Welcome to your CDP Water Security Questionnaire 2023

W0. Introduction

W0.1

(W0.1) Give a general description of and introduction to your organization.

Founded in 1907, AGC Inc. manufactures and sells mainly glass for building materials and automotive applications, as well as electronic components and other chemical-related materials. AGC and its subsidiaries (hereafter referred to as the "AGC Group") consists of AGC Inc., 222 subsidiaries and 30 affiliated companies, and is one of the world's largest materials manufacturers with net sales of 2,035.9 billion yen and 57,609 employees (as of December 31, 2022). In addition to those products, we also handle ceramics products, logistics and financial services. Our main products in the glass segment includes float glass, textured glass, wired pattered glass, Low-E (low emissivity) glass, decorative glass, architectural processed glass (insulating & heat-shielding doubled glazing glass, disaster prevention & crime prevention glass, fireproof & fire-resistant glass), automotive glass, and cover glass for in-vehicle displays. Major products in the electronics segment include glass substrates for LCDs, glass substrates for OLEDs, specialty glass for displays, peripheral components for displays, solar glass, processed glass for industrial applications, semiconductor process components, optoelectronics components, printed circuit board materials, lighting products, and scientific products. Major products in the chemicals segment include vinyl chloride, raw materials for vinyl chloride, caustic soda, urethane raw materials, fluoropolymers, water and oil repellents, gases, solvents, pharmaceutical and agrochemical intermediates and ingredients, biotechnology-related products, and iodine products. Geographically, we have established a global business base in Japan, Asia, Europe, and the Americas.

AGC Group Vison

The AGC Group has established the group vision "***Look Beyond***" as its corporate philosophy, which guides all the Group's business and social activities.

Our Mission

"AGC, an Everyday Essential part of the World - Supporting People's Lifestyles Everywhere with Differentiated Materials and Solutions"

Our Shared Values

Innovation & Operational Excellence, Diversity, Environment, Integrity.

Our Spirit

"Never take the easy way out, but confront difficulties."

Long-Term Management Strategy - Vision 2030

In February 2021, AGC Group established a new long-term management strategy, "Vision 2030." The new strategy states, "By providing differentiated materials and solutions, AGC strives to help realize a sustainable society and become an excellent company that grows and evolves continuously". To realize this "Vision 2030," AGC will promote sustainability management and optimize its business portfolio to continuously create economic and social value.

Our Responsibility for Water Security

Our lives and businesses depend heavily on natural capital, including biodiversity, and maintaining the health of this natural capital is essential for the AGC Group to continue its business activities. As the AGC Group impacts natural capital through its business activities, the AGC Group manages these impacts at all stages of its value chain and strives to minimize its environmental impact. The AGC Group aims not only to reduce negative impacts, but also to create positive impacts and contribute to the conservation of natural capital. We will achieve sustainability for society and for ourselves by contributing to the creation of a decarbonized society, a resource recycling society and a society in harmony with nature at all stages of our value chain. The company's commitment to sustainability is reflected in its corporate philosophy. The diversity of flora and fauna is an important and indispensable part of the "natural capital" that the AGC Group seeks to preserve and positively influence. We have therefore set ourselves the goal of implementing biodiversity conservation activities at all our sites by 2025, in order to "realize a society in harmony with nature", and are working to develop and implement specific action plans at each of our sites.

Forward-looking statements

This response in the report may contain forward-looking statements that are based on current assumptions and projections made by our group management. A variety of known and unknown risks, uncertainties and other factors could cause actual future performances, financial condition, developments, and results to differ materially from those anticipated in this response report. We assume no responsibility to update these forward-looking statements or to align them with future events or developments.

W-CH0.1a

(W-CH0.1a) Which activities in the chemical sector does your organization engage in?

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	January 1, 2022	December 31, 2022

W0.3

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

Austria

Belarus
Belgium
Brazil
Bulgaria
Canada
China
Croatia
Czechia
Denmark
Estonia
Finland
France
Germany
Greece
Hong Kong SAR, China
Hungary
India
Indonesia
Italy
Japan
Kazakhstan
Luxembourg
Malaysia
Mexico
Morocco
Netherlands
Philippines
Poland
Portugal
Republic of Korea
Romania
Russian Federation
Saudi Arabia
Singapore
Slovakia
Spain
Sweden
Switzerland
Taiwan, China
Thailand
Turkey
Ukraine
United Arab Emirates
United Kingdom of Great Britain and Northern Ireland
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?

Yes

W0.6a

(W0.6a) Please report the exclusions.

Exclusion	Please explain
Small scale sites	The AGC Group Environmental Activity Rules, which are common rules for the AGC Group, stipulate that the scope and conditions for reporting environmental performance data for each site, which is the basic data for calculating water intake and other environmental performance values, also follow the definition of the AGC Group Environmental Performance Data Guidance, which is a common rule for the AGC Group. The internal standards include a three-step assessment of the site's operations, number of employees and the presence or absence of environmental impacts. Smaller sites that meet all three conditions are eligible to report environmental performance data on a voluntary basis: they do not perform even light assembly and processing, they are used as simple offices, they have fewer than 50 employees, and they indicate that there is no environmental impact as a result of the environmental impact assessment. The total is less than 0.1% of our total water discharge (747,501 megaliters in 2022), even if all these small sites used 0.00004 megaliters of water per year (a rough assumption).
Tenant for administrative office	For sites where sales or office work is the primary business activity, water use and wastewater treatment may be included in the rent. In these cases, property management companies do not track or report water use or wastewater treatment on a tenant-by-tenant basis. Therefore, these sites are not subject to environmental data reporting because they do not track water-related indicators. We believe that water and wastewater use at these non-manufacturing and relatively small sites is extremely limited. To verify this, we examined the impact on the AGC Group as a whole through the water use of a relatively large sales site with approximately 120 employees. The sales site with approximately 120 employees used 41.2 m3 of water in 2022. Even if all these small sites used

	0.00004 megaliters of water per year, the total is less than 1% of our total emissions (747,501 megaliters in 2022). Therefore, we have determined that the emissions from these small facilities are not material to the company.

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	JP3112000009
Yes, a CUSIP number	00109C103
Yes, a Ticker symbol	ASGLF

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	DIRECT OPERATIONS Processes in the AGC Group that use good quality freshwater include the polishing process for precision glass, lenses, etc., and the production of caustic soda. The polishing process maintains the quality of the product specified by the customer, and caustic soda is the raw material itself, both processes are deemed essential to the operation since it is not easy to substitute lower quality water or reduce its use. In addition, procuring lower quality water and purifying it for use poses challenges in terms of environmental impact and energy consumption associated with the installation of equipment. Therefore, unless there are major technological innovations, good quality freshwater will continue to be essential. INDIRECT OPERATIONS The AGC Group's suppliers also use good quality freshwater in their processes to manufacture and process raw materials for delivery to the AGC Group, we consider the indirect use of water to be essential

			to our operations. For example, water is an important raw material in the manufacture of polyvinyl butyral resin, used in the interlayer film in automotive glass. Freshwater is also used in the refining of inorganic acids such as hydrochloric acid and sulfuric acid, the refining of cerium oxide and aluminium oxide, and the melting of raw materials, and it is not easy to substitute lower quality water or reduce the volume used. In other words, freshwater is essential for our supply chain. FUTURE FORECAST In the future, high-quality freshwater will remain essential unless there are major technological developments/innovations.
Sufficient amounts of recycled, brackish and/or produced water available for use	Vital	Vital	DIRECT OPERATIONS The AGC Group uses a lot of high-temperature equipment, such as glass melting furnaces and ceramic firing furnaces, which require temperatures ranging from several hundred to several thousand degrees Celsius. The equipment must maintain high temperatures during operation, while at the same time the exterior walls must be cooled to room temperature to maintain the equipment itself, which requires a large volume of cooling water. In addition, when AGC Group companies operate their own power generation facilities, large amounts of water are used to cool the facilities. Therefore, we have determined that recycled water and brackish water used as cooling water are essential to our operations. INDIRECT OPERATIONS AGC Group suppliers also operate high temperature equipment and, like us, have found that recycled water and brackish water are essential to their operations. The raw materials for glass and ceramics, the AGC Group's main products, use water in various processes, including cleaning. Similarly, fluorine compounds, one of our main products, use a large amount of fluorite as a raw material, and a large amount of cooling water is used in the annealing process. Large amounts of circulating cooling water are also used in upstream processes such as the production of ethylene (naphtha cracker), a basic chemical we use.

			FUTURE OUTLOOK Even if technological innovations that eliminate the use of fossil fuels are realized in the near future as a result of efforts to reduce greenhouse gas emissions, we expect that our manufacturing process will continue to require the operation of high-temperature equipment, which means the continued use of water for cooling. On the other hand, if future technological developments eliminate the need for high-temperature equipment in the production of glass and ceramics, the cooling water currently used may no longer be necessary.

W1.2

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

	% of sites/facilities/operations	Frequency of measurement	Method of measurement	Please explain
Water withdrawals – total volumes	100%	Monthly	AGC collects water supply data on a site-by-site basis in a global environmental database called SCCS. The frequency with which water withdrawals are recorded is the frequency with which invoices are issued and varies from site to site: monthly, bimonthly, quarterly, etc.	Many manufacturing sites receive either industrial water or tap water. The amount of water received is measured by installing flow meters. There are various types of flow meters, including pump characteristics, dynamic pressure measurement, ultrasonic measurement, magnetic induction measurement, and others, depending on the water intake method and

				specific application. Flow meters that measure continuously are often based on contracts with water authorities and other governments, and their specifications are set by the government. The frequency of flow meter updates is also specified by the government. Water withdrawals are entered by site personnel into SCCS, which is used by the AGC Group to record environmental performance data. The term "site" refers to AGC and its fully consolidated subsidiaries. Measuring equipment is monitored and regularly maintained. Water info. for the AGC group is published in our annual report, and the public disclosure figures are externally audited.
Water withdrawals – volumes by source	100%	Monthly	AGC collects water supply data by water source on a site-by-site	Many manufacturing sites receive either industrial

			basis in a global environmental database called SCCS. The frequency with which water withdrawals are recorded is the frequency with which invoices are issued and varies from site to site: monthly, bimonthly, quarterly, etc.	water or tap water. The amount of water-by-water source received is measured by installing flow meters. There are various types of flow meters, including pump characteristics, dynamic pressure measurement, ultrasonic measurement, and others, depending on the water intake method and specific application. Flow meters that measure continuously are often based on contracts with water authorities and other governments, and their specifications are set by the government. The frequency of flow meter updates is also specified by the government. Water withdrawals are entered by site personnel into SCCS, which is used by the AGC Group to record environmental performance data. The term "site"

