



Water 2017 Information Request KAO Corporation

Module: Introduction

Page: W0. Introduction

W0.1 Introduction

Please give a general description 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 Beauty Care division offers prestige cosmetics; 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 division 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 division offers fabric care products including detergents for apparel use, and home care products including detergents for kitchen use. The Chemical segment 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 beauty care business accounted for 41.3% of total turnover in fiscal 2016; human health care business, 18.7%; fabric and home care business, 23.7%; and chemical business, 16.3%. The Company reported JPY 1,457.6b in revenues and 33,195 permanent employees at December 31, 2016.

W0.2 Reporting year

Please state the start and end date of the year for which you are reporting data

Period for which data is reported
Fri 01 Jan 2016 - Sat 31 Dec 2016

W0.3 Reporting boundary

Please indicate the category that describes the reporting boundary for companies, entities, or groups for which water-related impacts are reported

Companies, entities or groups over which operational control is exercised

W0.4
Exclusions

Are there any geographies, facilities or types of water inputs/outputs within this boundary which are not included in your disclosure?

No

Further Information

Module: Current State

Page: W1. Context

W1.1

Please rate the importance (current and future) of water quality and water quantity to the success of your organization

Water quality and quantity	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Vital for operations	Important	i) Primary use of freshwater in direct operation Freshwater is used as raw materials of our products and as drinking water, water for sanitation, for our employees. ii) Why the 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. iii) Primary use of freshwater in value chain Freshwater is used as raw materials of supplier's products and steam, cooling water for their production. iv) Why the importance rating was selected for freshwater in value chain Supplier's products as our raw materials should be made using pure water with a certain quality. Pure water is also required to grow plants in the upstream supply chain. Beverage manufacturers to which manufacturing is outsourced also require pure water.
Sufficient amounts of recycled, brackish and/or produced water available for use	Vital for operations	Not important at all	-Direct use Kao has started to use the sewage in Mexico factory from 2016. -Indirect use Our products need pure water. Our suppliers also use pure water.

W1.2

For your total operations, please detail which of the following water aspects are regularly measured and monitored and provide an explanation as to why or why not

Water aspect	% of sites/facilities/operations	Please explain
Water withdrawals- total volumes	76-100	Monitoring is carrying out 100% our sites.
Water withdrawals- volume by sources	76-100	Monitoring is carrying out 100% our sites.
Water discharges- total volumes	76-100	Monitoring is carrying out 100% our sites.
Water discharges- volume by destination	76-100	Monitoring is carrying out 100% our sites.
Water discharges- volume by treatment method	76-100	About the factory, monitoring is carrying out 100%.
Water discharge quality data- quality by standard effluent parameters	76-100	About the factory which has regal regulation of waste water , monitoring is carrying out 100%.
Water consumption- total volume	76-100	Monitoring is carrying out 100% our sites.
Facilities providing fully-functioning WASH services for all workers	76-100	We provide fully-functioning WASH services for all workers at all of our sites already under the Basic policies on the Environment and Safety .

W1.2a

Water withdrawals: for the reporting year, please provide total water withdrawal data by source, across your operations

Source	Quantity (megaliters/year)	How does total water withdrawals for this source compare to the last reporting year?	Comment
Fresh surface water	0	Not applicable	
Brackish surface water/seawater	0	Not applicable	
Rainwater	0	About the same	We have a case that small amount of rain water has been stored and used for watering green space.
Groundwater - renewable	4806	About the same	
Groundwater - non-renewable	0	Not applicable	
Produced/process water	0	Not applicable	
Municipal supply	12265	About the same	
Wastewater from another organization	86	Much higher	Use of the sewage treated by reverse osmosis membrane has started in our factory in Mexico.
Total	17156	About the same	

W1.2b

Water discharges: for the reporting year, please provide total water discharge data by destination, across your operations

Destination	Quantity (megaliters/year)	How does total water discharged to this destination compare to the last reporting year?	Comment
Fresh surface water	2107	Higher	
Brackish surface water/seawater	6280	About the same	
Groundwater	0	Not applicable	

Destination	Quantity (megaliters/year)	How does total water discharged to this destination compare to the last reporting year?	Comment
Municipal/industrial wastewater treatment plant	2679	About the same	
Wastewater for another organization	0	Not applicable	
Total	11066	About the same	

W1.2c

Water consumption: for the reporting year, please provide total water consumption data, across your operations

Consumption (megaliters/year)	How does this consumption figure compare to the last reporting year?	Comment
17157	About the same	

W1.3

Do you request your suppliers to report on their water use, risks and/or management?

Yes

W1.3a

Please provide the proportion of suppliers you request to report on their water use, risks and/or management and the proportion of your procurement spend this represents

Proportion of suppliers %	Total procurement spend %	Rationale for this coverage
1-25	1-25	i) How these suppliers were selected Firstly we select suppliers from the aspect of the impact on business, and secondly we select suppliers among the those by the first screening from the aspect of water risks assessed by the method mentioned in W 2.5 and W3.2. ii) Type of information requested from suppliers We request relevant information from suppliers through CDP supply chain program. The information includes the risk level of their facilities and management level, which we especially use in order to manage our supply chain. iii) How the information is used within the company We use the information to mainly check the risk level on water of the supplier's facilities producing and delivering their products to us, and furthermore to check the management level over those risks if there is higer risk among those facilities. iv) How suppliers are incentivized The response situation and sontents to CDP Water supply chain program from a supplier is evaluated in our supplier score card.

W1.4

Has your organization experienced any detrimental impacts related to water in the reporting year?

Yes

W1.4a

Please describe the detrimental impacts experienced by your organization related to water in the reporting year

Country	River basin	Impact driver	Impact	Description of impact	Length of impact	Overall financial impact	Response strategy	Description of response strategy
Mexico	Balsas	Phys-Increased water scarcity	Constraint to growth	In the examination stage of installing new production facility in our factory, we predicted that the quantity of the water use in the facility will exceed the amount of water consumption. Then, we decided to utilize the drainage of other institutions. But the quality of the water supplied was below the level Kao requires. So, we installed the water-purifying equipment.	Before installing new production facility, operation of water-purifying equipment started. Therefore, the bad influence did not occur.	The amount of investment for the water-purifying equipment was 51 million Yen.	Increased capital expenditure	By introducing water-purifying equipment in 2016, the bad influence did not occur at all in operation of the new production facility. Therefore, this measure was successful to give enough effect.

Further Information

Module: Risk Assessment

Page: W2. Procedures and Requirements

W2.1

Does your organization undertake a water-related risk assessment?

