

W0. Introduction

W0.1

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

Kao. The Company is a Japan-based company that operates through two business segments: Consumer Product and Chemical. The Consumer Product segment has three divisions. The Cosmetic Business provides cosmetics such as lotion, foundation and lipstick. The Skin Care and hair Care Business offers premium skincare products such as face washes, as well as premium hair care products including shampoos, hair styling products and hair colouring products, among others. The Human Health Care Business provides food and beverage products such as drinks ; sanitary products including hygiene products and paper diapers, as well as personal health products such as bath additives. The Fabric and Home Care Business offers fabric care products including detergents for apparel use, and home care products including detergents for kitchen use. The Chemical Business provides oil and fat products such as fatty acids; functional materials products such as surface acting agents and additives for plastic use, as well as specialty chemical products such as essences, among others.

The Cosmetic Business accounted for 20.1% of total turnover in fiscal 2019; The Skin Care and hair Care Business,22.7%; The Human Health Care Business,17.0%; The Fabric and Home Care Business, 23.9%; and The Chemical Business,16.3%. The Company reported JPY 1,502.2b in revenues and 33,603 permanent employees at December 31,2019.

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 2019	December 31 2019

W0.3

**(W0.3) Select the countries/areas for which you will be supplying data.**

- Australia
- Austria
- Belgium
- Canada
- China
- China, Hong Kong Special Administrative Region
- Czechia
- Denmark
- Finland
- France
- Germany
- Indonesia
- Italy
- Japan
- Malaysia
- Mexico
- Netherlands
- New Zealand
- Norway
- Philippines
- Republic of Korea
- Russian Federation
- Singapore
- South Africa
- Spain
- Sweden
- Switzerland
- Taiwan, Greater China
- Thailand
- 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?

No

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	As Kao plans to increase sales to reach the 2030 goal, production will rise accordingly, leading to higher water consumption. - Primary use of freshwater in direct operation Freshwater is used as a raw material of our products and is indispensable to produce steam and cooling water used in the production process at our plants. It is also used as drinking water and water for sanitation for our employees - Primary use of freshwater in indirect operation Freshwater is used as a raw material of our suppliers' products and is indispensable to produce steam and cooling water used in the production process at our suppliers' plants. It is also used as drinking water and water for sanitation for their employees - Why the chosen importance rating was selected for freshwater in direct operations Main products of our company include products used on human bodies, or body washing products. That is why our factories require pure water with a certain quality as a material. Fresh water is also needed for safety of drinking water for our employees. As Kao has set a goal of reducing water strength in direct operations, Kao's water dependence in direct operations will weaken for the future. Kao is working to achieve the goal. - Why the chosen importance rating was selected for freshwater in indirect operations Main products of our company include products used on human bodies, or body washing products. That is why our suppliers' factories require pure water with a certain quality as a material. Fresh water is also needed for safety of drinking water for their employees. As Kao has set a goal of reducing water strength in indirect operations, Kao's water dependence in indirect operations will weaken for the future. Kao is working to achieve the goal.
Sufficient amounts of recycled, brackish and/or produced water available for use	Vital	Not important at all	According to Kao's business plan until 2030, we plan to increase sales and the production volume at our Mexico Plant, which uses recycled water. Our Mexico plant has been improving its water footprint per product unit, but again, a production increase is planned, and water consumption during production will exceed the amount saved through the improvement effort. Consumption of recycled water will therefore increase. - Primary use in direct operation At our Mexico Plant, recycled water is essential for operation because it is difficult to obtain enough amount of fresh water. We receive water recycled at another facility, purify it, and use it to produce steam and cooling water. - Primary use in direct operation None of our suppliers use non-freshwater. - Why the chosen importance rating was selected for their direct operation According to Kao's business plan until 2030, we plan to increase sales and the production volume at our Mexico Plant, which uses recycled water. Since it is difficult to obtain fresh water, recycled water is essential for Mexico Plant to operate. Our Mexico plant has been improving its water footprint per product unit, but again, a production increase is planned, and water consumption during production will exceed the amount saved through the improvement effort. Future dependency of recycled water will therefore increase. - Why the chosen importance rating was selected for their indirect operation Since we know from our surveys that none of Kao's suppliers use, and intend to use in future, non-freshwater, non-freshwater is not, and will not be, important at all for our suppliers. Kao believes that the dependence of recycled water in the future will not change.

W1.2

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

	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	100%	We consider the water intake volume as the amount appearing on invoice, etc. that shows the measurement by the flowmeter installed by a third party when water is supplied from that third party. When ground water is pumped at each site by the relevant base, we consider the water intake volume to be the amount of water pumped as measured by the flowmeter. The person in charge at each site enters the water intake volume into the database operated by the Kao Group once every month or two. The person in charge at the head office then checks the values entered into the database every month; if this person identifies any significant data fluctuation, he or she confirms the cause with the relevant base.
Water withdrawals – volumes by source	100%	We consider the water intake volume by source as the amount appearing on invoice, etc. that shows the measurement by the flowmeter installed by a third party when water is supplied from that third party. When ground water is pumped at each site by the relevant base, we consider the water intake volume to be the amount of water pumped as measured by the flowmeter. The person in charge at each site enters the water intake volume for each source into the database operated by the Kao Group once every month or two. The person in charge at the head office then checks the values entered into the database every month; if this person identifies any significant data fluctuation, he or she confirms the cause with the relevant base.
Entrained water associated with your metals & mining sector activities - total volumes [only metals and mining sector]	<Not Applicable>	<Not Applicable>
Produced water associated with your oil & gas sector activities - total volumes [only oil and gas sector]	<Not Applicable>	<Not Applicable>
Water withdrawals quality	100%	The person in charge at each base checks the water withdrawals quality like as color, odor and temperature every day. The person in charge at each production site checks the water color by comparing it against the color chart, and also checks the smell. If there were any problems, the person in charge report to the water supplier to solve it.
Water discharges – total volumes	100%	At each production site, the volume of water discharge is measured daily with a voluntarily installed flowmeter. The person in charge there inputs monthly results in the database managed by the Kao Group. At the Head Office, the person responsible checks the inputted data every month and, if data fluctuates significantly, checks with relevant sites about the cause.
Water discharges – volumes by destination	100%	At each production site, the volume of water by discharge destination is measured daily with a voluntarily installed flowmeter. The person in charge there inputs monthly results by destination in the database managed by the Kao Group. At the Head Office, the person responsible checks the inputted data every month and, if data fluctuates significantly, checks with the relevant sites about the cause.
Water discharges – volumes by treatment method	100%	At each production site, the volume of effluent by treatment method is measured daily with a voluntarily installed flowmeter. The person in charge there inputs monthly results in the database managed by the Kao Group. At the Head Office, the person responsible checks the inputted data every month and, if data fluctuates significantly, checks with the relevant sites about the cause. The person responsible at the Head Office is familiar with the effluent treatment method used at each production site and tabulates data by treatment method. The same individual also annually checks whether each production site has changed its effluent treatment method.
Water discharge quality – by standard effluent parameters	100%	The person in charge at each base checks the water quality (COD etc.) every month and put it into the database operated by Kao group every month. Headquarters personnel check the values entered in the database monthly. If this person identifies a significant data change, he or she will check the cause on a relevant basis.
Water discharge quality – temperature	100%	The person in charge at each base checks the water temperature every day. He or she check them by using automatic evaluate equipment or by manual or third party evaluate equipment or under the standard on each base.
Water consumption – total volume	76-99	Since Kao considers the amount of water consumption to be the difference between the amount of water withdrawals and the amount of water discharge, monitoring the amount of water withdrawals and the amount of water discharge achieves monitoring of the amount of water consumption. The person in charge at each base checks the amount of water withdrawals and the amount of water discharge every month or every other month and enters the relevant data for each intake source into a database managed by the Group. The person in charge at the head office checks the values entered into the database every month; if this person identifies any significant data fluctuation, he or she confirms the cause with the relevant base.
Water recycled/reused	100%	At facilities where water is recycled, the facility operation status is monitored to measure the volume of water recycled every day by using a flowmeter or by estimating the pump capabilities and operation time. Note that in order to check which production sites actually do recycle water, the person responsible at the Head Office conducts an annual survey with all group companies to examine whether production sites that did not recycle water still do not recycle or reuse it.
The provision of fully-functioning, safely managed WASH services to all workers	100%	In accordance with the basic policy on environmental safety, we provide a fully-equipped water, sanitation and hygiene (WASH) service to all workers at all our bases. At each base, a committee run by each base (for example, the Safety and Health Committee) checks them every month. Providing fully-functioning, safely managed WASH services to all workers. Every year, the Head Office checks for water or hygiene problems in services by conducting on-site audits, comparing responses against the Sedex survey, and conducting employee surveys.