				refers to AGC and its fully consolidated subsidiaries. Measuring equipment is monitored and regularly maintained. Water info. for the AGC group is published in our annual report, and the public disclosure figures are externally audited.
Water withdrawals quality	100%	Monthly	AGC Group sites purchase water under contracts with water authorities and other government agencies. In the case of industrial water, water treatment, such as sludge sedimentation, is carried out after the water is received. In some cases, water is used as it is, depending on its intended use.	100% of the AGC Group's production sites monitor the quality of their water supply by measuring the Total Dissolved Solids (TDS) content and so on, which is managed as part of the production technology. Depending on the intended use of the water, other measurements are taken according to site-specific procedures. Production sites refer to the manufacturing sites of AGC and its consolidated subsidiaries. Measurement equipment is

				monitored and regularly maintained in accordance with legal requirements. Sales offices and other offices use water for domestic purposes, the quality of which is controlled under the responsibility of the building management company and others.
Water discharges – total volumes	100%	Monthly	AGC collects discharged water data by water source on a site-by-site basis in a global environmental database called SCCS. The frequency with which water discharge are monthly basis.	The amount of water discharged is measured by installing flow meters. There are various types of flow meters, including pump characteristics, dynamic pressure measurement, ultrasonic measurement, magnetic induction measurement, and others, depending on the water intake method and specific application. Water discharge are entered by site personnel into SCCS, which is used by the AGC Group to record

				environmental performance data. The term "site" refers to AGC and its fully consolidated subsidiaries. Measuring equipment is monitored and regularly maintained. Water info. for the AGC group is published in our annual report, and the public disclosure figures are externally audited.
Water discharges – volumes by destination	100%	Monthly	AGC collects water discharge data by water discharge point on a site-by-site basis in a global environmental database called SCCS. The frequency with which water is discharged is on a monthly basis.	The amount of water discharged by water discharge point is measured by installing flow meters. There are various types of flow meters, including pump characteristics, dynamic pressure measurement, ultrasonic measurement, magnetic induction measurement, and others, depending on the water intake method and specific application. Water discharge by water discharge point are entered

				by site personnel into SCCS, which is used by the AGC Group to record environmental performance data. The term "site" refers to AGC and its fully consolidated subsidiaries. Measuring equipment is monitored and regularly maintained. Water info. for the AGC group is published in our annual report, and the public disclosure figures are externally audited.
Water discharges – volumes by treatment method	100%	Monthly	AGC collects data on wastewater treatment methods on a site-by-site basis in a global environmental database called SCCS.	The AGC Group Environmental Performance Data Guidance, a set of rules that establishes standardized environmental data reporting requirements for the AGC Group, requires that wastewater treatment methods be reported for each site. Each site's wastewater treatment method is entered by site personnel into a

				global environmental database called SCSS.
Water discharge quality – by standard effluent parameters	100%	Monthly	100% of AGC Group sites monitor the quality of their water supply for Total Dissolved Solids (TDS) in accordance with applicable laws and regulations. Depending on the characteristics of the effluent, other measurements are taken according to site-specific procedures. Wastewater quality is continuously monitored at the manufacturing sites.	The AGC Group Environmental Performance Data Guidance, a set of rules that establishes standardized environmental data reporting requirements for the AGC Group, requires wastewater quality to be reported by each site. The wastewater quality data measured by the sites is entered by site personnel into a global environmental database called SCCS. In accordance with regulatory requirements, AGC Group sites monitor effluent quality using standard effluent parameters such as Chemical Oxygen Demand, Total Oxygen Demand, Nitrogen, Phosphorus and Heavy Metals. Measurement equipment is

				regularly monitored and maintained. The term "site" refers to AGC and its fully consolidated subsidiaries.
Water discharge quality – emissions to water (nitrates, phosphates, pesticides, and/or other priority substances)	100%	Monthly	100% of AGC Group sites monitor the quality of their water supply for Total Dissolved Solids (TDS) in accordance with applicable laws and regulations. Depending on the characteristics of the effluent, other measurements are taken according to site-specific procedures. Wastewater quality is continuously monitored at the manufacturing sites.	The AGC Group Environmental Performance Data Guidance, a set of rules that establishes standardized environmental data reporting requirements for the AGC Group, requires wastewater quality to be reported by each site. Wastewater quality data measured by the sites is entered by site personnel into a global environmental database called SCSS. In accordance with regulatory requirements, AGC Group sites monitor effluent quality using standard effluent parameters such as chemical oxygen demand, total oxygen demand, nitrogen, phosphorus and heavy metals.

				Measurement of nitrates, phosphates, pesticides and other priority pollutants may or may not be required by law. Measurement equipment is monitored and maintained on a regular basis. The term "Site" refers to AGC and its wholly consolidated subsidiaries.
Water discharge quality – temperature	100%	Monthly	100% of AGC Group sites monitor inlet temperatures in accordance with applicable laws and regulations. Depending on the characteristics of the effluent, other measurements are taken according to site-specific procedures. Wastewater quality is continuously monitored at the manufacturing sites.	The AGC Group Environmental Performance Data Guidance, a set of rules that establishes standardized environmental data reporting requirements for the AGC Group, requires wastewater quality to be reported by each site. Site measured effluent quality data is entered by site personnel into a global environmental database called SCSS. AGC Group sites monitor effluent temperature in accordance with

				regulatory requirements. The need to measure effluent temperature is determined by whether it is a legal requirement. Measurement equipment is regularly monitored and maintained. The term "site" refers to AGC and its fully consolidated subsidiaries.
Water consumption – total volume	100%	Monthly	AGC monitors the difference between the water withdrawal and wastewater discharge entered by the site as consumption.	The AGC Group defines water consumption as the sum of water evaporated in the cooling process, water in products sold and water used for other purposes. Evaporation is measured and calculated at each site using the difference between make-up and blowdown water volumes or by applying an evaporation rate (plant specific or average) to the volume of cooling water used.
Water recycled/reused	100%	Monthly	AGC collects recycled and reused water data on a site-by-site basis in a global	The AGC Group Environmental Performance Data Guidance, a set of rules that

			environmental database called SCCS.	establishes standardized environmental data reporting requirements for the AGC Group, requires each site to report the amount of recycled and reused water used. Wastewater volume data measured by sites is entered by site personnel into SCCS, a global environmental database called SCSS. Water recycling/reuse is measured by measuring the amount of recirculated cooling water, recovered condensate and water reused in the production process using cooling water pump speeds and flow meters.
The provision of fully-functioning, safely managed WASH services to all workers	100%	Yearly	The AGC Group has established an internal reporting system, the "Risk Hotline," so that employees can report and consult directly with the Risk Department	The AGC Group ensures that all employees have access to adequate levels of water, sanitation and hygiene facilities in the workplace. The Hygiene

			for internal risk information. In addition, the AGC Group has established a reporting channel through an external lawyer to prevent the use of unhygienic water, etc.	Department at each site is responsible for managing issues related to the general and occupational hygiene of employees, as well as coordinating and auditing occupational medicine.

W1.2b

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

	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Five-year forecast	Primary reason for forecast	Please explain
Total withdrawals	747,501	About the same	Other, please specify Since the total water withdrawal in 2022 compared to 2021 was -14.7%, it is determined to be "about the same".	About the same	Other, please specify The volume of water withdrawals used for cooling may increase or decrease depending on the operation of in-house power generation facilities operated mainly at our chemical production sites.	2022 ANALYSIS When evaluating various environment-related performance values, including those related to water, the AGC Group defines a change of less than 20% as "almost the

						same," a change of between 20% and 50% as "high" or "low" (depending on the context), and a change of 50% or more as "very high" or "very low" . Since the total water withdrawal in 2022 compared to 2021 was -14.7%, it is determined to be "almost the same". Approximately 88% of the AGC Group's total water withdrawal is seawater used to cool its in-house power generation facilities, so even if the difference between an increase or

						decrease in water withdrawal from surface water, groundwater, or third parties other than seawater exceeds the materiality threshold, the overall impact will be minimal. FUTURE FORECAST In the future, there is a possibility that the volume of water withdrawal used for cooling may increase or decrease depending on the operation of in-house power generation facilities operated mainly at our chemical manufacturing site, but no changes

						have been decided at this time. Other than that, we expect that there is little likelihood of major changes in the breakdown of water withdrawal or in the absolute value of water withdrawal.
Total discharges	723,938	About the same	Other, please specify Since the total water withdrawal in 2022 compared to 2021 was -12.1%, it is determined to be "about the same".	About the same	Other, please specify The volume of water withdrawals/discharges for cooling may increase or decrease depending on the operation of in-house power generation facilities operated mainly at our chemical production sites.	2022 ANALYSIS When evaluating various environment-related performance values, including those related to water, the AGC Group defines a change of less than 20% as "almost the same," a change of between 20% and 50% as "high" or "low" (depending

						on the context), and a change of 50% or more as "very high" or "very low". Since the total water withdrawal in 2022 compared to 2021 was -12.1%, it is determined to be "almost the same". Approximately 88% of the AGC Group's total water discharge is seawater used to cool its in-house power generation facilities, so that even if a single increase or decrease in surface water other than seawater, groundwater, or water withdrawal from third

						parties were to exceed the threshold of significance, the overall impact would be negligible. FUTURE FORECAST In the future, there is a possibility that the volume of discharged water used for cooling may increase or decrease depending on the operation of the in-house power generation facilities operating mainly at our chemical manufacturing site, but no changes have been determined at this time. Other than that, we expect that there is little likelihood of

						major changes in the breakdown of water discharged or in the absolute volume of water discharged.
Total consumption	23,563	Much lower	Maximum potential volume reduction already achieved	Much lower	Maximum potential volume reduction already achieved	2022 ANALYSIS When evaluating various environment-related performance values, including those related to water, the AGC Group defines a change of less than 20% as "almost the same," a change of between 20% and 50% as "high" or "low" (depending on the context), and a change of 50% or more as "very high" or "very

						low". The total water consumption in 2022 compared to 2021 was -55.4%, which is judged to be "much less". This is because the volume of seawater used for cooling at the in-house power generation facility operated by our site in Indonesia, which has switched to renewable energy, has decreased, and this volume change has had a significant impact on the ratio for the AGC Group as a whole. FUTURE FORECAST In the future, there is a

						possibility that the volume of discharged water used for cooling may increase or decrease depending on the operation of in-house power generation facilities operating mainly at chemical manufacturing sites, but no changes have been decided on at this time. Other than that, we expect that there is little likelihood of major changes in the breakdown of water consumption or in the total volume of water consumption.

W1.2d

(W1.2d) Indicate whether water is withdrawn from areas with water stress, provide the proportion, how it compares with the previous reporting year, and how it is forecasted to change.

	Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Five-year forecast	Primary reason for forecast	Identification tool	Please explain
Row 1	Yes	1-10	About the same	Other, please specify The production process and production items have been maintained from last year, and there are no changes that would lead to an increase or decrease in water withdrawal.	About the same	Other, please specify Because we do not anticipate any changes that will lead to an increase or decrease in water withdrawals in the future.	WRI Aqueduct	Continuing from 2014, we assessed water stress, water depletion, flooding, storm surge, and drought using the revised Aqueduct 3.0 of the WRI Aqueduct water atlas for 500 sites that are considered dependent on water resources and water bodies in light of their business activities and water treatment methods. We have defined water stress areas as those where the baseline

								water risk is "extremely high (>80%)" based on the assessment results using Aqueduct 3.0 of the WRI Aqueduct water atlas, and as a result of the assessment, six glass business sites located in three European countries and one Southeast Asian country were rated as "extremely high (>80%)". As a result of the assessment, six glass operations in three European countries and one in Southeast Asia were identified as having "Very High (>80%) Baseline Water Stress". All of these sites are classified as

								having some degree of environmental impact as defined in the AGC Group Environmental Activities Regulations, which are classified as Environmental Categories 1 and 2, as determined by the number of processes, workers, and environmental impacts of the sites. At this time, there are no water withdrawal restrictions related to water stress or depletion, and the probability of actual damage in the short to medium term is expected to be low. However, in order to assess, identify, and address water risks in the value chain in the

								future, we will continue to conduct detailed analysis of the degree of risk and the impact on these sites. The total 2022 total water withdrawal at these sites is approximately % of the AGC Group's total water withdrawal.

W1.2h

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	4,078	About the same	Other, please specify The freshwater surface water intake in 2022 was -16% of the 2021 level, so we judge that change in absolute terms to be "about the same".	CHANGES IN 2022 When evaluating various environment-related performance values, including water-related indicators, the AGC Group defines a change of less than 20% as "about the

					same," a change of 20% to 50% as "high"/"low," and a change of 50% or more as "much higher"/"much lower. Since freshwater surface water withdrawals in 2022 were -16% of 2021 levels, we judge that change in absolute terms to be "about the same". FUTURE TRENDS The AGC Group's long-term management plan calls for operating income from core businesses, mainly glass manufacturing and basic chemicals, and strategic businesses, mainly mobility, electronics, and life sciences, to increase by more than 1.2

					times and 2.3 times, respectively, in 2030 compared to 2022. Since the strategic businesses with the highest growth rates are not water-intensive businesses, the analysis shows that the amount of fresh surface water use when this is realized will not bring about a significant change.
Brackish surface water/Seawater	Relevant	660,126	About the same	Other, please specify Since brackish water withdrawals from surface water or seawater in 2022 were -16% of those in 2021, we judge that change in absolute terms to be "about the same".	CHANGES IN 2022 When evaluating various environment-related performance values, including water-related indicators, the AGC Group defines a change of less than 20% as "about the same," a change of 20% to 50% as "high"/"low," and a change of 50% or more as "very high"/"very low.

					Since brackish water withdrawals from surface water or seawater in 2022 were -16% compared to 2021, we judge that change in absolute terms to be "about the same". FUTURE TRENDS The AGC Group's long-term management plan calls for operating income from core businesses, mainly glass manufacturing and basic chemicals, and strategic businesses, mainly mobility, electronics, and life sciences, to increase by more than 1.2 times and 2.3 times, respectively, in 2030 compared to 2022. Since the strategic businesses

					with the highest growth rates are not water-intensive businesses, the analysis shows that the use of brackish surface water or seawater when this is realized will not bring about significant changes.
Groundwater – renewable	Relevant	30,050	About the same	Other, please specify Groundwater withdrawals in 2022 were +5% over 2021, so we judge that change in absolute terms to be "about the same".	CHANGES IN 2022 When evaluating various environment-related performance values, including water-related indicators, the AGC Group defines a change of less than 20% as "about the same," a change of 20% to 50% as "high"/"low," and a change of 50% or more as "very high"/"very low. Since groundwater withdrawals in 2022 were +5% compared

					to 2021, we judge that change in absolute terms to be "about the same". FUTURE TRENDS The AGC Group's long-term management plan calls for operating income from core businesses, mainly glass manufacturing and basic chemicals, and strategic businesses, mainly mobility, electronics, and life sciences, to increase by more than 1.2 times and 2.3 times, respectively, in 2030 compared to 2022. Since the strategic businesses with the highest growth rates are not water-intensive businesses, the analysis shows that the amount of groundwater used when this

					is achieved will not bring about a significant change.
Groundwater – non-renewable	Not relevant				Groundwater used by AGC Group sites are renewable. Use of non-renewable groundwater is not applicable
Produced/Entrained water	Not relevant				AGC Group sites do not use produced water/mixed water. There are no plans to use produced water or mixed water in the future.
Third party sources	Relevant	53,247	About the same	Other, please specify Withdrawals from the third-party sources in 2022 were -6% of those in 2021, so we judge that change in absolute terms to be "about the same".	CHANGES IN 2022 When evaluating various environmental performance measures, including water-related indicators, the AGC Group defines a change of less than 20% as "about the same," a change of 20% to 50% as "high"/"low," and a change of 50% or more as "much

					higher"/"much lower. Since third-party water withdrawals in 2022 are -6% of 2021 levels, we consider this change to be "about the same" in absolute terms. FUTURE TRENDS According to the AGC Group's long-term management plan, the operating income of the core businesses, mainly glass and basic chemicals, and the strategic businesses, mainly mobility, electronics and life sciences, will increase by more than 1.2 times and 2.3 times, respectively, in 2030 compared to 2022. Since the strategic businesses with the highest growth rates

					are not water-intensive businesses, our analysis shows that they will not cause a significant change in third-party use once this is achieved.

W1.2i

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Please explain
Fresh surface water	Relevant	11,090	Higher	Change in accounting methodology	CHANGES IN 2022 When evaluating various environmental performance values, including water-related indicators, the AGC Group defines a change of less than 20% as "about the same," a change of 20% to 50% as "high"/"low," and a change of 50% or more as "much higher"/"much lower. Since the amount of freshwater discharged to surface water in 2022 was +66.5% of the 2021 level,

					that change in absolute terms is considered "high". FUTURE TRENDS The AGC Group's long-term management plan calls for operating income from core businesses, primarily glass manufacturing and basic chemicals, and strategic businesses, primarily mobility, electronics, and life sciences, to increase by more than 1.2 times and 2.3 times, respectively, in 2030 compared to 2022. Since the strategic businesses with the highest growth rates are not water-intensive businesses, our analysis shows that they will not bring about a significant change in the amount of freshwater discharged to surface water when this is realized
Brackish surface water/seawater	Relevant	693,758	About the same	Maximum potential volume reduction already achieved	CHANGES IN 2022 When evaluating various environmental

					performance values, including water-related indicators, the AGC Group defines a change of less than 20% as "about the same," a change of 20% to 50% as "high"/"low," and a change of more than 50% as "fairly high"/"fairly low. Since the amount of brackish water discharged to surface water or seawater in 2022 was -13.1% of that in 2021, we judge that change is "about the same". FUTURE TRENDS The AGC Group's long-term management plan calls for operating income from core businesses, primarily glass manufacturing and basic chemicals, and strategic businesses, primarily mobility, electronics, and life sciences, to increase by more than 1.2 times and 2.3 times, respectively, in 2030 compared to 2022. Since the strategic

					businesses with the highest growth rates are not water intensive businesses, the analysis shows that they will not bring about a significant change in the amount of brackish water discharged to surface water/sea water.
Groundwater	Relevant	1,721	About the same	Other, please specify The discharge to groundwater in 2022 was +16.4% over 2021, so we judge that change in absolute terms to be "about the same".	CHANGES IN 2022 When evaluating various environment-related performance values, including water-related indicators, the AGC Group defines a change of less than 20% as "about the same," a change of 20% to 50% as "high"/"low," and a change of 50% or more as "much higher"/"much lower. Since the discharge to groundwater in 2022 was +16.4% compared to 2021, we judge that change in absolute terms to be "about the same". FUTURE TRENDS The AGC Group's

					long-term management plan calls for operating income from core businesses, mainly glass manufacturing and basic chemicals, and strategic businesses, mainly mobility, electronics, and life sciences, to increase by more than 1.2 times and 2.3 times, respectively, in 2030 compared to 2022. The strategic businesses with the highest growth rates are not water-intensive businesses, and our analysis shows that they will not cause a significant change in the amount of wastewater discharged to groundwater when this is achieved
Third-party destinations	Relevant	17,369	About the same	Other, please specify The volume of effluent discharged to third-party destinations in 2022 was -1.9% of that in 2021, so we judge that change in absolute terms to be	CHANGES IN 2022 The AGC Group defines a change of less than 20% as "about the same," a change of 20% to 50% as "high"/"low," and a change of 50% or more as "fairly high"/"fairly low"

				"about the same".	when evaluating various environment-related performance values including water-related indicators. compared to 2021 was -1.9%, so we judge that change in absolute terms to be "about the same". FUTURE TRENDS The AGC Group's long-term business plan calls for operating income from core businesses, mainly glass manufacturing and basic chemicals, and strategic businesses, mainly mobility, electronics, and life sciences, to increase by more than 1.2 times and 2.3 times, respectively, in 2030 compared to 2022. Since the strategic businesses with the highest growth rates are not water-intensive businesses, our analysis shows that they will not cause a significant change in the

					amount of wastewater discharged to third-party destinations when this is achieved.

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	Primary reason for comparison with previous reporting year	% of your sites/facilities/operations this volume applies to	Please explain
Tertiary treatment	Relevant	17,000	About the same	Other, please specify The rate of change relative to 2021 is less than 20%.	41-50	RATIONALE FOR LEVEL OF TREATMENT The AGC Group conducts tertiary processing at sites that host glass melting kilns, polishing processes, and chemical manufacturing processes; for the AGC Group, sites refer to AGC

						and its wholly owned subsidiaries. standards and emission limits set by the competent authorities in accordance with local laws. CHANGES. Compared to 2021, emissions in 2022 are about the same; a change of less than 20% is defined as "about the same," a change of 20% to 50% as "high"/"low," and a change of more than 50% as "much higher"/"much lower. FUTURE TRENDS We do not

						expect this amount of water to change in the future unless there is a significant change in the production process that generates wastewater, a change in wastewater standards, or a significant increase or decrease in the number of employees.
Secondary treatment	Relevant	10,000	About the same	Other, please specify The rate of change relative to 2021 is less than 20%.	21-30	RATIONALE FOR LEVEL OF TREATMENT Approximately 29% of AGC Group sites fall under the category of secondary treatment, which is the process of biological treatment

						of wastewater to remove organic substances contained in domestic and process wastewater . CHANGES . Compared to 2021, emissions in 2022 are about the same; a change of less than 20% is defined as "about the same," a change of 20% to 50% as "high"/"low, " and a change of more than 50% as "much higher"/"much lower. FUTURE TRENDS We do not expect this amount of water to change in the future

						unless there is a significant change in the production process that generates wastewater, a change in wastewater standards, or a significant increase or decrease in the number of employees.
Primary treatment only	Relevant	2,810	About the same	Other, please specify The rate of change relative to 2021 is less than 20%.	1-10	Approximately 4% of AGC Group sites have primary processing. RATIONALE FOR LEVEL OF TREATMENT For the AGC Group, primary treatment includes oil-water separators for compresso

						r drains, separation tanks for oil tanks for liquid-proofing wastewater, and coagulation sedimentation for the treatment of glass polishing wastewater. The AGC Group's sites comply with all relevant regulatory standards and emission limits set by the competent authorities in accordance with local laws. CHANGES. Compared to 2021, emissions in 2022 are about the same; a change of less than 20% is

						defined as "about the same," a change of 20% to 50% as "high"/"low," and a change of more than 50% as "much higher"/"much lower. FUTURE TRENDS We do not expect this amount of water to change in the future unless there is a significant change in the production process that generates wastewater, a change in wastewater standards, or a significant increase or decrease in the number of employees.

