

W0. Introduction

W0.1

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

Associated British Foods (ABF) is a diversified international food, ingredients and retail group with revenues of £17.0bn, 132,000 employees and operations in 53 countries across Europe, Africa, the Americas, Asia and Australia. Our purpose is to provide safe, nutritious, affordable food and clothing that is great value for money. With the breadth of our business, our brands and global reach, ABF aims to consistently deliver value to its stakeholders.

We operate a devolved operating model across our five business segments of Grocery, Sugar, Agriculture, Ingredients and Retail and believe the best way to create enduring value involves setting objectives from the bottom up rather than the top down. We make operational decisions locally, because in our experience decisions are most successful when made and owned by the people with the best understanding of their customers and markets.

The Red Book is an internal document that contains all the information our executives need to meet their obligations and to operate freely within the framework. All businesses are required to operate in an ethical manner in terms of their stewardship of the environment, their employees, the people they work with and the communities in which they operate.

Grocery comprises brands with leading positions in markets across the globe, including Twinings, Ovaltine, Patak's, Kingsmill, Jordans, Tip Top, Yumi's and Mazola. Our grocery businesses pursue independent strategies appropriate to their particular market position and business requirements. Twinings Ovaltine, Acetum, Jordans Dorset Ryvita and AB World Foods have had considerable success extending their reach into new and emerging markets whilst some are focused on developing brands in their core domestic markets.

AB Sugar is a leading producer of sugar and sugar-derived co-products in Africa, the UK, Spain and north east China. We are a world-leading sugar business that employs 35,000 people and operates 27 plants in 10 countries, with the capacity to produce some 4.5 million tonnes of sugar. Our sugar-making plants are highly efficient 'bio-refineries' that enable us to produce a range of products maximising the value from every root of sugar beet and every stick of sugar cane. Our products include sugar, animal feed, biofuels and speciality products, sold into industry sectors including food and drink, fuels, pharmaceuticals, industrials, agriculture, horticulture, power and energy. We are also a largescale renewable power generator for both our own use and for export into national power infrastructure.

AB Agri is a leading international agri-food business operating across the supply chain, producing and marketing animal feed, nutrition and technology-based products. With an expert understanding of agriculture and animal nutrition, our philosophy is to improve feed production in order that nutritious and affordable food is produced safely and responsibly. Across the agricultural supply chain, our products, data insights and technological innovations enable our customers to produce and process high-yielding, safe and nutritious food in a responsible way, using fewer chemicals and antibiotics, preserving natural resources and creating less waste and lower emissions. Employing more than 3,000 people around the world, we sell products into 86 countries and continue to grow our global operations.

Our **Ingredients** businesses are leaders in yeast and bakery ingredients and supply speciality ingredients to the food, nutrition, feed and pharmaceutical industries. Ingredients comprises two specialty businesses, AB Mauri and ABF Ingredients. AB Mauri has a global presence in bakers' yeast with significant market positions in the Americas, Europe and Asia. We are a technology leader in bakery ingredients, supplying bread improvers, dough conditioners and bakery mixes to industrial and craft bakers across the globe. ABF Ingredients is a global leader in speciality ingredients, offering innovative, differentiated and value-added products to the food, nutrition, pharmaceutical, animal feed and industrial sectors.

Primark is a leading international retailer with over 17.5 million sq ft of selling space across more than 410 stores in 15 countries. Our product range offers something for everyone from great quality essentials to stand-out style across womenswear, menswear and kidswear, plus beauty, homeware, accessories and exciting licensed ranges created in partnership with some of the biggest names in food, entertainment and sports. We want to make more sustainable fashion affordable for everyone. We are committed to ensuring that by 2030 all our clothes will be made from recycled or more sustainably sourced materials and carbon emissions halved across the entire value chain.

ABF reports on data from countries where we have direct manufacturing, processing, retail operations and offices.

W-FB0.1a/W-AC0.1a

(W-FB0.1a/W-AC0.1a) Which activities in the food, beverage, and tobacco and/or agricultural commodities sectors does your organization engage in?

Agriculture
Processing/Manufacturing
Distribution

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	August 1 2021	July 31 2022

W0.3

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

Argentina
Australia
Austria
Belgium
Brazil
Canada
Chile
China
Colombia
Czechia
Denmark
Ecuador
Eswatini
Finland
France
Germany
India
Ireland
Italy
Malawi
Malaysia
Mexico
Mozambique
Netherlands
New Zealand
Pakistan
Peru
Philippines
Poland
Portugal
Singapore
Slovenia
South Africa
Spain
Sri Lanka
Sweden
Switzerland
Thailand
Turkey
United Arab Emirates
United Kingdom of Great Britain and Northern Ireland
United Republic of Tanzania
United States of America
Uruguay
Venezuela (Bolivarian Republic of)
Viet Nam
Zambia

W0.4

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

GBP

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.