**W1.2b**

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

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	17690	About the same	If fluctuation in the water withdrawals volume in a year is within 5% when compared with the previous year, Kao regards the water withdrawals volume in both years as almost the same in its management of water withdrawals. We set 5%, which is below 8%, as the criterion because we need to continue growing our operation by about 8% per year to achieve the sales target for 2030. Although sales increased by 1.5% since last year, various water reduction activities promoted at each plant in Thailand, Taiwan etc. have been successful, and total water withdrawals has decreased by 0.5% from the previous year. We are in the process of growing business as a corporate group and the total volumes of water withdrawals is expected to increase accordingly.
Total discharges	11671	About the same	If fluctuation in the water discharge volume in a year is within 5% when compared with the previous year, Kao regards the water discharge volume in both years as almost the same in its management of water discharges. We set 5%, which is below 8%, as the criterion because we need to continue growing our operation by about 8% per year to achieve the sales target for 2030. Although sales increased by 1.5% since last year, various water reduction activities promoted at each plant in Thailand, Taiwan etc. have been successful, and total water discharge increased by 0.02% from the previous year. We are in the process of growing business as a corporate group and the total volumes of water discharges is expected to increase accordingly.
Total consumption	6019	About the same	If fluctuation in the water consumption volume in a year is within 5% when compared with the previous year, Kao regards the water consumption volume in both years as almost the same in its management of water consumption. We set 5%, which is below 8%, as the criterion because we need to continue growing our operation by about 8% per year to achieve the sales target for 2030. Although sales increased by 1.5% since last year, various water reduction activities promoted at each plant in Thailand, Taiwan etc. have been successful, total water consumption decreased by 1.45% from the previous year. We are in the process of growing business as a corporate group and the total volumes of water consumption is expected to increase accordingly. Total withdrawals : 17,690 Total discharge : 11,671 Total consumption : 17,690-11,671=6,019

## W1.2d

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

	Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Identification tool	Please explain
Row 1	Yes	11:25	About the same	WRI Aqueduct	-why or why not the percentage of water withdrawn from stressed areas has changed from the previous reporting year Kao manages the volume of water intake by considering that it is about the same as the previous year if it is in the range of 5% difference. We chose 5% as the reference since it is lower than 8%, which is the target percentage for annual growth we need in order to achieve the 2030 sales target. In 2019, in areas with high water stress, there were a mix of sites with increased water withdrawals and sites with decreased water withdrawals compared to last year, but the total water withdrawals rate was 19.6%, almost the same as last year's 19.5%. -how the selected tool was applied to evaluate whether the water has been withdrawn from stressed areas Kao is a consumer product manufacturer and its plants are located near sites of consumption. Most sites of consumption are large cities around the world. In these cities the population is predicted to further increase, and we recognize that this will lead to water supply risk. For this reason, Kao uses the WRI Aqueduct, whose indicators include future water risk, as an assessment tool. We check Baseline water stress and identify areas rated "High" and "Extremely high" as areas with high water stress.

## W1.2h

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Not relevant	<Not Applicable>	<Not Applicable>	Main products of our company include products used on human bodies, or body washing products. That is why our factories require pure water with a certain quality as a material. Freshwater is also used as drinking water, water for sanitation, for our employees. Therefore we don't use fresh surface water, including rainwater, water from wetlands, rivers, and lakes. We think that the possibility of using it in the future is low so far.
Brackish surface water/Seawater	Not relevant	<Not Applicable>	<Not Applicable>	Main products of our company include products used on human bodies, or body washing products. That is why our factories require pure water with a certain quality as a material. Therefore we don't use non-fresh water including brackish surface water/seawater. We think that the possibility of using it in the future is low so far.
Groundwater – renewable	Relevant	5113	About the same	Kao uses groundwater if there is abundant supply and if the company concludes that intake will not affect residents in neighboring areas or those who are downstream of underwater channels. Kao uses groundwater at seven plants, and its volume accounts for approximately 30% of the total volume of water intake. Kao manages the volume of water intake by considering that it is about the same as the previous year if it is in the range of 5% difference. In 2019, groundwater consumption decreased by 2.8% compared to last year due to a decrease in the amount of groundwater that can be used in Germany, etc., but since it is less than 5%, we chose "almost the same". Since Kao plans to increase sales to achieve the 2030 target, production at plants using groundwater will increase, and groundwater intake will also grow.
Groundwater – non-renewable	Not relevant	<Not Applicable>	<Not Applicable>	Kao has a policy of not using non-renewable groundwater as it was suggested by third-party experts to suspend the use of such water because it is precious. This policy is in line with Kao's corporate message, "Enriching lives, in harmony with nature." In this regard, non-renewable groundwater is not relevant. We will not change this policy in the future, so we will not take water from non-renewable groundwater either in the future.
Produced/Entrained water	Not relevant	<Not Applicable>	<Not Applicable>	Main products of our company include products used on human bodies, or body washing products. That is why our factories require pure water with a certain quality as a material. Therefore we don't use non-fresh water including produced/process water. We think that the possibility of using it in the future is low so far.
Third party sources	Relevant	12577	About the same	Main products of our company include products used on human bodies, or body washing products. That is why our factories require pure water with a certain quality as a material. To secure quality water, we purchase 71% of our total water withdrawal from local water utilities. Kao manages the volume of water intake by considering that it is about the same as the previous year if it is in the range of 5% difference. Our sales increased by 1.5% from last year, but due to various water reduction activities promoted at each plant in Thailand, Taiwan, etc., the amount of water withdrawal from a third-party water source was 0.5% compared to the previous year. From the above, we chose "almost the same". Since we plan to increase sales to achieve the 2030 target, production at plants that bring in water from third-party sources will increase, and water intake from third-party sources will also increase.

## W1.2i

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Relevant	2495	About the same	At 4 plants of Kao Group, used water is purified by the plant's purification equipment before being discharged to nearby rivers, so the Group's business is related to fresh surface water. So Kao manage it as the important factor to influent the environment around our factory. Kao manages the volume of effluent by considering that it is about the same as the previous year if it is in the range of 5% difference. In 2019, the amount of water discharge to the river after purification increased 4.9% from the previous year, mainly due to the increase in the amount of water discharge from Fuji Plant, but since it is less than 5%, we chose "almost the same". Since Kao plans to increase sales to achieve the 2030 target, production at plants that discharge effluent into fresh surface water will rise, as will the volume of discharge.
Brackish surface water/seawater	Relevant	6330	About the same	At 6 plants and some offices in Kao Group, used water is purified by the plant's purification equipment before being discharged into the adjacent sea, so the Group's business is related to sea water. Kao is aware that the amount and quality of water discharged directly affect sea water quality. So Kao manage it as the important factor to influent the environment around our factory. Kao manages the volume of effluent by considering that it is about the same as the previous year if it is in the range of 5% difference. In 2019, our sales volume increased by 1.5% from the previous year, but the water discharged into the sea from Wakayama Plant, which accounts for about 90% of group's water discharge, decreased by 1%, so the total water discharge into the sea after purification decreased by 0.5% from the previous year. Since it is less than 5%, we chose "almost the same".
Groundwater	Not relevant	<Not Applicable>	<Not Applicable>	Kao Group's business is not related to groundwater, as there are no plants or offices draining underground. We have never done drainage to groundwater and we will not do it in the future.
Third-party destinations	Relevant	2846	About the same	Many Kao plants discharge wastewater into sewer. Therefore, Kao is aware that the amount and quality of water discharged from such plants matter because they impact the quality of wastewater discharged from processing facilities run by other organizations located downstream of the sewer. For this reason, Kao manages discharging of wastewater to other organizations as one of the company's critical environmental load items. In this regard, discharging wastewater to other organizations is relevant. Kao manages the volume of effluent by considering that it is about the same as the previous year if it is in the range of 5% difference. Our sales volume increased by 1.5% from the previous year, but due to various water reduction activities promoted at each factory in Thailand, Taiwan, etc., the amount of water discharged to third parties decreased by 2.8% in 2019 compared to the previous year. Since it is less than 5%, we chose "almost the same".

**W1.4**

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

- Yes, our suppliers
- Yes, our customers or other value chain partners

**W1.4a**

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

**Row 1**

**% of suppliers by number**  
1-25

**% of total procurement spend**  
26-50

**Rationale for this coverage**

Kao participates in the Water section of the CDP SC Program and asks key suppliers to provide responses. For reporting purposes, suppliers were selected from the three fields of business that use the most water in Japan. The objectives of this supplier response system for the Water section of the CDP SC Program are to make Kao's suppliers more sensitive to water, efficiently improve their resilience against water risk, and ensure their sustainability. Supplier incentives are as follows: Kao uses its own method to assess responses to the CDP SC Program, and sends feedback to each supplier. We also send them an assessment result for Kao's suppliers as a whole. This allows suppliers to easily compare their efforts with those of other companies and efficiently address the water risk. The CDP score is reflected in our Supplier Scorecards. Suppliers with a high Supplier Scorecard rating will receive recognition at the Vendor Summit, to which we invite our key suppliers.

**Impact of the engagement and measures of success**

We request our suppliers to provide information through the CDP SC Program on the volumes of water intake and discharged water, targets to reduce them, facility water risk, and water-related management levels. In assessing our suppliers' water-risk management levels, we use our own method to evaluate their CDP SC Program responses. We provide feedback on the results to each supplier, share the results with Procurement Division personnel, and use it to strengthen engagement to enhance the suppliers' water-risk management levels. We also use this information to check the water risk for suppliers' plants where products supplied to us are manufactured. Kao evaluates what percentage of suppliers have reached the levels. The goal is for all target suppliers to reach this level.

**Comment**

**W1.4b**

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

**Type of engagement**

Incentivizing for improved water management and stewardship

**Details of engagement**

Demonstrable progress against water-related targets is incentivized in your supplier relationship management

Water management and stewardship is integrated into supplier evaluation processes

Water management and stewardship is featured in supplier awards scheme

**% of suppliers by number**

76-100

**% of total procurement spend**

76-100

**Rationale for the coverage of your engagement**

Since Kao requests the plants of all suppliers to participate in Sedex, which allows us to survey water-related and other matters, respond to questions, and set data access rights in accordance with the Kao Guidelines for Supplier's Assessment, the coverage for both the number of suppliers and the purchase amount is 100%.

**Impact of the engagement and measures of success**

-Details of the engagement activity's beneficial outcomes We believe that, as our suppliers improve their Sedex performance, their ability to respond to ESG issues including water management will improve. This will make our supply chain more resilient. -A clear description of how success of supplier engagement is measured By the end of 2019, suppliers that had necessary settings in place that allow Kao to check their Sedex performance accounted for 66% of the total amount purchased by Kao. We consider that the first stage of success is the ability to check the activity status of all suppliers. In September 2019, we evaluated Sedex performance on a five-point scale, specifically S, A, B, C, and No access right. The evaluation results indicated that 65% of suppliers were rated either S or A. For Kao, the ultimate level of success is all suppliers gain an S or A rating.

**Comment**

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**W1.4c**

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**(W1.4c) What is your organization's rationale and strategy for prioritizing engagements with customers or other partners in its value chain?**

We understand the percentages of the amount of water used at each lifecycle stage of Kao products to be as follows: 88% in the usage stage, 11% in the ingredients procurement stage, and 1% in the manufacturing stage. Accordingly, Kao considers these three stages in which much water is used to be the important phases. For this reason, Kao engages in various activities with consumers, suppliers, and other stakeholders related to our plants. For this reason, the company hosts various types of engagement activities, mainly for consumers and stakeholders connected with suppliers and Kao plants.

