# Welcome to your CDP Water Security Questionnaire 2023

# W0. Introduction

## W0.1

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

Braskem S.A. is a global petrochemical company, a leader in the production of biopolymers manufactured from ethanol produced on an industrial scale from sugarcane. As the largest plastics producer in the Americas, we are committed to the circular economy and carbon neutrality and believe in innovation as the strategic pillar of our actions.

Founded in 2002 in Brazil, it is currently the sixth-largest petrochemical company in the world in the production of thermoplastic resins, leader in Americas, and a market leader and pioneer in the industrial-scale production of bio-polymers (plastic made from renewable raw materials).

We are the largest producer of polypropylene in the Americas, based on the annual production capacity of our plants in Brazil and the United States of America. We are the only integrated petrochemical company that produces basic chemicals and polymers in Brazil, and the largest producer of PE in Mexico and PP in the United States. We produce a diverse portfolio of petrochemicals and thermoplastics, including polyethylene, green polyethylene (biopolymer), polypropylene and PVC. Our products are typically used in high-volume applications, and we benefit from our world-scale plants to increase our competitiveness.

Our clients use our plastics and chemical products to produce a wide variety of products that people employ in their daily lives to meet their essential needs in food packaging, home furnishings, industrial and automotive components, paints and coatings.

Our purpose is to create sustainable solutions through chemicals and plastics. To that end, we have adopted a business strategy integrated with sustainable development, strengthening our commitment to economic growth, conservation of the environment and social justice. We have a human perspective and encourage leadership in all our team members, who work daily to develop a broad and diverse portfolio, with products and solutions that serve our customers in more than 71 countries

## W-CH0.1a

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

Bulk organic chemicals

Specialty organic chemicals

# W0.2

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

| | Start date | End date |
|---|---|---|
| Reporting year | January 1, 2022 | December 31, 2022 |

# W0.3

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

Brazil
Germany
Mexico
United States of America

# W0.4

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

USD

# W0.5

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

Companies, entities or groups over which operational control is exercised

# W0.6

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

No

# W0.7

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

| Indicate whether you are able to provide a unique identifier for your organization. | Provide your unique identifier |
|---|---|
| Yes, a Ticker symbol | BRKM5 |

# 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 | The primary use of freshwater in Braskem's direct operations is throughout the production process. Among its main uses, as a very water intensive industry (chemical / petrochemical) we highlight the use of freshwater for cooling systems and steam generation and consumption in processes. Therefore, the lack of water can affect operational costs and ultimately cease operations (dependency is high in present and future scenarios), explaining why it is vital for operations. In the future, we will remain dependent on water, as it is vital for our process, however, we will implement water reuse projects through desalination of salt water and effluent reuse, reducing the need for fresh water withdraw in the future.<br><br>As Braskem is a chemical/petrochemical industry, a significant part of our suppliers require a similar use of water (e.g. cooling, steam), especially considering that Braskem’s main raw material is petrochemical naphtha. The lack of water can affect/interrupt their operations (indirect use), explaining why importance is vital. This results in impacts for Braskem as well, in present and in scenarios up to 2030, according to internal climate risk assessments. In the value chain, water will remain vital in the future, so we will undertake supplier engagement activities and possibly include criteria that will guarantee water security in the critical suppliers' contracts. |
| Sufficient amounts of recycled, brackish and/or | Vital | Vital | In "water stress" areas, water reuse is an alternative to maintain operations under normal conditions (mitigate / neutralize impact) and avoid competing for freshwater. Its primary use in Braskem's direct operations is throughout the production process. It is |

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|---|---|---|---|
| produced water available for use | | | important to emphasize that due to the essentiality of water for cooling and steam production, the availability of water for reuse becomes even more important in regions of water stress. Therefore, the lack of water can affect operational costs and ultimately cease operations (dependency is high in present and future scenarios), explaining why it is vital for operations. Considering indirect use, as Braskem is a chemical / petrochemical industry, a part of our suppliers has a similar use of recycled water (e.g. cooling, steam). The lack of water can affect / interrupt their operations (indirect use), explaining why importance is vital. This results in impacts for Braskem as well, in present and scenarios up to 2030, according to internal climate risk assessments.<br><br>As for future scenarios, considering the direct operations, recycled/reused water will become more important as in some regions there are potential future scenarios of severe droughts. Therefore, Braskem already has an action plan and indicators with targets until 2030 to guarantee water security, including water reuse projects. Similarly, for indirect operations, recycles water will become more important due to some of the critical suppliers being located in water stress regions. Braskem is strengthening its supply chain engagement. |

# W1.2

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

| | % of sites/facilities/operations | Frequency of measurement | Method of measurement | Please explain |
|---|---|---|---|---|
| Water withdrawals – total volumes | 100% | Daily | The volume is obtained through a meter inserted directly into the pipe, which transports the water, measuring and sending the result through a transmitter to the | Braskem measures and monitors 100% of its operations. The total volume of water collection refers to the consumption of 40 industrial units located in Brazil (29), the United |

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|---|---|---|---|---|
| | | | centralized control system. | States (5), Germany (2) and Mexico (4) measured monthly and recorded in the SAP system. Monitored daily and consolidated monthly on site by the HSE focal point. |
| Water withdrawals – volumes by source | 100% | Daily | The volume is obtained through a meter inserted directly into the pipe, which transports the water, measuring and sending the result through a transmitter to the centralized control system. | Braskem measures and monitors 100% of its operations. The total volume of water collection per source is calculated once a year for the report of annual results. Monitored daily and consolidated monthly on site by the HSE focal point. |
| Water withdrawals quality | 100% | Daily | The volume is obtained through a meter inserted directly into the pipe, which transports the water, measuring and sending the result through a transmitter to the centralized control system. | Braskem measures and monitors 100% of its operations. The total volume of water collection per source is calculated once a year for the report of annual results. Monitored daily and consolidated monthly on site by the HSE focal point. |
| Water discharges – total volumes | 100% | Daily | The volume is obtained through a meter inserted directly into the | Braskem measures and monitors 100% of its operations. The |

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| | | | pipe, which transports the water, measuring and sending the result through a transmitter to the centralized control system. | total volume of water collection refers to the consumption of 40 industrial units located in Brazil (29), the United States (5), Germany (2) and Mexico (4) measured monthly and recorded in the SAP system. Monitored daily and consolidated monthly on site by the HSE focal point. |
| Water discharges – volumes by destination | 100% | Daily | The volume is obtained through a meter inserted in the effluent drainage channel, measuring and sending the result through a transmitter to the centralized control system. | Braskem measures and monitors 100% of its operations. The total of effluents generated per source is calculated once a year for the report of annual results. Monitored daily to meet environmental standards and consolidated monthly on site by the HSE focal point. Braskem uses two types of disposal for its effluents: Surface fresh water and disposal by third parties. The destination is chosen according to operational and economic viability, |

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|---|---|---|---|---|
| | | | | and by obtaining legal authorizations. |
| Water discharges – volumes by treatment method | 100% | Monthly | The total treated waste is assessed monthly by measuring four different waste sources: inorganic, organic, sanitary effluent (domestic waste) and uncontaminated rainwater. | Braskem measures and monitors 100% of its operations. An annual assessment of effluent disposal is carried out according to the treatments: Separation of oil and water, physical, neutralization, biological, chlorination, etc. a transmitter for the centralized control system. Volumes are monitored and consolidated on site by the HSE focal point. |
| Water discharge quality – by standard effluent parameters | 100% | Monthly | Quality is measured by chemical laboratory analyses to verify parameters such as Chemical Oxygen Demand and Biological Organic Load, which are measured monthly. | Braskem measures and monitors 100% of its operations. The quality of the measured wastewater varies for each of the manufacturing facilities, taking into account local operational requirements and the local legislation where the facilities are located. Some industrial units perform chemical analyses in their own laboratory or |

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| | | | | in an external laboratory. The volume is obtained through a meter inserted in the effluent drainage channel, measuring and sending the result through a transmitter to the centralized control system. The results are monitored monthly and consolidated on site by the HSE focal point. |
| Water discharge quality – emissions to water (nitrates, phosphates, pesticides, and/or other priority substances) | 100% | Monthly | For effluents sent to third parties, effluent quality monitoring is carried out by the third party company itself, which is responsible for treatment and must maintain established effluent quality standards – Braskem constantly monitors the results. | At all our units, effluent management is based on disposal standards defined in accordance with local legislation and internal procedures. Some industrial plants also have laboratories capable of analyzing effluents and creating internal standards for assessing environmental quality. Braskem has internal documents that standardize the matter, such as Work Instructions (Instruções de Trabalho, IT), which locally address the |

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| | | | | management and monitoring of effluent at the company. At Braskem, the liquid effluents have four general destinations: discharge into surface water bodies, discharge into the ocean, sending to third parties, and ground spraying. For each of the allocations, there are specific standards for the quality of the effluent discharged that take into account the receiving body. In the case of ground spraying, effluent treatment is carried out by the third party. |
| Water discharge quality – temperature | 100% | Monthly | The temperature measurement is obtained through a sensor inserted in the effluent drainage channel, measuring and sending the result through a transmitter to the centralized control system. | Braskem currently measures and monitors the water temperature in 100% of its operations, in accordance with legal requirements. |
| Water consumption – total volume | 100% | Daily | The volume is obtained through a meter inserted directly into the | Braskem measures and monitors 100% of its operations. The |

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|---|---|---|---|---|
| | | | pipe that transports the water, at the main entrance of the pipe that feeds the industrial unit, measuring and sending the result through a transmitter to the centralized control system. | total volume of water collection refers to the consumption of 40 industrial units located in Brazil (29), the United States (5), Germany (2) and Mexico (4) measured monthly and recorded in the SAP system. Monitored daily and consolidated monthly on site by the HSE focal point. |
| Water recycled/reused | 100% | Monthly | The volume is obtained through a meter inserted directly into the pipe, which transports the water, measuring and sending the result through a transmitter to the centralized control system. | Braskem annually monitors 100% of the facilities that have water reuse/reuse technologies, 67% of the 41 facilities; the remaining 33% do not currently use recycled/reused water due to technological projects or financial viability. Monitored and consolidated monthly on site by the HSE focal point. |
| The provision of fully-functioning, safely managed WASH services to all workers | 100% | Quarterly | Volumes are monitored and consolidated on site by the HSE focal point. | Braskem measures and monitors 100% of its operations. Water for personal hygiene is provided by the local water |

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| | | | | concessionaires, in accordance with the quality standards defined by the laws in force in the regions. We carry out semi-annual analyses on drinking fountains in all areas and on restaurant taps, analyzing the microbiological parameters of total coliforms and certain bacteria to verify the quality of drinking water supplied for human consumption in filters and drinking fountains. |

## W1.2b

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

| | Volume (megaliters/year) | Comparison with previous reporting year | Primary reason for comparison with previous reporting year | Five-year forecast | Primary reason for forecast | Please explain |
|---|---|---|---|---|---|---|
| Total withdrawals | 80,324.38 | Lower | Investment in water-smart technology/process | Lower | Increase/decrease in efficiency | Despite the increase in production volume and increased water consumption, the amount of water withdrawn will be |