Discharge to the natural environment without treatment	Relevant	693,758	Lower	Divestment from water intensive technology/process	Less than 1%	RATIONALE FOR LEVEL OF TREATMENT The only case in which untreated water is discharged into the natural environment is when indirect cooling water from in-house power generation facilities is discharged into the sea. Seawater used for indirect cooling (secondary cooling) of in-house power generation facilities accounts for 95.8% of the AGC Group's total discharge volume in 2022. AGC

						Group sites comply with all relevant regulatory standards and emission limits set by the competent authorities in accordance with local laws. CHANGES When evaluating various environment-related performance values, including various water-related ones, the AGC Group defines a change of less than 20% as "about the same," a change of 20% to 50% as "high"/"low," and a change of more than

						50% as "fairly high"/"fairly low. Since the actual discharge to the sea in 2022 was -16 % compared to 2021, the change is considered to be "about the same". Except for changes in the operation of on-site power generation facilities, we expect that this amount is unlikely to increase or decrease in the future. We set voluntary standard values based on the applicable legal standard

						values and agreed values at each site and conduct monitoring using the voluntary standard values as the criterion. no exceedances of the standard values with fines or penalties occurred in 2022.
Discharge to a third party without treatment	Relevant	370	About the same	Other, please specify The rate of change relative to 2021 is less than 20%.	11-20	RATIONALE FOR LEVEL OF TREATMENT A portion of wastewater that meets the standards for discharge from the premises to a third party and domestic wastewater other than wastewater used in the production process is

						discharged untreated to a third party if the third party is capable of treating domestic wastewater such as a public sewage system. CHANGES The AGC Group defines a year-on-year ratio of ±20% or more as the threshold of significance when evaluating various environment-related performance values, including various water-related ones; a change of less than 20% is defined as "about the same," a change of 20% to

						50% as "high"/"low," and a change of 50% or more as "much higher"/"much lower. Since the 22-year actual value of third-party wastewater compared to the 21-year value was -1.9%, the change was determined to be "about the same". FUTURE TRENDS. We set voluntary standard values based on the applicable legal standard values and agreed values at each site and conduct monitoring using the

						voluntary standard values as criteria No exceedances of the standard values with fines or penalties occurred in 2022.
Other	Not relevant					To the best of our knowledge, based on current monitoring, the AGC Group discharges wastewater to the natural environment or to third parties through either primary, secondary or tertiary treatment and does not use other methods.

W1.2k

(W1.2k) Provide details of your organization's emissions of nitrates, phosphates, pesticides, and other priority substances to water in the reporting year.

	Emissions to water in the reporting	Category(ies) of substances included	List the specific substances included	Please explain

	year (metric tonnes)			
Row 1	0	Nitrates Phosphates Pesticides Priority substances listed under the EU Water Framework Directive	Pesticides: acronifene, bifenox, cypermethrin, dicofol, heptachlor, quinoxyfen Biocides: cybutrin, dichlorvos, terbutrin Industrial chemicals: perfluorooctane sulfonate (PFOS), hexabromocyclododecane (HBCD), dioxin, Dioxin-like polychlorinated biphenyls (PCBs) Pharmaceuticals: 17α-ethynylestradiol (EE2), 17β-estradiol (E2), diclofenac	Hazardous chemicals are not contained in water discharge from AGC group sites.

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	2,035,900,000,000	747,501	2,723,608.39651051	According to the AGC Group's long-term management plan, the operating profit of core businesses, mainly glass manufacturing and basic chemicals, and strategic businesses, mainly mobility, electronics and life sciences, will increase by more than 1.2 times and 2.3 times, respectively, in 2030 compared with 2022. Strategic businesses with high growth rates are not water-intensive businesses, and water extraction efficiency will improve as this is achieved.

W-CH1.3

(W-CH1.3) Do you calculate water intensity for your activities in the chemical sector?

W1.4

(W1.4) Do any of your products contain substances classified as hazardous by a regulatory authority?

	Products contain hazardous substances
Row 1	Yes

W1.4a

(W1.4a) What percentage of your company's revenue is associated with products containing substances classified as hazardous by a regulatory authority?

Regulatory classification of hazardous substances	% of revenue associated with products containing substances in this list	Please explain
Candidate List of Substances of Very High Concern for Authorisation above 0.1% by weight (EU Regulation)	Less than 10%	4 phthalates were already replaced.
Other, please specify RoHS directive	Less than 10%	Pb-free materials were already developed.

W1.5

(W1.5) Do you engage with your value chain on water-related issues?

	Engagement	Primary reason for no engagement	Please explain
Suppliers	No	We are planning to do so within the next two years	The assessment of water risks in our Group showed that manufacturing sites and suppliers located in coastal areas are of concern for physical risks related to climate change, but otherwise no water risks related to suppliers were identified. However, we intend to conduct a detailed analysis of water impacts throughout the value and supply chain in accordance with the TNFD framework within the next two years. Based on the identified impacts across the AGC Group, we will initiate engagement with our suppliers. We expect to identify impacts at the raw material processing stage.
Other value chain partners (e.g., customers)	Yes		

W1.5e

(W1.5e) Provide details of any water-related engagement activity with customers or other value chain partners.

Type of stakeholder

Other, please specify

Employees

Type of engagement

Education / information sharing

Details of engagement

Educate and work with stakeholders on understanding and measuring exposure to water-related risks

Rationale for your engagement

In the assessment using Aqueduct, five AGC Group sites were determined to be at very high water risk. These sites have been educating their employees on water conservation for some time in order to reduce water withdrawals.

Impact of the engagement and measures of success

We consider our efforts successful when we see an increase in training participation and/or a decrease in annual water withdrawals and their intensity trends compared to the previous year.

W2. Business impacts

W2.1

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

Yes

W2.1a

(W2.1a) Describe the water-related detrimental impacts experienced by your organization, your response, and the total financial impact.

Country/Area & River basin

Japan

Other, please specify

Yahagi River

Type of impact driver & Primary impact driver

Technology

Other, please specify

The "piping phenomenon" that creates a path for water to pass under the intake facility weir

Primary impact

Supply chain disruption

Description of impact

AGC's plant also uses industrial water from Meiji Water, and the suspension of Meiji Water's intake in 2022 had a major impact on the agricultural and automotive industries, which are key industries in the Nishi Mikawa region, an area that supplies water for agricultural and industrial use. Since it was no longer possible to draw water from the Meiji water supply, an alternative water supply was quickly secured. During the period of water withdrawal restrictions, 7 million yen was spent, including overhead costs, to obtain alternative water.

Primary response

Secure alternative water supply

Total financial impact

7,000,000

Description of response

Since it is not practical to have a backup system to obtain water from sources other than Meiji Water, the same alternative means will be used to obtain water in the event that the water supply is interrupted again. Therefore, the cost of the response is estimated at 7 million yen, the same as the previous cost.

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?

	Water-related regulatory violations	Comment
Row 1	No	No fines, legal orders, or other penalties were imposed for water-related regulatory violations during the reporting year.

W3. Procedures

W3.1

(W3.1) Does your organization identify and classify potential water pollutants associated with its activities that could have a detrimental impact on water ecosystems or human health?

	Identification and classification of potential water pollutants	How potential water pollutants are identified and classified
Row 1	Yes, we identify and classify our potential water pollutants	All AGC Group sites have identified and comply with applicable legal requirements and agreements regarding water use and discharge. In Japan, wastewater discharged from a site is subject to the Water Pollution Control Law, and sites must comply with discharge standards

		for each substance. Similarly, each site complies with discharge standards set by applicable laws. We identify the applicable legal requirements through the environmental management system and ensure the identification of applicable laws and regulations through the timing of legal revisions and periodic reviews. In 2022, there were no non-conformities related to water pollutants. In addition, AGC works to mitigate the risks posed by wastewater as one of the activities of the Trouble Elimination Project, initiated by the Production Engineering Department, which has expertise and skills in wastewater treatment. By using AGC's own matrix to visualize the risks posed by wastewater discharge points by discharge point and drain by drain, considering the potential risks of each discharge point and drain. If the treatment plant and bypass system are fully equipped, the risk is considered low. The Production Engineering Department re-evaluates risks and preventive measures against abnormal situations, such as exceeding standards, when there are changes in products, processes, and other water-related circumstances to ensure the type of water pollutants and their concentration in wastewater.

W3.1a

(W3.1a) Describe how your organization minimizes the adverse impacts of potential water pollutants on water ecosystems or human health associated with your activities.

Water pollutant category

Inorganic pollutants

Description of water pollutant and potential impacts

All AGC Group sites around the world have identified and comply with legal requirements and agreements that apply to the water they use and the water they discharge. AGC Group sites in Japan are required to comply with the following 28 substances that are regulated for discharge into public waters and leaching into the ground and that are identified by government regulation as potentially harmful to human health, including cadmium. Twenty-eight substances identified by government regulation as potentially harmful to human health are considered hazardous substances under the Water Pollution Control Law, and the discharge characteristics of each site determine which substances are subject to the law. In addition to hazardous substances and oil, 55 substances designated by government regulation as potentially harmful to the living environment if discharged in large quantities into public waters may also be subject to the law. For example, cadmium and its compounds are heavy metals that are harmful to the human body and have acute toxicity, which is also controlled by law at each site, so care is taken to minimize their presence in wastewater.

Value chain stage

Direct operations

Actions and procedures to minimize adverse impacts

Beyond compliance with regulatory requirements

Please explain

The AGC Group's environmental management system takes the form of multi-site certification, and compliance with applicable laws and regulations is verified through internal and external audits. For example, in Japan, cadmium and its compounds are continuously monitored by sensors to keep the concentration in wastewater within 0.03 mg Cd/L, and trend monitoring of concentrations is conducted as part of the environmental management system. In addition to complying with legal limits, our sites set their own voluntary standards and manage wastewater quality so that it does not exceed the voluntary standards. In 2022, there were no non-conformities related to water pollutants.