For consumers, Kao offers plant tours and visits schools to give lectures. We also transmit information in collaboration with the national government, local governments, and other parties involved in distribution. For suppliers, Kao promotes the establishment of water management systems and requests that important suppliers respond to the CDP SC Program. As for plants, Kao continues to reduce the amount of water used from the viewpoint of 3R (Reduce, Reuse, and Recycle) and works on joint projects related to water with the local government on-site at each Kao plant.

In assessing our suppliers' water-risk management levels, we use our own method to evaluate their CDP SC Program responses. We hope our suppliers would manage their water related risk by establish internal rules or organizational frameworks by themselves. Kao evaluates what percentage of suppliers activities. have reached the levels. The goal is for all target suppliers to reach this level.

Furthermore, we measure the effects of our consumer engagement activities. One of these effects is sales of products marked with the "eco together" symbol. This symbol is affixed to products that have a low environmental impact through significantly reducing water consumption during product use and have met our own strict certification criteria. In 2019, sales of "eco together" products in Japan accounted for 27% of total sales.

**W2. Business impacts**

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**W2.1**

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

No

**W2.2**

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

No

## W3. Procedures

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### W3.3

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

Yes, water-related risks are assessed

### W3.3a

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

##### Direct operations

###### Coverage

Full

###### Risk assessment procedure

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

###### Frequency of assessment

Annually

###### How far into the future are risks considered?

More than 6 years

###### Type of tools and methods used

Tools on the market

International methodologies

Other

###### Tools and methods used

WRI Aqueduct

Life Cycle Assessment

Internal company methods

###### Comment

##### Supply chain

###### Coverage

Full

###### Risk assessment procedure

Water risks are assessed as a standalone issue

###### Frequency of assessment

Annually

###### How far into the future are risks considered?

More than 6 years

###### Type of tools and methods used

Tools on the market

International methodologies

Other

###### Tools and methods used

WRI Aqueduct

Life Cycle Assessment

Internal company methods

###### Comment

**Other stages of the value chain**

**Coverage**

Partial

**Risk assessment procedure**

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

**Frequency of assessment**

Annually

**How far into the future are risks considered?**

More than 6 years

**Type of tools and methods used**

Tools on the market

International methodologies

Other

**Tools and methods used**

WRI Aqueduct

Life Cycle Assessment

Internal company methods

**Comment**

W3.3b

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**(W3.3b) Which of the following contextual issues are considered in your organization's water-related risk assessments?**

	Relevance & inclusion	Please explain
Water availability at a basin/catchment level	Relevant, always included	- an explanation of why this issue is relevant for the company's business Almost all Kao detergents (for example, ATTACK clothing detergent, Bioré body detergent, etc.), which are Kao's key products, use water as the main ingredient. In addition, a large amount of water is used to manufacture such products. Thus, we include the availability of water in watershed or catchment areas in the plants that manufacture our products in the risk assessment. - an explanation of the assessment; Surfactant, which is an ingredient found in various Kao detergents, is supplied by many suppliers in the chemical sector. Since Kao is aware that suppliers in the chemical sector are highly dependent on water, we include the availability of water in watershed or catchment areas for such suppliers in the risk assessment. Water risk assessment conducted by Kao always includes water availability. In addition, risk assessment on water availability includes both current and emerging issues. - Which tool was used in the assessment. Kao has set 2.5 trillion yen (167% of the 2018 figure) as the sales target for 2030 and will continue to increase the production volume at its plants to achieve it. Accordingly, we use WRI Aqueduct to conduct a long-term, objective evaluation of the current and future water risks (water quality, quantity, etc.) facing Kao plants. We also use the internal company method to evaluate the current and near-future water risks (water quality, water quantity, legal regulations, etc.).
Water quality at a basin/catchment level	Relevant, always included	-an explanation of why this issue is relevant for the company's business Almost all Kao detergents (for example, ATTACK clothing detergent, Bioré body detergent, etc.), which are Kao's key products, use water as the main ingredient. In addition, a large amount of water is used to manufacture such products, so we have developed or improved various facilities on the assumption that the available water has a certain level of quality. For this reason, we include the water quality (COD, number and size of particles etc.) in watershed or catchment areas in the plants that manufacture our products in the risk assessment. -an explanation of the assessment; Surfactant, which is an ingredient found in various Kao detergents, is supplied by many suppliers in the chemical sector. Generally, facilities that specify the water intake quality are also installed at the plants of suppliers in the chemical sector, as in the case of Kao plants. For this reason, we include the water quality in watershed or catchment areas for such suppliers in the risk assessment. Water risk assessment conducted by Kao always includes water quality. In addition, risk assessment on the water quality includes both current and emerging issues. Furthermore, water discharged from plants is not only subject to various limit values, but has also faced tighter regulations in recent years in general. As such, we have also added the current status and future forecast on wastewater quality regulations in the water risk survey. -Which tool was used in the assessment. Kao has set 2.5 trillion yen as the sales target for 2030 and will continue to increase the production volume at its plants to achieve it. Accordingly, we use WRI Aqueduct to conduct a long-term, objective evaluation of the current and future water risks (water quality, quantity, etc.) facing Kao plants. We also use the internal company method to evaluate the current and near-future water risks (water quality, water quantity, legal regulations, etc.).
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, always included	- an explanation of why this issue is relevant for the company's business Almost all Kao detergents (for example, ATTACK clothing detergent, Bioré body detergent, etc.), which are Kao's key products, use water as the main ingredient. In addition, a large amount of water is used to manufacture such products. Thus, if there is a conflict with stakeholders regarding water resources in watershed or catchment areas, there is a risk that there will be insufficient water with adequate quality. Kao is also aware that since water is essential for many of Kao's key products when they are used, such conflict will spread beyond the watershed or catchment areas, which may adversely affect Kao's reputation. - an explanation of the assessment; We use WRI Aqueduct to conduct a long-term, objective evaluation of the current and future water risks (water quality, quantity, reputation, etc.) facing Kao plants. We also use the internal company method, which includes information obtained from local governments and through communication with neighbouring residents, to evaluate the current and near-future water risks (water quality, water quantity, legal regulations, etc.). - Which tool was used in the assessment. Kao has set 2.5 trillion yen (167% of the 2018 figure) as the sales target for 2030 and will continue to increase the production volume at its plants to achieve it. Accordingly, we use WRI Aqueduct to conduct a long-term, objective evaluation of the current and future water risks (water quality, quantity, reputation, etc.) facing Kao plants. We also use the internal company method, which includes information obtained from local governments and through communication with neighbouring residents, to evaluate the current and near-future water risks (water quality, water quantity, legal regulations, etc.).
Implications of water on your key commodities/raw materials	Relevant, always included	- an explanation of why this issue is relevant for the company's business Almost all Kao detergents (for example, ATTACK clothing detergent, Bioré body detergent, etc.), which are Kao's key products, consume a large amount of water when the product is used. Thus, the amount and quality of water when the product is used are of great interest. For this reason, we include the amount and quality of water supplied to general households in the assessment items when we conduct a water risk survey. To continue selling such products, we also predict the amount and quality of such water in the future. - an explanation of the assessment; Surfactant, which is an ingredient found in various Kao detergents, is supplied by many suppliers in the chemical sector. Kao is aware that a large amount of high-quality water is needed for our suppliers in the chemical sector to operate their plants, so we include water risks at our suppliers' plants in every survey. - Which tool was used in the assessment. Kao has set 2.5 trillion yen (167% of the 2018 figure) as the sales target for 2030 and will continue to increase the production volume at its plants to achieve it. Accordingly, we use WRI Aqueduct to conduct a long-term, objective evaluation of the current and future water risks (water quality, quantity, reputation, etc.) facing Kao plants. We are also aware through Life-Cycle Assessment that ten times the amount of water used at our plants is consumed in the raw-material procurement stage. Based on this result, we understand that the impact of water on Kao's commodities and raw materials is at least as important as on its own plants.
Water-related regulatory frameworks	Relevant, always included	- an explanation of why this issue is relevant for the company's business Almost all Kao detergents (for example, ATTACK clothing detergent, Bioré body detergent, etc.), which are Kao's key products, consume a large amount of water when the product is used. Thus, the amount and quality of water when the product is used are of great interest. For this reason, we include the water-related regulatory frameworks when we conduct a water risk survey. To continue selling such products, we also predict the amount and quality of such indirect water in the future. - an explanation of the assessment; We evaluate the current and future legal regulations related risks facing Kao plants based on the results of surveys, conducted mainly by the secretariat of the Responsible Care Promotion Committee, of internal and external databases, trends in legal regulation, etc. using the internal company method. - Which tool was used in the assessment. Kao has set 2.5 trillion yen (167% of the 2018 figure) as the sales target for 2030 and will continue to increase the production volume at its plants to achieve it. Accordingly, we evaluate the current and future legal regulations related risks facing Kao plants based on the results of surveys, conducted mainly by the secretariat of the Responsible Care Promotion Committee, of internal and external databases, trends in legal regulation, etc. using the internal company method.
Status of ecosystems and habitats	Relevant, always included	- an explanation of why this issue is relevant for the company's business Most of our plants are located in river basins. The habitat of living things can be found in the areas where our plants are located, as well as in the upstream and downstream of basins. Therefore, our plants may have an impact on the ecosystem. For example, our plant in the Philippines is the largest in a river basin. Therefore, in general, it is recognized that the plant has a dominant impact on the ecosystem and habitat in the relevant river basin. - an explanation of the assessment; As such, we believe that understanding the current status of the ecosystem and areas where living things grow is important to ensure the continuous operation of the plant and we include the understanding of such status in every water risk assessment. - Which tool was used in the assessment. Using the internal company method, we assess risks associated with the status of ecosystems and habitat based on the results of an investigation of the ecosystem within and surrounding the plant conducted by each plant (as to whether endangered species live there or have nests, etc.).
Access to fully-functioning, safely managed WASH services for all employees	Relevant, always included	- an explanation of why this issue is relevant for the company's business As published in the Kao Group Health Declaration in 2008 both internally and externally, we are committed to achieving Health and Productivity Management by actively implementing support programs for our employees and their families to achieve a healthy lifestyle, which form the foundation of human resource utilization. Our policy stipulates that the health and safety of all employees have a greater priority over other matters, so the WASH service has been introduced in all work sites. However, if there is an issue with the service, it will violate Kao's policy on human resource utilization. - an explanation of the assessment; We conduct an in-house audit, on-site inspections, and a biennial satisfaction survey covering all employees, etc. to evaluate the presence of WASH service-related risks as needed. - Which tool was used in the assessment. To conduct the assessment, we employ the internal company method, including an in-house audit, on-site inspections, and a biennial satisfaction survey covering all employees.
Other contextual issues, please specify	Please select	