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|---|---|---|---|---|---|---|
| | | | | | | lower due to external reuse projects that are being implemented in RJ [Rio de Janeiro] (wastewater) and AL [Alagoas] (seawater desalination). |
| Total discharges | 19,966.68 | Lower | Increase/decrease in efficiency | Higher | Increase/decrease in efficiency | Due to an increase in production volume (18%), and an increase in water consumption (10%), there will be an increase in the generation of effluents (9%). |
| Total consumption | 60,357.69 | Lower | Investment in water-smart technology/process | Higher | Increase/decrease in efficiency | Due to an increase in production volume (18%), there will be an increase in water consumption (10%). |

## W1.2d

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

| | Withdrawals are from areas with water stress | % withdrawn from areas with water stress | Comparison with previous reporting year | Primary reason for comparison with previous reporting year | Five-year forecast | Primary reason for forecast | Identification tool | Please explain |
|---|---|---|---|---|---|---|---|---|
| Row 1 | Yes | 26-50 | Lower | Investment in water-smart technology/process | Lower | Investment in water-smart technology/process | WRI Aqueduct | Braskem has been looking for new sustainable alternatives for capturing water in areas with water stress. There are already projects in the final evaluation phase for the two most critical areas – RJ and AL. |

## W1.2h

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

| | Relevance | Volume (megaliters/year) | Comparison with previous reporting year | Primary reason for comparison with previous reporting year | Please explain |
|---|---|---|---|---|---|
| Fresh surface water, including rainwater, water from wetlands, rivers, and lakes | Relevant | 19,385.84 | Higher | Increase/decrease in efficiency | This source is relevant because it is the second source of water withdrawal at Braskem's units, more than 20% of the total volume. All operations follow the local operational requirements and legal standard defined in the operational license approved by the environmental agency. Comparing with the previous year, increase in catchment in Regional SP [São Paulo], due to the resumption of production after a stoppage in 2021. |

| | | | | | |
|---|---|---|---|---|---|
| Brackish surface water/Seawater | Not relevant | | | | Braskem doesn't withdraw water from this type of source. |
| Groundwater – renewable | Relevant | 3,058.09 | Much higher | Increase/decrease in efficiency | The underground water withdrawal is relevant because it is the main source in the region, other forms of water withdrawal have low availability. All operations meet the legal standard and the operating license requirements approved by the environmental agency. Compared to the previous year, there was an increase due to the increased production of CS1 AL |
| Groundwater – non-renewable | Not relevant | | | | Braskem doesn't withdraw water from this type of source. |

| | | | | | |
|---|---|---|---|---|---|
| Produced/Entrained water | Not relevant | | | | Braskem doesn't withdraw water from this type of source. |
| Third party sources | Relevant | 57,880.45 | Lower | Investment in water-smart technology/process | This source is relevant because it is the main source of water withdrawal at Braskem's units, more than 70% of the total volume. All operations follow the local operational requirements and legal standard defined in the operational license approved by the environmental agency. Comparing with the previous year, there was a reduction in the absolute volume captured by Q1 BA [Bahia] due to progress in the project to reduce water |

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|---|---|---|---|---|---|
| | | | | | consumption for cooling in the decoking system at Oleofinas1 and the optimization of cycles in the unit's cooling towers |

## W1.2i

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

| | Relevance | Volume (megaliters/year) | Comparison with previous reporting year | Primary reason for comparison with previous reporting year | Please explain |
|---|---|---|---|---|---|
| Fresh surface water | Relevant | 5,838.95 | Higher | Increase/decrease in efficiency | This destination is relevant because it is the second destination of water discharge at Braskem units, almost 30% of the total volume. Comparing with the previous year, there was an increased effluent generation at Q3 ABC, Q4 DCX, PP8 and Braskem Idesa |
| Brackish surface water/seawater | Relevant | 2,960.84 | Higher | Increase/decrease in business activity | This destination is relevant because it is the main destination of water discharge in the region. |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | Comparing with the previous year, there was an increased production in CS1 AL and consequent increase in effluent generation. |
| Groundwater | Not relevant | | | | Braskem does not dispose of effluent in groundwater. |
| Third-party destinations | Relevant | 11,166.9 | Lower | Increase/decrease in efficiency | This destination is relevant because it is the main destination of water discharge at Braskem units, more than 50% of the total volume. Comparing with the previous year, there was an improved eco-efficiency in Q1 BA and Q2 RS [Rio Grande do Sul]. |

## W1.2j

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

| | Relevance of treatment level to discharge | Volume (megaliters/year) | Comparison of treated volume with previous reporting year | Primary reason for comparison with previous reporting year | % of your sites/facilities/operations this volume applies to | Please explain |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| Tertiary treatment | Not relevant | | | | | Braskem eliminated this type of treatment as it was now carried out by third parties. |
| Secondary treatment | Relevant | 15,053.08 | Higher | Increase/decrease in business activity | 71-80 | Secondary treatment is relevant because it is the main form of treatment at the Braskem units. At all our units, effluent management is based on disposal standards defined in accordance with local legislation and internal procedures. Some industrial plants also have laboratories capable of analyzing effluents and creating internal standards for |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | assessing environmental quality. Braskem has internal documents that standardize the matter, such as Work Instructions (Instruções de Trabalho, IT), which locally address the management and monitoring of effluent at the company. Comparing with the previous year, there was an increased production of CS1 AL and Braskem Idesa, increasing the generation of effluents. The value for 2021, |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | after publication in the CDP, was updated and validated. The current and correct value of the year 2021 is 14,873 ML. |
| Primary treatment only | Not relevant | | | | | Braskem has a more complex effluent treatment flow, which includes secondary and/or tertiary treatments |
| Discharge to the natural environment without treatment | Not relevant | | | | | Braskem does not Discharge to the natural environment untreated effluents. |
| Discharge to a third party without treatment | Relevant | 4,913.6 | Much higher | Change in accounting methodology | 21-30 | The volume increased due to new effluents received for treatment. |
| Other | Not relevant | | | | | Not applicable. |

## W1.2k

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

| | Emissions to water in the reporting year (metric tonnes) | Category(ies) of substances included | Please explain |
|---|---|---|---|
| Row 1 | 104.62 | Nitrates<br>Phosphates | Concentration limits are complied with and monitored as stipulated in the Operating License.<br>It is important to point out that in addition to controlling concentrations, Braskem and the third-party companies involved have emergency basins that can contain a portion of effluents with potential for contamination, helping to minimize possible impacts. |

## W1.3

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

| | Revenue | Total water withdrawal volume (megaliters) | Total water withdrawal efficiency | Anticipated forward trend |
|---|---|---|---|---|
| Row 1 | 18,733,378,822 | 80,324.38 | 233,221.580073198 | There are two types of reuse: internal current and domestic effluent through partnerships. The goal is to increase the safe capture of water, one of the options being the replacement of part of the uptake by reuse, improving the efficiency of uptake. Braskem has projects under implementation in Rio de Janeiro (wastewater reuse) and Alagoas (seawater desalination). |

## W-CH1.3

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

Yes

## W-CH1.3a

**(W-CH1.3a) For your top five products by production weight/volume, provide the following water intensity information associated with your activities in the chemical sector.**

**Product type**

Specialty organic chemicals

**Product name**

Polypropylene

**Water intensity value (m3/denominator)**

1.51

**Numerator: water aspect**

Total water consumption

**Denominator**

Ton

**Comparison with previous reporting year**

Much lower

**Please explain**

In relation to the previous year, production reduced by around 7.9%, but the reduction in water consumption was much higher than this value, for this reason the water efficiency indicator was much better. Initiatives were carried out to reduce losses and improve the purge system.

The strategy in place to reduce water intensity is to study initiatives to reduce cooling tower cycles.

Based on our Business Plan for the coming years (2023-2026), we expect a reduction of 6% in this water intensity indicator, through improvements and initiatives already identified.

**Product type**

Specialty organic chemicals

**Product name**

Polyethylene

**Water intensity value (m3/denominator)**

1.92

**Numerator: water aspect**

Total water consumption

**Denominator**

Ton

### Comparison with previous reporting year

Much lower

### Please explain

Total polyethylene production in 2022 was the same as in 2021, a positive variation of around 0.2%. Thus, the improvement in the water intensity indicator is mainly due to lower water consumption compared to the previous year. Initiatives were implemented, such as mapping and implementing some of the opportunities in areas with higher water consumption.

The strategy in place to reduce water intensity is to identify and implement recycling and internal water reuse initiatives.

Based on our Business Plan for the coming years (2023-2026), we expect a reduction of 3% in this water intensity indicator, through improvements and initiatives already identified.

### Product type

Bulk organic chemicals

### Product name

Chemicals and specialties

### Water intensity value (m3/denominator)

4.91

### Numerator: water aspect

Total water consumption

### Denominator

Ton

### Comparison with previous reporting year

Lower

### Please explain

There was a reduction in production, compared to the previous year, around 4%, but the reduction in water consumption was greater than this number, thus making the water intensity indicator lower than the previous year.

The implementation of initiatives to reduce water consumption contributed positively to this indicator.Braskem is constantly seeking to improve processes that save water, for example, investing to reduce consumption at cooling towers, and also proposing challenges to our innovation team that researches start-ups for new solutions.

The strategy in place to reduce water intensity is to reduce losses and improve the

efficiency of purge and heat exchange systems.

For the future, considering the period of 2023 to 2026, we expect a reduction of 9% in this water intensity indicator, through improvements and initiatives already identified

**Product type**

Specialty organic chemicals

**Product name**

PVC

**Water intensity value (m3/denominator)**

5.62

**Numerator: water aspect**

Total water consumption

**Denominator**

Ton

**Comparison with previous reporting year**

Much lower

**Please explain**

Production increased, compared to the previous year, by 18%, thus resulting in an increase in water consumption, but the water intensity indicator was better due to initiatives and improvements implemented. There was a change in procedure to restrict the use of water.

The strategy in place to reduce water intensity is to implement initiatives to reuse internal effluents.

Based on our Business Plan for the coming years (2023-2026), we expect a reduction of 1% in this water intensity indicator, through improvements and initiatives already identified.

**Product type**

Specialty organic chemicals

**Product name**

Chlorine-soda

**Water intensity value (m3/denominator)**

1.96

**Numerator: water aspect**

Total water consumption

**Denominator**

Ton

**Comparison with previous reporting year**

Much lower

**Please explain**

Production increased, compared to the previous year, by 3%, thus resulting in an increase in water consumption, but the water intensity indicator was much better due to an excellent performance in the water indicator, due to initiatives and improvements implemented, such as changing the process resulting in better process efficiency.

The strategy in place to reduce water intensity is training operators to improve the operational efficiency of processes.

Based on our Business Plan for the coming years (2023-2026), we expect a reduction of 5% in this water intensity indicator, through improvements and initiatives already identified.

# W1.4

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

| | Products contain hazardous substances |
|---|---|
| Row 1 | Yes |

# W1.4a

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

| Regulatory classification of hazardous substances | % of revenue associated with products containing substances in this list | Please explain |
|---|---|---|
| Other, please specify<br>GHS Cat 1/2 GHS Classified Substances >0.1% | Less than 10% | Some resins or products produced in South America and North America |

# W1.5

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

| | Engagement |
|---|---|
| Suppliers | Yes |
| Other value chain partners (e.g., customers) | Yes |

# W1.5a

**(W1.5a) Do you assess your suppliers according to their impact on water security?**

**Row 1**

**Assessment of supplier impact**

Yes, we assess the impact of our suppliers

**Considered in assessment**

Basin status (e.g., water stress or access to WASH services)
Supplier dependence on water
Supplier impacts on water availability
Other, please specify

The assessment is based on the supplier's management capacity for the topic "WATER".