Other, please specify (Companies over which the Group has full operational control or financial control but does not fully own, and from joint ventures and associates where we do not have a majority shareholding but do have either joint control or significant influence.)

W0.6

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

No

W0.7

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

Indicate whether you are able to provide a unique identifier for your organization.	Provide your unique identifier
Yes, an ISIN code	0006731235

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	<p>Water is a primary resource for the majority of our businesses.</p> <p>Direct use: Sufficient secure amounts of freshwater are vital in our food manufacturing businesses and in particular our Grocery, Agriculture and Ingredients segments, as well as for use by people in the production process across all our businesses. Insufficient availability of water could have a negative impact on production output. Our sugar operations require large volumes of water for irrigation and processing. A significant amount of water is extracted directly from cane and beet, being more than 70% water. We make use of all of this water in production processes, thereby significantly reducing the amount of water abstracted from natural sources. Illovo which accounts for 96% of ABF's direct water abstraction, manages sugarcane estates totalling approx. 70,000 ha of which 82% is irrigated with the rest rain-fed.</p> <p>Indirect use: As water is used throughout ABF's value chain for example, by independent farmers, within suppliers' wet processing facilities or when added to our end products e.g. tea, rice and cereals, sufficient amounts of good quality freshwater is critical. A reduction in either raw material supply or finished goods from our suppliers could impact the output of our businesses e.g. Westmill and PGP require reliable sources of fresh water for a consistent supply of rice from their supply chains. Insufficient freshwater supply could impact yield and production facilities in the end-to-end supply chain.</p> <p>Future use: We anticipate that access to secure amounts of good quality freshwater will remain vitally important as we continue to require large volumes of water for irrigation and cooling purposes. In our indirect operations, secure amounts of good quality freshwater will remain important for our suppliers and their supply chain to enable them to produce raw materials, as well as for customers who require it to benefit from and use our products.</p>
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Important	<p>Recycled water is used by a large proportion of ABF companies, in particular those in agriculture and manufacturing and most significantly across our sugar business.</p> <p>Direct use: For example, Illovo's mills operate primarily with recycled water generated from the sugar milling process. Water is recycled extensively through the mill in an 'open-loop' system, after which it is discharged to supplement irrigation water. Insufficient recycled water supply could specifically impact yield and production facilities, but this is very unlikely due to the volumes of water extracted from the cane itself.</p> <p>Indirect use: Water is used throughout ABF's value chain for example, by independent farmers or within suppliers' wet processing facilities. A reduction in either raw material supply or finished goods from our suppliers could impact the output of our business. A significant amount of the sugarcane processed by Illovo is cultivated by independent farmers or 'growers'. A reduction in grower sugarcane supply could significantly impact Illovo's production. Illovo requires that all growers have water supply agreements with the relevant national authorities.</p> <p>Future use: We anticipate that access to, and the importance of, recycled water will increase in both our direct and indirect operations in future, as pressure on good quality freshwater reserves intensifies. As such, we invest time and resources in our operations to identify opportunities to use all water efficiently and as many times as possible before final discharge.</p>

W-FB1.1a/W-AC1.1a

(W-FB1.1a/W-AC1.1a) Which water-intensive agricultural commodities that your organization produces and/or sources are the most significant to your business by revenue? Select up to five.

