious.
Information on whether and how the water-related impacts considered vary across the value chain: In our own operation our policies and process follow the same standards, however, even though we ask suppliers to follow same standards Ajinomoto set, the speed of implementation is slower for suppliers. Also, some suppliers are farmers, therefore the impact is different according to the region it sited, and the magnitude of impact by climate change.

W-FB3.1a

(W-FB3.1a) Describe how your organization minimizes the adverse impacts of potential water pollutants on water ecosystems or human health associated with your food, beverage, and tobacco sector activities.

Potential water pollutant

Food additives

Activity/value chain stage

Manufacturing – direct operations

Description of water pollutant and potential impacts

Ajinomoto group manufactures several kinds of amino acid, many processed food and seasoning. The Group factories which produce several kinds of amino acids among the Group products, have used much water for starch raw material dissolution and products/facilities for cleaning, and have used much nitrogen for fermentation. Discharged wastewater from these Group factories contain nitrogen and biochemical oxygen demand (BOD). Increasing BOD, that is low oxygen by increasing organic substance in river, fishes and plants in river cannot live by much pollution of no natural depuration. Biodiversity in river is destroyed.

Management procedures

Waste water management
Product innovation
Follow regulation standards

Please explain

There are wastewater quality regulations of nitrogen and BOD for preventing detrimental impacts on water ecosystems and human health at all concerned area of these Group factories. As waste water management , the group has set voluntary wastewater standard about nitrogen and BOD, there is no country with regulations that go beyond our voluntary standard now. Our voluntary waste water standards are BOD ≦10ppm and total-nitrogen <5ppm. This is half the harshest requirement value (20ppm) from any regulation in the world, therefore we follow regulation standards in all of our operation. In addition, based on its belief that it is vital to minimize water usage, the Group is

committed to developing water-saving processes as product innovation of the monosodium glutamate production process. The Group is committed to developing water-saving processes. Our target is: Water consumed per unit of production 80% or more reduction (compared to fiscal 2005).
The group have assessed water footprint of amino acid products for identifying potential water pollutants associated with entire our value chain. The group had evaluated water footprint of products in USA using water inventory of maize starch and so on. Water risk of these products are not so serious.
We evaluate all treated wastewater quality and evaluate as success when BOD is under 10 ppm and nitrogen under 5 ppm. In the reporting year all wastewater were confirmed to be under 10 ppm for BOD, under 5 ppm for nitrogen.

Potential water pollutant

Wastewater and sludge with high organic or suspended solids content

Activity/value chain stage

Manufacturing – direct operations

Description of water pollutant and potential impacts

Ajinomoto group manufactures several kinds of amino acid, many processed food and seasoning. The Group factories which produce several kinds of amino acids among the Group products, have used much water for starch raw material dissolution and products/facilities for cleaning, and have used much nitrogen for fermentation. Discharged wastewater from these Group factories contain nitrogen and biochemical oxygen demand (BOD). Increasing BOD, that is low oxygen by increasing organic substance in river, fishes and plants in river cannot live by much pollution of no natural depuration. Biodiversity in river is destroyed.

Management procedures

Waste water management
Product innovation
Follow regulation standards

Please explain

There are wastewater quality regulations of nitrogen and BOD for preventing detrimental impacts on water ecosystems and human health at all concerned area of these Group factories. As waste water management, the group has set voluntary wastewater standard about nitrogen and BOD, there is no country with regulations that go beyond our voluntary standard now. Our voluntary waste water standards are BOD ≦10ppm and total-nitrogen <5ppm. This is half the harshest requirement value (20ppm) from any regulation in the world, therefore we follow regulation standards in all of our operation. In addition, based on its belief that it is vital to minimize water usage, the Group is committed to developing water-saving processes as product innovation . The Group is committed to developing water-saving processes. Our target is: Water consumed per unit of production 80% or more reduction (compared to fiscal 2005).
The group has identified potential water pollutants associated with its discharged treatment wastewater that could have a detrimental impact on water ecosystem and

human health. There are high risks, if our factories discharge wastewater contains high levels of BOD, our factories cannot continue operation by claim of neighborhood and regulator. Therefore, to reduce the high concentration of nitrogen and high levels of BOD in process effluent from the production of amino acid fermentation-related products, the Group has implemented measures to control pollutant sources, and has developed advanced treatment technologies best suited to the quality of effluent water at each site.
The group have assessed water footprint of amino acid products for identifying potential water pollutants associated with entire our value chain. The group had evaluated water footprint of products in USA using water inventory of maize starch and so on. Water risk of these products are not so serious.
We evaluate BOD as our measure of success, and evaluate as success when BOD exceeds under 10 ppm. In the reporting year all wastewater were confirmed to be under 10 ppm for BOD.

Potential water pollutant

Fertilizers

Activity/value chain stage

Agriculture – supply chain

Description of water pollutant and potential impacts

If farmers use too much chemical fertilizers, their farmland is polluted by chemical fertilizers. Much toxic chemical in chemical fertilizer remain soil of farmland and expand to underground water. Neighborhood people are affected health impact by drinking polluted underground water and eating agricultural crop cultivated on polluted farmland.

Management procedures

Soil conservation practices
Crop management practices
Fertilizer management

Please explain

The Ajinomoto group has started to sell organic fertilizer to substitute traditionally used chemical fertilizer.
In the process of producing the organic fertilizers, Ajinomoto succeed to conserve soil, manage crops, and fertilizer as explained below.
The 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. The 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. There is risk that mistake timing of the fertilizer application no effect agricultural crop. Since the fertilizer application way of our co-products is very important, our sales representative teach farmers the correct fertilizer application way. 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 the 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.
The co-products research is also being conducted on turning them into higher value-added agricultural materials with nutritionally balanced amino acids. Going forward, the Group will continue creating bio-cycle models that are beneficial to all three parties: local farmers, food processing industries, and the Group.
We are trying to evaluate Scope 3 category 1 as our measure of success, and evaluate when Scope 3 category 1 exceeds the value of previous year.

W3.3

(W3.3) Does your organization undertake a water-related risk assessment?

Yes, water-related risks are assessed

W3.3a

(W3.3a) Select the options that best describe your procedures for identifying and assessing water-related risks.