**W3.3c**

**(W3.3c) Which of the following stakeholders are considered in your organization's water-related risk assessments?**

	Relevance & inclusion	Please explain
Customers	Relevant, always included	-An explanation of why these stakeholders are included in the risk assessment In assessing water risk, consumers are the most important stakeholders because the majority of our products require water when used by consumers. In fact, water consumption by consumers during product use accounts for approximately 90% of the total water consumption throughout the product life cycle. We gather consumer queries about water through direct or indirect dialogues, including environment events and calls, emails, and social media posts by consumers. Product developers and brand managers use these consumer inputs for water-related risk assessment. -Stakeholder engagement method Kao has the Consumer Communication Center in place as a way collect consumer inquiries about water risk. Water-risk information obtained from consumers is used as part of the information that product developers and brand managers use to assess water risk.

	Relevance & inclusion	Please explain
Employees	Relevant, always included	-An explanation of why these stakeholders are included in the risk assessment As described above, Kao is a company that has strong affinity with water. Kao believes it is crucial that all employees understand this notion when the company as a whole addresses water risk. For example, product developers in the R&D Division staying highly sensitive to water risk should lead to development of highly water-conscious products. This means when addressing water risk, employees are critical stakeholders. The company collects employees' opinions on water and grasps their sensitivity to water risk through small, large, regular, and occasional meetings. Information obtained through these meetings is used as part of the information that the ISO 14001 Office or the ESG Division use to assess water risk. -Stakeholder engagement method Furthermore, all researchers have participated in a lecture on employees' opinions described above as part of ISO 14001. They collect employee opinions through the lecture and use them as part of the information that the ISO 14001 Office or the ESG Division use to assess water risk.
Investors	Relevant, always included	- an explanation of why these stakeholders are included in the risk assessment Investors understand that a large amount of water is needed to use Kao's key products (for example, ATTACK clothing detergent, Bioré body detergent, etc.) and Kao understands that it is in a business sector that has strong affinity with water. The company at the same time understands that gaining support from investors is one of the requirements for sustainable corporate activities. Therefore, we believe it is important that investors correctly understand Kao's water-related activities. When addressing water risk, investors are important stakeholders, and water-related information provided by investors to the IR Division or ESG Division through personal dialogues or seminars is used by the IR Division or the ESG Division as part of the information in assessing water risk. - The method of engagement with the stakeholder We have several means to create and maintain relationships with investors. Through CDP Water, the Sustainability Data Book, and our annual report, Kao provides information on our water risk mitigation activities to investors. We also participate in the Ministry of the Environment's Environmental Information Disclosure Project to communicate with investors and NGOs.
Local communities	Relevant, always included	-An explanation of why these stakeholders are included in the risk assessment Kao is a manufacturing company, and a manufacturer carries out its business by producing products at plants and selling them. This means a stable and continuous plant operation is vital to Kao. Since our key products (such as ATTACK [detergent], Bioré [body soap]) require a large amount of water during use and a large amount of water is discharged afterwards, local communities could be skeptical about the effluent discharged from Kao plants. To ensure stable and continuous plant operation, Kao considers it important that local communities correctly understand water-related activities by Kao plants. For this reason, local communities are important stakeholders when addressing water risk. Water-related information that plants obtain from dialogues with local communities is used as part of the information plants use to assess water risk. - The method of engagement with the stakeholder For example, at the Sumida Plant in Tokyo, we invite community representatives to the plant to demonstrate our actual plant operations and hold meetings to discuss their thoughts on Kao every year.
NGOs	Relevant, always included	-An explanation of why these stakeholders are included in the risk assessment Since Kao is a consumer product manufacturer, reputation risk is one of the risk that may have a large impact on consumer behavior and significantly affect corporate sales. NGOs are a type of information source that could distribute information that may lead to reputation risk. Therefore, an important activity for Kao includes ensuring that NGOs understand our water management activities. For this reason, NGOs are important stakeholders when addressing water risk. Water-related information that various divisions, including the ESG Division, obtain from dialogues with NGOs is used as part of these divisions' information in assessing water risk. -Stakeholder engagement method When Kao obtains information from NGOs that may lead to reputation risk, it assesses the authenticity of the information and the potential extent of impact, and then chooses a responsible division. It then, if necessary, meets the group that distributed the information in question and aims for fact-based communication. Various divisions, including the ESG Division, use the information related to water risk obtained through such engagement activities with NGOs as part of the information for assessing water risk. As for NGO, a case study with CDP is shown. Kao takes part in CDP's supply chain program and aims to increase its resilience against water risk of supply chain, with engaging its suppliers to promote activity for assessing water risk management. Kao is the first Japanese company to participate in CDP's supply chain program. CDP continues to expand the program with taking advantage of its track record.
Other water users at a basin/catchment level	Relevant, always included	—An explanation of why these stakeholders are included in the risk assessment Kao is a manufacturing company, and a manufacturer carries out its business by producing products at plants and selling them. This means a stable and continuous plant operation is vital to Kao. Kao plants in general take in and discharge a relatively large amount of water. Residents and factories around our plants usually use water obtained from the same sources as the water used at our plants, and since water is a public good, Kao should not monopolize it. We therefore think it is important to use water within the extent to which other water users at the basin/catchment level and Kao can live side by side. Understanding the water demand of other water users at the basin/catchment level is necessary for plants to continue stable water use, so when addressing water risk, other water users at the basin/catchment level are important stakeholders. Water-related information that plants obtain from dialogues with other water users at the basin/catchment level is used as part of the plants' information for assessing water risk. - The method of engagement with the stakeholder For example, our plants in Japan prepare site reports containing environmental information to communicate with their neighborhoods. At the Sumida Plant in Japan, we hold meetings at least once a year to discuss environmental issues, including water issues, with local residents who use water from the same water source as the Office.
Regulators	Relevant, always included	—An explanation of why these stakeholders are included in the risk assessment Kao is a manufacturing company, and a manufacturer carries out its business by producing products at plants and selling them. This means a stable and continuous plant operation is vital to Kao. Kao plants in general use and discharge a relatively large amount of water, and if the effluent exceeds discharge regulations, an offending plant may not be allowed to operate. Therefore, it is essential to understand the behavior of regulators in charge of discharge regulations and implement necessary measures for plants to continue stable operation. For this reason, when addressing water risk, regulators are important stakeholders. Water-related information that the RC Division or plants obtain from committees led by these regulators or from industry is used as part of the information plants use to assess water risk. —Stakeholder engagement method We attend meetings such as committee meetings held by regulators to discuss law amendments in order to learn the trends as early as possible, participate in Environment Working Group Meetings of the Japan Chemical Industry Association or explanatory meetings hosted by other organizations where regulators provide explanations, and exchange information with other parties. Information related to water risk obtained through such engagement activities with regulators is shared with plants and used as part of their information for assessing water risk.
River basin management authorities	Relevant, always included	—An explanation of why these stakeholders are included in the risk assessment Kao is a manufacturing company. A manufacturer carries out its business by manufacturing products at plants and selling them. Therefore, stable and continuous plant operation is very important to Kao. When a Kao plant uses a river as a water source, we recognize that understanding of the water management policy (e.g., future supply forecasts, regulations during scarcity) applied to that source provides a part of information necessary for stable plant operation. For this reason, when addressing water risk, river basin management authorities are important stakeholders. Water-related information that plants obtain from dialogues with river basin management authorities is used as part of information in water risk assessment by plants. - The method of engagement with the stakeholder During regularly held meetings, we confirm with the authorities whether there are any plans to change the policies on regulations. For example, at the Wakayama Plant, we have a regular meeting for the purpose of obtaining information on future upgrades to water supply facilities and water price trends.
Statutory special interest groups at a local level	Relevant, always included	—An explanation of why these stakeholders are included in the risk assessment Kao is a manufacturing company, and a manufacturer carries out its business by producing products at plants and selling them. This means a stable and continuous plant operation is vital to Kao. Kao plants in general use and discharge a relatively large amount of water, and statutory special-interest groups at a local level in some situations enforce regulations similar to those enforced by regulators. Kao therefore understands that plant operation cannot continue while ignoring these groups' opinions. To secure stable plant operation, we need to check whether there are any statutory special-interest groups at a local level in the area where a plant is, and if so, grasp the trends in effluent regulations that they implement and take necessary measures. For this reason, when addressing water risk, statutory special-interest groups at the local level are important stakeholders. Plants use water-related information that they obtain from committees led by these groups or from industry as part of the information for assessing water risk. -The method of engagement with the stakeholder Qumi-Kao in Mexico once experienced a situation in which a sufficient amount of water could not be secured due to restrictions on taking groundwater. Therefore, Qumi-Kao consulted with statutory special interest groups at the local level and agreed that water discharged from sewage treatment plants in the city would be directly carried in to plants instead of discharging it into rivers. As a result, Qumi-Kao's local plant operations were not hindered, and now it can increase production further. This collaboration will contribute to the stability of its business operations. As a stable income from Qumi-Kao is taken into force for statutory special interest groups at the local level, this collaboration will contribute to the stability of business operations. Therefore, Qumi-Kao and the statutory special interest groups are exchanging information about future water use.
Suppliers	Relevant, always included	—An explanation of why these stakeholders are included in the risk assessment Kao is a manufacturing company, and a manufacturer carries out its business by producing products at plants and selling them. This means a stable and continuous plant operation is vital to Kao. One of the key requirements is to ensure such operation is that we maintain a stable and continuous supply of materials from our suppliers. A large portion of Kao products use a wide variety of chemical substances and paper containers, and these materials come from suppliers in the three fields of business (chemicals, steel, and paper and paper processing/manufacturing) that use the most water in Japan. We therefore understand that most of our suppliers are highly dependent on water, so when addressing water risk, suppliers are important stakeholders. Water-related information that the Procurement Division or plants obtain from dialogues with suppliers is used as part of the information the Procurement Division or plants use to assess water risk. —Stakeholder engagement method We joined the Water section of the CDP SC Program in 2015, and since then have been checking how our suppliers manage their water risk. We use our own unique method to evaluate their responses and subsequently their water risk. We also gather information on the water-risk levels of supplier plants that manufacture products for Kao and how they address such risk. Furthermore, our employees in charge of plant quality and Procurement Division personnel collect information about suppliers' water risk when they exchange information with them. The Procurement Division uses information related to water risk obtained through such engagement activities with these suppliers as part of the information for assessing water risk.
Water utilities at a local level	Relevant, always included	—An explanation of why these stakeholders are included in the risk assessment Kao is a manufacturing company, and a manufacturer carries out its business by producing products at plants and selling them. This means a stable and continuous plant operation is vital to Kao. Water used at many Kao plants is received from local water utilities, and in this case, we recognize that understanding their water management policies (e.g., future supply forecasts, regulations during scarcity) provides part of the information necessary for stable plant operation. Therefore, when addressing water risk, local water utilities are important stakeholders. Water-related information that plants obtain from dialogues with these utilities is used as part of their information for assessing water risk. - The method of engagement with the stakeholder We explain our policy and the situation of our activities to them so as to have them understood through meetings. For example, at Wakayama factory, at least once a year regular meeting is held to exchange information.
Other stakeholder, please specify	Please select	