Water risks are assessed

W2.2

Please select the options that best describe your procedures with regard to assessing water risks

Risk assessment procedure	Coverage	Scale	Please explain
Comprehensive company-wide risk assessment	Direct operations and supply chain	All facilities and some suppliers	i) Why this approach has been taken We are running water dependent businesses in the production phase and the supply chains. Our factories require pure water with a certain quality as a material, and also factories of suppliers require water of that quality to ensure the quality of our products, including products used on human bodies, or body washing products. ii) Rationale for the risk assessment procedure chosen To get lower the water risk on our business is prioritized purpose of the risk assessment. So not only our operations but also our supply chains have been assessed. We conduct water risk assessment not only for a small aspect but all relevant aspects. iii) Why the level of coverage was selected The coverage of assessment of our factories has been full because our operation is critical for our business. Whereas for our supply chain we cover the part of suppliers which have highly impact on our business because it is rational to cover prioritized suppliers among huge amount of suppliers. To do assessment, we use CDP Water SC Program.

W2.3

Please state how frequently you undertake water risk assessments, at what geographical scale and how far into the future you consider risks for each assessment

Frequency	Geographic scale	How far into the future are risks considered?	Comment
Annually	River basin	>6 years	

W2.4

Have you evaluated how water risks could affect the success (viability, constraints) of your organization's growth strategy?

Yes, evaluated over the next 10 years

W2.4a

Please explain how your organization evaluated the effects of water risks on the success (viability, constraints) of your organization's growth strategy?

(i) An example of risk

There are water risks in our supply chain identified by water risk assessment. The risks will be caused by water shortage. In the case that our suppliers stop their production due to water shortage, our plant will not be able to manufacture our products and then our sales will decrease losing market share and causing financial impacts. Thus the water risks may have negative impacts on our business.

(ii) The process by which the results of the assessment inform the growth strategy

The result of the risk assessment were shared at a meeting with relevant departments. Then we have made some decisions to start suppliers water risk management through CDP Water supply chain program in order to strengthen our existing business growth strategy.

(iii) Why and how the growth strategy changed as a result of the risk identified

Considering the result of assessment, we recognise that our business growth strategy, which is highly depends on water in supply chain, has not changed but should be more strengthened by get supply chain more resilient.

W2.5

Please state the methods used to assess water risks

Method	Please explain how these methods are used in your risk assessment
Internal company knowledge WBCSD Global Water Tool WRI Aqueduct	A. Water risk assessment process for our plants Plants satisfying any of (i),(ii), and (iii) below will be screened and then finally selected as plants with high water risks considering (iv) below: (i) A site whose water stress risk is higher than a certain standard due to WRI AQUEDUCT and WBCSD Tool, or whose precipitation fluctuation risk is higher than a certain standard due to WRI AQUEDUCT (ii) A site whose risk of drought is higher than a certain standard due to WRI AQUEDUCT (iii) A site whose flood risk is higher than a certain standard due to WRI AQUEDUCT (iv) A site whose risk is considered to be high due to internal company knowledge B. Water risk assessment process for suppliers Selection were made in three steps of 1 to 3 below: 1. Screening of suppliers with large effects in finance 2. Further screening of the suppliers extracted in 1 in the same method as A. 3. The suppliers extracted in 2 will be investigated regarding water intake quantity, risks and management directly through CDP Supply Chain. C. Reason for the selection of those methods WRI Aqueduct was selected because it has more aspects of water risk than others leading comprehensive assessment, has location specific data, and is reliable. WBCSD tool has location specific data. Internal company knowledge is also necessary because those factories have relevant information in more detail .

W2.6

Which of the following contextual issues are always factored into your organization's water risk assessments?

Issues	Choose option	Please explain
Current water availability and quality parameters at a local level	Relevant, included	This issue is included in the assessment, because water in a certain quality is essential for the operation of our company due to the nature of our operation. Assessment on this issue was conducted using WRI Aqueduct, WBCSD Tool and internal company knowledge including the history of water restriction and information on the water quality of the water source, which each our factory gathers and manages. The factory inform Head Quarters of the issue which have possible significant impact on their operation.
Current water regulatory frameworks and tariffs at a local level	Relevant, included	There is no regulation which affects our operation at this point. Assessment on this issue was conducted using internal company knowledge including the trend of local regulation and the charge of industrial water, which each our factory gathers and manages. Each factory inform Head Quarters of the issue which have possible significant impact on their operation.
Current stakeholder conflicts concerning water resources at a local level	Relevant, included	Communities are located in the upstream and downstream regions of the areas and watersheds where factories are located. Thus, conflicts among stakeholders are included in the assessment. Assessment on this issue was conducted using internal company knowledge including the trend of the neigoring area in the same basin and the users living in upstream and downstream area, which each our factory gathers and manages. The factory inform Head Quarters of the issue which have possible significant impact on their operation.
Current implications of water on your key commodities/raw materials	Relevant, included	Based on the nature of our business, water is necessary from the material phase to the use phase of main products by consumers and clients. Thus, this issue is included in the assessment. Assessment on this issue was conducted using WRI Aqueduct, WBCSD Tool and internal company knowledge including the information on the water risk of sales areas of our products and of the area which supplier's manufacturing plant is located, which each our factory gathers and manages. The facility inform Head Quarters of the issue which have possible significant impact on their operation.
Current status of ecosystems and habitats at a local level	Relevant, included	Habitats of organisms are located in the upstream and downstream regions of the areas and watersheds where factories are located. Thus, ecosystems and habitats are included in the assessment. Assessment on this issue was conducted using internal company knowledge including the information on the ecosystem, pollution level of the habitat and inhabiting situation in upstream and downstream, which each our factory gathers and manages. The facility inform Head Quarters of the issue which have possible significant impact on their operation.
Current river basin management plans	Relevant, included	This issue is included in the assessment, because water in a certain quality, which depends on the basin management, is essential for the operation of our company due to the nature of our operation. Assessment on this issue was conducted using internal company knowledge including the information on the plan of relavant infrastructure such as the dam and water control, and the response plan for water scarcity, which each our factory gathers and manages. The facility inform Head Quarters of the issue which have possible significant impact on their operation.
Current access to fully-functioning WASH services for all employees	Relevant, included	Our company policy prioritize the health and safety of all employees, so fully-functioning WASH services have been introduced in all our sites. Assessment on this issue was conducted using WRI Aqueduct, WBCSD Tool and internal company knowledge including the history of water restriction and information on the water quality of the water source, which each our factory gathers and manages. The factory inform Head Quarters of the issue which have possible significant impact on their operation.
Estimates of future changes in water availability at a local level	Relevant, included	Water in a certain quality is essential for the operation of our business. Thus, expected global climate change in the future and the possibility of the decrease in water availability due to population growth are included in the assessment. Assessment on this issue was conducted using internal company knowledge, which each facility has by gathering local specific information, WRI Aqueduct, and WBCSD Tool.
Estimates of future potential regulatory changes at a local level	Relevant, included	There are some regulations which will affect our operation. The possibility of enchancing regulations due to expected global climate change and population growth in the future are included in the assessment. Assessment on this issue was conducted using internal company knowledge including the trend of local regulation, which each our factory gathers and manages. Each factory inform Head Quarters of the issue which have possible significant impact on their operation.
Estimates of future potential stakeholder conflicts at a local level	Relevant, included	Communities are located in the upstream and downstream regions of the areas and watersheds where factories are located. Thus, the possibility of conflicts among stakeholders due to expected global climate change and population growth in the future are included in the assessment. Assessment on this issue was conducted using internal company knowledge including the trend of the neigoring area in the same basin and the users living in upstream and downstream area, which each our factory gathers and manages. The factory inform Head Quarters of the issue which have possible significant impact on their operation.