**Number of suppliers identified as having a substantive impact**

134

**% of total suppliers identified as having a substantive impact**

1-25

**Please explain**

There is a supplier criticality matrix, based on economic and ESG factors. From this list, suppliers that are installed in regions of potential water stress are selected.

# W1.5b

**(W1.5b) Do your suppliers have to meet water-related requirements as part of your organization's purchasing process?**

| | Suppliers have to meet specific water-related requirements |
|---|---|
| Row 1 | Yes, suppliers have to meet water-related requirements, but they are not included in our supplier contracts |

# W1.5c

**(W1.5c) Provide details of the water-related requirements that suppliers have to meet as part of your organization's purchasing process, and the compliance measures in place.**

**Water-related requirement**

Reporting against a sustainability index with water-related factors (e.g., DJSI, CDP Water Security questionnaire, etc.)

**% of suppliers with a substantive impact required to comply with this water-related requirement**

76-99

**% of suppliers with a substantive impact in compliance with this water-related requirement**

51-75

**Mechanisms for monitoring compliance with this water-related requirement**

Supplier self-assessment
Supplier scorecard or rating

**Response to supplier non-compliance with this water-related requirement**

Retain and engage

**Comment**

Through the supplier engagement program (CDP Supply Chain), we have an evaluation of each supplier and monitor their progress. To identify the % of suppliers with a substantive impact, only key water suppliers were considered.

## W1.5d

**(W1.5d) Provide details of any other water-related supplier engagement activity.**

**Type of engagement**

Information collection

**Details of engagement**

Collect water management information at least annually from suppliers
Collect information on water-related risks at least annually from suppliers
Collect water quantity information at least annually from suppliers (e.g., withdrawal and discharge volumes)
Collect water quality information at least annually from suppliers (e.g., discharge quality, pollution incidents, hazardous substances)
Collect WASH information at least annually from suppliers

**% of suppliers by number**

51-75

**% of suppliers with a substantive impact**

51-75

**Rationale for your engagement**

100% of the critical suppliers that are installed in regions of potential water stress are invited annually to join the engagement program. The indicator refers to the % of these critical suppliers that accepted and engaged.

### Impact of the engagement and measures of success

The main impact is the strengthening of the company's integrated risk management, with the information obtained about the associated risks in the chain; it is possible to identify measures that increase the chain's resilience. The measure of success is the number of suppliers with defined actions to mitigate risks

### Comment

This engagement program started in 2022, and covers climate and water.

### Type of engagement

Incentivization

### Details of engagement

Other, please specify

Offer others incentives to suppliers reducing your operational water impacts through the products and services they supply you

### % of suppliers by number

76-99

### % of suppliers with a substantive impact

76-99

### Rationale for your engagement

Braskem has a health, safety and environmental prevention program called IP [Índice de Prevenção Braskem (Braskem Prevention Index)] which considers environmental aspects,
including water resources, defining the activities that must be carried out by suppliers, such as weekly dialogues for awareness, performance evaluation meetings, and also evaluation of deviations that occurred in the process.
The carrying out of all these activities results in a score for each supplier. The score is used to select suppliers that will be recognized
in the annual supplier recognition program.
The % of "76-100" was selected because every Braskem supplier that is located in an area of water stress is invited to the CDP Supply Chain and IP program.

### Impact of the engagement and measures of success

There are 2 types of benefits: awareness of environmental aspects and management of water resources (suppliers can replicate these practices in their processes) and also the reduction of the water impact on Braskem's operations, since several
suppliers work at Braskem's facilities.
The measure of success is the percentage of suppliers engaged in the program (IP). Considering suppliers with more than 10 employees and a long-term contract (more

than 6 months), the engagement rate is 100% in regions of potential water stress.

### Comment

The IP (Braskem Prevention Index) considers activities to protect health, safety and the environment in all Braskem operations. The management of water resources is considered in the environmental dimension. This program applies to all relevant suppliers.

## W1.5e

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

### Type of stakeholder

Customers

### Type of engagement

Innovation & collaboration

### Details of engagement

Encourage stakeholders to work collaboratively with other users in their river basins toward sustainable water management

### Rationale for your engagement

Customers are chosen because they are in the value chain and joint action has greater potential. So, to engage, we invite customers who withdraw water in the same watershed as our operations and participate in the same Braskem forums, such as the CEBDS water technical group, the Global Compact technical group, among others

### Impact of the engagement and measures of success

Number of drainage basins with high water risk with collective actions implemented and in progress. The result will both positively impact Braskem’s operations and increase the water resilience of the communities surrounding the drainage basins with collective actions being implemented.
METRICS: Number of watersheds with high water risk with collective actions implemented or in progress.
PROJECTS: Braskem is identifying a collective action project, in the watersheds of Rio de Janeiro and Sao Paulo, in Brazil, which have a high water risk, to start in 2024. The result will positively impact Braskem's operations and increase the water resilience of the communities surrounding the river basins with the implementation of collective actions.

# W2. Business impacts

## W2.1

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

No

## W2.2

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

| | Water-related regulatory violations | Comment |
|---|---|---|
| Row 1 | No | No water-related regulatory violations |

# W3. Procedures

## W3.1

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

| | Identification and classification of potential water pollutants | How potential water pollutants are identified and classified |
|---|---|---|
| Row 1 | Yes, we identify and classify our potential water pollutants | Due to the nature of Braskem's operations, the company is legally obliged to carry out a series of monitoring procedures for its liquid waste (parameters such as pH, temperature, OBD, sediments, oils, floating materials, benzene, among many others). These obligations and monitoring activities are monitored and supervised by environmental government agencies through periodic reports and oversight, after being identified in a risk analysis as part of an Environmental Impact Study. Each Braskem business has its own matrix of specific parameters to be monitored and, therefore, considered to be pollutants. Determined in the operating environmental license, these parameters have as a minimum requirement what is established in regulations of countries such as CONAMA Resolution No. 430/2011 in Brazil. Non-compliance can lead to fines and a ban on releasing effluents. Depending on the business and its risks, the company can carry out additional monitoring (in addition to legal regulations) on its own, such as the concentration of BTX in effluents, following regulations and standards of the Ministry of Labor, National and International Agreements. All effluents receive appropriate treatment before final disposal and the |

| | | |
|---|---|---|
| | | samples are analyzed in specific laboratories (allowing the identification of potential water pollutants) and the results are forwarded to regulatory bodies. |

# W3.1a

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

### Water pollutant category

Nitrates

### Description of water pollutant and potential impacts

Concentration limits are complied with and monitored as stipulated in the Operating License.

### Value chain stage

Direct operations

### Actions and procedures to minimize adverse impacts

Discharge treatment using sector-specific processes to ensure compliance with regulatory requirements

### Please explain

The entire process and treatment is structured to meet and guarantee compliance with all limits specified in local legislation. These pollutants have potential impacts on the health and safety of employees and the environment, and occur in the production stage, but there are control actions to ensure the protection of all those involved and the safety of the process. There is an Occupational Hygiene and Health team and a Product Stewardship team that define and implement procedures to reduce these potential impacts. These activities have verified their effectiveness in periodic internal audits carried out by the company.

### Water pollutant category

Phosphates

### Description of water pollutant and potential impacts

Concentration limits are complied with and monitored as stipulated in the Operating License.

### Value chain stage

Direct operations

### Actions and procedures to minimize adverse impacts

Discharge treatment using sector-specific processes to ensure compliance with regulatory requirements

**Please explain**

The entire process and treatment is structured to meet and guarantee compliance with all limits specified in local legislation. These pollutants have potential impacts on the health and safety of employees and the environment, and occur in the production stage, but there are control actions to ensure the protection of all those involved and the safety of the process. There is an Occupational Hygiene and Health team and a Product Stewardship team that define and implement procedures to reduce these potential impacts. These activities have verified their effectiveness in periodic internal audits carried out by the company.

# W3.3

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

Yes, water-related risks are assessed

# W3.3a

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

**Value chain stage**

Direct operations
Supply chain
Other stages of the value chain

**Coverage**

Full

**Risk assessment procedure**

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

**Frequency of assessment**

Annually

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

More than 6 years

**Type of tools and methods used**

Tools on the market
Enterprise risk management
International methodologies and standards
Databases
Other

### Tools and methods used

WRI Aqueduct
Enterprise Risk Management
IPCC Climate Change Projections
External consultants
Other, please specify
FGV - UKCIP/INCAE Wizard & DEVESE

### Contextual issues considered

Water availability at a basin/catchment level
Water quality at a basin/catchment level
Stakeholder conflicts concerning water resources at a basin/catchment level
Impact on human health
Water regulatory frameworks

### Stakeholders considered

Customers
Employees
Investors
Local communities
Suppliers

### Comment

Braskem carried out the climate risk study in 2015, and updated it in 2022 (including severe droughts and floods), with a time horizon of 2030 and 2050, in different scenarios, developing an action plan to mitigate the main risks and maximize the main opportunities. For regions identified as high risk for severe droughts, drainage basin risk assessments were carried out to identify the highest risk drainage basins.
Risks are monitored and updated annually after assessing compliance with the defined risk mitigation action plan.

In the chain, Braskem has initiatives to mitigate the impact caused by plastic waste in the seas.

### Value chain stage

Supply chain

### Coverage

Full

### Risk assessment procedure

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

### Frequency of assessment

Annually

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

More than 6 years

**Type of tools and methods used**

Databases

**Tools and methods used**

Other, please specify

Data collection via supplier engagement program – CDP Supply Chain

**Contextual issues considered**

Implications of water on your key commodities/raw materials

Water regulatory frameworks

**Stakeholders considered**

Suppliers

**Comment**

For suppliers, we consider the “full” option because 100% of critical suppliers are considered in the engagement program, where the climate and water risks to which these suppliers are exposed are updated annually.

Via the CDP Supply Chain, Braskem annually requests all suppliers with critical water situations to disclose any physical, regulatory and other risks to which they are exposed.