### W3.3d

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**(W3.3d) 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.**

Kao identifies, evaluates, and addresses water-related risk every year.

Examples involving our plants are as follows:

Employees in charge of plants (e.g., plant managers, officers in charge of SCM), who have been chosen internally in advance, use internal company methods to conduct primary assessment of short-term water risk for each size of risk to be addressed, and approve payments.

In a yearly audit, The Responsible Care Promotion Committee Secretariat checks how Kao understands water risks and how Kao responds to. If the action and response are found to be insufficient in a periodically held meetings with the person in charge of each factory, improvement will be requested, and guidance will be given.

To identify long-term water risk (ten years or more), the Responsible Care Promotion Committee Secretariat refers to WRI Aqueduct Water Stress Projections and information provided by employees in charge of plants. At each plant, the risk level is assessed using the internal company method and a long-term response plan is created. The officer in charge of SCM, the Responsible Care Promotion Committee Secretariat, or another individual/unit checks the plan and requests corrections as necessary.

### W4. Risks and opportunities

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#### W4.1

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**(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

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

- A definition of substantive financial or strategic impact is given

We define an event as having a substantive impact if the amount of financial damage exceeding 1 billion yen (or equivalent to roughly 0.1% of the sales figure) is expected to appear within ten years and continue for several years. We recognize that the relevant risk no longer exists if a measure for preventing the existence of the relevant risk has been developed and implemented.

We review the validity of this definition every year and correct it as necessary.

- The measure(s), metric(s) or indicator(s) used to identify substantive change

Kao evaluates substantial changes in terms of financial aspects and the continuity of direct operation.

- The threshold or amount of change in the metric/measure/indicator which indicates substantive change

We define an event as a substantive change if it is expected that the amount of financial damage will exceed 1 billion yen and a suspension of our operation in terms of direct operation for one day or more will appear within ten years. We recognize that the relevant risk ceases to exist if a measure has been developed and implemented to prevent the existence of the relevant risk.

We review the validity of this definition every year and correct it as necessary.

- Whether the definition applies to direct operations, or supply chain, or both

The above definition applies to both direct operation and the supply chain.

- At least one example of substantive impact considered

In Japan, which accounts for over 60% of Kao's sales, torrential downpours occurring due to climate change and natural disasters causing devastating damage, though in a limited area, are becoming apparent nowadays.

There are following risks to direct operation:

If such a torrential downpour occurs in an area where there is a Kao plant or logistics base, we may need to suspend the production and supply of products, which would lead to not only a decrease in sales, but also reduced profit due to the cost of repairs incurred. Even if such a plant or logistics base is not damaged, if employees' homes are damaged and they cannot get to work, there is a resulting productivity loss.

There are following risks associated with our supply chain:

If the event mentioned with regard to direct operation above occurs at a supplier's plant and the necessary amount of raw materials cannot be delivered by the day they are needed, we will not be able to perform production, posing a risk of decreased sales.

If devastating damage occurs on the regular transportation route, the means and route of transportation need to be changed, which will increase the transportation cost and therefore pose a risk of lower profit.

**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	8	1-25	We recognize that many of the sites in Asia which make up the majority of Kao's bases have water risks.

**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**

China	Yalu Jiang
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**Number of facilities exposed to water risk**

1

**% company-wide facilities this represents**

1-25

**Production value for the metals & mining activities associated with these facilities**

<Not Applicable>

**% company's annual electricity generation that could be affected by these facilities**

<Not Applicable>

**% company's global oil & gas production volume that could be affected by these facilities**

<Not Applicable>

**% company's total global revenue that could be affected**

Less than 1%

**Comment**

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**Country/Area & River basin**

Philippines	Other, please specify (Cablign)
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**Number of facilities exposed to water risk**

1

**% company-wide facilities this represents**

1-25

**Production value for the metals & mining activities associated with these facilities**

<Not Applicable>

**% company's annual electricity generation that could be affected by these facilities**

<Not Applicable>

**% company's global oil & gas production volume that could be affected by these facilities**

<Not Applicable>

**% company's total global revenue that could be affected**

1-10

**Comment**

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**Country/Area & River basin**

Thailand	Other, please specify (Bang Pakong)
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**Number of facilities exposed to water risk**

1

**% company-wide facilities this represents**

1-25

**Production value for the metals & mining activities associated with these facilities**

<Not Applicable>

**% company's annual electricity generation that could be affected by these facilities**

<Not Applicable>

**% company's global oil & gas production volume that could be affected by these facilities**

<Not Applicable>

**% company's total global revenue that could be affected**

1-10

**Comment**

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**Country/Area & River basin**

Indonesia	Other, please specify (Saluran Irigasi Kali Malang and Sungai)
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**Number of facilities exposed to water risk**

1

**% company-wide facilities this represents**

1-25

**Production value for the metals & mining activities associated with these facilities**

<Not Applicable>

**% company's annual electricity generation that could be affected by these facilities**

<Not Applicable>

**% company's global oil & gas production volume that could be affected by these facilities**

<Not Applicable>

**% company's total global revenue that could be affected**

1-10

**Comment**

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**Country/Area & River basin**

Taiwan, Greater China	Other, please specify (Touqian River)
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**Number of facilities exposed to water risk**

1

**% company-wide facilities this represents**

1-25

**Production value for the metals & mining activities associated with these facilities**

<Not Applicable>

**% company's annual electricity generation that could be affected by these facilities**

<Not Applicable>

**% company's global oil & gas production volume that could be affected by these facilities**

<Not Applicable>

**% company's total global revenue that could be affected**

1-10

**Comment**

**Country/Area & River basin**

Mexico	Balsas
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**Number of facilities exposed to water risk**

1

**% company-wide facilities this represents**

1-25

**Production value for the metals & mining activities associated with these facilities**

<Not Applicable>

**% company's annual electricity generation that could be affected by these facilities**

<Not Applicable>

**% company's global oil & gas production volume that could be affected by these facilities**

<Not Applicable>

**% company's total global revenue that could be affected**

1-10

**Comment**

**Country/Area & River basin**

Spain	Other, please specify (Touqian River)
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**Number of facilities exposed to water risk**

1

**% company-wide facilities this represents**

1-25

**Production value for the metals & mining activities associated with these facilities**

<Not Applicable>

**% company's annual electricity generation that could be affected by these facilities**

<Not Applicable>

**% company's global oil & gas production volume that could be affected by these facilities**

<Not Applicable>

**% company's total global revenue that could be affected**

1-10

**Comment**

**Country/Area & River basin**

Japan	Other, please specify (Toyokawa)
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**Number of facilities exposed to water risk**

1

**% company-wide facilities this represents**

1-25

**Production value for the metals & mining activities associated with these facilities**

<Not Applicable>

% company's annual electricity generation that could be affected by these facilities

<Not Applicable>

% company's global oil & gas production volume that could be affected by these facilities

<Not Applicable>

% company's total global revenue that could be affected

1-10

Comment

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## W4.2

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(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

China	Yalu Jiang
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### Type of risk & Primary risk driver

Physical	Increased water stress
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### Primary potential impact

Constraint to growth

### Company-specific description

According to WRI Aqueduct Water Stress Projections, the water supply in the area where Kao Chemical Corporation Shanghai operates will be under strong stress in 2040. At the same time, interviews with plant employees have indicated that the number of residents will be on an upward trend in this area and the quality of water for daily living is predicted to deteriorate. Meanwhile, Kao has a sales target of 2.5 trillion yen (167% of the 2018 target) for 2030. China is one of the key areas for achieving this target and we will continue to increase production at our Chinese plants. From the information described above, Kao has concluded that the risk to water availability and quality will increase, thus limiting future growth or profit increases for these plants. Production cannot increase if water availability will not rise or the efficiency of water use inside the plants does not increase. If this happens, production will remain the same even though it actually needs to increase by 67%, and resulting production will fall 40% short ( $((100/167) - 1) * 100 = -40\%$ ).