Value chain stage

Direct operations
Supply chain

Coverage

Full

Risk assessment procedure

Water risks are assessed as part of an established enterprise risk management framework

Frequency of assessment

Annually

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Tools on the market

International methodologies and standards

Tools and methods used

SEDEX
WRI Aqueduct
IPCC Climate Change Projections

Contextual issues considered

Implications of water on your key commodities/raw materials

Stakeholders considered

Suppliers

Comment

Products in the Ajinomoto Group's business domains range from food such as seasonings, frozen foods and coffee to healthcare. Further, our operations span the globe. Climate change may impact Group operations in many ways. Major natural disasters may become diminished our business activities, affecting our ability to procure raw materials and fuel. Disasters may also alter the consumption of our products.
We review production over the short, medium, and long terms, considering the physical risks of climate change (droughts, floods, rising sea levels, changes in yield of our main raw materials, etc.) and transition risks (introduction of carbon tax, rising energy prices, tight supply and demand and price increases of our main raw materials due to competition with other food sources and biofuels, etc.).
In fiscal 2019, the Ajinomoto Group has conducted a scenario analysis of the potential impact of climate change in fiscal 2050 under the assumption that the average temperature will rise by 2°C for all production sites by 2100 modeled using our mainstay umami seasoning AJI-NO-MOTO®. In fiscal 2020, we expanded this analysis to cover other mainstay products such as foods and specialty chemicals and analyzed the impacts in fiscal 2030 in the events that the average temperature rises
by 2°C and 4°C, respectively, by 2100.
As a result, we estimated there to be an impact of approximately 20 billion yen by fiscal 2030, and 30 billion yen by fiscal 2040 from increased risk of higher energy unit prices and higher carbon tax payments due to the advancement of low-carbon societies. When considering procurement of raw materials in fiscal 2030, we expect yields of sugarcane, tapioca, etc. to remain stable. However, increased water stress in production areas, more widespread pests and diseases, and more infectious diseases in livestock may result in more instability in the procurement of corn, pork, and dairy products, etc., or an increase in unit prices. Additionally, more severe and frequent wind and water damage are expected to have an impact on raw material production volumes and distribution.
For fishery resources, we predicted that quantities of skipjack tuna would remain stable, however procuring the extract could be problematic.

W3.3b

(W3.3b) Describe your organization's process for identifying, assessing, and responding to water-related risks within your direct operations and other stages of your value chain.

We have considered implications of water on our key raw materials and suppliers in our risk analysis, because most of our suppliers are farmers, because raw material of amino acid, which is the main product of Ajinomoto group, is agricultural crops, and needs high quality water for production. By this reason, we have investigated the water consumption, the water risk and the management of water for raw material by Water Footprint and WBCSD global water tool and AQUEDUCT once a every fiscal year covering direct operation and whole supply chain. Once we evaluated results of assessment, for example, we reported the results of the scenario analysis to the Sustainability Committee and used them to consider possible measures in the future.
[Drought impact to direct operation] We have set key targets to reduce discharged water and water consumption by 80% compared to the level of FY 2005. We have improved position of water intake as necessary, while regularly conducting maintenance of water intake. [Flood impact to direct operation] We have investigated Business Continuity Plan. As part of the investigation on the BCP, we have improved the height of plant outer wall and others. Foods and clothes are kept in our plants for operators to continue manufacturing even if supply chain stops. We have reviewed and revised Business Continuity Plan every fiscal year. [Drought and Flood impact to suppliers] The level of water risk of agricultural crop is high. There is a huge coverage area where suppliers and facilities of agricultural irrigation are located. Therefore, we have purchased raw material from a number of area and suppliers.
The risk of water scarcity which directly affect the operation exists at present. When large-scale diversion dam in the upstream region where the country border was made, there is a fear that a drought occurs in the downstream. The drought would cause a water shortage and a rise in the price of the water. Therefore we will stop operating a factory if it occurs. In order to secure the endurance of the business, we have worked on dispersing our production base all over the world.

W4. Risks and opportunities

W4.1

(W4.1) Have you identified any inherent water-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes, both in direct operations and the rest of our value chain

W4.1a

(W4.1a) How does your organization define substantive financial or strategic impact on your business?

The definition of substantive financial or strategic impact including the information on the indicator and the threshold to identify substantive change; Taking into account the business environment including political, economic, and social conditions across the globe, the Ajinomoto Group has identified Group-wide risks that require cross-organizational management based on comprehensive consideration of factors including the potential impact (<1~100< billion-yen, 5-point scale), possibility of occurrence (<1/100-year~1/1-year, 5-point scale), and level of the risks. 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.
Materiality items identified Group-wide risks are as follow : [Global sustainability] Climate change adaptation and mitigation, Contribution to a circular economy, Conservation of water resources, : [Food resources] Sustainable materials sourcing, Reduction of food loss and waste. Regarding our business and operations, if our factory stops operation just 1 day, this accident has been defined substantive change in our business, because the production of amino acids needs several days. Amino acids is one of the main products of Ajinomoto group. Ajinomoto group produces sold amino acid, seasoning, processed food in 130 countries. Most of our suppliers are farmers, because raw material of amino is agricultural crops.
One example of substantive impact is considered; We have an amino acid fermentation production plant in Vietnamese Mekong river basin. In the worst scenario, there is a possibility to happen to be lacking in the water used in farms and in our factories. In other words, there is a risk our factory suspends our operation.
Scope of application of the definition; These definitions are applied to direct operations and supply chain. In order to avoid the substantive financial or strategic impact, each factory has high walls water and waste water stock pond and raw material warehouse to avert flood and drought. The business continue plan activity by each factory has applied regional climate history such as flood and drought. For example, there are walls, ponds and warehouses at Ayutthaya factory in Thailand. We have made a plan of independent waste water quality standard at non-financial targets of environment. The self-standard is the severest one than any other severe standards in the world.

W4.1b

(W4.1b) What is the total number of facilities exposed to water risks with the potential to have a substantive financial or strategic impact on your business, and what proportion of your company-wide facilities does this represent?

	Total number of facilities exposed to water risk	% company-wide facilities this represents	Comment
Row 1	3	1-25	In the worst case in this basin, both of direct factory operation and raw material production are exposed to flood and drought risk.

W4.1c

(W4.1c) By river basin, what is the number and proportion of facilities exposed to water risks that could have a substantive financial or strategic impact on your business, and what is the potential business impact associated with those facilities?

Country/Area & River basin

Thailand
Chao Phraya

Number of facilities exposed to water risk

3

% company-wide facilities this represents

1-25

% company's total global revenue that could be affected

1-10

Comment

In the worst case in this basin, both of direct factory operation and raw material production are exposed to flood and drought risk.