Agricultural commodities	% of revenue dependent on these agricultural commodities	Produced and/or sourced	Please explain
Sugar	10-20	Both	<p>AB Sugar operates sugar beet factories in the UK, Spain and northern China, and within the AB Sugar division, Illovo Sugar operates sugar cane plantations and mills, refineries and ethanol distilleries in six African countries. AB Sugar represents the largest water user within ABF. In the reporting year, AB Sugar accounted for 96% of ABF's total abstracted water for direct operations, and almost all of this relates to crop irrigation within Illovo.</p> <p>Unlike the other ABF business segments, AB Sugar uses water in both agriculture and factory facilities, including crop irrigation, cleaning sugar beet, washing, cooling machinery and in creating some co-products. Illovo Sugar manages sugar cane estates totalling approximately 70,000 ha, of which 82% is irrigated, with the rest rain-fed. Of the 11 sugar cane plants, four receive cane from rain-fed farms and seven receive cane from irrigated estates. Illovo's operations in Zambia, Eswatini, Malawi and Mozambique are under full irrigation while in Tanzania, the majority of land under cane is irrigated with the balance cultivated under rain-fed conditions. With sugar cane and beet constituting of more than 70% water, AB Sugar makes use of all of this water as part of production processes, thereby significantly reducing the amount of water that we need to abstract from natural sources. Many of our sugar operations use complex water systems to maximise the value of every drop, reusing water to reduce abstraction at a local level.</p>
Other crop commodity, please specify (Cotton)	21-40	Sourced	<p>In the reporting year, Primark's revenue represented 45% of the group's revenue. From pyjamas to t-shirts, baby gowns, jeans, towels and bedding, cotton is the most important fibre relied upon by Primark to make its products.</p> <p>Primark is committed to bringing more sustainably-sourced cotton to customers at affordable prices. By 2027, Primark has committed that all the cotton in its clothes will be organic, recycled or sourced from the Primark Sustainable Cotton Programme (PSCP). Primark's Sustainable Cotton Programme trains farmers on using fewer chemical pesticides and fertilisers and less water, thereby lowering input costs and improving profits for the farmer.</p> <p>A secure supply of water for cotton production and wet processes, such as dyeing and washing, within Primark's supply chain, are key to maintaining supply of product. Primark joined the Alliance for Water Stewardship (AWS) in December 2021, supporting its approach to improve the use of water resources and its commitment to adopt and promote a universal water stewardship framework, the AWS Standard.</p> <p>Equally important is the management of wastewater and as such Primark works with the Apparel Impact Institute Clean by Design programme and is a member of the ZDHC (Zero Discharge of Hazardous Chemicals) Roadmap to Zero programme.</p> <p>Primark is also committed to improving water efficiency in its own business operations.</p>
Other crop commodity, please specify (Wheat)	Less than 10%	Sourced	<p>Wheat is sourced primarily by our bakeries, mills and other grocery businesses for use in the production of bulk and bagged flour, bread and associated bakery products. Our agriculture business also sources wheat. All wheat used by Allied Mills in the UK, our principal purchaser in the UK Grocery division, is grown to Red Tractor Combinable Crop Standards, or an international equivalent. This requires the farmer to keep a full record of all water irrigation undertaken and to take steps to prevent excessive water usage for irrigation, as well as protect sensitive water catchment areas. The Red Tractor Combinable Crop Standard is benchmarked to the Sustainable Agriculture Initiative 'Silver' standard Allied Mills purchases approximately 12% of the UK milling wheat crop.</p> <p>Wheat is supplied to our bakery business in George Weston Foods (GWF) in Australia and New Zealand where assessment of drought risk to the wheat supply is embedded in business as usual.</p>
Please select	Please select	Please select	

W1.2

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

	% of sites/facilities/operations	Frequency of measurement	Method of measurement	Please explain
Water withdrawals – total volumes	100%	Monthly	<p>At ABF we measure water withdrawals for both compliance and reporting purposes from all of our operational sites including sugar mills, manufacturing plants, factories, distribution centres, offices and retail stores.</p> <p>The methods of measurement of water withdrawals vary from site to site but include the use of water meters, pump records as well as municipal metering.</p>	<p>All ABF businesses are responsible for reporting their site data for water withdrawal on an annual basis to ABF. This data is verified by ABF and has independent limited assurance by EY. This data is used to evaluate operational performance and assists with activities such as water conservation, legal compliance and agricultural management.</p> <p>For example, British Sugar uses different processes to monitor water abstraction depending on the source. Environmental specialists monitor groundwater pump records, meter calibration and abstraction licenses. This is reviewed monthly by the site specialist. Municipal water is measured using water meters and reconciled with invoice data by Finance. Surface water, cooling water and effluent data is input into the data system which is reviewed by the wastewater specialist.</p>
Water withdrawals – volumes by source	100%	Monthly	<p>At ABF, in addition to reporting total volumes of abstracted water, each site provides the volume of water abstracted by source; groundwater, municipal, surface water and other.</p> <p>The methods of measurement of water withdrawals by source vary from site to site but include the use of water meters, pump records as well as municipal metering.</p>	<p>All ABF businesses are responsible for reporting their site data for water withdrawal by source on an annual basis to ABF. This data is verified by ABF and has independent limited assurance by EY.</p> <p>Our facilities also monitor this data for their own management decisions and for compliance with local permits. For example, AB Sugar businesses all monitor 100% of their water sources for direct operations to evaluate the sustainability of their supply and ensure legal compliance.</p>
Entrained water associated with your metals & mining and/or coal sector activities - total volumes [only metals and mining and coal sectors]	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Produced water associated with your oil & gas sector activities - total volumes [only oil and gas sector]	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>