Issues	Choose option	Please explain
Estimates of future implications of water on your key commodities/raw materials	Relevant, included	Based on the nature of our business, water is necessary from the material phase to the use phase of main products by consumers and clients. Thus, the impacts of products and raw materials due to expected global climate change and population growth in the future are included in the assessment. Assessment on this issue was conducted using WRI Aqueduct, WBCSD Tool and internal company knowledge including the information on the water risk of sales areas of our products and of the area which supplier's manufacturing plant is located, which each our factory gathers and manages. The facility inform Head Quarters of the issue which have possible significant impact on their operation.
Estimates of future potential changes in the status of ecosystems and habitats at a local level	Relevant, included	Habitats of organisms are located in the upstream and downstream regions of the areas and watersheds where factories are located. Thus, the impacts on ecosystems and habitats due to expected global climate change and population growth in the future are included in the assessment. Assessment on this issue was conducted using internal company knowledge including the information on the ecosystem, pollution level of the habitat and inhabiting situation in upstream and downstream, which each our factory gathers and manages. The facility inform Head Quarters of the issue which have possible significant impact on their operation.
Scenario analysis of availability of sufficient quantity and quality of water relevant for your operations at a local level	Relevant, included	Water in a certain quality is essential for the operation of our business. Thus, the water availability is evaluated based on multiple scenarios adjusted for changes such as global climate change and population growth in the future. Assessment on this issue was conducted using internal company knowledge including the trend of local regulation and the charge of industrial water, which each our factory gathers and manages. Each factory inform Head Quarters of the issue which have possible significant impact on their operation.
Scenario analysis of regulatory and/or tariff changes at a local level	Relevant, included	There are some regulations which will affect our operation. The possibility of enhancing regulations is evaluated based on multiple scenarios adjusted for changes such as global climate change and population growth in the future. Assessment on this issue was conducted using internal company knowledge, which each facility has by gathering local specific information.
Scenario analysis of stakeholder conflicts concerning water resources at a local level	Relevant, included	Communities are located in the upstream and downstream regions of the areas and watersheds where factories are located. Thus, the possibility of conflicts among stakeholders is evaluated based on multiple scenarios adjusted for changes such as global climate change and population growth in the future. Assessment on this issue was conducted using internal company knowledge including the trend of the neighboring area in the same basin and the users living in upstream and downstream area, which each our factory gathers and manages. The factory inform Head Quarters of the issue which have possible significant impact on their operation.
Scenario analysis of implications of water on your key commodities/raw materials	Relevant, included	Based on the nature of our business, water is necessary from the material phase to the use phase of main products by consumers and clients. Thus, the impacts of products and raw materials is evaluated based on multiple scenarios adjusted for changes such as global climate change and population growth in the future. Assessment on this issue was conducted using WRI Aqueduct, WBCSD Tool and internal company knowledge including the information on the water risk of sales areas of our products and of the area which supplier's manufacturing plant is located, which each our factory gathers and manages. The facility inform Head Quarters of the issue which have possible significant impact on their operation.
Scenario analysis of potential changes in the status of ecosystems and habitats at a local level	Relevant, included	Habitats of organisms are located in the upstream and downstream regions of the areas and watersheds where factories are located. Thus, the impacts on ecosystems and habitats is evaluated based on multiple scenarios adjusted for changes such as global climate change and population growth in the future. Assessment on this issue was conducted using internal company knowledge including the information on the ecosystem, pollution level of the habitat and inhabiting situation in upstream and downstream, which each our factory gathers and manages. The facility inform Head Quarters of the issue which have possible significant impact on their operation.
Other		

W2.7

Which of the following stakeholders are always factored into your organization's water risk assessments?

Stakeholder	Choose option	Please explain
Customers	Relevant, included	Many products that we are offering to consumers and clients are washing products, and water is used when these products are used. We have several methods of engagement with customers. We provide them with the information on water risk and quantity data through CDP water supply chain. We also provide them with the information on water saving for water saving products.
Employees	Relevant, included	Employees are promoted to save water in their office. Employees of R&D department are promoted to recognize the importance of development of water saving products and employees of production department are promoted to save water in their operation. Further new employees of R&D need to take recture of natural risks including water stress, climate change and so on.
Investors	Relevant, included	We have seome methods of engagement with investors. We provide them with the relevant information on our activities for lowering water risks through CDP water and also through our sutainability report and annual report. Furthe we join the environmental information disclosure project by Ministry of Environment in Japan to communicate with investors and NGOs.
Local communities	Relevant, included	We provide courses of lecture with elementary schools in Japan, in which water saving laundry detergent is dealt with as its subject. Through those activities we communicate to children that their actions significantly affect the water consumption. These couses are provided only in Japan now , which our business mainly depends on.
NGOs	Relevant, included	We engage NGO through CDP and some projects including the environmental information disclosure project conducted by the Ministry of Environment in Japan.
Other water users at a local level	Relevant, included	For instance, our factories in Japan make the Site Report including environmental information to comunicate with neighborhood. Sumida site in Japan holds the meeting with neighborhood at least once a year in a structured way, which includes water issue as one of evironmental subjects.
Regulators	Relevant, included	For instance, we supported and joined the Water Project, the enlightenment activities for citizens led by the regulator, Ministry of Environment in Japan. We also supported and joined the water saving campaign led by government in China.
River basin management authorities	Relevant, included	We check with the authorities at the regular meetings on whether or not they have plans to change their policy of the control.
Statutory special interest groups at a local level	Relevant, included	We explain our policy and the situation of our activities to them so as to have them understood through meetings.
Suppliers	Relevant, included	We request the information on water risks and quantity data from suppliers through CDP water supply chain program, and get the replys from them.
Water utilities at a local level	Relevant, included	We check with them at the regular meetings on whether or not they have plans to change their policy and explain the situation of our activities.
Other		

Further Information

Module: Implications

Page: W3. Water Risks

W3.1

Is your organization exposed to water risks, either current and/or future, that could generate a substantive change in your business, operations, revenue or expenditure?