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

Other stages of the value chain

Coverage

Full

Risk assessment procedure

Water risks are assessed as part of other company-wide risk assessment system

Frequency of assessment

Every three years or more

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Tools on the market

Other

Tools and methods used

WRI Aqueduct

External consultants

Contextual issues considered

Water availability at a basin/catchment level
Water quality at a basin/catchment level
Stakeholder conflicts concerning water resources at a basin/catchment level
Water regulatory frameworks
Status of ecosystems and habitats

Stakeholders considered

Customers
Employees
Investors
Local communities
NGOs
Regulators
Suppliers
Other water users at the basin/catchment level

Comment

Risk assessments are conducted for all AGC Group sites using Aqueduct. For sites with a baseline risk of medium or higher, we conduct a questionnaire-based survey of past loss history and the status of risk countermeasures and revise the baseline risk based on the status of countermeasures. For sites where the revised baseline risk is considered high, we plan to conduct on-site inspections in the future.

Value chain stage

Direct operations
Supply chain
Other stages of the value chain

Coverage

Full

Risk assessment procedure

Water risks are assessed as part of other company-wide risk assessment system

Frequency of assessment

Annually

How far into the future are risks considered?

3 to 6 years

Type of tools and methods used

Enterprise risk management
International methodologies and standards
Other

Tools and methods used

COSO Enterprise Risk Management Framework
Enterprise Risk Management
ISO 31000 Risk Management Standard
Environmental Impact Assessment
ISO 14001 Environmental Management Standard
Internal company methods
Scenario analysis

Contextual issues considered

Water availability at a basin/catchment level
Water quality at a basin/catchment level
Stakeholder conflicts concerning water resources at a basin/catchment level
Impact on human health
Water regulatory frameworks
Status of ecosystems and habitats
Access to fully-functioning, safely managed WASH services for all employees

Stakeholders considered

Customers
Employees
Investors
Local communities
NGOs
Regulators
Suppliers
Water utilities at a local level
Other water users at the basin/catchment level

Comment

The AGC Group is committed to integrated risk management as a group-wide initiative. Specifically, each company, SBU (Strategic Business Unit), and corporate division, including the affiliated companies under their jurisdiction, will promote integrated risk management initiatives based on the basic policy set by the management. Meanwhile, the Corporate Planning Division will endeavor to centrally and integrally monitor the status of risk management, including responses when such risks emerge, with respect to important risks that should be managed as a group.

In the downside risk self-assessment conducted in 2022, we assessed the risk of business interruption due to sudden events such as typhoons, hurricanes, cyclones, and other natural disasters due to climate change for direct operations, upstream, and downstream, and identified business sites with high risk. Business sites with high risk for direct operations have implemented risk mitigation measures and formulated business continuity plans that specify important operations that should be continued even in the event of an unexpected event.

Value chain stage

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?

1 to 3 years

Type of tools and methods used

Enterprise risk management

Tools and methods used

COSO Enterprise Risk Management Framework
Enterprise Risk Management
ISO 31000 Risk Management Standard

Contextual issues considered

Implications of water on your key commodities/raw materials

Stakeholders considered

Customers
Employees
Investors
Suppliers

Comment

Based on the integrated risk management described in W3.3b, we evaluate the supply risk of each raw material procured each year and consider BCP plans for raw materials with significant risk. For example, for suppliers that use the Yangtze River as a transportation route, we are switching suppliers and considering alternative raw materials as transportation risks have increased in recent years due to flooding of the Yangtze River.

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.

	Rationale for approach to risk assessment	Explanation of contextual issues considered	Explanation of stakeholders considered	Decision-making process for risk response

Row 1	The Company defines risks that are expected to have a significant impact on business management when they occur as "significant risk factors" and has established and operates a system to enable management to monitor the management status of such risks throughout the Group. For the purpose of developing and operating a risk management system for the Company and its subsidiaries, the AGC Group Integrated Risk Management Basic Policy sets forth the basic policy, roles and responsibilities, etc., based on the provisions of Section 4, Article 100-2 "Regulations and Other Systems for Managing Risk of Loss" of the Ordinance for Enforcement of the Companies Act, and includes risks associated with climate change, including physical risks. The policy covers risks associated with climate change, including physical risks. Developing and operating a risk management system refers to (1) identifying risks and developing	In the mid-term management plan, we have identified material opportunities and material risks that could affect the long-term direction of our management and corporate value, based on future trends in global social issues and risks, as well as social issues that our customers are working to resolve, as the materiality of our Group.	As part of our annual downside risk self-assessment, we evaluated the risk of business interruption due to natural disasters such as typhoons, hurricanes and cyclones caused by climate change for direct operations, upstream and downstream, and identified high-risk sites. High-risk sites for direct operations have implemented risk mitigation measures and formulated business continuity plans that identify critical operations that should continue in the event of an unexpected event.	In accordance with internal regulations, the Company defines significant risk factors in the Group and the status of risk management is regularly discussed and monitored by the Company's Management Committee and Board of Directors. With respect to individual risks in the Group's operations, the Group's functional divisions, internal companies and SBUs analyze risks and consider countermeasures for each business and project, and the Management Committee and the Board of Directors discuss them as necessary. With regard to risks related to compliance, the environment, disasters, quality, and other risks of the Minebea Group, the relevant Minebea divisions establish and disseminate guidelines, etc., and conduct training, audits, etc., as appropriate. Significant risk factors are reviewed on a regular basis, taking into account the degree of impact on the Group's management and the likelihood of occurrence of such risks. In accordance with internal rules, a crisis management reporting

	and operating procedures and systems to prevent the occurrence of such risks, and (2) also identifying risks and developing and operating response procedures and systems in the event that such risks occur. We used the following tolls and procedures when in assessing risks; - COSO Enterprise-wide Risk - Management Framework - Enterprise Risk Management - ISO 31000 Risk Management Standard - Environmental Impact Assessment - ISO 14001 Environmental Management Standard - Internal Methods - Scenario Analysis			line has been established to prepare for the occurrence of unforeseen events that could have a significant impact on the Group's business and financial position, and to report and share information with the CEO in a timely and reliable manner based on the "Bad News First" concept. In addition, a Group Task Force is established immediately upon the CEO's decision and a system is in place to take prompt and appropriate initial action.

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, only within our direct operations

W4.1a

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

DEFINITION OF SIGNIFICANT IMPACT

The AGC Group defines material impact as items that may have a significant effect on the judgment of investors and uses net assets/recurring profit/net income as threshold indicators. The loss threshold is then set at the lesser of 3% of net assets or 30% of recurring or net income. 2022 was at least 30% of net income, or 17.4 billion yen.

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	5	Less than 1%	Using Aqueduct 3.0 of the revised WRI Aqueduct water atlas, we assessed the level of overall water risk for 500 sites that are considered dependent on water resources and water bodies based on their business activities and water treatment methods. Total water risk measures all water-related risks by aggregating all selected indicators from the physical quantity, water quality, and regulatory and reputational risk categories, with higher values indicating higher water risk. The results show that five sites in the Glass and Ceramics segments in China and Indonesia are rated extremely high (4-5). However, there are currently no restrictions or constraints that would impede business operations and the likelihood of actual losses in the short to medium term is considered low. The AGC Group as a whole also believes that the likelihood of a "significant financial or strategic impact on its business" is significantly low and has determined that there are no facilities with water-related risks that could have a significant financial or strategic impact. On the other hand, we will continue to conduct detailed analyses of the extent of the risk and its impact on our sites in order to assess, identify and manage water risks in the value chain in the future.

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

Indonesia

Other, please specify

Java - Timor

Number of facilities exposed to water risk

3

% company-wide facilities this represents

Less than 1%

% company's total global revenue that could be affected

1-10

Comment

Three sites of the same company in the same river basin were selected.

Using Aqueduct 3.0 of the revised WRI Aqueduct Water Atlas, an assessment of the level of overall water risk was made. The probability of actual damage in the short to medium term is considered to be low. The AGC Group as a whole also believes that the likelihood of an event that would have a "significant financial or strategic impact on the business" is significantly low, and the facility is not considered to be a facility with water-related risks that could have a significant financial or strategic impact.

Country/Area & River basin

China

Other, please specify

Bo Hai - Korean Bay, North Coast

Number of facilities exposed to water risk

1

% company-wide facilities this represents

Less than 1%

% company's total global revenue that could be affected

Less than 1%

Comment

Using Aqueduct 3.0 of the revised WRI Aqueduct Water Atlas, an assessment of the level of overall water risk was made. The probability of actual losses in the short to medium term is considered to be low. The AGC Group as a whole also believes that the likelihood of a "significant financial or strategic impact on the business" is significantly low and has determined that there are no facilities with water-related risks that could have a significant financial or strategic impact.

Country/Area & River basin

China

Other, please specify

Huang He

Number of facilities exposed to water risk

1

% company-wide facilities this represents

Less than 1%

% company's total global revenue that could be affected

Less than 1%

Comment

Using Aqueduct 3.0 of the revised WRI Aqueduct Water Atlas, an assessment of the level of overall water risk was made. The probability of actual losses in the short to medium term is considered to be low. The AGC Group as a whole also believes that the likelihood of a "significant financial or strategic impact on the business" is significantly low and has determined that there are no facilities with water-related risks that could have a significant financial or strategic impact.

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

Indonesia

Other, please specify

Java - Timor

Type of risk & Primary risk driver

Chronic physical

Water stress

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Three sites of the same company in the same river basin were selected. The importance of these Indonesian facilities, which produce glass and chemicals, to the AGC Group is very high, and the impact of the water risk is being assessed.

Timeframe

More than 6 years

Magnitude of potential impact

Low

Likelihood

Exceptionally unlikely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

3,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

If relatively minor water damage were to occur at these sites, affecting on-site facilities and the environment, even if it did not affect production to any degree, there would be costs associated with labor and tools for the restoration process. The amount was set at 1 million yen x 3 sites.

Primary response to risk

Amend the Business Continuity Plan

Description of response

Three sites of the same company in the same river basin were selected. Because of the potential for some capacity reductions and disruptions at these sites, we monitor the risk on a regular basis.

Using Aqueduct 3.0 of the revised WRI Aqueduct Water Atlas, an assessment of the level of overall water risk was made. The probability of actual damage in the short to medium term is considered to be low. The AGC Group as a whole also believes that the likelihood of an event that would have a "significant financial or strategic impact on the business" is significantly low, and the facility is not considered to be a facility with water-related risks that could have a significant financial or strategic impact.

Cost of response

1,000,000

Explanation of cost of response

COST CALCULATION
Sandbags are prepared at each site in case of flooding. The cost of installing and maintaining these sandbags was considered as a response cost of 1,000,000 yen in total of three sites.

Country/Area & River basin

China

Other, please specify

Bo Hai - Korean Bay, North Coast

Type of risk & Primary risk driver

Chronic physical

Water stress

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

The importance of this Chinese site, which produce glass, to the AGC Group is very high, and the impact of the water risk is being assessed.

Timeframe

More than 6 years

Magnitude of potential impact

Low

Likelihood

Exceptionally unlikely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

1,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

If relatively minor water damage were to occur at these sites, affecting on-site facilities and the environment, even if it did not affect production to any degree, there would be costs associated with labor and tools for the restoration process. The amount was set at 1 million yen.