# W3.3b

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

| | Rationale for approach to risk assessment | Explanation of contextual issues considered | Explanation of stakeholders considered | Decision-making process for risk response |
|---|---|---|---|---|
| Row 1 | For direct operations, climate risks are assessed first, based on IPCC scenarios, following the FGV – UKCIP/INCAE Wizard & DEVESE method, and also the potential impact on operations, complemented with the risk assessment of drainage basins, supported by the WRI Aqueduct. The level of coverage and | The availability and quality of water in the drainage basin is considered in the analysis, especially for regions of potential water stress and areas where surface collection is the main type in our operations. Once we have identified this potential impact, in order to avoid interruption of operations, we will | Employees are also considered because they are participating in operations, and in the case of physical risks, we need to protect them from these potential impacts. Communities are considered because since we share resources, and in some | All risks classified as high are presented to the leaders of the responsible areas, and options for mitigating these risks are defined. After a financial and effectiveness analysis and validation by the leaders, the options are included in the company’s adaptation plan, and are monitored annually to ensure the implementation of 100% |

| | | | | |
|---|---|---|---|---|
| | implementation in 100% of Braskem's operations.<br>In assessing climate risks, supported by External consultants, first the climate threats are identified, in the time horizon of 2030 and 2050, and their respective probabilities of occurrence, based on climate models (IPCC Climate Change Projections) from the IPCC. For each climate threat (severe droughts, floods, etc.) the potential impact on operations is assessed with the technical team. The combination of probability and potential impact resulting from the risk, rated as HIGH, MODERATE, or LOW. For risks classified as HIGH, actions are obligatorily defined to mitigate these risks and the residual risk is calculated (considering the implementation of the action) to guarantee the effectiveness of the action. The action plan (for all high risks) is monitored annually to ensure its implementation and the reduction of high risks (Enterprise Risk Management).<br>For the Supply Chain, the engagement program via CDP | need to identify new sustainable sources of water collection to ensure the operational continuity of the business.<br>Conflict with stakeholders, mainly communities, is considered, since in the case of water scarcity, the community and the public will always have priority over other users of the drainage basins.<br>The regulatory framework is considered because for water in some regions there is no legal certainty, so we need to monitor and protect our operations regarding the availability of this resource and the economic impact.<br>The impact on raw materials is considered mainly due to the possibility of discontinuity or increased costs by suppliers. | scenarios there is the possibility of potential conflicts, we need to define actions to eliminate these potential conflicts.<br>Customers, suppliers, and investors are considered, in addition to physical risks, also for other risks, such as regulatory ones, where actions are needed to increase resilience in the value chain as well as protect investor assets. | of these actions by 2030 and consequently elimination of all high risks. |

| | | | | |
|---|---|---|---|---|
| | Supply Chain is used. Supplier engagement results are used to identify suppliers with high water risk and thereby encourage these suppliers to identify actions to mitigate these risks. | | | |

# W4. Risks and opportunities

## W4.1

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

Yes, only within our direct operations

## W4.1a

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

Braskem developed an adaptation study to identify the impacts of climate change in its global operations. One of the goals of the study was the mapping and prioritization of risks and opportunities.
Through this methodology, it was defined that a substantive strategic impact is noticed when the following thresholds are reached for any of the categories listed below (e.g. Financial, Environmental, Social).

Impact measurement for the study of climate risks - physical risks (with respective Thresholds):

a) Financial: Above ’Losses above USD 100,000.00’ (Threshold)
b) Environmental: Above ‘Impact of considerable magnitude, but reversible with mitigation actions restricted to the company’s area; and/or absence of impact on sensitive species/habitats.’ (Threshold)
c) Health and Safety: Above ‘Injury/disorder with medical leave, or injury/disorder without medical leave with restriction.’ (Threshold)
d) Social: Above ‘Complaints submitted to user/consumer/society service.’ (Threshold)
e) Image/Reputation: Above ‘Report on media at local (municipal or state) level; concern/complaints of specific groups/organizations (e.g. NGOs).’ (Threshold)
f) Infrastructure: Above ‘Frequent partial reduction of production process.’ (Threshold

Metrics and indicator used:

a) Metrics: The metric used was the cross between probability of occurrence (frequency) and impact measurement of each climate event for every category listed above. With these results, it was possible to classify the risks in low, medium and high by the crossing of the frequency with the impact measurement.
b) Indicators: The indicator used was the risk classification (low, medium and high). The risks classified as high are the ones that represent substantive change in our business and were the ones prioritized in the definition of adaptation actions.

The analysis is valid for Braskem' s direct operation. For suppliers, the methodology follows the CDP Supply Chain standard where suppliers themselves report the risks with their magnitude of impact and likelihood according to their own methodology.

As an example, our Climate Risk and Adaptation Assessment considered 3 areas (in the states of Bahia, Rio de Janeiro and Alagoas) where Braskem has operations of high risk for water scarcity. This risk was classified as 'High' for these three regions because the Financial impact measurement surpasses the USD 100,000.00 threshold. Once those areas were identified, the company developed a study with FGV to better understand the risks and analyses scenarios, with solutions such as reuse. Now the company is working on action plans with the operations from those areas to mitigate/eliminate water scarcity risks by adopting alternatives such as reuse, desalination and safe source of groundwater.

The risk of water scarcity is crucial for Braskem's operations, thus the importance of rating direct and indirect use of water is vital. Freshwater and reuse water is used throughout the entire production process, in processes such as cooling, steam generation, effluent treatment. Therefore, the lack of water can affect operational costs and ultimately cease operations. Because Braskem is a chemical industry, a significant part of our suppliers use water in a similar way to our processes, especially considering that Braskem's main raw material is petrochemical naphtha.

# 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 | 11 | 26-50 | Units in the northeast and southeast of Brazil |

# 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

Brazil

Other, please specify

Guandu (Rio de Janeiro)

### Number of facilities exposed to water risk

3

### % company-wide facilities this represents

1-25

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

1-10

### Comment

According to Trucost, using the tool from WRI Aqueduct, the Guandu Basin presents a medium risk by 2040.

A Braskem já identificou uma nova fonte sustentável de água para a regional do Rio de Janeiro, o projeto está em fase avançada para aprovação da alta liderança. Com este projeto o índice de segurança hídrica da regiao será de 100%.

### Country/Area & River basin

Brazil

Other, please specify

Baixada Santista (São Paulo / Cubatão)

### Number of facilities exposed to water risk

5

### % company-wide facilities this represents

1-25

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

1-10

### Comment

According to Trucost, using the tool from WRI Aqueduct, the Reconcavo Norte Basin in 2040 presents a low-to-medium scarcity risk.

### Country/Area & River basin

Brazil

Other, please specify

Piracicaba, Capivari, Jundiaí (SP)

### Number of facilities exposed to water risk

1

### % company-wide facilities this represents

1-25

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

1-10

### Comment

According to Trucost, using the tool from WRI Aqueduct, Rios Piracicaba, Capivari and Jundiaí Basin in 2040 presents a low to medium scarcity risk.

### Country/Area & River basin

Brazil

Other, please specify

Remédios (Alagoas)

### Number of facilities exposed to water risk

2

### % company-wide facilities this represents

1-25

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

1-10

### Comment

According to Trucost, using the tool from WRI Aqueduct, the CELMM Basin in 2040 presents a medium-to-high scarcity risk.

A Braskem está na fase final de avaliação/definição de novas alternativas de captação de água nessa regiao, há três opções, dessalinização de água do mar, reuso de esgoto, ou a solução combinada dessas opções.

### Country/Area & River basin

United States of America

Other, please specify

Seadrift River, Victoria, Texas, United States

### Number of facilities exposed to water risk

3

### % company-wide facilities this represents

1-25

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

1-10

### Comment

Trucost analyzed the full value of water for three of Braskem's locations and calculated potential revenue at risk due to water risks. The analysis conveyed that Braskem has significant water risk across these facilities.
Despite the result of the drainage basin risk study, with the update of the climate risk study done in 2022, the result of this risk for these units was classified as low due to alternative sources of withdrawal water in the region. Thus, new studies will be carried out to assess the risk of new alternative sources of water capture, and if the low risk is confirmed, this region will no longer be critical in terms of water scarcity.

## W4.2

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

### Country/Area & River basin

Brazil
Other, please specify
Guandu (Rio de Janeiro)

### Type of risk & Primary risk driver

Chronic physical
Changing precipitation patterns and types (rain, hail, snow/ice)

### Primary potential impact

Reduction or disruption in production capacity

### Company-specific description

The main risk factor was identified through Braskem's climate risk study and risk assessment of the drainage basin, considering the time horizon of the year 2040. Scenarios of severe drought events were evaluated every five years, with durations of 12 months, 6 months or 3 months,
and impact on the reduction in water capture of 10%, 30% or 50%, thus combining a total of 9 scenarios. The industrial units located in Duque de Caxias (Q4, PE 9 and PP 5) are part of the Atlantic Forest Biome of the State of Rio de Janeiro. Although the increase in temperature and reduction in precipitation are less impactful than in the other biomes of the southeast, the coming years will tend to be hotter and drier with reduced periods of rainfall.
This impact may affect our direct operations, as the water availability at the industrial units may be
reduced in the medium and long term, due to the increase in temperature and the consequent evaporation of water bodies. The potential impacts: (1) DCX Units – Operational/structural impacts: Reduction in water availability causing interruptions that impact industrial processes and electricity generation, especially considering the

characteristics of the Brazilian energy matrix (greatest contribution of hydroelectric energy). (2)
DCX Units – Financial impacts: water scarcity can increase the price of water, generating financial impact for the plant

**Timeframe**

More than 6 years

**Magnitude of potential impact**

High

**Likelihood**

Likely

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

10,000,000

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

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

**Explanation of financial impact**

Based on a series of 9 potential climate scenarios (combination of severe droughts and consequent reduction in water capture), the value represents the potential impact of one of the scenarios. In this case, a 30% reduction in water capture was considered, for a severe drought period of 12 months over a 5-year period, leading to a reduction in production, reflected in the plant's EBITDA.
This potential financial impact was calculated based on loss data considering the stoppage of the industrial unit.
The value was limited to USD 10 million due to the criterion of significant impact for physical risk, since any loss (for physical risk) above USD 10 million is considered as the most relevant impact in the risk classification matrix.
Primary response to risk

The potential financial impact is based on a series of potential hypotheticals climate scenarios and using business guidelines for economic evaluation of ecosystem services at FGV-São Paulo. The value represents the potential impact of one of the scenarios, and is subject to risks and uncertainties which include, but are not limited to: advancement, availability, development and affordability of technology necessary to mitigate this impact; unforeseen design, operational and technological difficulties; availability of necessary materials and components; adapting products to customer preferences and customer acceptance of sustainable supply chain solutions; changes in public sentiment and political leadership; our ability to comply with changing regulations,

taxes, mandates or requirements related to greenhouse gas emissions or other climate-related matters. The value was limited to US$10 MM due to the criterion of significant impact for physical risk, since any loss (for physical risk) above US$10 MM is considered as the most relevant impact in the risk classification matrix.

### Primary response to risk

Secure alternative water supply

### Description of response

The Climate Change Adaptation Plan indicated
scarcity as the main potential risk to the company's operations. One of the main actions to mitigate the risk of water scarcity is the identification and implementation of a new sustainable source of water capture, replacing the current capture of water in a high-risk drainage basin.
Braskem has studied seawater desalination and wastewater reuse options for this region, and is in the final stages of this project, defining the best solution for approval in 2023 and planning to start implementing this project next year, 2024. This will reduce the risk as well as bringing the water security index in the region to 100%.

### Cost of response

3,488,807

### Explanation of cost of response

The cost represents the difference between purchasing freshwater and purchasing reuse water at a price similar to Aquapolo (ABC reuse project – around BRL 6.74/m³), to supply 100% of the region's operations. (Values referring to the year 2020)

## 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 | Annually through the supplier engagement program, CDP Supply Chain, Braskem collects information on the risks to which critical suppliers are exposed. In the last 5 years, none of the risks reported by suppliers were classified as high or significant, considering the impact and the reported probability. |

## W4.3

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

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

# W4.3a

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

### Type of opportunity

Products and services

### Primary water-related opportunity

Sales of new products/services

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

The Brazilian semi-arid region occupies approximately 12% of the national territory and is home to approximately 12% of the Brazilian population. In this region, rainfall is scarce, which considerably lowers the quality of life of families.

One of the solutions implemented to try to combat the problem is masonry cisterns, with more than a million having been installed since 1999. But the poor conservation of the cisterns means that 30 to 40% of the more than 1.3 million masonry cisterns installed (known as concrete slab cisterns) show malfunctions and are totally or partially unused. Poor maintenance is a factor, but not the main one. The main cause of the breakdowns is the construction system of the cistern itself, which is handmade and of low complexity (since it is a solution with a social bias). With the cycles of filling and emptying of the cistern, it “shrinks” when empty due to soil pressure. Since the structure is weak, cracks and even greater damage are formed.