W4.2

(W4.2) Provide details of identified risks in your direct operations with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Area & River basin

Thailand
Chao Phraya

Type of risk & Primary risk driver

Acute physical
Flood (coastal, fluvial, pluvial, groundwater)

Primary potential impact

Supply chain disruption

Company-specific description

Ajinomoto group manufactures several kinds of amino acid, many processed food and seasoning. The Group factories which produce several kinds of amino acids among the Group products, have used much water for starch raw material dissolution and products/facilities for cleaning. If flood occur and surface water is polluted, our factories cannot continue operation.
How the impact identified will uniquely affect our direct operations; The factories in Thailand are important base of amino acid and food production of the Group. Amount of production and sales and profit at these factories account for over 10% of that of the whole Group profit. So when flood occur in Thailand, surface water around the factories in Thailand will be polluted, and will not be able to continue producing amino acids for several days. We have 3 factories in Thailand with relatively high risk of flood. All of them sited along the Chao Phraya river, because the factories need to use the water for the production. It has occured floods on the Chao Phraya river during past a few decade.
The method for identifying the impact "Supply chain disruption"; Ajinomoto Co., Inc. enhance its sustainability promotion framework in order to continuously increase corporate value from the perspective of sustainability. 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. Among our risks, we also consider global climate change risk and water related issues because our main raw materials are crops dependence to water. The Sustainability Committee report to the Executive Committee.
Each organizational unit and group company appoints a person responsible for risk management (general manager) and risk personnel who conduct their own management using the PDCA cycle. Aggregating and analyzing these bottom-up risks gives a clear overview of risk trends across the Ajinomoto Group.

Timeframe

1-3 years

Magnitude of potential impact

Medium-high

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

100,000,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

The factories in Thailand are important base of amino acid and food production of Ajinomoto group. Amount of production and sales and profit at these factories account for over 10% of Ajinomoto group of the world. Sales of Ajinomoto group is approximately 1000 billion JPY. Therefore, we calculate potential financial impact 100 billion JPY.

Primary response to risk

Increase capital expenditure

Description of response

Our strategy to respond to this risk is, to 1) Monitor drought and flood to be well prepared, 2) build a wall to prevent/reduce water inflow.
[Case study]
At Ayutthaya factory in Thailand, where we produce MSG, it experienced flood in 2011, and factory construction work stopped at the time, caused serious damage to the

construction schedule.
While Ayutthaya factory operation, the Factory will cause serious damage to the production. Therefore, Ajinomoto decided to extend 0.5 meter high wall in 2011. It is approximately 3000 meter long, and covers all of the factory side facing the Chaopraya river. The construction finished in 2012.
As a result, in 2021 when rather heavy rain occurred, Ayutthaya factory did not suffer from water inflow, and could continue business as usual.

Cost of response

260,000,000

Explanation of cost of response

We had installed 1 meter high wall than initial design at Ayutthaya factory in Thailand. Because Ayutthaya factory had experienced not foreseen flood. Ayutthaya factory had spent additional expenditure about 95 mTHB (about 260,000,000 yen) as this higher wall.

W4.2a

(W4.2a) Provide details of risks identified within your value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

Country/Area & River basin

Thailand
Chao Phraya

Stage of value chain

Supply chain

Type of risk & Primary risk driver

Acute physical
Flood (coastal, fluvial, pluvial, groundwater)

Primary potential impact

Supply chain disruption

Company-specific description

The method for identifying the impact "Supply chain disruption"; Ajinomoto group manufactures several kinds of amino acid, many processed food and seasoning. The Group factories which produce several kinds of amino acids among the Group products, have used much water for starch raw material dissolution and products/facilities for cleaning. If flood occur and surface water is polluted, our factories cannot continue operation.
How the impact identified will uniquely affect our direct operations; The factories in Thailand are important base of amino acid and food production of the Group. Amount of production and sales and profit at these factories account for over 10% of that of the

whole Group profit. So when flood occur in Thailand, surface water around the factories in Thailand will be polluted, and will not be able to continue producing amino acids for several days. We have 3 factories in Thailand with relatively high risk of flood. All of them sited along the Chao Phraya river, in order to be able to use the water. It has occurred floods on the Chao Phraya river during past a few decade.
The method for identifying the impact "Supply chain disruption"; 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. Among our risks, we also consider global climate change risk and water related issues because our main raw materials are crops dependence to water. The Sustainability Committee report to the Executive Committee.
Each organizational unit and group company appoints a person responsible for risk management (general manager) and risk personnel who conduct their own management using the PDCA cycle. Aggregating and analyzing these bottom-up risks gives a clear overview of risk trends across the Ajinomoto Group.

Timeframe

1-3 years

Magnitude of potential impact

Medium-high

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

100,000,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

The factories in Thailand are important base of amino acid and food production of Ajinomoto group. Amount of production and sales and profit at these factories account for over 10% of Ajinomoto group of the world. Sales of Ajinomoto group is approximately 1000 billion JPY. Therefore, we calculate potential financial impact 100 billion JPY.

Primary response to risk

Direct operations

Include in Business Continuity Plan

Description of response

We set BCP(Business Continuity Plan) plan as follows. 1. We have secured a raw material supplier in more than one area. The cost is less than 5% rise of the raw material costs for this. There is almost no financial influence. 2. We have researched and developed new production technology. Our expenditure for Research and Development is more than 30 billion yen per year. These theme are (1) reducing major raw materials use by maximizing bacterial productivity, (2) reducing auxiliary materials use and water discharge and so on. We're freed by this measure from raw material risk by water risk.

Cost of response

1,000,000,000

Explanation of cost of response

Amount of production and sales and profit at these factories account for over 10% of Ajinomoto group of the world. Sales of Ajinomoto group is approximately 1000 billion JPY. Sales of Ajinomoto group in Thailand is approximately 100 billion yen. The cost of main raw material is approximately 25 billion yen, account for 25% of the sales. Therefore, raw material cost rise is 1 billion yen, in order to secure a raw material supplier in more than one area, as described above.

W4.3

(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes, we have identified opportunities, and some/all are being realized

W4.3a

(W4.3a) Provide details of opportunities currently being realized that could have a substantive financial or strategic impact on your business.

Type of opportunity

Efficiency

Primary water-related opportunity

Improved water efficiency in operations

Company-specific description & strategy to realize opportunity

By installing the new system with high specification, we are able to decrease the amount of water withdrawals. By reducing the amount of water withdrawals, we have improved water efficiency and reduced our cost for production by reduction of water flow. The Ajinomoto Group has conducted installing the new system which reduce the amount of

water used in the process of producing amino acid. We installed similar systems in approximately 10 factories in all the Group from 2006 to 2016. For example, Ajinomoto Vietnam had installed some water economize systems to decrease water withdrawals from 27 million tonnes in 2005 to 1.7 million tonnes in 2016.