### Timeframe

More than 6 years

### Magnitude of potential impact

Medium

### Likelihood

More likely than not

### Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

### Potential financial impact figure (currency)

90871000000

### Potential financial impact figure - minimum (currency)

<Not Applicable>

### Potential financial impact figure - maximum (currency)

<Not Applicable>

### Explanation of financial impact

In 2018, sales in China were 135.629 billion yen. If sales in China grow at the same rate as that needed for the Kao Group to achieve the 2030 sales target, sales in China in 2030 will be 226.5 billion yen. If this sales growth does not become a reality due to water risk, the impact is forecast to be 90.871 billion yen ( $90.871 = 226.5 - 135.629$ ).

### Primary response to risk

Establish site-specific targets

### Description of response

Kao has set a goal to improve the water usage efficiency in the entire Group by 45% by 2030. Due to high water supply risk in the future, the plant has continued to reduce risks that may hinder business growth by setting a goal higher than the above and implementing activities to improve water usage efficiency. As part of such efforts, the plant is now using rainwater.

### Cost of response

15340000

### Explanation of cost of response

The volume of water intake by Kao Chemical Corporation Shanghai, a plant that stands in a river basin, was 90.86 million liters in 2018. If this plant's production increases at the same rate as that needed for the Kao Group to achieve the 2030 sales target, but the intensity of water use remains the same, the volume of water intake will increase by 60.88 million liters. The cost of recycling effluent generated from this additional amount of water has been calculated obtained. At one particular manufacturer, the annual running cost of an effluent recycling facility with a water-treatment capacity of 25 million liters per year is 6.3 million yen. When applying this running cost to our case, the necessary cost will be 15.34 million yen ( $15.34 = 6.3/25 * 60.88$ ).

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## 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	Kao has expanded the scope of water-related risk surveys not only directly into operations but also in the value chain. As a result of the survey, we have implemented appropriate response to supplier factories at risk. As a result of the survey, we are aware that there is no supplier factory currently exposed to substantive financial or strategic impact We are continuously improving the quality of our supplier surveys, including increasing the scope of our research in the CDP SC program. Our products require a lot of water during the use stage. As the water infrastructure in countries where we will increase sales is predicted to grow at a pace in line with the GDP growth of the respective countries, we predict that there will be no substantive financial or strategic impact in the product use stage.

## W4.3

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

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

## W4.3a

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

### Type of opportunity

Efficiency

### Primary water-related opportunity

Cost savings

### Company-specific description & strategy to realize opportunity

Kao plans to increase sales by more than 1.5 times by 2030. Thus, we expect that production as well as the amount of water used at plants will also increase by about 1.5 times by 2030. Meanwhile, since we plan to increase profits at a rate greater than that of the sales increase, we are adopting various approaches to take cost reduction measures. The water usage reduction activities at each plant are part of these cost reduction activities. Such activities are budgeted into the TCR amount and managed per item. As part of water-saving activities, the Malaysia plant uses rainwater, and many other plants, including the Wakayama Plant, reuse steam. Also, we have set a goal of improving water usage efficiency by 40% by 2020, and the Head Office has been managing the progress of these efforts.

### 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)

1250000000

### Potential financial impact figure – minimum (currency)

<Not Applicable>

### Potential financial impact figure – maximum (currency)

<Not Applicable>

### Explanation of financial impact

The sales target for Kao products for 2030 is 2.5 trillion yen. If the cost of water required to manufacture such products accounts for 0.1% of sales, the cost of water will be 2.5 billion yen. Thus, it can be expected that improving the water usage efficiency by 50% will reduce the cost by 1.25 billion yen.

## 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)

Kao Chemical Corporation Shanghai

#### Country/Area & River basin

China	Yalu Jiang
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**Latitude**

31.215818

**Longitude**

121.456731

**Located in area with water stress**

Yes

**Primary power generation source for your electricity generation at this facility**

<Not Applicable>

**Oil & gas sector business division**

<Not Applicable>

**Total water withdrawals at this facility (megaliters/year)**

77.81

**Comparison of total withdrawals with previous reporting year**

Much lower

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

0

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

77.81

**Total water discharges at this facility (megaliters/year)**

40.88

**Comparison of total discharges with previous reporting year**

Much lower

**Discharges to fresh surface water**

0

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

40.88

**Total water consumption at this facility (megaliters/year)**

36.94

**Comparison of total consumption with previous reporting year**

Much lower

**Please explain**

In 2019, the production volume decreased by 10% compared to the previous year, resulting in a decrease of more than 10% in water withdrawal, water discharge, and water consumption.

**Facility reference number**

Facility 2

**Facility name (optional)**

Pilipinas Kao, Incorporated

**Country/Area & River basin**

Philippines	Other, please specify (Cablig)
-------------	--------------------------------

**Latitude**

8.652755

**Longitude**

124.756451

**Located in area with water stress**

Yes

**Primary power generation source for your electricity generation at this facility**

<Not Applicable>

**Oil & gas sector business division**

<Not Applicable>

**Total water withdrawals at this facility (megaliters/year)**

1291.92

**Comparison of total withdrawals with previous reporting year**

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**

1291.92

**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)**

212.51

**Comparison of total discharges with previous reporting year**

About the same

**Discharges to fresh surface water**

0

**Discharges to brackish surface water/seawater**

212.51

**Discharges to groundwater**

0

**Discharges to third party destinations**

0

**Total water consumption at this facility (megaliters/year)**

1079.42

**Comparison of total consumption with previous reporting year**

Higher

**Please explain**

Production volume of Pilipinas Kao was flat in 2019, but a large amount of water, including stored water, was used for the test run of equipment at the new factory that started operation in November 2018, so the amount of water withdrawal and water consumption increased by about 5% from the previous year.

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**Facility reference number**

Facility 3

**Facility name (optional)**

Kao Industrial (Thailand) Co., Ltd.

**Country/Area & River basin**

Thailand	Other, please specify (Bang Pakong)
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**Latitude**

13.326396

**Longitude**

101.003311

**Located in area with water stress**

Yes

**Primary power generation source for your electricity generation at this facility**

<Not Applicable>

**Oil & gas sector business division**

<Not Applicable>

**Total water withdrawals at this facility (megaliters/year)**

547.96

**Comparison of total withdrawals with previous reporting year**

Much lower

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

0

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

547.96

**Total water discharges at this facility (megaliters/year)**

375.51

**Comparison of total discharges with previous reporting year**

Much lower

**Discharges to fresh surface water**

0

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

375.51

**Total water consumption at this facility (megaliters/year)**

172.45

**Comparison of total consumption with previous reporting year**

Much higher

**Please explain**

Production volume of Kao Industrial (Thailand) was flat in 2019. Brine water (concentrated water), which had been drained as it is after membrane treatment, was membrane treated again and about half of it was reused as process water. As a result, both the amount of water withdrawal and water discharge decreased by 10% or more from the previous year. However, due to the overflow of cooling water in the factory's cooling tower, water consumption increased by more than 10% compared to the previous year.

**Facility reference number**

Facility 4

**Facility name (optional)**

PT. Kao Indonesia Chemicals

**Country/Area & River basin**

Indonesia	Other, please specify (Saluran Irigasi Kali Malang and Sungai Bekasi)
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**Latitude**

-6.219573

**Longitude**

107.065754

**Located in area with water stress**

Yes

**Primary power generation source for your electricity generation at this facility**

&lt;Not Applicable&gt;

**Oil & gas sector business division**

&lt;Not Applicable&gt;

**Total water withdrawals at this facility (megaliters/year)**

454.39

**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**

454.39

**Total water discharges at this facility (megaliters/year)**

319.8

**Comparison of total discharges with previous reporting year**

Much higher

**Discharges to fresh surface water**

0

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

319.8

**Total water consumption at this facility (megaliters/year)**

134.59

**Comparison of total consumption with previous reporting year**

Much lower

**Please explain**

Substantial production in 2019 has increased slightly from the previous year, and water withdrawal has also increased slightly. In 2019, we were able to reduce water consumption by more than 20% compared to the previous year by renewing the cleaning procedure at the factory equipment. However, due to a large number of product switching due to the increase in market demand and a lot of blackouts in the area, the amount of water discharge increased by 20% or more compared to the previous year.

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**Facility reference number**

Facility 5

**Facility name (optional)**

Kao (Taiwan) Corporation

**Country/Area & River basin**

Taiwan, Greater China	Other, please specify (Touqian River)
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**Latitude**

24.803945

**Longitude**

120.964686

**Located in area with water stress**

Yes

**Primary power generation source for your electricity generation at this facility**

<Not Applicable>

**Oil & gas sector business division**

<Not Applicable>

**Total water withdrawals at this facility (megaliters/year)**

167.26

**Comparison of total withdrawals with previous reporting year**

Much lower

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

0

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

167.26

**Total water discharges at this facility (megaliters/year)**

90.1

**Comparison of total discharges with previous reporting year**

Much lower

**Discharges to fresh surface water**

0

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

90.1

**Total water consumption at this facility (megaliters/year)**

77.16

**Comparison of total consumption with previous reporting year**

Lower

**Please explain**

Kao (Taiwan) production increased by about 5% in 2019 compared to the previous year, but both water withdrawal and water discharge decreased by more than 10%. There are four main reasons for this. 1. Specifications change of electrostatic precipitator 2. Change the scrubber make-up water of the incinerator from tap water to treated wastewater 3. Reclaimed wastewater from pure water equipment is collected and used as cooling water 4. Change water for cafeteria from RO water to pure water

**Facility reference number**

Facility 6

**Facility name (optional)**

Quimi-Kao S.A. de C.V.

**Country/Area & River basin**

Mexico	Balsas
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**Latitude**

19.947483

**Longitude**

-101.640844

**Located in area with water stress**

Yes

**Primary power generation source for your electricity generation at this facility**

<Not Applicable>

**Oil & gas sector business division**

<Not Applicable>

**Total water withdrawals at this facility (megaliters/year)**

189.5

**Comparison of total withdrawals with previous reporting year**

Lower

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

0

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

117.28

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

72.22

**Total water discharges at this facility (megaliters/year)**

121.71

**Comparison of total discharges with previous reporting year**

Lower

**Discharges to fresh surface water**

0

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

121.71

**Total water consumption at this facility (megaliters/year)**

67.79

**Comparison of total consumption with previous reporting year**

Lower

**Please explain**

In 2019, Quimi-Kao production decreased by more than 10% compared to the previous year, resulting in nearly 10% decrease in water withdrawal, water discharge and water consumption. Regarding the breakdown of water withdrawal, Quimi-Kao increased the use of reclaimed water from 2019 due to lack of well water supply.