Braskem has developed a “Cistern Liner” which is a solution to the problem, as it prevents leakage and waste of the stored water.

### Estimated timeframe for realization

More than 6 years

### Magnitude of potential financial impact

High

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

Yes, an estimated range

### Potential financial impact figure (currency)

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

60,000,000

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

70,000,000

### Explanation of financial impact

More than 1.3 million cisterns built of concrete installed in Brazil, 30% out of use with leaks and cracks.
Potential financial impact = Number of units (potential sales) X unit profit
Braskem in partnership with Pacifil, Cipatex, IAV (Instituto Água Viva) and Norsan/Geoscom developed a flexible liner to be installed as a cover inside concrete cysterns preveting water leakage and the permeation of contaminants from the ground (e.g animal and human excreta).

# 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)**
Chemicals 4

**Country/Area & River basin**
Brazil
Other, please specify
Guandu (Rio de Janeiro)

**Latitude**
-22.713099

**Longitude**
-43.242728

**Located in area with water stress**
Yes

**Total water withdrawals at this facility (megaliters/year)**
4,833.84

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

**Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes**
4,833.84

**Withdrawals from brackish surface water/seawater**
0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

0

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

527.77

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

Higher

**Discharges to fresh surface water**

527.77

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

0

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

4,306.06

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

Higher

**Please explain**

Increase of 3.8% in water consumption compared to the previous year due to increased production. Despite the increase in consumption in absolute terms, efficiency (consumption per ton of product produced) has improved.

**Facility reference number**

Facility 2

**Facility name (optional)**

PE 9

**Country/Area & River basin**

Brazil

Other, please specify

Guandu (Rio de Janeiro)

**Latitude**

-22.713099

**Longitude**

-43.242728

**Located in area with water stress**

Yes

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

964.66

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

Much higher

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

964.66

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

0

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

26.7

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

Lower

**Discharges to fresh surface water**

26.7

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

0

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

937.96

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

Much higher

**Please explain**

Increase of 27.3% in water consumption compared to the previous year due to increased production.

**Facility reference number**

Facility 3

**Facility name (optional)**

PP 5

**Country/Area & River basin**

Brazil

Other, please specify

Guandu (Rio de Janeiro)

**Latitude**

-22.713099

**Longitude**

-43.242728

**Located in area with water stress**

Yes

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

294.87

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

Lower

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

294.874

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

0

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

16.51

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

Much lower

**Discharges to fresh surface water**

16.50603

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

0

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

278.37

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

Lower

**Please explain**

Decrease of 7.2% in water consumption compared to the previous year due to decrease production.

**Facility reference number**

Facility 4

**Facility name (optional)**

PP8

**Country/Area & River basin**

United States of America

Other, please specify

River San Jacinto

**Latitude**

29.7024

**Longitude**

-95.0803

**Located in area with water stress**

Yes

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

1,533.23

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

Much lower

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

15.2633149321

**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**

1,517.9677581274

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

620

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

Much higher

**Discharges to fresh surface water**

620

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

0

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

913.23

### Comparison of total consumption with previous reporting year

Much lower

### Please explain

Decrease of 24.6% in water consumption compared to the previous year due to decrease production. Despite the increase in consumption in absolute terms, efficiency (consumption per ton of product produced) has improved.

---

### Facility reference number

Facility 5

### Facility name (optional)

PP10

### Country/Area & River basin

United States of America

Other, please specify

River Seadrift

### Latitude

28.615

### Longitude

-96.6261

### Located in area with water stress

Yes

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

1,130.68

### Comparison of total withdrawals with previous reporting year

Much higher

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

0

### Withdrawals from brackish surface water/seawater

0

### Withdrawals from groundwater - renewable

17.3

### Withdrawals from groundwater - non-renewable

0

### Withdrawals from produced/entrained water

0

**Withdrawals from third party sources**

1,113.39

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

303.32

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

About the same

**Discharges to fresh surface water**

0

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

303.324

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

827.35

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

Much higher

**Please explain**

Increase of 14.1% in water consumption compared to the previous year due to increased production.

---

**Facility reference number**

Facility 6

**Facility name (optional)**

PP13

**Country/Area & River basin**

United States of America

Other, please specify

River Seadrift

**Latitude**

28.9338

**Longitude**

-95.3361

**Located in area with water stress**

Yes

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

953.26

**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**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

953.2580688201

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

147.87

**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**

147.87103

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

805.39

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

Higher

**Please explain**

Increase of 7.2% in water consumption compared to the previous  year due to increased production.

**Facility reference number**

Facility 7

**Facility name (optional)**

PVC 2

**Country/Area & River basin**

Brazil

Other, please specify

Remédios (Alagoas)

**Latitude**

-9.669779

**Longitude**

-35.824888

**Located in area with water stress**

Yes

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

4,050.18

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

Higher

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

4,050.17503

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

0

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

1,674.52

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

Lower

**Discharges to fresh surface water**

0

**Discharges to brackish surface water/seawater**

1,674.5164629559

**Discharges to groundwater**

0

**Discharges to third party destinations**

0

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

2,375.66

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

Higher

**Please explain**

Increase of 6.1% in water consumption compared to the previous year. Line production, no significant difference. There was a reduction in water efficiency per ton of product produced.

---

**Facility reference number**

Facility 8

**Facility name (optional)**

PP 3

**Country/Area & River basin**

Brazil

Other, please specify

Piracicaba, Capivari, Jundiaí (SP)

**Latitude**

-22.7181

**Longitude**

-47.1343

**Located in area with water stress**

Yes

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

407.58

**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**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

407.578

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

75.35

**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**

75.35

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

332.23

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

Lower

**Please explain**

Decrease of 6.3% in water consumption compared to the previous year due to increase production. There was an increase in water efficiency per ton of product produced.

**Facility reference number**

Facility 9

**Facility name (optional)**

CS1

**Country/Area & River basin**

Brazil

Other, please specify

Remédios (Alagoas)

**Latitude**

-9.672095

**Longitude**

-35.746608

**Located in area with water stress**

Yes

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

3,024.68

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

Much higher

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

0

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

3,024.68

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

0

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

1,286.32

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

Higher

**Discharges to fresh surface water**

0

**Discharges to brackish surface water/seawater**

1,286.3186541775

**Discharges to groundwater**

0

**Discharges to third party destinations**

0

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

1,738.36

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

Higher

**Please explain**

Increase of 4.5% in water consumption compared to the previous year due to increased production. Despite the increase in consumption in absolute terms, efficiency (consumption per ton of product produced) has improved.

**Facility reference number**

Facility 10

**Facility name (optional)**

Q1

**Country/Area & River basin**

Brazil

Other, please specify

Reconcavo Norte/Inhambupe - Bahia

**Latitude**

-12.660833

**Longitude**

-38.326111

**Located in area with water stress**

Yes

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

17,602.76

**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**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

17,602.76327

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

3,415.78

**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**

3,415.779168

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

14,186.98

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

Lower

**Please explain**

Decrease of 8.4% in water consumption compared to the previous year due to decrease production.

**Facility reference number**

Facility 11

**Facility name (optional)**

PE 1

**Country/Area & River basin**

Brazil

Other, please specify

Reconcavo Norte/Inhambupe - Bahia

**Latitude**

-12.622391

**Longitude**

-38.312467

**Located in area with water stress**

Yes

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

232.55

**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**

232.5454459979

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

69.26

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

Higher

**Discharges to fresh surface water**

0

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

69.2638999982

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

163.28

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

Much lower

**Please explain**

Decrease of 45.7% in water consumption compared to the previous year due to decrease production. There was an increase in water efficiency per ton of product produced.

**Facility reference number**

Facility 12

**Facility name (optional)**

PE 2

**Country/Area & River basin**

Brazil

Other, please specify

Reconcavo Norte/Inhambupe - Bahia

**Latitude**

-12.622391

**Longitude**

-38.312467

**Located in area with water stress**

Yes

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

404.01

**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**

0

**Withdrawals from groundwater - non-renewable**

33.411514528

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

370.597125472

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

145.22

**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**

145.2227643006

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

258.79

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

Much higher

**Please explain**

Decrease of 14.7% in water consumption compared to the previous year due to decrease production.

**Facility reference number**

Facility 13

**Facility name (optional)**

PE 3

**Country/Area & River basin**

Brazil

Other, please specify

Reconcavo Norte/Inhambupe - Bahia

**Latitude**

-12.622391

**Longitude**

-38.312467

**Located in area with water stress**

Yes

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

865.93

**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**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

865.9286659971

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

154.38

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

Higher

**Discharges to fresh surface water**

0

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

154.3835300008

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

711.55

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

Higher

**Please explain**

Increase of 0.8% in water consumption compared to the previous year due to increase production. There was a reduction in water efficiency per ton of product produced

---

**Facility reference number**

Facility 14

**Facility name (optional)**

PVC 1

**Country/Area & River basin**

Brazil

Other, please specify

Reconcavo Norte/Inhambupe - Bahia

**Latitude**

-12.652778

**Longitude**

-38.316111

**Located in area with water stress**

Yes

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

1,626.49

**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**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

1,626.4885889959

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

1,237.69

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

Higher

**Discharges to fresh surface water**

0

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

1,237.6902970015

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

388.8

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

Much lower

**Please explain**

Decrease of 12.1% in water consumption compared to the previous year due to increase production. There was an increase in water efficiency per ton of product produced.

# W5.1a

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

**Water withdrawals – total volumes**

**% verified**

76-100

**Verification standard used**

Braskem plants are ISO 14.000 certified and thus pass through an auditing process where water and effluent parameters integrate the evaluation to maintain the

certification. If any non-conformities in these parameters are found, they generate a report and a deadline to solve the issue. KPMG also verified data using ISAE 3000 standard yearly.

## Water withdrawals – volume by source

### % verified

76-100

### Verification standard used

Braskem plants are ISO 14.000 certified and thus pass through an auditing process where water and effluent parameters integrate the evaluation to maintain the certification. If any non-conformities in these parameters are found, they generate a report and a deadline to solve the issue. KPMG also verified data using ISAE 3000 standard yearly.

## Water withdrawals – quality by standard water quality parameters

### % verified

76-100

### Verification standard used

Braskem plants are ISO 14.000 certified and thus pass through an auditing process where water and effluent parameters integrate the evaluation to maintain the certification. If any non-conformities in these parameters are found, they generate a report and a deadline to solve the issue. KPMG also verified data using ISAE 3000 standard yearly.

## Water discharges – total volumes

### % verified

76-100

### Verification standard used

Braskem plants are ISO 14.000 certified and thus pass through an auditing process where water and effluent parameters integrate the evaluation to maintain the certification. If any non-conformities in these parameters are found, they generate a report and a deadline to solve the issue. KPMG also verified data using ISAE 3000 standard yearly.

## Water discharges – volume by destination

### % verified

76-100

### Verification standard used

Braskem plants are ISO 14.000 certified and thus pass through an auditing process where water and effluent parameters integrate the evaluation to maintain the certification. If any non-conformities in these parameters are found, they generate a report and a deadline to solve the issue. KPMG also verified data using ISAE 3000 standard yearly.