Estimated timeframe for realization

1 to 3 years

Magnitude of potential financial impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

5,000,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

There became much more quantity of the amino acid producing in our company than any other companies more effectively. Our plants installed waste treatment system with high specification. Regarding amino acid, we have two advantages comparing with other companies. First one is that the amino acid we produce has the good quality. Second one is that we have the knowledge about how to utilize amino acid. We make an effort for the spread of feed and market development with an amino acid in the drought area by uniting the validity of this amino acid for a customer. Explanation of feed contained amino acid (low protein feed) is follow. Soybean meal contents of Low protein feed which is supplemented industrial manufactured amino acid instead of essential amino acid of soybean meal is over 10% lower than conventional feed. As coordinating metabolic energy, amount of wheat in low protein feed are over 20% higher than conventional feed. However, soybean meal water consumption inventory over 1000 (m3/t-raw material) is 3 times higher than wheat water consumption inventory a few hundreds (m3/t-raw material), soybean meal content of low protein feed is over 10% lower than conventional feed, therefore water footprint of low protein feed is lower than conventional feed. Water risk will become higher, pig farmers change to apply low protein feed and feed use amino acid supply by Ajinomoto group will be increase more. Therefore, potential financial impact will be 5 billion JPY which was calculated as 2% of revenue of the Health care business segment.

W5. Facility-level water accounting

W5.1

(W5.1) For each facility referenced in W4.1c, provide coordinates, water accounting data, and a comparison with the previous reporting year.

Facility reference number
Facility 1

Facility name (optional)
Ayutthaya factory

Country/Area & River basin
Thailand
Chao Phraya

Latitude
14.35

Longitude
100.58

Located in area with water stress
Yes

Total water withdrawals at this facility (megaliters/year)
1,940

Comparison of total withdrawals with previous reporting year
Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
1,940

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources

0

Total water discharges at this facility (megaliters/year)

1,940

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

1,940

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

0

Comparison of total consumption with previous reporting year

About the same

Please explain

This factory data at previous year were withdrawals 2076 (mega-litters), discharges 2076 (mega-litters), consumption 0 (mega-liters). The Ajinomoto group has used industrial water meter that accuracy is plus-minus 5% at 100% scale. Therefore the group consider that under 10% difference data from previous year is accident error.

Facility reference number

Facility 2

Facility name (optional)

Kamphaeng Phet factory

Country/Area & River basin

Thailand

Chao Phraya

Latitude

16.47

Longitude

99.53

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

2,830

Comparison of total withdrawals with previous reporting year

About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

2,830

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

0

Total water discharges at this facility (megaliters/year)

1,376

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

1,376

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

1,454

Comparison of total consumption with previous reporting year

Lower

Please explain

This factory data at previous year were withdrawals 3140 (mega-litters), discharges 1414 (mega-litters), consumption 1726 (mega-liters). The Ajinomoto group has used

industrial water meter that accuracy is plus-minus 5% at 100% scale. Therefore the group consider that under 10% difference data from previous year is accident error.

Facility reference number

Facility 3

Facility name (optional)

Phra Pradaeng factory

Country/Area & River basin

Thailand

Chao Phraya

Latitude

13.66

Longitude

100.53

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

53

Comparison of total withdrawals with previous reporting year

Much lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

53

Total water discharges at this facility (megaliters/year)

7

Comparison of total discharges with previous reporting year

Much lower

Discharges to fresh surface water

7

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

46

Comparison of total consumption with previous reporting year

Much lower

Please explain

This factory data at previous year were withdrawals 320 (mega-litters), discharges 71 (mega-litters), consumption 249 (mega-liters). At previous fiscal year, Phra Pradaeng factory had changed products type from amino acid to seasoning. Therefore, this factory had decreased withdraw water.

W5.1a

(W5.1a) For the facilities referenced in W5.1, what proportion of water accounting data has been third party verified?

Water withdrawals – total volumes

% verified

Not verified

Please explain

It was difficult to find verification providers to verify water accounting in Japan within reporting year. In addition, beverages are not our major business, and we handed over the manufacture and sale of water-intensive bottled coffee beverages to other companies in fiscal 2021. Therefore, we have no plans to verify water accounting at this time.

Water withdrawals – volume by source

% verified

Not verified

Please explain

It was difficult to find verification providers to verify water accounting in Japan within reporting year. In addition, beverages are not our major business, and we handed over the manufacture and sale of water-intensive bottled coffee beverages to other companies in fiscal 2021. Therefore, we have no plans to verify water accounting at this time.

Water withdrawals – quality by standard water quality parameters

% verified

Not verified

Please explain

It was difficult to find verification providers to verify water accounting in Japan within reporting year. In addition, beverages are not our major business, and we handed over the manufacture and sale of water-intensive bottled coffee beverages to other companies in fiscal 2021. Therefore, we have no plans to verify water accounting at this time.

Water discharges – total volumes

% verified

Not verified

Please explain

It was difficult to find verification providers to verify water accounting in Japan within reporting year. In addition, beverages are not our major business, and we handed over the manufacture and sale of water-intensive bottled coffee beverages to other companies in fiscal 2021. Therefore, we have no plans to verify water accounting at this time.

Water discharges – volume by destination

% verified

Not verified

Please explain

It was difficult to find verification providers to verify water accounting in Japan within reporting year. In addition, beverages are not our major business, and we handed over the manufacture and sale of water-intensive bottled coffee beverages to other companies in fiscal 2021. Therefore, we have no plans to verify water accounting at this time.

Water discharges – volume by final treatment level

% verified

Not verified

Please explain

It was difficult to find verification providers to verify water accounting in Japan within reporting year. In addition, beverages are not our major business, and we handed over the manufacture and sale of water-intensive bottled coffee beverages to other companies in fiscal 2021. Therefore, we have no plans to verify water accounting at this time.

Water discharges – quality by standard water quality parameters

% verified

Not verified

Please explain

It was difficult to find verification providers to verify water accounting in Japan within reporting year. In addition, beverages are not our major business, and we handed over the manufacture and sale of water-intensive bottled coffee beverages to other companies in fiscal 2021. Therefore, we have no plans to verify water accounting at this time.

Water consumption – total volume

% verified

Not verified

Please explain

It was difficult to find verification providers to verify water accounting in Japan within reporting year. In addition, beverages are not our major business, and we handed over the manufacture and sale of water-intensive bottled coffee beverages to other companies in fiscal 2021. Therefore, we have no plans to verify water accounting at this time.

W6. Governance

W6.1

(W6.1) Does your organization have a water policy?

Yes, we have a documented water policy that is publicly available

W6.1a

(W6.1a) Select the options that best describe the scope and content of your water policy.