Yes, direct operations and supply chain

W3.2

Please provide details as to how your organization defines substantive change in your business, operations, revenue or expenditure from water risk

We defined substantive change, measurement and metrics we use for it, threshold for it, both for direct operation and for supply chain as follows:

A. Direct operation

We define substantive change to our business caused by direct operation to be when any own factory shuts down 1 day or more than a day except for scheduled one.

B. Supply chain

We define suppliers that could contribute to substantive change to our business by using a screening process as follows:

1. identify suppliers which are considered to be difficult to be changed to others, for instance deliver exclusive products, and also deliver products as raw materials of our strategic products

2. select suppliers indicated higher risk than the certain standard we set using mainly WRI AQUEDUCT among supplies indified at step 1

If both criteria are satisfied, then the risk faced by these suppliers can contribute to a substantive change in business.

If water shortage occurs to the supply chain, similar effects as above may occur to the supply chain in a short term as the procurement of materials stops.

C. Review and update

We review and update those metrics and threshold annually by meeting with relevant departments.

W3.2a

Please provide the number of facilities* per river basin exposed to water risks that could generate a substantive change in your business, operations, revenue or expenditure; and the proportion of company-wide facilities this represents

Country	River basin	Number of facilities exposed to water risk	Proportion of company-wide facilities that this represents (%)	Comment
China	Yangtze River (Chang Jiang)	5	Less than 1%	
China	Not known	1	Less than 1%	Now we are studying the source of main river.
Vietnam	Other: Song Dong Nai	1	Less than 1%	
Philippines	Other: Cablig	1	Less than 1%	
Thailand	Other: Bang Pakong	1	Less than 1%	
Indonesia	Other: Saluran Irigasi Kali Malang and Sungai Bekasi	3	Less than 1%	
Taiwan	Other: Touqian River	1	Less than 1%	
Mexico	Balsas	1	Less than 1%	
United Kingdom	Thames	1	Less than 1%	
Spain	Other: El Besos	2	Less than 1%	
Japan	Other: Toyokawa	1	Less than 1%	

W3.2b

For each river basin mentioned in W3.2a, please provide the proportion of the company's total financial value that could be affected by water risks

Country	River basin	Financial reporting metric	Proportion of chosen metric that could be affected	Comment
China	Yangtze River (Chang Jiang)	% global production volume	1-5	
China	Not known	% global production volume	Less than 1%	

Country	River basin	Financial reporting metric	Proportion of chosen metric that could be affected	Comment
Vietnam	Other: Song Dong Nai	% global production volume	Less than 1%	
Philippines	Other: Cabilig	% global production volume	1-5	
Thailand	Other: Bang Pakong	% global production volume	6-10	
Indonesia	Other: Saluran Irigasi Kali Malang and Sungai Bekasi	% global production volume	6-10	
Taiwan	Other: Touqian River	% global production volume	1-5	
Mexico	Balsas	% global production volume	1-5	
United Kingdom	Thames	% global production volume	Less than 1%	
Spain	Other: El Besos	% global production volume	1-5	
Japan	Other: Toyokawa	% global production volume	1-5	

W3.2c

Please list the inherent water risks that could generate a substantive change in your business, operations, revenue or expenditure, the potential impact to your direct operations and the strategies to mitigate them

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
China	Yangtze River (Chang Jiang)	Physical-Projected water stress	Constraint to growth	Water purchase and water quality management cost increase, and it restricts the growth of our business if the procurement of water becomes difficult, production capacity becomes limited, and water contamination would not improve.	>6 years	Probable	High	Other: Promotion of the efficiency of water utilization	Low-medium	Use of rainwater, water conservation activities and development of water balance data for strategy
China	Not known	Physical-Projected water stress	Constraint to growth	Water purchase and water quality management cost increase, and it restricts the growth of our business if the procurement of water becomes difficult, production capacity becomes limited, and water contamination would not improve.	>6 years	Probable	High	Other: Promotion of the efficiency of water utilization	Low-medium	Water conservation activities and development of water balance data for strategy

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
Vietnam	Other: Song Dong Nai	Physical-Projected water stress	Constraint to growth	The procurement of water in a certain quality becomes difficult, which restricts the production capacity and limits the growth of our business.	>6 years	Probable	Low-medium	Other: Promotion of the efficiency of water utilization	Low-medium	Water conservation activities and development of water balance data for strategy
Philippines	Other: Cablig	Physical-Flooding	Plant/production disruption leading to reduced output	Decrease in production capacity caused by flooding damages to facilities results in the loss of market opportunities.	Current-up to 1 year	Probable	Low-medium	Other: Prevention of flooding to the inside of the facilities, the establishment of systems to quickly discharge flooded water and the establishment of supply chain BCP and the building systems	Low	The development of flood prevention and response procedure.
Thailand	Other: Bang Pakong	Physical-Flooding	Plant/production disruption leading to reduced output	Decrease in production capacity caused by flooding damages to facilities and the stagnation of the supply chain due to long-term problems expected in wide areas will result in the loss of market opportunities.	>6 years	Probable	Medium	Other: Prevention of flooding to the inside of the facilities, the establishment of systems to quickly discharge flooded water and the establishment of supply chain BCP and the building systems	Low	The development of flood prevention and response procedure and the development of supply chain response systems.