Primary response to risk

Amend the Business Continuity Plan

Description of response

Because of the potential for some capacity reductions and disruptions at this site, we monitor the risk on a regular basis. Using Aqueduct 3.0 of the revised WRI Aqueduct Water Atlas, an assessment of the level of overall water risk was made. The probability of actual losses in the short to medium term is considered to be low. The AGC Group as a whole also believes that the likelihood of a "significant financial or strategic impact on its business" is significantly low, and the facility is not considered to be a facility with water-related risks that could have a significant financial or strategic impact.

In addition, awareness training is provided to employees to reduce water consumption and eliminate abnormal water discharge.

Cost of response

1,100,000

Explanation of cost of response

COST CALCULATION
Sandbags are prepared at each site in case of flooding. The cost of installing and maintaining these sandbags was considered as a response cost of 1,000,000 yen in total of three sites. In addition, cost to carry out internal training is calculated

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Country/Area & River basin

China
Other, please specify
Huang He

Type of risk & Primary risk driver

Chronic physical
Water stress

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

The importance of this Chinese site, which produce glass, to the AGC Group is very high, and the impact of the water risk is being assessed.

Timeframe

More than 6 years

Magnitude of potential impact

Low

Likelihood

Exceptionally unlikely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

1,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

If relatively minor water damage were to occur at these sites, affecting on-site facilities and the environment, even if it did not affect production to any degree, there would be costs associated with labor and tools for the restoration process. The amount was set at 1 million yen.

Primary response to risk

Amend the Business Continuity Plan

Description of response

Because of the potential for some capacity reductions and disruptions at this site, we monitor the risk on a regular basis. Using the Aqueduct 3.0 of the revised WRI Aqueduct water atlas, an assessment of the degree of overall water risk was conducted. The probability of actual damage in the short to medium term is expected to be low. The AGC Group as a whole also expects that the probability of a "significant financial or strategic impact on its business" is significantly low, and the facility is not considered to be a facility with water-related risks that could have a significant financial or strategic impact.

Cost of response

1,000,000

Explanation of cost of response

COST CALCULATION
Sandbags are prepared at each site in case of flooding. The cost of installing and maintaining these sandbags was considered as a response cost of 1,000,000 yen in total of three sites.

W4.2c

(W4.2c) Why does your organization not consider itself exposed to water risks in its value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact?

	Primary reason	Please explain
Row 1	Risks exist, but no substantive impact anticipated	Although the AGC Group has identified the possibility that the upstream part of its value chain could be affected by physical risks related to climate change, the Group believes that the possibility of being affected by a water risk is extremely low due to its low dependence on water in the raw

		material and upstream transportation stages and that, if a water risk were to occur, the impact would be minimal. The Company believes that the impact of a water risk, if it were to occur, would be negligible. The same applies downstream in the value chain, where the AGC Group's products contribute to the mitigation of water risks, but are not considered to be a significant risk factor. An example of a risk is the possibility that wastewater containing hazardous substances generated by the AGC Group's manufacturing processes could have an impact on nature and local communities if there is a malfunction in the wastewater treatment process and untreated wastewater is released into the environment. The AGC Group's environmental management system is based on a multi-site certification system and compliance with applicable laws and regulations is verified through internal and external audits. As there have been no non-conformities related to water pollutants in 2022, the Company believes that the likelihood of a significant impact is low.

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

Products and services

Primary water-related opportunity

Increased sales of existing products/services

Company-specific description & strategy to realize opportunity

The AGC Group's Chemicals business develops and manufactures SELEMION, a hydrocarbon-based ion exchange membrane. One application of this ion-exchange membrane is desalination through electrodialysis. These ion-exchange membranes are used in electrodialysis to desalinate industrial wastewater to reusable levels, helping to reduce water withdrawals. Other applications include the production of drinking water by desalination and denitrification of well water, desalination and reuse of wastewater through activated sludge process, and desalination of landfill leachate. Since entering the membrane business in 1950, the AGC Group, as a pioneer in ion-exchange membranes, has manufactured and sold SELEMION and so on through tireless technological development and has contributed to the reuse of water by customers.

In addition, as a step towards achieving the goal of "Nature Positive", a state in which

the positive impact of the manufacturing process and performance of AGC Group products on natural capital exceeds the negative impact, we are investigating methods for quantifying the impact on natural capital. The study includes the creation of a network diagram of the entire value chain, including by-products, and a discussion of the results obtained by evaluating the negative and positive impacts using LCA quantification methods such as EPS and LIME2/3. As an example, sodium hypochlorite, produced by the AGC Group, is widely used for bleaching pulp, sterilizing swimming pools, disinfecting water and sewage systems, and as a household disinfectant and bleaching agent, helping to maintain public health and prevent contamination.

Sales in the Chemicals business, including SELEMION and sodium hypochlorite, will reach 795.2 billion yen in fiscal 2022.

Criteria threshold or definition of "significant opportunity"
The Chemicals business has sales of 660.4 billion yen in 2022, which represents approximately 32% of the AGC Group's total sales. Therefore, improving sales in the Chemicals business, which supports the supply of sanitary water, is a criterion of opportunity for the AGC Group.

How to evaluate the opportunity
The increase in sales of the Chemicals business is evaluated as an indicator that the opportunity has been realized.

Timing of next evaluation implementation
The company announces its business results every quarter of each year in the form of a financial report.

Estimated timeframe for realization

Current - up to 1 year

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)

110,000,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

The Chemicals business is projected to achieve sales of 650.0 billion yen in 2023. This sales forecast includes the gas business, including SELEMION, sodium hypochlorite,

solvents, the chlor-alkali business, the fluorochemicals business and the urethane business.

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)

SD

Country/Area & River basin

Indonesia

Other, please specify

Java - Timor

Latitude

-7.364785

Longitude

112.652989

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

527.27

Comparison of total withdrawals with previous reporting year

Higher

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

527.27

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)

111.18

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

111.18

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)

416.09

Comparison of total consumption with previous reporting year

Higher

Please explain

When evaluating various environment-related performance values, including those related to water, the AGC Group defines a change of less than 20% as "almost the same," a change of between 20% and 50% as "high" or "low" (depending on the context), and a change of 50% or more as "very high" or "very low".

Facility reference number

Facility 2

Facility name (optional)

CK FGGD

Country/Area & River basin

Indonesia

Other, please specify

Java - Timor

Latitude

-6.408615

Longitude

107.404871

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

711.12

Comparison of total withdrawals with previous reporting year

About the same

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

711.12

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)

474.51

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

474.51

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)

236.61

Comparison of total consumption with previous reporting year

About the same

Please explain

When evaluating various environment-related performance values, including those related to water, the AGC Group defines a change of less than 20% as "almost the same," a change of between 20% and 50% as "high" or "low" (depending on the context), and a change of 50% or more as "very high" or "very low" .

Facility reference number

Facility 4

Facility name (optional)

QH

Country/Area & River basin

China

Other, please specify

Bo Hai - Korean Bay, North Coast

Latitude

39.937564

Longitude

119.532632

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

171.66

Comparison of total withdrawals with previous reporting year

About the same

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

171.66

Total water discharges at this facility (megaliters/year)

137.36

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

137.36

Total water consumption at this facility (megaliters/year)

34.3

Comparison of total consumption with previous reporting year

Lower

Please explain

When evaluating various environment-related performance values, including those related to water, the AGC Group defines a change of less than 20% as "almost the same," a change of between 20% and 50% as "high" or "low" (depending on the context), and a change of 50% or more as "very high" or "very low" .

Facility reference number

Facility 5

Facility name (optional)

ZAC

Country/Area & River basin

China

Other, please specify

Huang He

Latitude

36.50544

Longitude

117.87567

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

169.24

Comparison of total withdrawals with previous reporting year

About the same

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

14.96

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

154.28

Total water discharges at this facility (megaliters/year)

169.24

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

169.24

Total water consumption at this facility (megaliters/year)

0

Comparison of total consumption with previous reporting year

About the same

Please explain

When evaluating various environment-related performance values, including those related to water, the AGC Group defines a change of less than 20% as "almost the same," a change of between 20% and 50% as "high" or "low" (depending on the context), and a change of 50% or more as "very high" or "very low" .

Facility reference number

Facility 3

Facility name (optional)

CK AGGD

Country/Area & River basin

Indonesia

Other, please specify

Java - Timor

Latitude

-6.415975

Longitude

107.404114

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

254.45

Comparison of total withdrawals with previous reporting year

Much higher

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

254.45

Total water discharges at this facility (megaliters/year)

123.01

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

123.01

Total water consumption at this facility (megaliters/year)

131.44

Comparison of total consumption with previous reporting year

Much higher

Please explain

When evaluating various environment-related performance values, including those related to water, the AGC Group defines a change of less than 20% as "almost the same," a change of between 20% and 50% as "high" or "low" (depending on the context), and a change of 50% or more as "very high" or "very low" .

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

76-100

Verification standard used

Limited Guarantee using International Standard on Assurance Engagements (ISAE) No. 3000

Water withdrawals – volume by source

% verified

76-100

Verification standard used

Limited Guarantee using International Standard on Assurance Engagements (ISAE) No. 3000

Water withdrawals – quality by standard water quality parameters

% verified

Not verified

Please explain

Not verified as measured in-house. Measuring equipment is calibrated on a regular basis.

Water discharges – total volumes

% verified

76-100

Verification standard used

Limited Guarantee using International Standard on Assurance Engagements (ISAE) No. 3000

Water discharges – volume by destination

% verified

76-100

Verification standard used

Limited Guarantee using International Standard on Assurance Engagements (ISAE) No. 3000

Water discharges – volume by final treatment level

% verified

Not verified

Please explain

Not verified as measured in-house. Measuring equipment is calibrated on a regular basis.

Water discharges – quality by standard water quality parameters

% verified

76-100

Verification standard used

Not verified as measured in-house. Measuring equipment is calibrated on a regular basis.