	Scope	Content	Please explain
Row 1	Company-wide	Description of business dependency on water Description of business impact on water	Ajinomoto group produces amino acid, processed food and seasoning. We have recognized that a great deal of good fresh water is used for direct amino acid production operation such as dilution of raw material and cleaning for amino acid crystal. We have

		Description of water-related performance standards for direct operations Description of water-related standards for procurement Reference to international standards and widely-recognized water initiatives Company water targets and goals Commitment to align with public policy initiatives, such as the SDGs Commitments beyond regulatory compliance Commitment to water-related innovation Commitment to stakeholder awareness and education Commitment to water stewardship and/or collective action Commitment to safely managed Water, Sanitation and Hygiene (WASH) in the workplace Acknowledgement of the human right to water and sanitation Recognition of environmental linkages, for example, due to climate change	recognized that a great deal of good fresh water is used for indirect production such as cultivation of agricultural crop for raw material and steam for sterilization of equipment. Therefore, we create and disclose a few kinds of policies including our way of thinking on water. These policies cover company-wide and describe performance standards for whole life cycle. Because, we need a great deal of good fresh water which participates directly in our products. These policies describe performance standards for supplier, procurement and contracting best practice. Because, it is important for us that we purchase agricultural crops for raw material by dependence of water. In addition, we carry on a dialog with external and internal stakeholders and experts. Cooperation with our suppliers, our customers and local communities are important for us to settle water risk. By this reason, we regard customer education as important theme for us. In addition, we also recognize offering safe water, sanitation and hygiene to our employee are important. As the global population rises, so does the expected demand for water. Another issue is the ubiquitous presence of fresh water around the world. The depletion of water resources not only impacts water used for production, but also the procurement of raw materials. Drought, flooding, or poor water quality could also result in production delays. The Ajinomoto Group is committed to further reduction in water use and wastewater emissions in our ongoing production processes, maintaining forests for water resources and engaging in other actions to create an environment that allows for sustainable water usage. As the Group Shared Policy on Environment, “We contribute to the security of food resources, the conservation of natural environment including ecosystem and biodiversity, and the conservation of water resources for future generations.” The Group aims to reduce water consumption per production volume unit (intensity) by 80% by fiscal 2030 (compared with fiscal 2005).

W6.2

(W6.2) Is there board level oversight of water-related issues within your organization?

Yes

W6.2a

(W6.2a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for water-related issues.

Position of individual	Please explain
Director on board	The Ajinomoto Group enhances its sustainability promotion framework to continuously increase corporate value from the perspective of sustainability. Effective April 1, 2021, we establish the Sustainability Advisory Council (SAC) under the Board of Directors and the Sustainability Committee under the Executive Committee. The Board of Directors is responsible for all decision of the SAC and Materiality including water resources. In FY2021, the Board of Directors decided to submit a letter of commitment declaring that it would comply with the new greenhouse gas emissions reduction targets, including the Net-Zero Standard, set by SBTi. In addition, the following decision was made on the appointment of SAC members. The SAC is responsible for the followings: 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 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 SAC meet semi-annually and actively disclose the details of its discussions on our website. The Sustainability Committee, based on the reports of the SAC, hold discussions on countermeasures to risks/opportunities 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.

W6.2b

(W6.2b) Provide further details on the board's oversight of water-related issues.

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain

Row 1	Scheduled - all meetings	Monitoring implementation and performance Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing and guiding corporate responsibility strategy Setting performance objectives	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.

W6.2d

(W6.2d) Does your organization have at least one board member with competence on water-related issues?

	Board member(s) have competence on water-related issues	Criteria used to assess competence of board member(s) on water-related issues
Row 1	Yes	The Board of Directors consists of a variety of Directors, discusses and examines important management matters that greatly affect corporate value, encourages risk-taking of execution by indicating a major direction, verifies the validity of execution processes and results, and appropriately supervises execution. The Ajinomoto Group accelerates ASV Management by contributing to greater wellness for people worldwide and reducing greenhouse gas emissions by 50% as priority issues. The Ajinomoto Group positions corporate governance as one of the most important aspects of its management foundation for strengthening ASV Management and achieving 2030 vision. Toward 2030, through dialogue with multi-stakeholders, we accelerate ASV Management by contributing to greater wellness for people worldwide and reducing greenhouse gas emissions by 50% as priority issues, and by digging up invisible assets such as human resources through digital transformation. Furthermore, in order to enhance the effectiveness of ASV Management, we select a “Company with Three Committees” that clearly separate supervision and execution by balancing “supervision of appropriate execution that reflects the opinions of stakeholders" and "business execution with a sense of speed.” The Board of Directors consists of a variety of Directors, discusses and examines important management matters that greatly affect corporate value, encourages risk-taking of execution by indicating a major direction, verifies the validity of execution processes and results, and appropriately supervises execution. On the other hand, the execution, the Chief Executive Officer who has been greatly delegated authority from the Board of Directors will take the lead in making decisions for important business execution at the Executive Committee, will realize sustainable enhancement of corporate value as One Team. In order to closely communicate between the Board of Directors and the Executive Committee, governance rules are established based on the Company's approach to enhance corporate value, proposals and reports are made from the Executive Committee to the Board of Directors, and deliberations and resolutions are made by the Board of Directors. Ajinomoto Group companies and their officers and employees should comply with, continue to develop and properly operate our internal control system, strengthen our system that considers sustainability as

		an active risk-taking system, and continuously enhance our corporate value.

W6.3

(W6.3) Provide the highest management-level position(s) or committee(s) with responsibility for water-related issues (do not include the names of individuals).

Name of the position(s) and/or committee(s)

Chief Executive Officer (CEO)

Responsibility

Assessing future trends in water demand
Assessing water-related risks and opportunities
Managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

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 water related issues which the Sustainability Committee has determined the action policy. The CEO also nominated the chairperson of the Sustainability Committee who is the senior vice president. The Group views water related issues 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, and report them to the board, and the board make the final decision of responses. As water related issues, the CEO decided the commitment of SBTi Net Zero on Mar 2022.

W6.4

(W6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?

	Provide incentives for management of water-related issues	Comment
Row 1	Yes	The compensation of Directors, excluding outside Directors, comprises monthly compensation, short-term company performance-linked compensation, and medium-term company performance-linked stock compensation, as described below. 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. Details of the link to company performance. Evaluation indicators (5%): ESG targets (Reduce water use in the manufacturing process. Water use reduction rate: FY 2030 reduce by 80% vs. FY 2018.

W6.4a

(W6.4a) What incentives are provided to C-suite employees or board members for the management of water-related issues (do not include the names of individuals)?