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
Indonesia	Other: Saluran Irigasi Kali	Reputational- Inadequate access to water, sanitation and hygiene	Constraint to growth	The procurement of water becomes difficult, which restricts the production capacity and limits the growth of our business. If economic growth in the future results in the increased amount of water use by people, the associated risks will increase.	>6 years	Probable	Medium	Promote best practice and awareness	Low-medium	Water conservation activities and development of water balance data for strategy
Taiwan	Other: Touqian River	Physical- Flooding Other: Tightening of regulations	Plant/production disruption leading to reduced output	Decrease in production capacity caused by flooding damages to facilities results in the loss of market opportunities.	>6 years	Probable	Low-medium	Other: Prevention of flooding to the inside of the facilities, the establishment of systems to quickly discharge flooded water and the establishment of supply chain BCP and the building systems	Low-medium	The development of flood prevention and response procedure and the development of supply chain response systems

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
Mexico	Balsas	Physical-Increased water scarcity	Constraint to growth	The procurement of water in a certain quality becomes difficult, which restricts the production capacity and limits the growth of our business.	Current-up to 1 year	Highly probable	Low-medium	Increased capital expenditure	51 million yen	Qumi-Kao in Mexico starts to use the drainage of near another facility to cancel a water shortage eventhough the quality of water is not enough for us. We installe the facility to improve a water quality to meet our requirement. After installing it, this risk has decreased.
United Kingdom	Thames	Physical-Flooding	Plant/production disruption leading to reduced output	Decrease in production capacity caused by flooding damages to facilities results in the loss of market opportunities.	>6 years	Probable	Low-medium	Other: Prevention of flooding to the inside of the facilities, the establishment of systems to quickly discharge flooded water and the establishment of supply chain BCP and the building systems	Low-medium	The development of flood prevention and response procedure.

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
Spain	Other: El Besos	Physical-Increased water scarcity	Constraint to growth	The procurement of water in a certain quality becomes difficult, which restricts the production capacity and limits the growth of our business.	>6 years	Probable	Low-medium	Promote best practice and awareness	Low-medium	Water conservation activities and development of water balance data for strategy.
Japan	Other: Toyokawa	Physical-Seasonal supply variability/Inter annual variability	Plant/production disruption leading to reduced output	A risk of the restriction of production would generate in case that the rainfall in Toyokawa basin decrease and the water withdrawal is restricted.	Current-up to 1 year	Probable	Low-medium	Increased investment in new technology	Low-medium	The development and introduction of water recycling system.

W3.2d

Please list the inherent water risks that could generate a substantive change in your business operations, revenue or expenditure, the potential impact to your supply chain and the strategies to mitigate them

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
Saudi Arabia	Other: Seawater desalination	Physical-Projected water stress	Supply chain disruption	There is a possibility of unavoidable production shutdown while switching to other suppliers if the supply of materials stops.	>6 years	Unknown	Low	Supplier diversification	Low	Materials will also be purchased from suppliers located in areas with lower water risks. The cost estimate was derived based on the scenario that we switch current supplier to other potential supplier.

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
India	Other: Mula	Physical-Projected water stress	Supply chain disruption	There is a possibility of unavoidable production shutdown while switching to other suppliers if the supply of materials stops.	>6 years	Unknown	Low	Supplier diversification	Low	Materials will also be purchased from suppliers located in areas with lower water risks. The cost estimate was derived based on the scenario that we switch current supplier to other potential supplier.
Philippines	Other: Mandulog	Physical-Projected water stress	Supply chain disruption	There is a possibility of unavoidable production shutdown while switching to other suppliers if the supply of materials stops.	>6 years	Unknown	Low	Supplier diversification	Negligible	Materials will also be purchased from suppliers located in areas with lower water risks. The cost estimate was derived based on the scenario that we switch current supplier to other potential supplier.

Further Information

Page: W4. Water Opportunities

W4.1
Does water present strategic, operational or market opportunities that substantively benefit/have the potential to benefit your organization?

Yes

W4.1a
Please describe the opportunities water presents to your organization and your strategies to realize them

Country or region	Opportunity	Strategy to realize opportunity	Estimated timeframe	Comment
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Country or region	Opportunity	Strategy to realize opportunity	Estimated timeframe	Comment
Japan	Increased brand value	Aim to expand the business and increase the value of our brand by contributing to decrease the water consumption in individual regions by offering products to reduce water consumption in the usage phase. We introduced the first laundry detergent in the world to the market which only required one rinse cycle through our unique technological development. We established the market for the same category and are leading the activities as a leading brand. This factor has an impact on the Fabric and Home Care Business with the sales of 345 billion yen for products including this item.	Current-up to 1 year	Our strategy has being implemented as follows with many case examples: We have been selling laundry detergents enabling to save rinsing water since 2009, rinsing water saving shampoos since 2012, rinsing water saving dish detergents since 2014, tablets for reusing bath water. In 2015 we launched rinsing water saving bathroom detergent in Japan, expanding such product lines. In order to implement our strategy surely, we communicate to consumers that those products also give them the other advantage, saving time. We are continuously going to contribute to water consumption reduction at consumer use with water saving products like these and aim to grow our business operations at the same time. In 2016, the "eco together" activities at Kao received the Minister of the Environment's 2016 Commendation for Global Warming Prevention Activity (Practice and Promulgation of Activities category). The commendation is in recognition of Kao's contributions to practicing and promoting a low-carbon lifestyle by holding environmental awareness-raising events in collaboration with retailers and local governments on the theme of conserving water and electricity and reducing waste.
China	Increased brand value	Aim to expand the business and increase the value of our brand by contributing to decrease the water consumption in individual regions by offering products to reduce water consumption in the usage phase. We have already introduced the laundry detergent to the market which only required one rinse cycle through our unique technological development. We are contributing to reduce water consumptions in different regions. We are also promoting promulgation activities by cooperating with the government's water conservation campaigns. This factor has an impact on the Fabric and Home Care Business with the sales of 345 billion yen for products including this item.	Current-up to 1 year	Our strategy has being implemented as follows with a case example: We have been selling rinsing water saving laundry detergents in China since 2010. They allow consumers to save the water amount by one time rinsing. In order to implement our strategy surely, we communicate to consumers that those products also give them the other advantage, saving time. We are continuously going to contribute to water consumption reduction with water conservation products like these and aim to grow our business operations at the same time.
Australia	Increased brand value	Aim to expand the business and increase the value of our brand by contributing to decrease the water consumption in individual regions by offering products to reduce water consumption in the usage phase. We have already introduced the laundry detergent to the market which only required one rinse cycle through our unique technological development. Public utility rates have increased for more than 40% over three years in Australia. People are becoming more aware of water conservation, and our products are receiving high customer satisfactions. This factor has an impact on the Fabric and Home Care Business with the sales of 345 billion yen for products including this item.	Current-up to 1 year	Our strategy has being implemented as follows with a case example: We have been selling water conservation laundry detergents in Australia since 2011. They allow consumers to save the water amount by one time rinsing. In order to implement our strategy surely, we communicate to consumers that those products also give them the other advantage, saving time. We are continuously going to contribute to water saving with water saving products like these and aim to grow our business operations at the same time.