Water consumption – total volume

% verified

Not verified

Please explain

Not verified as this is just calculation - water consumption minus water discharge

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 the scope (including value chain stages) covered by the policy Description of business dependency on water Description of business impact on water Commitment to align with international frameworks, standards, and widely-recognized water initiatives Commitment to prevent, minimize, and control pollution Commitment to reduce or phase-out hazardous substances Commitment to reduce water withdrawal and/or consumption volumes in direct operations	The AGC Group is engaged in businesses that consume large amounts of resources and energy, and we have defined "environment" as one of the values in our group vision "Look Beyond" and act accordingly. The AGC Group's environmental policy is as follows We will contribute to the realization of a "decarbonized society," "resource-recycling society," and "society in harmony with nature" at all stages of the value chain to achieve sustainability for society and ourselves. To contribute to the realization of a "decarbonized society," "resource-recycling society," and "society in harmony with nature," we will set environmental targets based on the AGC Group's sustainability goals, and strive to achieve and improve them. We will strive to develop and provide society with products, technologies, services, and facilities that take sustainability and the entire value chain into consideration, and respond to the changing times

		Commitment to reduce water withdrawal and/or consumption volumes in supply chain Commitment to safely managed Water, Sanitation and Hygiene (WASH) in the workplace Commitment to safely managed Water, Sanitation and Hygiene (WASH) in local communities Commitment to water stewardship and/or collective action Commitments beyond regulatory compliance Reference to company water-related targets Acknowledgement of the human right to water and sanitation Recognition of environmental linkages, for example, due to climate change	with innovative solutions. We will strive for continuous improvement based on our environmental management system. We will comply with environmental regulations both within and outside the group, strive to prevent pollution, etc., and contribute to environmental preservation. This policy is based on the following three points: a large amount of water resources such as fresh water and seawater are indispensable for the continuation of our business as raw materials, for cleaning, and for cooling; the AGC Group's business depends on water; products such as caustic soda used for water treatment are essential for society; and the SDGs "Environmental Conservation" includes The AGC Group's products, including caustic soda, are indispensable to the "environmental protection" of the SDGs. The AGC Group's "Health Care Policy" also declares that providing safe water to employees is our corporate mission. In addition, there is a growing awareness of global environmental issues, such as the expansion of living areas due to population growth and urbanization around the world, interest in preserving biodiversity in surrounding areas, and the improvement of quality of life (QOL) due to higher living standards in emerging countries. Against this backdrop, the AGC Group has identified "community relations and consideration for the environment" as one of its 10 key sustainability issues, and is working to address water risks in its value chain and supply chain, as well as water opportunities that contribute to risk mitigation.

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 or committee	Responsibilities for water-related issues
Chief Executive Officer (CEO)	RESPONSIBILITIES FOR WATER SECURITY The Chair, CEO, CFO and also CCO, CTO, and outside directors deliberate at a Board of Directors meeting to determine the appropriateness of governance, including management objectives and responses to risks and opportunities related to climate change issues, for the entire AGC Group. At the meetings of the Board of Directors, the CEO, as the representative director, is responsible for the Board's resolutions related to our water security response. These roles include responding to water security. As a preliminary step to the Board of Directors meeting, the Sustainability Committee, which is an advisory body to the CEO and is positioned at the same level as the Management Committee, deliberates over AGC Group's strategy for sustainability management, including water security-related issues, and determines matters related to water security-related issues to be brought up for discussion and reporting at the Board of Directors meeting. Based on decisions made by the Sustainability Committee, the CEO reports to the Board of Directors on AGC Group's water security strategy as appropriate. The Sustainability Committee has established standards for the implementation of their role, the 'Sustainability Committee Agenda Items and Reporting Criteria for the Board of Directors'. EXAMPLES OF CLIMATE-RELATED DECISIONS The CEO decided on the following in 2022. KPIs that show progress in creating the five social values, including water security, are the most important in the consideration of sustainability management in the next medium-term management plan.

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 Monitoring progress towards corporate targets	Recognizing that water security is an important issue affecting corporate sustainability in society and the economy, the AGC Group's directors are required to fulfill their duty to address risks and opportunities related to water security and adaptation to and mitigation. Under the directors' duty of loyalty to the company,

		Overseeing acquisitions, mergers, and divestitures Overseeing and guiding public policy engagement Overseeing and guiding scenario analysis Overseeing major capital expenditures Overseeing the setting of corporate targets Overseeing value chain engagement Providing employee incentives Reviewing and guiding annual budgets Reviewing and guiding business plans Reviewing and guiding corporate responsibility strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing innovation/R&D priorities Setting performance objectives	as set forth in the Japanese corporate law where AGC's headquarters is located, directors are obligated to report to the company facts that could potentially harm the company and are responsible for establishing a risk management system to fulfill their responsibility to monitor and control such issues. Recognizing that water security can be one of these issues, the Board of Directors receives reports on the main risks and opportunities associated with water security and on the governance of water security in the AGC Group, based on decisions made by the Executive Committee and the Sustainability Committee, and monitoring and deliberations. The role of the Management Committee is defined as follows, which encompasses the perspective of risks and opportunities associated with water security. The Management Committee is responsible for the formulation of the AGC Group's basic management policies, and for deciding on management policies, strategies, and plans based on the basic policies approved by the Board of Directors. The Sustainability Committee reports to the Board of Directors at least twice a year (May-June and November-December). Additional discussion and reports are provided each time significant issues related to water security arise, and oversight is provided by the directors. The Sustainability Committee discusses and decides on the following items related to water security Overseeing and guiding scenario analysis Overseeing the setting of corporate goals Monitoring progress toward corporate goals Oversight and guidance on public policy engagement Oversight of value chain engagement Reviewing and guiding risk management processes The 2022 Board of Directors discussed and reported on the following matters as reported by the Sustainability Committee

			The KPIs showing progress in creating the "five social values," including water security, are of paramount importance for the sustainability management consideration in the next mid-term plan. In addition to the above, the executives constantly review the company-wide strategies, mid-term plans, annual budgets, individual capital investments, and deliberations on M&A projects and the associated future water cost burden related to water withdrawal and wastewater discharge. In addition, the results of company-wide monitoring are reported to the Board of Directors in accordance with the integrated risk management mechanism detailed in C2.1b. The report includes the identified physical risks associated with climate change and the BCP responses to them.

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 AGC Group's policy regarding the balance, diversity and size of the Board as a whole, which is necessary for the sustainable growth of the Group and the medium to long-term enhancement of its corporate value, is described in the "Nomination and Compensation Committee (Nomination Committee)" section of the Annual Securities Report. Based on this policy, the Company strives to have a good balance of qualified directors and auditors and to ensure diversity in light of the "Skill Matrix", which clarifies the skills that should be possessed by the Board of Directors and the Board of Auditors. Sustainability is defined as one of the skills in the Skill Matrix. The skills are identified from the perspective of the functions required of the Board of Directors and the Board of Corporate Auditors, consistency with management strategy, and business characteristics, with definitions for each skill and guidelines for determining the possession of each skill. In determining the existence of each skill, we use as a guideline whether the auditor has a particularly strong track record, a wealth of experience, or a high level of insight. For water security and physical risks associated with water security, such as flooding and storm surges, we require

		"knowledge of environmental issues necessary for both sustainable development of the earth and society and sustainable growth of the organization.

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)

Water-related responsibilities of this position

Assessing future trends in water demand
Assessing water-related risks and opportunities
Managing water-related risks and opportunities
Conducting water-related scenario analysis
Setting water-related corporate targets
Monitoring progress against water-related corporate targets
Managing public policy engagement that may impact water security
Managing value chain engagement on water-related issues
Integrating water-related issues into business strategy
Managing annual budgets relating to water security
Managing major capital and/or operational expenditures related to low water impact products or services (including R&D)
Managing water-related acquisitions, mergers, and divestitures
Providing water-related employee incentives

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

POSITION IN COMPANY
The Sustainability Committee, chaired by the CEO, has been established as a decision-making body for sustainability-related initiatives and meets four times a year. The CEO also has the highest responsibility for EHSQ management related to all business activities.

REPONSIBILITIES ON WATER SECURITY
The Sustainability Committee is responsible for bringing up issues that have a significant impact on the sustainability of the AGC Group, and the CEO is responsible for making decisions based on the deliberations of the committee. The committee also conducts the "EHSQ Management Review" to discuss and deliberate on how to implement management decisions, and the status of compliance with environmental laws and regulations.

RATIONAL OF ASSIGNMENT
As an advisory body to the President and Chief Executive Officer, the RATIONAL OF ASSIGNMENT deliberates on management decision-making, including sustainability initiatives, and oversight of business management.

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

Sustainability committee

Water-related responsibilities of this position

Assessing future trends in water demand
Assessing water-related risks and opportunities
Managing water-related risks and opportunities
Conducting water-related scenario analysis
Setting water-related corporate targets
Monitoring progress against water-related corporate targets
Managing public policy engagement that may impact water security
Managing value chain engagement on water-related issues

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

POSITION IN COMPANY
The progress of sustainability activities, including water security initiatives, are reported to the Board of Directors as appropriate. Based on discussions at Board of Directors meetings, policies, plans, and progress on each topic are reviewed, approved, and monitored. The Sustainability Committee, which is chaired by the CEO and includes the CTO, CFO, and the heads of each division, is established as the decision-making body for sustainability-related initiatives and meets four times a year.

REPONSIBILITIES REGARDING CLIMATE-RELATED ISSUES
Under the supervision of the Board of Directors, the Sustainability Committee is responsible for determining and monitoring the execution of sustainability-related matters, including water security.

RATIONAL OF ASSIGNMENT
The Sustainability Committee meets four times a year with the attendance of the CEO, CFO, CTO, corporate auditors, and all division heads, and reports its findings to the Board of Directors twice a year.

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	

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	Contribution of incentives to the achievement of your organization's water commitments	Please explain
Monetary reward	Board/Executive board	Reduction of water withdrawals – direct operations Reduction in water consumption volumes – direct operations Reduction of water withdrawal and/or consumption volumes – supply chain Improvements in water efficiency – direct operations Improvements in water efficiency – supply chain Improvements in water efficiency – product use Improvements in wastewater quality – direct operations Improvements in wastewater quality – supply chain Improvements in wastewater	As a provider of materials and solutions developed from a long-term perspective, the AGC Group's competitiveness is based not only on business strategies for a single fiscal year, but also on medium- to long-term technological development and investment in human resources and facilities. Therefore, an incentive system has been implemented to further motivate AGC's executives to take a balanced view of the short, medium and long term and to achieve their respective periodic goals. As variable compensation, in addition to bonuses linked to the company's performance in a single fiscal year, we have introduced a share-based compensation system in which the number of shares granted is linked to performance and other factors during the medium-term management plan period, including the	Based on the AGC Group's water-related ambition and the identified materiality of maintaining a healthy nature, each in-house company and SBU has set its own water-related targets and is implementing various types of activities unique to its business. It is clear that the achievement of these targets by each subsidiary and SBU leads to a reduction in the AGC Group's overall impact on natural capital.

		quality – product use Reduction of water pollution incidents Reduction or phase-out of hazardous substances Increased access to workplace WASH – direct operations Increased access to workplace WASH – supply chain Increased investment in water-related R&D Increased proportion of revenue from low water impact products or services Company performance against a sustainability index with water-related factors (e.g., DJSI, CDP Water Security score, etc.) Implementation of employee awareness campaign or training program on water-related issues	strengthening of non-financial capital, such as addressing climate change issues. The share-based compensation system requires that the shares granted be held continuously during the term of office, with the aim of motivating employees to contribute to the increase in the company's value over the medium to long term and to further share the interests with shareholders.	