	Role(s) entitled to incentive	Performance indicator	Please explain
Monetary reward	Board chair Board/Executive board Director on board Corporate executive team Chief Executive Officer (CEO)	Reduction of water withdrawals Reduction in consumption volumes Improvements in efficiency - direct operations	The compensation of Directors, excluding outside Directors, comprises monthly compensation, short-term company performance-linked compensation, and medium-term company performance-linked stock compensation, as described below. 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. Details of the link to company performance. Evaluation indicator includes linear reduction rate of water use in the manufacturing process. We set water reduction target to reduce 80% of water use in manufacturing process by FY2030 compared to FY2018, and if the reduction rate per a year is in line with the linear achievement of the target, along with achievement of water efficiency improvement target, directors compensation will increase 5%. We produce amino acids, processed foods and seasonings. We have recognized that a great deal of good fresh water is used for direct amino acid production operation such as dilution of raw material and cleaning for amino acid crystal, and also for indirect production operation such as

			cultivation of agricultural crop for raw material and steam for sterilization of equipment.
Non-monetary reward	No one is entitled to these incentives		Non-monetary rewards are for employees only.

W6.5

(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?

Yes, direct engagement with policy makers

Yes, trade associations

Yes, funding research organizations

W6.5a

(W6.5a) What processes do you have in place to ensure that all of your direct and indirect activities seeking to influence policy are consistent with your water policy/water commitments?

Ajinomoto group has adopted the term ASV (The Ajinomoto Group Creating Shared Value) to refer to the economic value we have consistently created since our founding by resolving social issues through our business. The group feels confident that the evolution we have made with ASV will help us realize sustainable growth that is befitting of a global company. Going forward, we will forge ahead with our FY2020–2025 New Medium-Term Management Plan, with ASV evolution underpinning our core.

We aim for the FY 2020–2025 MTP by cooperating with Japan business Federation and Consumer Goods Forum. These association affect to governor policy by touching notions. Japan business Federation donates to the ruling party to encourage making good policy for not only citizen but also company.

Ministry of Economy, Trade and Industry in Japan had discussed about new policy idea of water-related with Ajinomoto.

National Institute for Environmental Studies had interviewed our water-related risk assessment ways for investigating renewal of their water risk assessment tool.

When we have recognized anti-logy of the Group effort, we will return to former production method or raw material and so on.

W6.6

(W6.6) Did your organization include information about its response to water-related risks in its most recent mainstream financial report?

Yes (you may attach the report - this is optional)

Integrated Report 2021_E_A4.pdf

W7. Business strategy

W7.1

(W7.1) Are water-related issues integrated into any aspects of your long-term strategic business plan, and if so how?

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	11-15	Which water issues are integrated; The Group aim for reduction 80% water usage at plants per production volume by FY 2030 compared to FY 2005 on the Integrated Target for 2025. How they are integrated into the business plans; By carrying on the aspiration of our founding through our “Food" and “Amino Science" businesses, we are aiming to become a solution-providing company for food and health issues that can grow sustainability and contribute to a healthy future for humanity and the earth. Our mission is to fulfill our social responsibilities by leveraging the entire value chain. Thus, we actively aim to contribute to the resolution of issues related to "health and well-being," “food resources," and “global sustainability" for all stakeholders. The Group produces the amino acids used fresh surface water for dilution of raw material. How they are integrated into the plan; We decided to pursue initiatives to address these concerns under the integrated target that combine both financial and non-financial targets. To realize sustainable growth through ASV (Ajinomoto Shared Value) and become a company that is even more essential for society, we have established the integrated targets including reduction target of water usage, which centers on ASV value creation stories. Explain Why the time horizon chosen was selected with a rationale unique to your company; We set the environmental target including water reduction target which aims to the year of 2030 referred from SDGs.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	11-15	Which water issues are integrated; The Group aim for reduction 80% water usage at plants per production volume by FY 2030 compared to FY 2005 on the Integrated Target for 2025. How they are integrated into the plan; We decided to pursue initiatives to address these concerns under the

			integrated target that combine both financial and non-financial targets. To realize sustainable growth through ASV(Ajinomoto Shared Value) and become a company that is even more essential for society, we have established the integrated targets including reduction target of water usage, which centers on ASV value creation stories. The Ajinomoto Group Environment Plan has established target values for pollutant load in wastewater (10 ppm or less for BOD and 5 ppm or less for TN) which are stricter than regulations around the world. To achieve these challenging targets, the Group is improving performance in wastewater treatment by modifying existing treatment facilities, developing more efficient processes, the use of water from cooling towers for indirect cooling applications, recirculating water on-site. Explain Why the time horizon chosen was selected with a rationale unique to your company; We set the environmental target including water reduction target which aims to the year of 2030 referred from SDGs.
Financial planning	Yes, water-related issues are integrated	11-15	Which water issues are integrated; There is the target of conservation of water resources among the integrated targets. The Group aim for reduction 80% water usage at plants per production volume by FY 2030 compared to FY 2005 on the Integrated Target for 2025. How they are integrated into the plan; Ajinomoto group aims for reduce financial risk 8 billion yen through results of our contribution of the global sustainability. The management indicators adopted are as follows. For financial targets, we will continue to realize profit growth. Such growth will act as a milestone for becoming a solution-providing company for food and health issues for 2030. For non-financial targets, we will focus on contributing to healthy living for humankind, as mentioned in the ASV value creation stories. At the same time, we will pursue a policy of proactively engaging ourselves in the United Nations' Sustainable Development Goals (SDGs) and other efforts related to the international consensus on ESG. One of non-financial target is the mid-long term environmental targets which includes the water reduction target. Explain Why the time horizon chosen was selected with a rationale unique to your company; We set the environmental target including water reduction target which aims to the year of 2030 referred from SDGs.

W7.2

(W7.2) What is the trend in your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

Row 1

Water-related CAPEX (+/- % change)

80

Anticipated forward trend for CAPEX (+/- % change)

-50

Water-related OPEX (+/- % change)

-3

Anticipated forward trend for OPEX (+/- % change)

-1

Please explain

Water related CAPEX was mainly for the installation of wastewater treatment equipment. OPEX was mainly for the electricity fee to run these wastewater treatment equipment. CAPEX has increased, because of installing the new wastewater treatment equipment. OPEX is the same as that of previous year because new wastewater treatment equipment was more electricity efficient than older ones.

W7.3

(W7.3) Does your organization use scenario analysis to inform its business strategy?