Country or region	Opportunity	Strategy to realize opportunity	Estimated timeframe	Comment
Other: East Asia, Southeast Asia	Increased brand value	Aim to expand the business and increase the value of our brand by contributing to decrease the water consumption in individual regions by offering products to reduce water consumption in the usage phase. We have already introduced the laundry detergent to the market which only required one rinse cycle through our unique technological development. People are becoming more aware of water conservation, and our products are receiving high customer satisfactions. This factor has an impact on the Fabric and Home Care Business with the sales of 345 billion yen for products including this item.	Current-up to 1 year	Our strategy has being implemented as follows with a case example: We have been selling water conservation laundry detergents in Taiwan, Hong Kong, Thailand, Malaysia, Singapore and Indonesia. They allow consumers to save the water amount by one time rinsing. In order to implement our strategy suerly, we communicate to consumers that those products also give them the other advantage, saving time. We are continuously going to contribute to water saving with water saving products like these and aim to grow our business operations at the same time.
Company-wide	Cost savings	Aim to reduce production costs by reducing water consumption at plants.	Current-up to 1 year	The Environmental Committee at the Production Technology Division promotes information sharing and progress management so that technologies developed at one plant can be introduced into other plants in a short period of time.
China	Collective Action	Kao is promoting tactically “eco together” activities in partnership with stakeholders. Kao (China) has conducted the Nationwide Cleanliness and Water-saving Initiatives jointly with the Center for Environmental Education and Communications (CEEC), part of the State Environmental Protection Administration (SEPA) of China, since 2012. In 2016, these events were held at 41 universities in eight provinces. And demonstrations of watersaving laundry detergent sold by Kao in China, the events allowed visitors to learn water-conservation knowledge in fun and easy-to-understand ways.	Current-up to 1 year	We think this activity leads to the increase of the value of the Kao Corp. brand, the attack brand.

Further Information

Module: Accounting

Page: W5. Facility Level Water Accounting (I)

W5.1

Water withdrawals: for the reporting year, please complete the table below with water accounting data for all facilities included in your answer to W3.2a

Facility reference number	Country	River basin	Facility name	Total water withdrawals (megaliters/year) at this facility	How does the total water withdrawals at this facility compare to the last reporting year?	Please explain
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Facility reference number	Country	River basin	Facility name	Total water withdrawals (megaliters/year) at this facility	How does the total water withdrawals at this facility compare to the last reporting year?	Please explain
Facility 1	China	Yangtze River (Chang Jiang)	Kao Corporation Shanghai	53	Lower	Ratio of production which need cooling water more has decreased.
Facility 2	China	Yangtze River (Chang Jiang)	Kao (Hefei) Co., Ltd.	17	Lower	Ratio of production which need cooling water more has decreased.
Facility 3	China	Yangtze River (Chang Jiang)	Kao Chemical Coporation Shanghai	85	Higher	Ratio of production which need cooling water more has increased.
Facility 4	China	Yangtze River (Chang Jiang)	Kanebo Cosmetics Shanghai	3.6	Lower	Production weight has decreased.
Facility 5	China	Yangtze River (Chang Jiang)	Kao (Shanghai) Chemical Industries Co., Ltd.	63	Much higher	Production weight has increased since this facility has started its operation in 2015, August.
Facility 6	China	Not known	Huludao Jinxing Casting Materials Co., Ltd	11	Much higher	Production weight has increased.
Facility 7	Vietnam	Other: Song Dong Nai	Kao Vietnam Co., Ltd.	40	Higher	Production weight has increased.
Facility 8	Philippines	Other: Cablig	Pilipinas Kao, Incorporated	1245	Higher	Ratio of production which need cooling water more has increased.
Facility 9	Thailand	Other: Bang Pakong	Kao Industrial (Thailand) Co., Ltd.	553	About the same	
Facility 10	Indonesia	Other: Saluran Irigasi Kali Malang and Sungai Bekasi	PT Kao Indonesia, Chikarang plant	214	About the same	
Facility 11	Indonesia	Other: Saluran Irigasi Kali Malang and Sungai Bekasi	PT Kao Indonesia, Karawang plant	54	About the same	
Facility 12	Indonesia	Other: Saluran Irigasi Kali Malang and Sungai Bekasi	PT. Kao Indonesia Chemicals	410	About the same	
Facility 13	Taiwan	Other: Touqian River	Kao (Taiwan) Corporation	182	Higher	Production weight has increased.

Facility reference number	Country	River basin	Facility name	Total water withdrawals (megaliters/year) at this facility	How does the total water withdrawals at this facility compare to the last reporting year?	Please explain
Facility 14	Mexico	Balsas	Quimi-Kao S.A. de C.V.	126	Much higher	Trial test run of reverse osmosis membrane system to treat water quality. So quantity of water which not related to production has increased.
Facility 15	United Kingdom	Thames	Molton Brown Limited	7	Higher	Production weight has increased.
Facility 16	Spain	Other: El Besos	Kao Corporation S.A. Mollet plant	155	Much lower	Many water-saving projects were carried out and it functioned effectively. (cooling tower stop, etc.)
Facility 17	Spain	Other: El Besos	Kao Corporation S.A. Santiga plant	12	Lower	Many water-saving projects were carried out and it functioned effectively.
Facility 18	Japan	Other: Toyokawa River	Kao Corporation, Toyohashi plant	124	About the same	

Further Information

Page: W5. Facility Level Water Accounting (II)

W5.1a

Water withdrawals: for the reporting year, please provide withdrawal data, in megaliters per year, for the water sources used for all facilities reported in W5.1

Facility reference number	Fresh surface water	Brackish surface water/seawater	Rainwater	Groundwater (renewable)	Groundwater (non-renewable)	Produced/process water	Municipal water	Wastewater from another organization	Comment
Facility 1	0	0	0	0	0	0	53	0	
Facility 2	0	0	0	0	0	0	17	0	
Facility 3	0	0	0	0	0	0	85	0	
Facility 4	0	0	0	0	0	0	4	0	
Facility 5	0	0	0	0	0	0	63	0	
Facility 6	0	0	0	0	0	0	11	0	
Facility 7	0	0	0	0	0	0	40	0	
Facility 8	0	0	0	1245	0	0	0	0	
Facility 9	0	0	0	0	0	0	553	0	
Facility 10	0	0	0	0	0	0	214	0	