**Facility reference number**

Facility 7

**Facility name (optional)**

Kao Corporation S.A. Mollet plant

**Country/Area & River basin**

Spain	Other, please specify (El Besos)
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**Latitude**

41.525107

**Longitude**

2.213861

**Located in area with water stress**

Yes

**Primary power generation source for your electricity generation at this facility**

&lt;Not Applicable&gt;

**Oil & gas sector business division**

&lt;Not Applicable&gt;

**Total water withdrawals at this facility (megaliters/year)**

133.3

**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**

133.3

**Total water discharges at this facility (megaliters/year)**

85.52

**Comparison of total discharges with previous reporting year**

Much lower

**Discharges to fresh surface water**

0

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

85.52

**Total water consumption at this facility (megaliters/year)**

47.78

**Comparison of total consumption with previous reporting year**

Much higher

**Please explain**

Kao Corporation S.A. Mollet plant production volume in 2019 has not changed much from the previous year. Water withdrawal has decreased slightly from the previous year. In the case of the plant, rainwater is not separated in the drainage process, so the wastewater contains rainwater that falls on the site. In 2019, there was less rainfall compared to the previous year and the amount of rainwater in the drainage decreased, resulting in a 21% reduction in the amount of water discharge. Although it seems that water consumption has increased apparently, we recognize that the actual consumption is almost the same as the previous year due to the decrease in rainfall.

**Facility reference number**

Facility 8

**Facility name (optional)**

Kao Corporation, Toyohashi plant

**Country/Area & River basin**

Japan	Other, please specify (Toyokawa River)
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**Latitude**

34.708937

**Longitude**

137.322836

**Located in area with water stress**

No

**Primary power generation source for your electricity generation at this facility**

<Not Applicable>

**Oil & gas sector business division**

<Not Applicable>

**Total water withdrawals at this facility (megaliters/year)**

153.47

**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**

153.47

**Total water discharges at this facility (megaliters/year)**

89.25

**Comparison of total discharges with previous reporting year**

Much higher

**Discharges to fresh surface water**

0

**Discharges to brackish surface water/seawater**

89.25

**Discharges to groundwater**

0

**Discharges to third party destinations**

0

**Total water consumption at this facility (megaliters/year)**

64.22

**Comparison of total consumption with previous reporting year**

Much lower

**Please explain**

Total water discharges increased by 16% compared to last year, and total water consumption apparently decreased by 13% compared to last year. This is mainly due to the fact that the cooling water that passes through the water jacket, which had been discharged together with rainwater until 2018 (not included as water discharges), has been taken into the waste water treatment facility since 2019.

**W5.1a**

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

**Water withdrawals – total volumes**

% verified  
76-100

What standard and methodology was used?  
ISAE3000, limited assurance

**Water withdrawals – volume by source**

% verified  
76-100

What standard and methodology was used?  
ISAE3000, limited assurance

**Water withdrawals – quality**

% verified  
Not verified

What standard and methodology was used?  
<Not Applicable>

**Water discharges – total volumes**

% verified  
76-100

What standard and methodology was used?  
ISAE3000, limited assurance

**Water discharges – volume by destination**

% verified  
76-100

What standard and methodology was used?  
ISAE3000, limited assurance

**Water discharges – volume by treatment method**

% verified  
Not verified

What standard and methodology was used?  
<Not Applicable>

**Water discharge quality – quality by standard effluent parameters**

% verified  
Not verified

What standard and methodology was used?  
<Not Applicable>

**Water discharge quality – temperature**

% verified  
Not verified

What standard and methodology was used?  
<Not Applicable>

**Water consumption – total volume**

% verified  
Not verified

What standard and methodology was used?  
<Not Applicable>

**Water recycled/reused**

% verified  
Not verified

What standard and methodology was used?  
<Not Applicable>

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**W6. Governance**

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**W6.1**

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

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

W6.1a

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

	Scope	Content	Please explain
Row 1	Company-wide	Description of business dependency on water Description of business impact on water Description of water-related performance standards for direct operations Description of water-related standards for procurement Reference to international standards and widely-recognized water initiatives Company water targets and goals Commitment to align with public policy initiatives, such as the SDGs Commitments beyond regulatory compliance Commitment to water-related innovation Commitment to stakeholder awareness and education Commitment to water stewardship and/or collective action Acknowledgement of the human right to water and sanitation Recognition of environmental linkages, for example, due to climate change	We declare that we provide products that will not impact on the environment including water in product lifecycle, in the Kao Environmental Declaration. In addition, Kao sets goals for securing water for consumers, and to realize the goals, Kao sets various policies and expands activities. "Responsible Care Policy" covers our compliance with international rules and regulations as well as trust from stakeholders and effective communication. In addition, the "Kirei Lifestyle Plan" clarifies our nineteen priority topics, which could contribute to themes of SDGs (including Goal 6). Furthermore, Kao discloses water reduction targets and climate-related risks. We also make it clear that employees can work in a healthy and safe environment in accordance with the "Basic Policy on Environment and Safety". "Effective use of water" is requested in the "Supplier Guidelines", and particularly we ask key suppliers water risk management and countermeasures through the CDP SC program.

W6.2

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

Yes

W6.2a

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

Position of individual	Please explain
Chief Executive Officer (CEO)	Since water-related issues affect Kao's business, they must be monitored as business management issues and are therefore under the CEO's oversight. The CEO is Chairperson of the Internal Control Committee, under which there are the Responsible Care Promotion Committee and Risk and Crisis Management Committee. This committee is approved by the Board, under the Kao corporate governance system. CEO is also a chairman of the ESG Committee, approved by the Management Committee. The Responsible Care Promotion Committee manages risk for individual group companies, while the Risk and Crisis Management Committee manages water risk for multiple group companies. The ESG Committee manages progress in activities related to locating new opportunities. The Internal Control Committee is convened annually and reported of the Internal Control Committee. In 2019, the ESG Committee set a goal of saving water use throughout the product lifecycle by 10% by 2030.

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 - some meetings	Monitoring implementation and performance Overseeing acquisitions and divestiture Overseeing major capital expenditures Providing employee incentives Reviewing and guiding annual budgets Reviewing and guiding business plans Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing and guiding corporate responsibility strategy Reviewing innovation/R&D priorities Setting performance objectives	The Risk and Crisis Management Committee holds a meeting at least four times per year and the Responsible Care Promotion Committee checks the status of activities at bases every month. Both committees are under the Internal Control Committee, which is under the control of the Board of Directors, and manage water-related risks. The ESG Committee, which is under the control of the Board of Directors, holds a meeting at least four times per year and manages water-related opportunities. The status of activities of these committees is explained to the Board of Directors by the secretary-general of each committee. Since water-related issues have an impact on Kao's business and thus must be supervised as one of the business management issues, they are under the oversight of the Internal Control Committee and the ESG Committee, with the CEO serving as chairperson.

**W6.3**

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

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

Chief Executive Officer (CEO)

**Responsibility**

Both assessing and managing water-related risks and opportunities

**Frequency of reporting to the board on water-related issues**

Quarterly

**Please explain**

Under the Board of Directors is the Internal Control Committee(ICC). The Risk and Crisis Management Committee(RCMC) and the Responsible Care Promotion Committee(RCPC), both under the ICC, manage water-related risk, while the ESG Committee, under the Board, manages water-related opportunities. The CEO chairs the RCMC and the RCPC because water is one of the management issues that influences Kao's business. Under the CEO's direction, these committees report on goals, plans, and results for water-related issues and revision proposals for plans (if necessary) to the Board once a year or more. This means water-related issues are reported to the Board four or more times a year. The RCMC has established a system for managing water risk and a plan for operating the system, and the RCPC checks that the plan is carried out properly at all divisions, subsidiaries, and affiliated companies. The ESG Committee is responsible for setting the direction of activities and promoting them.

**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	Please explain
Monetary reward	Director on board Corporate executive team	Reduction of water withdrawals Reduction in consumption volumes Improvements in efficiency - direct operations Improvements in efficiency - supply chain Improvements in efficiency - product-use Improvements in waste water quality - direct operations Improvements in waste water quality - supply chain Improvements in waste water quality - product-use Implementation of employee awareness campaign or training program Supply chain engagement Increased access to workplace WASH Implementation of water-related community project	Kao's director on board and the corporate executive team receive monetary rewards based on the growth rate of EVA (Economic Value Added) that includes a track record of water-related activities. Here, EVA is a profitability indicator proposed by G. Bennett Stewart III, that indicates the economic value of the return from the annual operation minus the cost of capital incurred for the invested capital. Specifically, it is calculated by $EVA = NOPAT - CE \times WACC$ . NOPAT: the net operating profit after tax CE: Interest-bearing debt + shareholders' equity WACC: the weighted average cost of capital The water-related activities contained above are as follows. Kao uses EVA as an indicator that can comprehensively evaluate these activities. All environmental matter such as level of achievement of "Reduction of water withdrawals", "Reduction in consumption volumes", "Improvements in efficiency – direct operations, – supply chain" -related to variable cost reduction by efficiency projects, problems related to variable cost reduction such as "Improvements in waste water quality, – direct operations, – supply chain – product-use", "Implementation of employee awareness campaign or training program", "Supply chain engagement", "Increased access to workplace WASH", "Implementation of water-related community project", and "improvement of efficiency" -- sales of "water-saving products". With these activities increased, it is expected to increase the company's profits and sales.
Non-monetary reward	Director on board Corporate executive team	Reduction of water withdrawals Reduction in consumption volumes Improvements in efficiency - supply chain Improvements in efficiency - product-use Supply chain engagement	Kao does not grant C-Suite employees or board members recognition (non-monetary). However, because Kao's water-related activities are highly evaluated from outside the company, C-Suite employees or board members receive non-monetary rewards from outside the company. Reduction of water withdrawals Reduction in consumption volumes Improvements in efficiency – supply chain Improvements in waste water quality – product-use 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

**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?**

Kao supports the Water Project activities of Japan's policy makers who are working on communicating the importance of water used in Japan. To support their activities, the secretariat of the ESG Committee, which manages water-related opportunities, consults with the relevant policy makers to understand the objective and details of such activities. The secretary-general of the ESG Committee determines whether the details are consistent with Kao's policies and how Kao should support such activities. If there is any inconsistency with Kao's policies, Kao will report it to the policy makers and ask for the inconsistency to be resolved. If the inconsistency is not resolved, Kao will suspend the support for such activities based on the decision of the secretary-general of the ESG Committee.