	Use of scenario analysis	Comment
Row 1	Yes	In May 2019, the Ajinomoto Group endorsed the recommendations of TCFD. The Ajinomoto Group's business domain of products ranges from seasonings and coffee to frozen foods. The Group's operation is considered to be affected by climate change 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 FY 2019, the Group conducted a scenario analysis of the potential impact from climate change on global umami seasoning AJI-NO-MOTO®. The Group determined that a 2 °C rise in the average temperature would have relatively small impact on the main raw materials including water as well as demand for the product, so that these will not seriously affect the Group's profit. However, the risk of environmental taxes for the fermentation business as a whole including MSG is around 8 billion yen to create a low-carbon society.

W7.3a

(W7.3a) Provide details of the scenario analysis, what water-related outcomes were identified, and how they have influenced your organization's business strategy.

	Type of scenario analysis used	Parameters, assumptions, analytical choices	Description of possible water-related outcomes	Influence on business strategy
Row 1	Water-related Climate-related	[Parameters] The analysis examined 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 by global macro economic. [Assumption] The Ajinomoto Group has conducted a scenario analysis of potential impact from the climate change risk covering until 2030 for globe, under the scenario of a 2ºC rise in average global temperature as SSP3 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. [Analytical choices] Our scenario analysis has been used analytical choices which are IPCC, IEA WEO, World Bank Climate Change Knowledge Portal, AQUEDUCT Water Risk	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 Management Risk Committee and Environmental 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 TCFD. Our business domain of products ranges from seasonings and coffee to frozen foods. The geographic range of its operations spans the globe including Southeast Asia and South America. 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 FY 2019, we conducted	In terms of the greenhouse gas problem, when we conducted scenario analysis in line with Task Force on Climate-related Financial Disclosures (TCFD) recommendation , the risk of flood in ChaoPraya area increased, and at the same time risk of drought in Ayutthaya region also increased, which can affect to the production of amino acid, and also food products. Therefore, business objectives and strategies have been added as follow. The Group aims to fast-track ongoing measures, such as research and development of alternative raw materials diversification of suppliers from less risk regions, and to take measure to avoid economic impact in the case of flood and drought. The group also took temporary measure to avoid the financial impact of flood in Chao Praya region, by building 1 meter wall between the river and factories in 2011. We anticipate to finish diversification of suppliers

		Atlas, AQUEDUCT FLOODS.	a scenario analysis of the potential impact from climate change on global umami seasoning AJI-NO-MOTO®. We determined that a 2 °C rise in the average temperature would have relatively small impact on the main raw materials including water as well as demand for the product, so that these will not seriously affect our profit. However, the risk of flood will continue to increase in Chao Praya area where amino acids are produced, and produce 10% of group revenue. The findings reconfirmed the need to continue diversifying our suppliers, and take measure to avoid financial impact from flood in these factories closed to Chao Praya.	by 2025, and building watt by 2022.

W7.4

(W7.4) Does your company use an internal price on water?

Row 1

Does your company use an internal price on water?

Yes

Please explain

We anticipate that the increased global food demand with increased population will make securing raw material more difficult in the future. We would like to demonstrate to the top management that continued resource-saving fermentation technologies helps Ajinomoto in securing business opportunities by natural capital argument. We have compared two scenarios of “AJI-NO-MOTO®” produced at Ayutthaya factory in Thailand. One is status quo, which uses edible biomass for the raw material, another is the case with Research and Development to enable efficient use of non-edible biomass for the raw material. At first, we have calculated Carbon and Water footprint and farm land area for raw material crop as both scenarios. We have converted from these data to monetary environmental impact by minimum and maximum economic value. Finally,

we have assessed sensitive monetary impact analysis about the technologies in terms of natural capital.

W7.5

(W7.5) Do you classify any of your current products and/or services as low water impact?

	Products and/or services classified as low water impact	Definition used to classify low water impact	Please explain
Row 1	Yes	Explanation of feed contained amino acid (low protein feed) is follow. Soybean meal contents of Low protein feed which is supplemented industrial manufactured amino acid instead of essential amino acid of soybean meal is over 10% lower than conventional feed. As coordinating metabolic energy, amount of wheat in low protein feed are over 20% higher than conventional feed. However, soybean meal water consumption inventory over 1000 (m3/t-raw material) is 3 times higher than wheat water consumption inventory a few hundreds (m3/t-raw material), soybean meal content of low protein feed is over 10% lower than conventional feed, therefore water footprint of low protein feed is lower than conventional feed. Water risk will become higher, pig farmers change to apply low protein feed and feed use amino acid supply by Ajinomoto group will be increase more.	Ajinomoto group manufactures and sells several kinds of amino acid for feed. Regarding amino acid, we have two advantages comparing with other companies. First one is that the amino acid we produce has the good quality. Second one is that we have the knowledge about how to utilize amino acid. We make an effort for the spread of feed and market development with an amino acid in the drought area by uniting the validity of this amino acid for a customer.

W8. Targets

W8.1

(W8.1) Describe your approach to setting and monitoring water-related targets and/or goals.

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company-wide targets and goals Site/facility specific targets and/or goals Basin specific targets and/or goals	Targets are monitored at the corporate level Goals are monitored at the corporate level	Ajinomoto Co., Inc. is a company that produces food seasonings, processed foods, sweeteners, amino acids and pharmaceuticals. Therefore, water resource is indispensable resource for our business activities. We identify "water resources" in one of priority themes and act for correspondence, the management that is appropriate to be able to minimize load to environment about improvement of effectiveness for the supply of water in all bases treating water, water intake, the drainage. At the production base, we set the targets of the water consumption basic unit per quantity of production regularly, and the grasp of monitoring, the effect in the monthly evaluates it. At the setting of targets by production sites, we consider if the sites are located at the area with water-risks, such as scarcity and pollutions. When we find out water is scarce at the site, we emphasize monitoring the quantity of the water withdrawals, but when the site are located at the area with pollution risks, then we emphasize monitoring the pollution.

W8.1a

(W8.1a) Provide details of your water targets that are monitored at the corporate level, and the progress made.