## Water discharges – volume by final treatment level

### % verified

76-100

### Verification standard used

Braskem plants are ISO 14.000 certified and thus pass through an auditing process where water and effluent parameters integrate the evaluation to maintain the certification. If any non-conformities in these parameters are found, they generate a report and a deadline to solve the issue. KPMG also verified data using ISAE 3000 standard yearly.

## Water discharges – quality by standard water quality parameters

### % verified

76-100

### Verification standard used

Braskem plants are ISO 14.000 certified and thus pass through an auditing process where water and effluent parameters integrate the evaluation to maintain the certification. If any non-conformities in these parameters are found, they generate a report and a deadline to solve the issue. KPMG also verified data using ISAE 3000 standard yearly.

## Water consumption – total volume

### % verified

76-100

### Verification standard used

Braskem plants are ISO 14.000 certified and thus pass through an auditing process where water and effluent parameters integrate the evaluation to maintain the certification. If any non-conformities in these parameters are found, they generate a report and a deadline to solve the issue. KPMG also verified data using ISAE 3000 standard yearly.

# W6. Governance

## W6.1

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

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

## W6.1a

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

| | Scope | Content | Please explain |
|---|---|---|---|
| Row 1 | Company-wide | Description of business dependency on water<br>Description of business impact on water<br>Commitment to align with international frameworks, standards, and widely-recognized water initiatives<br>Commitment to prevent, minimize, and control pollution<br>Commitment to reduce water withdrawal and/or consumption volumes in direct operations<br>Commitment to reduce water withdrawal and/or consumption volumes in supply chain<br>Commitment to safely managed Water, Sanitation and Hygiene (WASH) in the workplace<br>Commitment to water stewardship and/or collective action<br>Commitments beyond regulatory compliance<br>Reference to company water-related targets | Braskem is a petrochemical industry, intensive in water use thus very dependable/impacting on water and susceptible to its issues (e.g. scarcity causing production disruption and millions in losses). And so, water is present in public company-wide policies (Sustainability and HSE), macro objectives (Operational Eco-efficiency- monitored by the Board), in our ERM (Enterprise Risk Management) overseen by the CEO. Braskem has set a goal to reach 100% water security by 2030. All our goals are voluntary, beyond legal requirements, aligned with the objectives of the SDGs and WASH targets. Company respond to CDP Water and incentive supply chain to do so. Braskem also participates in important water groups in forums such as CEBDS (Brazilian business committee for sustainable development), UNGC CEO Water Mandate and UNGC Brazil (Global Compact Brazil Network).<br><br>In defining its Water Security strategy, Braskem takes CEO Water Mandate requirements as a reference, focusing on its direct operations, the supply chain and water basins management, as well as collective actions, among others.<br><br>Braskem joined throughout the "WRC – Water Resilience Coalition" and the "Open Call for Water Action", both of the Global Compact, and the “Race to Resilience”, of the UN Framework Convention on Change Climate Change (UNFCC). The latter is an initiative that seeks to accelerate, by 2030, the actions of non-governmental organizations in the fight against climate change. The focus is on helping the most |

| | | | |
|---|---|---|---|
| | | Acknowledgement of the human right to water and sanitation<br>Recognition of environmental linkages, for example, due to climate change | vulnerable communities on this topic by implementing initiatives that build resilience and mitigate the physical impacts of changes, such as extreme heat, drought and floods. These initiatives strengthen our water security strategy, as the projects that we intend to engage will be developed in high water risk basins in the regions of our operations. |

# W6.2

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

Yes

# W6.2a

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

| Position of individual or committee | Responsibilities for water-related issues |
|---|---|
| Board-level committee | Strategy, Communication, and ESG Committee (CECESG): composed of three members of the BoD, one of which is independent, it is responsible for supporting the Board of Directors in the evaluation of the strategic direction, which shall observe Braskem's sustainable development guidelines, and for monitoring and evaluating the initiatives and goals assumed by the Company with respect to its corporate sustainability and the ESG criteria. Its duties include, without limitation, to monitor ESG aspects existing in the strategy and in the corporate policies relating to the disclosure of information, sustainable development, and health, safety, environment, quality, and productivity. The water theme is included in the monitored ESG aspects. |

# W6.2b

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

| | Frequency that water-related issues are a scheduled agenda item | Governance mechanisms into which water-related issues are integrated | Please explain |
|---|---|---|---|
| Row 1 | Scheduled - all meetings | Monitoring implementation and performance | From the Macro Goal Operational Eco- Efficiency, water risk was inserted into the Enterprise Risk Management (ERM) as one of the critical criteria for action plans, company's strategies and investments. A water efficiency indicator supports the evaluation of plants exposed to high water risks leading to |

| | | | |
|---|---|---|---|
| | | Monitoring progress towards corporate targets<br>Reviewing and guiding annual budgets<br>Reviewing and guiding business plans<br>Reviewing and guiding risk management policies<br>Reviewing and guiding strategy | implementation and optimization of water use in the plants; and to analyze investments in reuse/desalination technologies to mitigate risks. All enforced by Braskem HSE and Sustainable Development policies that lead to Corporate Responsibility and Innovation projects (Braskem Labs). Performance targets direct investments in water efficiency and are publicly disclosed in the company's annual report.<br><br>All the information is presented to the board through a specific achievement indicator of the Macro Objectives, and actions are undertaken by the company to achieve this result. The Strategy, Communication, and ESG Committee (CECESG), reports periodically on the status of the progress of water stewardship to the board of directors; this being the main governance mechanism that allows constant oversight of water issues.<br><br>Monitored are the evolution of the action plan of the macro objective and the water security index, which is the main indicator. Our goal for 2030 is that 100% of the water withdrawn for use in our operations comes from safe sources. That is, that industrial units have guaranteed sustainable access to adequate<br>amounts of water of acceptable quality, using the resource in a socially fair way that is environmentally sustainable and economically beneficial. |

# W6.2d

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

| | Board member(s) have competence on water-related issues | Criteria used to assess competence of board member(s) on water-related issues |
|---|---|---|
| Row 1 | Yes | The criteria include: participation as a member in ESG committees; participation in academic activities in areas related to water or environmental solutions. |

# 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 Operating Officer (COO)

### Water-related responsibilities of this position

Assessing future trends in water demand
Assessing water-related risks and opportunities
Managing water-related risks and opportunities
Setting water-related corporate targets
Monitoring progress against water-related corporate targets
Integrating water-related issues into business strategy
Managing annual budgets relating to water security

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

Quarterly

### Please explain

Braskem's COO who is responsible for achieving the goals approved by the company's board. In the case of water, the sponsor is the Manufacturing & Global Industrial Operations Vice President (COO), the COO reports directly to the President of the company (CEO). His duty is therefore to enforce and guarantee the implementation of all the actions to achieve the operational eco-efficiency macro objectives.
Management is carried out through a technical and strategic committee, in which leaders from all the technical areas involved (Directors and Vice Presidents) participate, who assess and define the main short and long-term challenges. The Corporate Environment area reports water issues to the COO. The COO reports water issues to the board, annually, that are the short- and long-term plans and goals, as well as compliance and evolution.
The industrial directors responsible for water security action plans, periodically report the progress for the COO.

# 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 | Incentives for the management of water issues are considered in the achievement of goals to reduce water risk. |

# W6.4a

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

| | Role(s) entitled to incentive | Performance indicator | Contribution of incentives to the achievement of your organization's water commitments | Please explain |
|---|---|---|---|---|
| Monetary reward | Chief Operating Officer (COO) | Reduction of water withdrawals – direct operations | The indicator used is risk reduction, including climate risk and water risk. By implementing new sustainable sources of water collection, the water risk is reduced, and consequently the water security index increases, the goal of which is to reach 100% by the year 2030.<br>The goals are evaluated through an indicator related to the achievement of the action plan. The indicator was chosen because Braskem is a water-intensive industry and severe drought scenarios due to water scarcity can stop operations and generate conflicts with society.<br>The assessment of compliance following the results: 0% – not achieved, 50% – partial achievement, 100% – total achievement.<br>It is recommended that each target value be at least 5% of the variable remuneration. Thus, it reaches the goal: 5% is obtained; partially reached: 2.5%; did not reach: 0.<br>One of the examples are the actions in Rio de Janeiro and Alagoas (Brazil), which have a high water risk. They are in the final stages of deciding on new sources of water capture, | The water security indicator has a target of reaching 100% by the year 2030. The actions are concentrated in the northeast and southeast regions of Brazil to implement new sources of water capture, reducing the water risk and consequently increasing the company's water security index. In other regions and other countries where the company operates, the water security index is already satisfactory.<br>The indicator used is risk reduction. The goals are evaluated through an indicator related to the achievement of the action plan. The indicator was chosen because Braskem is a water-intensive industry and severe drought scenarios due to water scarcity can stop operations and generate conflicts with society.<br>The assessment of compliance following the results: 0% – not achieved, 50% – partial achievement, 100% – total achievement.<br>It is recommended that each target value be at least 5% of the variable |

| | | | | |
|---|---|---|---|---|
| | | | wastewater reuse or seawater desalination, which will increase the water security index to 100% after the implementation of these projects. The evolution of these projects was in the officers' action program, associated with variable remuneration. | remuneration. Thus, it reaches the goal: 5% is obtained; partially reached: 2.5%; did not reach: 0. |
| Non-monetary reward | No one is entitled to these incentives | | | No one is entitled to these incentives |

# 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, trade associations

Yes, funding research organizations

Yes, other

# 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?**

Annually, we verify commitments, results and alignment with long-term goals. For example, we have a goal of achieving 100% water security in our operations by 2030, which is why we have engaged in the water resilience coalition and race to resilience movements to identify collective actions to strengthen our strategy and results. These actions are monitored in technical groups, where we seek to evaluate and encourage public policies that strengthen these collective actions.

If an inconsistency is discovered in any action or initiative taken, that action or initiative is suspended immediately, and will only continue after eliminating the inconsistency and ensuring alignment with the company's long-term commitments and goals.