## 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)

## W7. Business strategy

### W7.1

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

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	> 30	When selecting a new plant location, Kao includes in its long-term strategy the water stress assessment results such as long-term ease of water intake, stability of water quality, and flood probability. This is because Kao recognizes that building a new plant is an inevitable task since the company aims to increase sales by 1.5 times or more by 2030, and it is Kao's policy that, once built, a plant will operate for over 30 years. In 2014, PT. Kao Indonesia Chemicals built a plant in the Karawang International Industrial City in Indonesia. This company looked for land with low risk in water supply and effluent treatment. As this industrial city possesses an industrial water plant and effluent plant that can process at least 30,000 m <sup>3</sup> of water a day, Kao chose to build a plant there based on the low water risk.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	11-15	Kao includes in its long-term strategy water stress assessment results such as long-term ease of water intake and the stability of water quality. This is because, while Kao aims to increase sales by 1.5 times or more by 2030, large Asian urban centers like Japanese cities, which are the key areas of Kao product consumption, will grow enormous, and securing of ease of water intake and stable water quality will become an important future task. As preventive measures, we are already aiming to increase sales of products that do not require much water during use. Throughout the product life cycle, Kao is targeting a 10% decrease in water consumption in general, and a 40% reduction in areas of water scarcity. In the Kao product life cycle, approximately 90% of water consumption occurs during the product use stage. Therefore, in developing products that can contribute to achievement of the 2030 sales target, creating products that ignore water issues is not an option. Kao's current sales target is set for 2030, and we have set 11 to 15 years as the time frame for developing new products that contribute to achieving the target.
Financial planning	Yes, water-related issues are integrated	11-15	Kao has incorporated into its long-term strategy water stress evaluations regarding the ease of water intake, stability of water quality, etc. over a long period. This is because while Kao aims to increase sales by more than 1.5 times the current level by 2030, we are aware that the ease of water intake and stability of water quality will be future issues as large cities in Asia, including those in Japan, which is Kao products' main consumption area, will expand. As part of efforts to increase the sales of products that consume little water when they are used, we have already expanded the scope of water-saving clothing detergent to include the non-concentrated type, and incorporated it into the financial plan for 2017 as the measures. This has affected our earnings forecast, including sales and operating profit margin. Kao's current sales target is set to 2030, and we selected 11 to 15 years as the time scale for water-related new product development as a measure that will contribute to achieving the target.

### 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)

-61

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

5

##### Water-related OPEX (+/- % change)

11

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

5

##### Please explain

Environmentally related CAPEX and OPEX are calculated annually mainly for the purpose of managing of investment in water withdrawal reduction measures and investment in wastewater treatment capacity improvement, and operating costs for maintaining and managing these. In 2018, the amount of investment in wastewater treatment related to the construction of the new factory at Toyohashi Plant was large, so the amount of investment apparently decreased in 2019. Water-related capital investment is expected to continue to increase in line with the expansion of production facilities due to increased production volume.

### W7.3

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

	Use of climate-related scenario analysis	Comment
Row 1	Yes	

### W7.3a

**(W7.3a) Has your organization identified any water-related outcomes from your climate-related scenario analysis?**

Yes

**W7.3b**

**(W7.3b) What water-related outcomes were identified from the use of climate-related scenario analysis, and what was your organization’s response?**

	Climate-related scenarios and models applied	Description of possible water-related outcomes	Company response to possible water-related outcomes
Row 1	IEA B2DS	For example, an increase in temperatures will raise the risk of stronger typhoons directly striking Mindanao, where Pilipinas Kao is located. There is also a risk that a poor crop of coconut oil, which is one of the ingredients used at the plant, due to typhoons and El Nino Southern Oscillation may cause the price to soar and make it difficult to purchase.	i) A description of the operational or strategic response to the water-related outcomes described Pilipinas Kao added palm oil in addition to coconut as a raw material to be used to cope with the decrease in coconut yields caused by typhoons and El Niño phenomena. ii) The anticipated timescale for your responses The contents shown in "Description of possible water-related outcomes" have already begun to appear. Therefore, in Philipinas Kao, i) has already implemented the contents described in.

**W7.4**

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

Row 1

**Does your company use an internal price on water?**

Yes

**Please explain**

At Kao plants, we use water in different quality levels according to the requirement of the facility and product. Since improving the water quality requires additional processes, we indicate water costs according to the water quality level and manage them as one of manufacturing cost items.

**W8. Targets**

**W8.1**

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

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company-wide targets and goals Business level specific targets and/or goals Site/facility specific targets and/or goals	Targets are monitored at the corporate level Goals are monitored at the corporate level	We have made it clear in the Environmental Statement that we will engage in environmental activities through products. As a result of our investigation on the amount of water consumed for products in each phase, we understand that 90% of the total water consumption is attributable to the phase in which products are used. Therefore, Kao has set a goal of reducing water consumption when the products are used. We have also set a goal of improving the water usage efficiency at all bases including plants because we consider it necessary to improve water usage efficiency in order to continue manufacturing products.

**W8.1a**

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

**Target reference number**

Target 1

**Category of target**

Water withdrawals

**Level**

Company-wide

**Primary motivation**

Shared value

**Description of target**

- Relevant to the goal of achieving water security At Kao bases, we set a goal of managing water security so that we can continue the business for a long period of time. - Consistent with the category, level and metric chosen We manage the amount of water intake as the first item in the management of water security at Kao bases. In order to continue the business for a long period of time, we have set a goal of reducing the water usage load (the amount of water intake per sales) by 40%.

**Quantitative metric**

% reduction per revenue

**Baseline year**

2005

**Start year**

2013

**Target year**

2020

**% of target achieved**

100

**Please explain**

2005年を基準年として、取水量（すべてのサイト）は1770万m<sup>3</sup>になり、削減率は42%でした。私たちは2020年の目標である40%削減を前倒して達成しました。

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**Target reference number**

Target 2

**Category of target**

Water consumption

**Level**

Business

**Primary motivation**

Shared value

**Description of target**

'- Relevant to the goal of achieving water security Kao's key products are clothing detergent and body detergent. Thus, in order for Kao to continue the business for a long period of time, we have set a goal of managing water security when the products are used. - Consistent with the category, level and metric chosen We manage the amount of water consumption when the products are used as the first item in the management of water security when Kao products are used. In order to continue the business for a long period of time, we have set a goal of reducing the water usage load (the amount of water consumption per sales) by 30%.

**Quantitative metric**

% reduction per revenue

**Baseline year**

2005

**Start year**

2009

**Target year**

2020

**% of target achieved**

100

**Please explain**

Our water consumption during product use (Kao Group in Japan) fell 107 million m<sup>3</sup>. The per unit of sales reduction rates improved 5 points to a 29% reduction. Enhancement of the water-conservation performance of our washing-up liquid products contributed to these improvements in water consumption. 2019 target : 30%/15year\*14year=28% 2019 % achieved : 29/28\*100=103.5%

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W8.1b

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

**Goal**

Engaging with customers to help them minimize product impacts

**Level**

Company-wide

**Motivation**

Shared value

**Description of goal**

Kao's goal for engagement with consumers is to help them enjoy a sustainable lifestyle. To this end, we have set a target in which we will aim to empower people –at least 1 billion by 2030 – to experience more enriched lives. Through investigating the volume of water consumed in each product phase, we discovered that 90% of the total water consumption is attributable to the phase in which products are used. Thus, we have set a target to reduce water consumption when products are used by 30% by 2020. We believe that raising awareness in consumers who use the products is essential to achieving that. Accordingly, Kao has set a goal of raising the awareness of consumers regarding eco-friendly products (laundry detergent and tableware detergent), and has been engaging in company-wide activities to reduce environmental load (including water issues) together with consumers. Specifically, we visit elementary and middle schools to give lectures, offer plant tours to students and general consumers, and participate in environmental events held by local governments and at stores. We also actively interact with the users and customers of our products through the eco website, and encourage them to use environmentally-friendly products that reduce the amount of water consumed when they are used. By strategically increasing engagements with consumers in such a way, we help them to understand environmentally-friendly products and the need to reduce environmental load when using them.

**Baseline year**

2005

**Start year**

2009

**End year**

2020

**Progress**

- A description of the indicators that are used to assess progress As an index for measuring engagements with consumers, we calculate the number of people who have been enlightened through school visits by Kao, plant tours, environmental events, and so on. - The threshold of success and how they have progressed against it Our goal for the total number of people who have been enlightened is 1 million for 2020, and we have reached 1.42 million as of 2019. The reference year for this KPI is 2014, and the percentage of achievement per time elapsed (86% = (2019-2013)/(2020-2013)) is 142% (= 1,420,000/1,000,000 persons).

**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
W8 Targets	Water withdrawal (all sites) , water consumption during product use(Kao Group in Japan) , Water consumption across the entire product lifecycle (Kao Group), COD pollution load(all production site), Water withdrawal amount by source, Wastewater discharge by destination	ISAE 3000	The status of water-related items that Kao has set as goals is reviewed every year by a third party. We disclose the results in our Sustainability Data Book 2019.

**W10. Sign off**

**W-FI**

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

**W10.1**

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

	Job title	Corresponding job category
Row 1	President and Chief Executive Officer	Chief Executive Officer (CEO)

W10.2

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

Please select