Facility reference number	Fresh surface water	Brackish surface water/seawater	Rainwater	Groundwater (renewable)	Groundwater (non-renewable)	Produced/process water	Municipal water	Wastewater from another organization	Comment
Facility 11	0	0	0	0	0	0	54	0	
Facility 12	0	0	0	0	0	0	410	0	
Facility 13	0	0	0	0	0	0	182	0	
Facility 14	0	0	0	40	0	0	0	86	
Facility 15	0	0	0	0	0	0	7	0	
Facility 16	0	0	0	0	0	0	155	0	
Facility 17	0	0	0	0	0	0	12	0	
Facility 18	0	0	0	0	0	0	124	0	

W5.2

Water discharge: for the reporting year, please complete the table below with water accounting data for all facilities included in your answer to W3.2a

Facility reference number	Total water discharged (megaliters/year) at this facility	How does the total water discharged at this facility compare to the last reporting year?	Please explain
Facility 1	35	Much lower	Ratio of production which need cooling water more has decreased.
Facility 2	16	Lower	Ratio of production which need cooling water more has decreased.
Facility 3	39	About the same	
Facility 4	3	Lower	Production weight has decreased.
Facility 5	53	Much higher	Production weight has increased since this facility has started its operation in 2015 August.
Facility 6	6	Much higher	- Since drainage meter was installed in 2016, all the actual quantity of the waste water could be measured. - When we repaired the pipe failure in the pool for fire-fighting water, the water in a pool was all drained once.
Facility 7	21	Much higher	Production weight has increased.
Facility 8	162	Lower	Ratio of production which don't waste water so much has increased. The water for cooling tower goes to air, not discharge.
Facility 9	411	About the same	
Facility 10	18	About the same	
Facility 11	0	About the same	We set zero because the waste water is discharged from this facility #11 to our another affiliate company facility, facility #12, which is located adjacent to facility #11. Water withdraw of facility #12 include one. We understand that the said water is not discharged from our organization, the boundary of both #11 and #12.
Facility 12	295	Lower	Ratio of production which don't waste water so much has increased.
Facility 13	100	Higher	Production weight has increased.
Facility 14	74	Much higher	Trial test run of reverse osmosis membrane system to treat water quality. So quantity of water which not related to production has increased. Of cause treated water from test run is discharged standard route.
Facility 15	3	Higher	Production weight has increased.
Facility 16	121	Much lower	Because of significant reducing process water by our reduction activity, waste water reduces also.
Facility 17	7	Much lower	Because of significant reducing process water by our reduction activity, waste water reduces also.
Facility 18	61	About the same	

W5.2a

Water discharge: for the reporting year, please provide water discharge data, in megaliters per year, by destination for all facilities reported in W5.2

Facility reference number	Fresh surface water	Municipal/industrial wastewater treatment plant	Seawater	Groundwater	Wastewater for another organization	Comment
Facility 1	0	35	0	0	0	
Facility 2	0	16	0	0	0	
Facility 3	0	39	0	0	0	
Facility 4	0	3	0	0	0	
Facility 5	0	53	0	0	0	
Facility 6	0	6	0	0	0	
Facility 7	0	21	0	0	0	
Facility 8	0	0	162	0	0	
Facility 9	0	411	0	0	0	
Facility 10	0	18	0	0	0	
Facility 11	0	0	0	0	0	
Facility 12	0	295	0	0	0	
Facility 13	0	100	0	0	0	
Facility 14	0	74	0	0	0	
Facility 15	0	3	0	0	0	
Facility 16	0	121	0	0	0	
Facility 17	0	7	0	0	0	
Facility 18	0	0	61	0	0	

W5.3

Water consumption: for the reporting year, please provide water consumption data for all facilities reported in W3.2a

Facility reference number	Consumption (megaliters/year)	How does this compare to the last reporting year?	Please explain
Facility 1	53	Lower	Ratio of production which need cooling water more has decreased.
Facility 2	17	Lower	Ratio of production which need cooling water more has decreased.
Facility 3	85	Higher	Ratio of production which need cooling water more has increased.
Facility 4	4	Lower	Production weight has decreased.
Facility 5	63	Much higher	Production weight has increased since this facility has started its operation in 2015, August.
Facility 6	11	Much higher	Production weight has increased.
Facility 7	40	Higher	Production weight has increased.
Facility 8	1245	Higher	Ratio of production which need cooling water more has increased.
Facility 9	553	About the same	
Facility 10	214	About the same	
Facility 11	54	About the same	

Facility reference number	Consumption (megaliters/year)	How does this compare to the last reporting year?	Please explain
Facility 12	410	About the same	
Facility 13	182	Higher	Production weight has increased.
Facility 14	126	Much higher	Trial test run of reverse osmosis membrane system to treat water quality. So quantity of water which not related to production has increased.
Facility 15	7	Higher	Production weight has increased.
Facility 16	155	Much lower	Many water-saving projects were carried out and it functioned effectively. (cooling tower stop, etc.)
Facility 17	12	Lower	Many water-saving projects were carried out and it functioned effectively.
Facility 18	124	About the same	

W5.4

For all facilities reported in W3.2a what proportion of their water accounting data has been externally verified?

Water aspect	% verification	What standard and methodology was used?
Water withdrawals- total volumes	76-100	ISAE3000, limited assurance
Water withdrawals- volume by sources	Not verified	This aspect is considered to be not so important as other aspect verified on our Sustainability Data Book.
Water discharges- total volumes	Not verified	This aspect is considered to be not so important as other aspect verified on our Sustainability Data Book.
Water discharges- volume by destination	Not verified	This aspect is considered to be not so important as other aspect verified on our Sustainability Data Book.
Water discharges- volume by treatment method	Not verified	This aspect is considered to be not so important as other aspect verified on our Sustainability Data Book.
Water discharge quality data- quality by standard effluent parameters	Not verified	This aspect is considered to be not so important as other aspect verified on our Sustainability Data Book.
Water consumption- total volume	76-100	ISAE3000, limited assurance

Further Information

Attachments

[https://www.cdp.net/sites/2017/56/9956/Water_2017/Shared_Documents/Attachments/Water2017/W5.FacilityLevelWaterAccounting\(II\)/sustainability_data_book2017_e_all.pdf](https://www.cdp.net/sites/2017/56/9956/Water_2017/Shared_Documents/Attachments/Water2017/W5.FacilityLevelWaterAccounting(II)/sustainability_data_book2017_e_all.pdf)
[https://www.cdp.net/sites/2017/56/9956/Water_2017/Shared_Documents/Attachments/Water2017/W5.FacilityLevelWaterAccounting\(II\)/KAO2017_CDP.pdf](https://www.cdp.net/sites/2017/56/9956/Water_2017/Shared_Documents/Attachments/Water2017/W5.FacilityLevelWaterAccounting(II)/KAO2017_CDP.pdf)

Module: Response

Page: W6. Governance and Strategy

W6.1

Who has the highest level of direct responsibility for water within your organization and how frequently are they briefed?