# 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)

Braskem-Relatorio-Integrado-2022-ENG-12-04.pdf

# W7. Business strategy

## W7.1

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

| | Are water-related issues integrated? | Long-term time horizon (years) | Please explain |
|---|---|---|---|
| Long-term business objectives | Yes, water-related issues are integrated | 21-30 | Braskem developed a climate risk and adaptation plan considering 2030 and 2050 AS THE TIME HORIZON. Based on these scenarios, critical areas for WATER SCARCITY (ISSUES) that impact business objectives were established. The Company then started developing action plans to mitigate and/or finding alternatives to avoid production losses due to water security issues. These plans are considering alternatives such as water reuse and desalination. TO DEFINE THE BETTER ALTERNATIVE TO AVOID SCARCITY ISSUES BRASKEM CALCULATED AN INTERNAL PRICE ON WATER CONSIDERING CLIMATE MODELS (WHY). The Company already have a successful reuse model that is the Aquapolo (project allowed the company to pass through the São Paulo water crisis without production losses - on the contrary, production increased).<br>The possibility to replicate this model is currently associated with long-term business strategies to avoid production and financial losses. A empresa estabeleu a meta de atinigir o indice de segurança hidrica em 100% até 2030. The goal is aligned with the general long-term business objective to be a reference company in sustainability for the chemical sector and a company that provides sustainable products and solutions through thermoplastic resins. |
| Strategy for achieving long-term objectives | Yes, water-related issues are integrated | 21-30 | Since 2015, Braskem has been developing ACTION PLANS FOR ALL THE INDUSTRIAL UNITS LOCATED IN HIGH-RISK WATER BASINS (HOW), according to our climate risks study to MITIGATE AND/OR FINDING ALTERNATIVES TO AVOID PRODUCTION LOSSES (WHY) DUE TO WATER SCARCITY ISSUES (WHICH). These plans are considering alternatives such as water reuse and desalination, including assessments in partnership with local sanitation companies and, |

| | | | |
|---|---|---|---|
| | | | depending on location, a partnership with other businesses. A reuse model for the company is Aquapolo, a project that allowed the company to pass through the São Paulo water crisis without production losses; on the contrary, production was able to increase. The period for reuse contracts is 40 years, and the CLIMATE SCENARIOS CONSIDERED REACH UP TO 2050 (TIME HORIZON). The action plans are also aligned with the goal to increase water security indez to reach 100% in 2030.<br>The studies and action plans are strategies aligned with the general long-term business objective to be a reference company in sustainability for the chemical sector and be a company that provides sustainable products and solutions through thermoplastic resins. |
| Financial planning | Yes, water-related issues are integrated | 21-30 | ALL INVESTMENTS ARE MADE BASED ON THE SCENARIOS (SCARCITY) PRESENTED BY THE 2030 and 2050 CLIMATE RISK STUDY (TIME HORIZON). In line with this scenario and since 2013, Braskem has INVESTED 77 MILLION R$ IN WATER RELATED PROJECTS (HOW), 29 being in the last 2 years (47 MM R$). ACTIONS PLANS FOR THE HIGH-RISK WATER SECURITY/SCARCITY AREAS (WHICH) are now being developed based on an internal price on water, defined by DEVESE methodology, and are driving our financial planning to invest in water reuse and/or desalination that will help define water contracts for the next 40 years. COSTS PRESENTED MAKE VIABLE THE STUDIES AND ACTION PLANS THAT FORM BRASKEM STRATEGIES (WHY) aligned with the general long-term objective to be a reference company in sustainability for the chemical sector and be a company that provides sustainable products and solutions through thermoplastic resins. |

# 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)**

32

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

-32

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

-10

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

16

**Please explain**

Capital expenditures and operating expenses arise due to demands or initiatives. OPEX is calculated based on the cost of capturing, treating and purchasing water and also on the cost of managing, treating and disposing of effluents. For OPEX, there was a 10% reduction compared to 2021 mainly due to the reduction in effluent generation, which is the most relevant cost, an increase of 16% is expected for 2023 due to the increase in water consumption as well as an increase in generation of effluents.
CAPEX considers all investments in the “Effluent Management”, “Water Management” categories, in addition to the ESG category: Water Security.
For CAPEX, there was a 32% increase compared to 2021 due to the development of new water efficiency initiatives/projects. The expectation for 2023 is a reduction of 32%.

# W7.3

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

| | Use of scenario analysis | Comment |
|---|---|---|
| Row 1 | Yes | Braskem with the support of external consultancy launched in 2022 an updated climate risk assessment, based on scenarios until 2030-2050. This study is helping the company with its strategies and action plans. |

# W7.3a

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

| | Type of scenario analysis used | Parameters, assumptions, analytical choices | Description of possible water-related outcomes | Influence on business strategy |
|---|---|---|---|---|
| Row 1 | Water-related<br>Climate-related | Parameters:<br>GDP and demographic variables.<br>Assumptions: | Main outcomes from the scenarios analysed by the study are:<br><br>- Brazilian plants: potential risks | Since in some scenarios of water scarcity there is a possibility of impact on the operation of industrial units in this region, for Brazil actions |

| | | | | |
|---|---|---|---|---|
| | | changing precipitation patterns; Analytical choices: time horizon 2030-2050, data sources Aqueduct . Indicate whether the scenario(s) are mix (quantitative and qualitative). | identified area associated with severe droughts, especially in the plants located in Rio de Janeiro and Alagoas. Throughout the literature review and meeting with Braskem's technical areas, several potential impacts were identified for the industrial units, which range from operational aspects (e.g. reduction in water availability due to the occurrence of meteorological droughts) to structural aspects ( e.g. damage to equipment due to flooding). These impacts take into account the characteristics of each industrial unit analyzed in this study, and represent the possible effects generated in the case of materialization of physical risks. Exemplification of the potential impacts: Reduction of water availability for the process; Water price increase; Conflicts over water use; Stoppage or reduction of operation | were defined and approved to identify new sources of water uptake, increasing the water security index of these regions.<br><br>Since severe droughts and other water risks are arising from and/or impacted by climate change, we use the same scenarios for water and climate risks. Thus, we use more pessimistic scenarios, business as usual scenarios and more optimistic scenarios. The results of the scenario analysis, after evaluation, bring us the most relevant risks focused on the 2030 and 2050 time horizon, and these results guide Braskem's strategy. Of these risks, we selected those that may impact the operation of the plants, relevant economic and environmental impacts, or impacts that affect other relevant stakeholders (communities, customers).<br><br>Severe droughts were identified as one of the main risks associated with the company's business, and that is why in the action plan for mitigating these risks, the company defined actions to reduce the risks from "high" to "low" or "moderate" by 2030. |

# 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**

Once Braskem developed a water risk analysis for the river basin, where it operates, and identified the ones with high risk (Rio de Janeiro and Alagoas), it developed an internal price on water based on the Getulio Vargas Foundation methodology – DEVESE. The price considered potential losses in production and revenue considering a disruption (reduction of water grant) caused by a drought scenario such as one serious drought event in a five-year period and a 12-month duration, plus 3 other, different scenarios. Now with that price calculated, the company can compare with prices from reuse (using Aquapolo as the referral case) and desalination that would be alternatives. These would counter the disruption and loss of production risks/impacts and support the decision to implement projects to access safe alternative sources of water.

## W7.5

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

| | Products and/or services classified as low water impact | Definition used to classify low water impact | Please explain |
|---|---|---|---|
| Row 1 | Yes | The volume water consumption in the production phase of the product divided by the mass produced (m3/t) | The company manufactures products with different technologies and water intensities, with the main products being: basic chemicals, PVC, PE, chlorine soda. As water is extremely relevant to our process, we use indicators associated with water resources to evaluate the eco-efficiency of the products and also the comparability between them. The water efficiency indicator is one of the most important indicators because it allows us to identify the industrial units with the best performance and the ones where improvements are needed. |

# W8. Targets

## W8.1

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

Yes

# W8.1a

**(W8.1a) Indicate whether you have targets relating to water pollution, water withdrawals, WASH, or other water-related categories.**

| | Target set in this category | Please explain |
|---|---|---|
| Water pollution | No, but we plan to within the next two years | Braskem has a Sustainable Development strategy supported by 7 Macro Objectives. One of these Macro Objectives is the Operational Eco-Efficiency (MO5) and medium and long-term objectives and goals are defined. The issue of water pollution/quality is being considered with the planning below: The main contributing units that are defined and in the process of definition:<br>1 – Mapping of the main contributing sources of the identified units;<br>2 – Survey of the main reduction opportunities;<br>3 – Development of engineering studies;<br>4 – Definition of the reduction target; |
| Water withdrawals | Yes | |
| Water, Sanitation, and Hygiene (WASH) services | Yes | |
| Other | Yes | |

# W8.1b

**(W8.1b) Provide details of your water-related targets and the progress made.**

**Target reference number**

Target 1

**Category of target**

Product water intensity

**Target coverage**

Company-wide (direct operations only)

**Quantitative metric**

Reduction per unit of production

**Year target was set**

2022

**Base year**
2022

**Base year figure**
60,671.16

**Target year**
2022

**Target year figure**
66,314.09

**Reporting year figure**
60,357.69

**% of target achieved relative to base year**
-5.555092833

**Target status in reporting year**
Achieved

**Please explain**
The defined target reflected an increase in water consumption due to increased production. However, due to the adequate production plan and the improvements implemented, there was a reduction in water consumption.

---

**Target reference number**
Target 2

**Category of target**
Other, please specify
Water security index

**Target coverage**
Company-wide (direct operations only)

**Quantitative metric**
Other, please specify
Reduction in water discharges per unit of production

**Year target was set**
2022

**Base year**
2022

**Base year figure**
20,479.43

**Target year**

2022

**Target year figure**

23,551.11

**Reporting year figure**

19,966.68

**% of target achieved relative to base year**

-16.6928195645

**Target status in reporting year**

Achieved

**Please explain**

The defined target reflected an increase in the generation of effluents due to greater production. Due to the adequate production plan and the improvements implemented, there was a reduction in the generation of effluents.

**Target reference number**

Target 3

**Category of target**

Water withdrawals

**Target coverage**

Company-wide (direct operations only)

**Quantitative metric**

Reduction in total water withdrawals

**Year target was set**

2022

**Base year**

2022

**Base year figure**

81,150.6

**Target year**

2022

**Target year figure**

89,865.2

**Reporting year figure**

80,324.38

**% of target achieved relative to base year**

-9.4808711817

**Target status in reporting year**

Achieved

**Please explain**

The defined target reflected in an increase in water consumption and effluent generation, therefore a greater water capture, due to greater production. Due to the adequate production plan and the improvements implemented, the result was the opposite, that is, a reduction in water capture, reflecting a positive impact.

**Target reference number**

Target 4

**Category of target**

Other, please specify

Water security index

**Target coverage**

Company-wide (direct operations only)

**Quantitative metric**

Other, please specify

Reduction in total water withdrawals

**Year target was set**

2021

**Base year**

2021

**Base year figure**

64.5

**Target year**

2030

**Target year figure**

100

**Reporting year figure**

65.3

**% of target achieved relative to base year**

2.2535211268

**Target status in reporting year**

Underway

**Please explain**

The increase in 2022 compared to 2021 was modest due to internal reuse initiatives and safer water capture.
In 2022, there was a change in scope regarding areas identified as water stress areas. It was identified that the Northeast and Southeast regions of Brazil and the USA, the regions where the PP7, PP8 and PP9 units are located, are under water stress.
For quantitative analysis of the volume of an area under water stress, the following assumptions were used:
• Surface and groundwater collected by Braskem.
• Water purchased from third-party companies, except water from Aquapolo (ABC SP region).
• The purchase of water from third-party companies was considered, as we have not yet mapped 100% of the collection sites of the third-party company from which we purchase water to ensure that they come from safe sources.
• Groundwater collection was considered because in some areas of water stress, the supply of the population is already starting to be carried out with groundwater.

**Target reference number**

Target 5

**Category of target**

Product water intensity

**Target coverage**

Company-wide (direct operations only)

**Quantitative metric**

Reduction per unit of production

**Year target was set**

2022

**Base year**

2022

**Base year figure**

4.19

**Target year**

2022

**Target year figure**

4.26

**Reporting year figure**

4.3

**% of target achieved relative to base year**

157.1428571429

**Target status in reporting year**

Expired

**Please explain**

In 2022, our eco-efficiency in water consumption was 4.3 m³/t, 0.8% above the agreed annual target (4.26 m³/t) and 2.6% above last year's result (4.19 m³/t). Total water consumption was 70.216 megaliters.

Equipment cleaning, scheduled and unscheduled shutdowns (especially Regional RS) and low water efficiency in some units, especially Q2 RS, PE9 DCX and PP10 Seadrift.