		Implementation of water-related community project Supply chain engagement		
Non-monetary reward	Other, please specify Employees	Reduction of water withdrawals – direct operations Reduction in water consumption volumes – direct operations Reduction of water withdrawal and/or consumption volumes – supply chain Improvements in water efficiency – direct operations Improvements in water efficiency – supply chain Improvements in water efficiency – product use Improvements in wastewater quality – direct operations Improvements in wastewater quality – supply chain Improvements in wastewater quality – product use Reduction of water pollution incidents	The AGC Group is creating an organizational culture in which employees of the AGC Group, who take their daily work seriously, respect each other and praise each other's achievements and efforts through an internal system called the "AGC Group CEO Award. By sharing outstanding activities throughout the Group, we aim to create further growth for both employees and the company. The Look Beyond Award, named after the Group's vision, is the best of the best award given to the most outstanding initiatives among the AGC Group CEO Award winners. The top project in each category is nominated as a Look Beyond Award candidate, and the CEO selects the winner after a presentation by the AGC Group CEO, CFO, and CTO as judges. The winning proposal will receive a one-time monetary reward.	The projects that were actually entered into this award program and actually received monetary rewards include actual results of activities that contribute to short- to long-term water security, such as addressing procurement risks in response to raw material shortages due to natural disasters, environmental issues, and environmental regulations. In other words, it is clear that this internal award program contributes directly to the implementation of water security.

		Reduction or phase-out of hazardous substances Increased access to workplace WASH – direct operations Increased access to workplace WASH – supply chain Increased investment in water-related R&D Increased proportion of revenue from low water impact products or services Company performance against a sustainability index with water-related factors (e.g., DJSI, CDP Water Security score, etc.) Implementation of employee awareness campaign or training program on water-related issues Implementation of water-related community project Supply chain engagement		

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?

To solve social issues, the AGC Group dispatches employees to the Japan Sheet Glass Manufacturers Association and the Japan Chemical Industry Association as part of its direct and indirect activities to seek influence over public policy. The AGC Group understands and expresses its opinions on water and other environmental policies through related industry associations, and we believe that the consistency between public policies and our business strategies is ensured through these industry associations. The direction of the trade associations is consistent with our business strategy. In addition, because of the close exchange of views between the industry associations and the government, we are unlikely to encounter inconsistencies between our business strategy and the policies of the industry associations and public policies, and in the unlikely event that an inconsistency between our business strategy and public policies is discovered, we will discuss with the AGC, the industry associations, the government, and other relevant parties to consider a solution. In the unlikely event that an inconsistency between our business strategy and public policy is discovered, we discuss with the AGC, industry associations, government authorities, and other relevant parties to find a solution.

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)

rep2022_4.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	Please explain

		horizon (years)	
Long-term business objectives	Yes, water-related issues are integrated	5-10	INFLUENCE ON STRATEGY In February 2021, the AGC Group announced "Where We Want to Be in 2030. With regard to the creation of social value, the AGC Group has identified 10 long-term social issues that should be recognized as important opportunities and risks based on changes in the business environment and business conditions and has formulated "Where We Want to Be in 2030," incorporating basic strategies and measures to realize them into this medium-term business plan. Water security is related to the two materiality of "addressing climate change" and "community relations and environmental considerations. With regard to "addressing climate change issues", we identified the assessment and identification of the impact of addressing physical risks associated with climate change, such as floods, storm surges, and droughts, as a key item, as they affect the realization of economic value goals and social value goals advocated in the "Where We Want to Be by 2030. With regard to "Relationship with Local Communities and Consideration for the Environment," We consider water issues from the perspective of maintaining water resources and water quality as an important item related to risks and opportunities to realize Nature Positive, and are considering measures to invest in nature and promote a nature positive economy as one of the pillars to realize Nature Positive. TIME HORIZON CONSIDERED Analysis and steering will consider short, medium, and long-term impacts on business goals.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	5-10	INFLUENCE ON STRATEGY Nature Positive Perspective Environmental friendliness," one of our materiality, is likewise an important risk as well as an important opportunity in the implementation of our long-term management strategy, "Where We Want to Be in 2030. AGC has developed a number of environmentally friendly products, such as ACLESYA, a highly reactive neutralizer for exhaust gas treatment that efficiently removes acidic components in exhaust gas, such as

			SO3 and sulfuric acid mist, and sodium hypochlorite, which is essential for creating sanitary water. We have developed a number of environmentally friendly products and intend to further expand them in the future. AGC will establish the AGC Nature Positive Assessment Research Field, an industry creation field, within the Graduate School of Engineering, Hokkaido University, with the aim of developing methods for quantifying the impact of business activities on natural capital. Leveraging the academic expertise of Hokkaido University and AGC's extensive knowledge of glass and chemicals, we aim to establish a method for quantitatively assessing the relationship between companies and products and nature. TIME HORIZON CONSIDERED Analysis and steering will consider short, medium, and long-term impacts on business goals.
Financial planning	Yes, water-related issues are integrated	5-10	INFLUENCE ON STRATEGY Based on the scenario analysis, we have identified and evaluated the future demand and the financial impact on the Group of environmentally friendly products and technologies intended for both climate change and nature positive. We have identified the environment and energy area as a candidate for our next strategic business. In "Where We Want to Be in 2030," we have presented our long-term corporate vision of "contributing to the realization of a sustainable society through the provision of unique materials and solutions and being an excellent company that continues to grow and evolve. To realize this vision, we must not only create economic value by improving capital efficiency through business model reforms and new business creation, but also create social value through the provision of products and technologies and various corporate activities. In addition, the AGC Group as a whole has a plan to strengthen the prevention of environmental accidents such as spills of raw materials, etc. and deviations from laws and regulations as an environmental consideration for the local community, and although we expect labor and overhead costs to increase for this purpose, we believe we can secure the additional costs by achieving stable operations.

			TIME HORIZON CONSIDERED Analysis and steering will consider short-, medium-, and long-term impacts on business goals.

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)

5

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

5

Water-related OPEX (+/- % change)

5

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

5

Please explain

The AGC Group's sales in 2022 are expected to be 2,035.9 billion yen, and in 2023, sales are expected to be 2,150.0 billion yen, an increase of 5% from 2022. The capex for 2023 is expected to be 300 billion yen, an increase of about 27% from 236.6 billion yen in 2022. On the other hand, these capital investments are expected to have a low impact on the increase or decrease of water intake, wastewater volume, and wastewater quality, so that only 5% of the change is expected to be due to increased production to improve sales.

W7.3

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

	Use of scenario analysis	Comment
Row 1	Yes	The AGC Group conducted a scenario analysis across all its businesses in 2022 using the TCFD framework, and conducted a scenario analysis of water-related risks from the perspective of physical risks associated with climate change, such as floods and storm surges. In addition, to analyze the impact of physical risks associated with climate change by site, we used Aqueduct, one of the global standard assessment tools

		for water risk operated by the World Resources Institute (WRI), and hazard maps published by the Cabinet Office in Japan to analyze the current and future impacts of climate change by climate scenario, Using Aqueduct, one of the global standard assessment tools for water risk, and hazard maps published by Japan's Cabinet Office, we calculated the maximum inundation depths and estimated maximum damages in the event of floods and storm surges in 2030 and 2050 for each climate scenario.

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	Physical mechanism scenario RCP 2.6 Physical climate scenario RCP 8.5	OUTCOMES. The results of the damage calculations show that the probability of occurrence of a flood in a river in the vicinity of the project site in the PCP 8.5 simulation in 2050 is very low, with a maximum inundation depth of 282 cm. It was also found that the storm surge leading to flooding and the impact on assets at the time of occurrence would be relatively small. Based on the results of the damage calculations, it was determined that the risk of inundation that should be prepared for at this time is approximately 10 cm. CHALLENGES At the end of 2022, the sites identified as being at risk of flooding have already prepared sufficient amounts of sandbags and other natural disaster countermeasures, so there is no need to take additional measures, but we calculated that the maintenance and management costs of sandbags would be 1	AGC TECHNO GLASS headquarters factory is located near the mouth of the Oi River, which flows through central Shizuoka Prefecture. The town of Yoshida in Haibara-gun, where the main factory is located, has been promoting "tsunami disaster prevention town development," and as part of the Sea Garden concept, an 11.5-meter-high tide embankment was constructed along the Suruga Bay coast as a "measure to protect residents' property and corporate production activities. If the 8.6-meter-high breakwater can prevent tsunami overtopping, which is expected to include a massive earthquake, it is expected to protect not only human lives but also the property of local residents and the production activities of businesses. In terms of future plans, AGC intends to conduct an

			million yen x 13 million yen for 13 sites.	assessment of the entire value chain for each water site in 2023-2024 using the climate change scenario analysis and LEAP assessments defined in the TNFD, and to take mitigation measures if cases of negative impact on natural capital are identified.

W7.4

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

Row 1

Does your company use an internal price on water?

No, but we are currently exploring water valuation practices

Please explain

The impact of physical risks such as floods, storm surges, and droughts associated with climate change, as well as global trends toward natural capital conservation, may lead to higher water prices and supply chain disruptions. In response, we are studying the institutional design and operation of water pricing.

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	ISO 14046:2014 is aimed at calculating the environmental impact of water use and water pollution. Based on this, products that reduce water use and water pollution can be considered to have a low environmental impact on water. Therefore, we have defined the following as products that have minimal impact on water.	In Chemicals, we develop and manufacture Selemion, a hydrocarbon-based ion exchange membrane. These ion exchange membranes are used in electrodialysis to desalinate industrial wastewater to a level where it can be reused, helping to reduce water withdrawals. Other applications include drinking water production through desalination and denitrification of well water, desalination and reuse of wastewater through activated sludge processes, and

		Products that improve and stabilize water quality at the stage of use and contribute to water recycling, reduction of water withdrawal, and control of water quality deterioration (desalination, sterilization, pH adjustment, etc.). Products that improve air quality, which may cause water quality deterioration, and contribute to the control of water quality deterioration (e.g., gas neutralization).	desalination of landfill leachate. Thus, from a water reclamation perspective, these products can help reduce water risks from multiple perspectives. In addition, caustic soda, our core product, is used as a neutralizing agent for acidic wastewater in wastewater treatment in various industries, thus contributing to the stabilization of water quality. Chlorine and sodium hypochlorite, which are part of our chlor-alkali products, are used to disinfect water and wastewater systems, contributing to water reuse.

W8. Targets

W8.1

(W8.1) Do you have any water-related targets?

No, but we plan to within the next two years

W8.1c

(W8.1c) Why do you not have water-related target(s) and what are your plans to develop these in the future?

	Primary reason	Please explain
Row 1	We are planning to introduce a target within the next two years	We are currently studying how frameworks such as TNFD and SBT for water should be applied to the AGC Group's water security measures.

W9. Verification

W9.1

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

Yes

W9.1a

(W9.1a) Which data points within your CDP disclosure have been verified, and which standards were used?

Disclosure module	Data verified	Verification standard	Please explain
W1 Current state	Water withdrawal and wastewater discharge	ISAE 3000	Verification of water withdrawal and wastewater discharge data was conducted for 202 global sites. At all sites, verification was conducted by checking relevant documents that had been developed, interviewing the person in charge and the person in charge or checking documents, confirming the method of obtaining data, and comparing the reported data with the supporting documents.