Highest level of direct responsibility for water issues	Frequency of briefings on water issues	Comment
Board of individuals/Sub-set of the Board or other committee appointed by the Board	Scheduled-annual	

W6.2

Is water management integrated into your business strategy?

Yes

W6.2a

Please choose the option(s) below that best explains how water has positively influenced your business strategy

Influence of water on business strategy	Please explain
Water resource considerations are factored into new product development	Identifying water risks and opportunities and selling the first water conservation products in the world (laundry detergent which only requires one rinse cycle) in seven countries including areas with water shortage resulted in the growth of our business and increased brand value at the same time.
Alignment of public policy positions with water stewardship goals	In cooperation with water conservation campaign that the administration implements every year in China, we sold water conservation products (laundry detergent which only requires one rinse cycle) and supported the activities of the administration. And we support the Water Project to save water naturally by Ministry of Environment in Japan. This activity increased the value of the company and the brand.

W6.2b

Please choose the option(s) below that best explains how water has negatively influenced your business strategy

Influence of water on business strategy	Please explain
Increased capital expenditure	The risk of water shortage is actualizing in Kao group factories to expand production volume. In 2016, at our Mexico factory use of the sewage treated by reverse osmosis membrane has started for new plant. We paid 51million Yen for it.

W6.3

Does your organization have a water policy that sets out clear goals and guidelines for action?

Yes

W6.3a

Please select the content that best describes your water policy (tick all that apply)

Content	Please explain why this content is included
Publicly available Company-wide Performance standards for direct operations Performance standards for supplier, procurement and contracting best practice Commitment to customer education Incorporated within group environmental, sustainability or EHS policy Acknowledges the human right to water, sanitation and hygiene	<p>The reasons for these items are numbered corresponding to left-handed items as follows: i) We think it is important to earn social credibility and to take actions together with stakeholders as mentioned below, in #vi. ii),iii) We think our business everywhere should be environment conscious. Company-wide actions is essential to promote internal activities and to foster internal culture for environment conservation. iv) We think concreteness of performance is needed to ensure environmental conservation including water issues regarding direct operations. v) The response situation and contents to CDP supply chain program from suppliers are evaluated to award them for excellence including Sustainability areas. vi) We have slogan "eco together", meaning to take environment friendly actions together with consumers, business partners and society. We think consumer actions is essential to reduce GHG emissions at use stage which are generated by heating water to make hot water for our products, including shampoo, dish detergent, laundry detergent. vii) We regard water issues as one of issues on sustainability. We have Sustainability Statement. viii) Our Sustainability Statement says "focusing particularly on issues related to aging populations, health, cleanliness and hygiene". Further, our Basic Polises on the Environment and Safety includes to maintain employees' health "improve the working environment so that employees can work in a healthy and safety environment".</p>

W6.4

How does your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) during the most recent reporting year compare to the previous reporting year?

Water CAPEX (+/- % change)	Water OPEX (+/- % change)	Motivation for these changes
+55.2561	-17.9497	The increase of CAPEX was caused by the increase of the investment for the effluent treatment facilities of a plant in Japan. The raw water pool was built as drought management in Thailand plant. Use of the sewage treated by reverse osmosis membrane has started as drought management in Mexico plant.

Further Information

W7.1

Was your organization subject to any penalties, fines and/or enforcement orders for breaches of abstraction licenses, discharge consents or other water and wastewater related regulations in the reporting year?

No

Further Information**Page: W8. Targets and Initiatives****W8.1**

Do you have any company wide targets (quantitative) or goals (qualitative) related to water?

Yes, targets only

W8.1a

Please complete the following table with information on company wide quantitative targets (ongoing or reached completion during the reporting period) and an indication of progress made

Category of target	Motivation	Description of target	Quantitative unit of measurement	Base-line year	Target year	Proportion of target achieved, % value
Other: Reduction of water intensity	Shared value	The amount of water use in the product usage phase is decreased by 30% (Japan, domestic products, consumers) base	% reduction per dollar revenue	2005	2020	73%
Other: Reduction of water intensity	Shared value	The amount of water used at our factories is reduced by more than 37% from 2005 based on the unit revenue.	% reduction per dollar revenue	2005	2016	100%

Further Information**Module: Linkages/Tradeoff****Page: W9. Managing trade-offs between water and other environmental issues****W9.1**

Has your organization identified any linkages or trade-offs between water and other environmental issues in its value chain?

Yes

W9.1a

Please describe the linkages or trade-offs and the related management policy or action

Environmental issues	Linkage or trade-off	Policy or action
Climate change	Trade-off	We use much cooling water to cool our equipment, example mixer vessels, in our factories. Recycling water for cooling mixer vessels causes GHG emissions increase because water which is warm after cooling needs to be cooled using cooling tower using energy. One of the factory which is introduced the system has high water consumption intensity relative to production weight. It manufactures cosmetic product which consumes more water than general consumer products to assure their qualities. The factory addresses the challenge to reduce the water consumption and GHG emissions at the same time based on total optimization as a factory. Every our actory manages both GHG emission target and Water consumption target at the same time under our strategic targets.
Climate change	Linkage	Kao has delivered products which enables consumers to save rinsing water. Those products not only save water amount but also GHG emissions at the sametime because water supply needs energy causing GHG emissions. Especially water saving for laundry detergent leads electricity saving of laundry machine and hot water for shampoo and dish detergent leads fuel saving to heat water, so those impacts are significalt. Those water saving products has continually been developed and delivered based on Kao Environment Statement.

Further Information

Module: Sign Off

Page: Sign Off

W10.1

Please provide the following information for the person that has signed off (approved) your CDP water response

Name	Job title	Corresponding job category
Michitaka Sawada	Representative Director, President and Chief Executive Officer	Director on board

W10.2

Please indicate that your organization agrees for CDP to transfer your publicly disclosed data regarding your response strategies to the CEO Water Mandate Water Action Hub.

Note: Only your responses to W1.4a (response to impacts) and W3.2c&d (response to risks) will be shared and then reviewed as a potential collective action project for inclusion on the WAH website.

By selecting Yes, you agree that CDP may also share the email address of your registered CDP user with the CEO Water Mandate. This will allow the Hub administrator to alert your company if its response data includes a project of potential interest to other parties using water resources in the geographies in which you operate. The Hub will publish the project with the associated contact details. Your company will be provided with a secure log-in allowing it to amend the project profile and contact details.

Yes

Further Information

CDP: [W][-,][AQ][Pu][E2]