Optimization of concentration cycles, as in Q1 BA, and improvement in the eco-efficiency of some units, such as Braskem Idesa, Q3 ABC, PE1 BA and PE8 CUB, and reverse osmosis operation in Q4 DCX had a positive impact.

**Target reference number**

Target 6

**Category of target**

Water use efficiency

**Target coverage**

Company-wide (direct operations only)

**Quantitative metric**

Reduction in total water discharge

**Year target was set**

2022

**Base year**

2022

**Base year figure**

1.21

**Target year**

2022

**Target year figure**

1.28

**Reporting year figure**

1.21

**% of target achieved relative to base year**

0

**Target status in reporting year**

Achieved

**Please explain**

In 2022, our eco-efficiency in the generation of liquid effluents was 1.21 m³/t, a result 6.1% below the agreed annual target (1.28 m³/t) and 0.7% better than in the previous year (1.21 m³/t). The total generation of effluents was 19.9 million liters.
Progress in the effluents network cooling project at Q1 BA, reverse osmosis operation at Q4 DCX, optimization of concentration cycles and improvement of the eco-efficiency of some units, such as Q2 RS, Q3 ABC and PVC2 AL. Cleaning of equipment and areas, leaks, scheduled and unscheduled shutdowns had a negative impact.

**Target reference number**

Target 6

**Category of target**

Water, Sanitation and Hygiene (WASH) services

**Target coverage**

Company-wide (direct operations only)

**Quantitative metric**

Increase in the proportion of local population using safely managed drinking water services around our facilities and operations

**Year target was set**

2022

**Base year**

2022

**Base year figure**

0

**Target year**

2050

**Target year figure**

1

**Reporting year figure**

0

**% of target achieved relative to base year**

0

**Target status in reporting year**

Underway

**Please explain**

The Water Resilience Coalition has the goal of achieving a net positive impact in 150 drainage basins at high risk of water stress around the world, together with all members. Braskem, for its contribution, has the goal of getting involved in a high-risk watershed and is already evaluating adherence to collective action initiatives in the Guandu watershed in Rio de Janeiro and/or the watershed of one of its operations in São Paulo.

# 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

Braskem-Relatorio-Integrado-2022-ENG-12-04.pdf

## 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 | All data provided in the annual report, based on the GRI framework, and including company's policies, governance, targets and macro goals. It was also verified water, energy and climate targets and data. | AA1000AS | Braskem has water as a material aspect of its operation and thus answers to specific GRI disclosures in its annual report alongside the basic GRI information on governance, goals, targets, operations, stakeholders, among others.<br>O relatório anual é assegurado anualmente por terceira parte (using the referral standards – AA1000AS and ISAE3000). |
| W1 Current state | All data provided in the annual report, based on the GRI framework, and including company's policies, governance, targets and macro goals. It was also verified water, energy and climate targets and data | AA1000AS | Braskem has water as a material aspect of its operation and thus answers to specific GRI disclosures in its annual report alongside the basic GRI information on governance, goals, targets, operations, stakeholders, among others.<br>O relatório anual é assegurado anualmente por terceira parte (using |

| | | | |
|---|---|---|---|
| | | | the referral standards – AA1000AS and ISAE3000). |

# W10. Plastics

## W10.1

**(W10.1) Have you mapped where in your value chain plastics are used and/or produced?**

| | Plastics mapping | Please explain |
|---|---|---|
| Row 1 | | |

## W10.2

**(W10.2) Across your value chain, have you assessed the potential environmental and human health impacts of your use and/or production of plastics?**

| | Impact assessment | Please explain |
|---|---|---|
| Row 1 | | |

## W10.3

**(W10.3) Across your value chain, are you exposed to plastics-related risks with the potential to have a substantive financial or strategic impact on your business? If so, provide details.**

| | Risk exposure | Please explain |
|---|---|---|
| Row 1 | | |

## W10.4

**(W10.4) Do you have plastics-related targets, and if so what type?**

| | Targets in place | Please explain |
|---|---|---|
| Row 1 | | |

## W10.5

**(W10.5) Indicate whether your organization engages in the following activities.**

| | Activity applies | Comment |
|---|---|---|
| Production of plastic polymers | | |
| Production of durable plastic components | | |
| Production / commercialization of durable plastic goods (including mixed materials) | | |

| | | |
|---|---|---|
| Production / commercialization of plastic packaging | | |
| Production of goods packaged in plastics | | |
| Provision / commercialization of services or goods that use plastic packaging (e.g., retail and food services) | | |

# W11. 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.**

## W11.1

**(W11.1) Provide details for the person that has signed off (approved) your CDP water response.**

| | Job title | Corresponding job category |
|---|---|---|
| Row 1 | Vice President Executive Officer, Chief Financial Officer and Director of Investor Relations. | Chief Financial Officer (CFO) |

# SW. Supply chain module

## SW0.1

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

| | Annual revenue |
|---|---|
| Row 1 | 18,700,000,000 |

## SW1.1

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

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

## SW1.2

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

| | Are you able to provide geolocation data for your facilities? | Comment |
|---|---|---|
| Row 1 | Yes, for all facilities | - |

# SW1.2a

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

| Identifier | Latitude | Longitude | Comment |
|---|---|---|---|
| Q 4 DCX | -22.713099 | -43.242728 | This Asset is located in Brazil. |
| PE 9 DCX | -22.713099 | -43.242728 | This Asset is located in Brazil. |
| PP 5 DCX | -22.714783 | -43.240188 | This Asset is located in Brazil. |
| Q 1 BA | -12.663054 | -38.328438 | This Asset is located in Brazil. |
| PE 1 BA | -12.662917 | -38.324718 | This Asset is located in Brazil. |
| PE 2 BA | -12.649768 | -38.316281 | This Asset is located in Brazil. |
| PE 3 BA | -12.65387 | -38.319307 | This Asset is located in Brazil. |
| CS 2 BA | -12.655718 | -38.307192 | This Asset is located in Brazil. |
| PVC 1 BA | -12.653599 | -38.316587 | This Asset is located in Brazil. |
| PE 8 CUB | -23.856066 | -46.413245 | This Asset is located in Brazil. |
| Q 3 ABC | -23.639331 | -46.486444 | This Asset is located in Brazil. |
| PE 7 ABC | -23.646045 | -46.487657 | This Asset is located in Brazil. |
| PP 4 ABC | -23.640301 | -46.465745 | This Asset is located in Brazil. |
| CS 1 AL | -9.672095 | -35.746608 | This Asset is located in Brazil. |
| PVC 2 AL | -9.669779 | -35.824888 | This Asset is located in Brazil. |
| PP  3 PLN | -22.7181 | -47.1343 | This Asset is located in Brazil. |
| Q 2 RS | -29.8774 | -51.382 | This Asset is located in Brazil. |
| PP 1 RS | -29.8858 | -51.3937 | This Asset is located in Brazil. |
| PP 2 RS | -29.873 | -51.3989 | This Asset is located in Brazil. |
| PE 5 RS | -29.873 | -51.3989 | This Asset is located in Brazil. |
| PE 4 RS | -29.872 | -51.3992 | This Asset is located in Brazil. |
| PE 6 RS | -29.872 | -51.3992 | This Asset is located in Brazil. |
| PP LA Porte USA | 29.7024 | -95.0803 | This Asset is located in USA. |
| PP Marcus Hook USA | 39.8149 | -75.4267 | This Asset is located in USA. |
| PP Neal USA | 38.3298 | -82.5837 | This Asset is located in USA. |
| PP Seadrift USA | 28.615 | -96.6261 | This Asset is located in USA. |
| PP Oyster Creek USA | 28.9338 | -95.3361 | This Asset is located in USA. |
| PP 11 GER | 50.8423 | 6.9455 | This Asset is located in Germany. |
| PP 12 GER | 51.3945 | 11.974 | This Asset is located in Germany. |
| Braskem BI MX | 18.1348 | -94.3698 | This Asset is located in Mexico |

# SW2.1

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

### Requesting member

Ambev S.A

### Category of project

Promote river basin collective action

### Type of project

Invite customer to collaborate with other users in their river basins to reduce impact

### Motivation

Improve watershed management, seeking to reduce water risk through our participation in watershed management committees.

### Estimated timeframe for achieving project

4 to 5 years

### Details of project

Identify the hydrographic basins in which both companies are common users and develop an action plan to improve participation in the management committees of these basins.

### Projected outcome

The main outcome will be an action plan for engagement in watershed

### Requesting member

Electrolux

### Category of project

Promote river basin collective action

### Type of project

Invite customer to collaborate with other users in their river basins to reduce impact

### Motivation

Improve watershed management, seeking to reduce water risk through our participation in watershed management committees.

### Estimated timeframe for achieving project

4 to 5 years

### Details of project

Identify the hydrographic basins in which both companies are common users and develop an action plan to improve participation in the management committees of these basins.

**Projected outcome**

The main outcome will be an action plan for engagement in watershed.

---

**Requesting member**

L'Oréal

**Category of project**

Promote river basin collective action

**Type of project**

Invite customer to collaborate with other users in their river basins to reduce impact

**Motivation**

Improve watershed management, seeking to reduce water risk through our participation in watershed management committees

**Estimated timeframe for achieving project**

4 to 5 years

**Details of project**

Identify the hydrographic basins in which both companies are common users and develop an action plan to improve participation in the management committees of these basins.

**Projected outcome**

The main outcome will be an action plan for engagement in watershed.

---

**Requesting member**

Prysmian SpA

**Category of project**

Promote river basin collective action

**Type of project**

Invite customer to collaborate with other users in their river basins to reduce impact

**Motivation**

Improve watershed management, seeking to reduce water risk through our participation in watershed management committees.

**Estimated timeframe for achieving project**

4 to 5 years

**Details of project**

Identify the hydrographic basins in which both companies are common users and develop an action plan to improve participation in the management committees of these basins

**Projected outcome**

The main outcome will be an action plan for engagement in watershed

---

**Requesting member**

The LEGO Group

**Category of project**

Promote river basin collective action

**Type of project**

Invite customer to collaborate with other users in their river basins to reduce impact

**Motivation**

Improve watershed management, seeking to reduce water risk through our participation in watershed management committees.

**Estimated timeframe for achieving project**

4 to 5 years

**Details of project**

Identify the hydrographic basins in which both companies are common users and develop an action plan to improve participation in the management committees of these basins.

**Projected outcome**

The main outcome will be an action plan for engagement in watershed.

# SW2.2

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

No

# SW3.1

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

---

**Product name**

Polyethylene

**Water intensity value**

2.571

**Numerator: Water aspect**

Water consumed

**Denominator**

Tons

**Comment**

The value presented refers to the m3/ton used by Braskem to measure its performance. Numbers are constantly updated, 3.23 refers to 2021.

**Product name**

Polypropylene

**Water intensity value**

2.2714

**Numerator: Water aspect**

Water consumed

**Denominator**

Tons

**Comment**

The value presented refers to the m3/ton used by Braskem to measure its performance. Numbers are constantly updated, 2.23 refers to 2021.

# Submit your response

**In which language are you submitting your response?**

English

**Please confirm how your response should be handled by CDP**

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

**Please indicate your consent for CDP to share contact details with the Pacific Institute to support content for its Water Action Hub website.**

Yes, CDP may share our Main User contact details with the Pacific Institute

**Please confirm below**

I have read and accept the applicable Terms