Target reference number

Target 1

Category of target

Water withdrawals

Level

Company-wide

Primary motivation

Risk mitigation

Description of target

We had set on non-financial targets of environment. We have made a target reduction of the amount of the used water per the production 80 % to fiscal year 2005 with a target to 2030. We set it as a company-wide target. We had achieved 98% in fiscal year 2019. [98% = (Reduction 78%) / (Target 80%)]

Quantitative metric

% reduction per unit of production

Baseline year

2005

Start year

2017

Target year

2030

% of target achieved

98

Please explain

We have made a target reduction of the amount of the used water per the production 80 % to fiscal year 2005 with a target by the plan. We had achieved 98% in fiscal year 2021. [98% = (Reduction 78%) / (Target 80%)]

Target reference number

Target 2

Category of target

Other, please specify

Conserve forest as source of water

Level

Brand/product

Primary motivation

Increase freshwater availability for users/natural environment within the basin

Description of target

Recharge rate of drinking water into forest.
Forest conservation at water sources.
Ajinomoto AGF, Inc. production bases, AGF Suzuka, Inc. and AGF Kanto, Inc., withdraw water from the Suzuka River and Arato River (a tributary of the Tone River). Their sources are conserved by forests located in the foothills of the Suzuka Mountains and the south foothills of Mount Akagi, respectively. The companies are continuously engaged in the Forest of Blendy® initiative aimed at
conserving these forests. By fiscal 2025, Ajinomoto AGF, Inc. aims to expand the area of these forests five-fold compared to their March 2017 size, and supply all water used in Blendy® bottled coffee and other production from Forest of Blendy® groundwater (recharge volume). As of the end of fiscal 2018, the two forests' contracted areas combined covered approximately 22 ha, about 4.2 times the original size. In fiscal 2019, the company plans to expand and enhance the forest maintenance activities.

Quantitative metric

Other, please specify

Recharge rate of drinking water into forest

Baseline year

2015

Start year

2016

Target year

2025

% of target achieved

100

Please explain

Recharge rate of drinking water into forest is the target metric, because it represent forest conservation at water sources.
Ajinomoto AGF, Inc. production bases, AGF Suzuka, Inc. and AGF Kanto, Inc., withdraw water from the Suzuka River and Arato River (a tributary of the Tone River). Their sources are conserved by forests located in the foothills of the Suzuka Mountains and the south foothills of Mt Akagi, respectively. The companies are continuously engaged in the Forest of Blendy® initiative aimed at conserving these forests. By FY 2025, Ajinomoto AGF, Inc. aims to expand the area of these forests 5-fold compared to their March 2017 size, and supply all water used in Blendy® bottled coffee and other production from Forest of Blendy® groundwater (recharge volume). As of the end of FY2018, the two forests' contracted areas combined covered approximately 22 ha, about 4.2 times the original size. In FY 2019, the company plans to expand and enhance the forest maintenance activities.

W8.1b

(W8.1b) Provide details of your water goal(s) that are monitored at the corporate level and the progress made.

Goal

Watershed remediation and habitat restoration, ecosystem preservation

Level

Company-wide

Motivation

Shared value

Description of goal

Explanation for the level chosen; Ajinomoto Co., Inc. is a company that produces food seasonings, processed foods, sweeteners, amino acids and pharmaceuticals. Therefore, it is important for us to set the company-wide target on watershed

remediation and habitat restoration, ecosystem preservation and tackle to solve the problem on the ecosystem as the Ajinomoto group, because our business activities have an great impact on ecosystem.
Detail on why this goal is important to the company and How the company is implementing the goal across their chosen level; To ensure that its businesses are contributing to the environment and delivering value to customers, we quantify the environmental value of our products and services across the entire supply chain. Our company-wide goal is to reduce the impact of water use by our production by reducing quantity, and also take responsibility not to harm ecosystem due to our production activities. We set the environmental value of our products which includes the value of ecosystem as our indicator, and consider our goal is succeeding if the value of this year exceeds the value of previous year. In the reporting year, the environmental value of our products exceeded that of previous year by 93%.

Baseline year

2005

Start year

2017

End year

2030

Progress

Ajinomoto group long-term vision is “Secure food resources for the next generation, contribute to protection of natural environment include ecosystems and biodiversity, achieve sustainable procurement.” The group aims for sustainable procurement 100% of palm oil and paper by FY 2020 as above vision. We have monitored ratio of certified palm oil and paper.
The Ajinomoto Group uses palm oil in a variety of products and applications, from packaged food products such as cup soup, instant noodle, and coffee creamer, to specialty chemicals made in Japan, Southeast Asia, Europe, and South America. Certain products use palm kernel oil, which is harder to procure in certified form. Further, certain regions have limited supplies of certified palm oil. Therefore, the Group defines palm oil certified by the Roundtable on Sustainable Palm Oil (RSPO) or traceable by the Group to sustainable sources as a sustainable material. In regions where it is difficult to procure RSPO-certified oil, we make every effort to procure palm oil that is confirmed as traceable. In so doing, we ascertain whether production takes place in regions where environmental destruction is a concern. In addition, we can respond quickly if human rights violations or other problems occur.
With a Group target to procure 100% sustainable palm oil by fiscal 2030, we achieved 93% in fiscal 2021 We also achieved a rate of over 28% in procuring palm oil certified by the RSPO.

W9. Verification

W9.1

(W9.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1a)?

No, we are waiting for more mature verification standards and/or processes

W10. Sign off

W-FI

(W-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.

W10.1

(W10.1) Provide details for the person that has signed off (approved) your CDP water response.

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

W10.2

(W10.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate's Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].

No

SW. Supply chain module

SW0.1

(SW0.1) What is your organization's annual revenue for the reporting period?

	Annual revenue
Row 1	1,149,370,000,000

SW1.1

(SW1.1) Could any of your facilities reported in W5.1 have an impact on a requesting CDP supply chain member?

No, CDP supply chain members do not buy goods or services from facilities listed in W5.1

SW1.2

(SW1.2) Are you able to provide geolocation data for your facilities?

	Are you able to provide geolocation data for your facilities?	Comment
Row 1	Yes, for some facilities	Our CDP supply chain members are supplied from Ajinomoto Co., Inc. factories in Japan. Therefore, we inform Ajinomoto Japanese factories on next question.

SW1.2a

(SW1.2a) Please provide all available geolocation data for your facilities.

Identifier	Latitude	Longitude	Comment
Ajinomoto Co., Inc. Kawasaki factory	35.54	139.72	Kawasaki factory produces intermediate material for pharmaceutical, intermediate material for soap, seasoning and so on.
Ajinomoto Co., Inc. Tokai factory	34.94	136.61	Tokai factory produces intermediate material for pharmaceutical, intermediate material for soap, seasoning and so on.

Ajinomoto Co., Inc. Kyushu factory	33.22	130.36	Kyushu factory produces amino acids for intermediate material of pharmaceutical and food grade, seasoning and so on.

SW2.1

(SW2.1) Please propose any mutually beneficial water-related projects you could collaborate on with specific CDP supply chain members.

SW2.2

(SW2.2) Have any water projects been implemented due to CDP supply chain member engagement?

No

SW3.1

(SW3.1) Provide any available water intensity values for your organization's products or services.

Submit your response

In which language are you submitting your response?

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options		Public

Please confirm below