	% of sites/facilities/operations	Frequency of measurement	Method of measurement	Please explain
Water withdrawals quality	100%	Monthly	For the majority of our factories, offices and stores, water quality is paramount for use within operations and for potable use. For other uses, the quality of sourced water is less imperative as it will not be directly consumed. For example, it will be used for irrigation, as a coolant within factory processes or for equipment cleaning. However, quality is still monitored and managed as constraints on the quality of water impact our ability to operate efficiently and has associated costs.	Even though the quality of the water withdrawn is not critical for Illovo as the water is treated on-site to the required standard for consumption and different process uses, Illovo still conducts full spectrum analysis (metals and biological) on the quality of water both upstream and downstream at each of its sites. In South Africa, this testing takes place on a monthly basis and in Tanzania, Malawi, Mozambique, Zambia and eSwatini, this testing is conducted quarterly.
Water discharges – total volumes	100%	Monthly	ABF sites report the volume of water discharge to regulators as part of their water discharge permits. The methods of measurement of water discharges vary from site to site but include the use of flow meters, pump records as well as discharge permits.	All ABF businesses are required to report annually to ABF the volume of effluent discharged. This data is verified by ABF and has independent limited assurance by EY. For example, Illovo's approach to water includes an aim to decrease wastewater by increasing water reuse and recycling. Water discharge is therefore monitored at 100% of Illovo's operations to identify recycling opportunities.
Water discharges – volumes by destination	100%	Monthly	All ABF operational sites are required to report annually to ABF the volume of wastewater discharged to third parties, as fresh surface water, to groundwater or as brackish water. The methods of measurement of water discharges by destinations vary from site to site but include the use of flow meters, pump records as well as discharge permits.	At ABF we report the volume of water discharge and destination to regulators as part of their water discharge permits from all of our operational sites including sugar mills, manufacturing plants, factories, distribution centres, offices and retail stores. As well as legal compliance, our sites use this information to monitor and ensure minimal impact on surrounding natural and social environments. This data is verified by ABF and has independent limited assurance by EY.
Water discharges – volumes by treatment method	76-99	Unknown	ABF sites measure, monitor and maintain records for water discharges by treatment method for operational reasons and for regulatory purposes. Although ABF does not require this information to be reported to the group, if the data were required, it can be obtained from the individual business records.	ABF sites return as much water as possible to natural watercourses by treating the wastewater on-site or by using municipal treatment plants. For Illovo the monitoring of water discharged by treatment method is important as this water is either recycled back into the mill or reused for irrigation, consequently this aspect is monitored at 100% of Illovo's facilities.
Water discharge quality – by standard effluent parameters	76-99	Other, please specify (Regularly)	ABF sites operate within and comply with a regulatory water and wastewater framework. Our sites regularly measure and monitor the quality of their water discharge to ensure legal compliance and minimal impact on the surrounding environments. For example, at British Sugar, the COD values of treated wastewater are measured and samples for BOD are also taken and measured regularly. The ratio of COD:BOD is used to ensure compliance with environment permit requirements at each site.	Illovo sites test the quality of water discharge through weekly samples, in line with the permits that govern water use. Where the permit does not prescribe frequency for water discharge quality testing, Illovo has implemented weekly testing as a minimum standard. This testing includes a full spectrum analysis including metal and biological parameters. Although Biological Oxygen Demand (BOD) is not a legal parameter at most Illovo sites, Chemical Oxygen Demand (COD) is. Accordingly, COD is included in the testing parameters.
Water discharge quality – emissions to water (nitrates, phosphates, pesticides, and/or other priority substances)	Not monitored	<Not Applicable>	<Not Applicable>	Although emissions to water of nitrates, phosphates, pesticides and other priority substances are relevant for some of our sites, ABF does not require this information to be reported to the group. If the data were required, it can be obtained from the individual business records. For example, at AB Sugar's Bury St Edmunds site, total phosphate and total oxidised nitrogen are measured weekly. For example, AB Mauri measure emissions to water where required to do so by law. Measurement of these and other emissions is determined by local regulatory requirements in all the jurisdictions in which we operate. Some sites have their own in-house laboratories, others use a third party laboratory accredited by the local regulatory authorities. Plants are subject to ad-hoc, unplanned audits by regulatory authorities.
Water discharge quality – temperature	100%	Other, please specify (Regularly)	ABF sites operate within and comply with a regulatory water and wastewater framework. As such, certain sites will regularly measure and monitor the temperature of their water discharges to ensure legal compliance and minimal impact on the surrounding natural and social environments.	For example, our Illovo sites test the quality of water discharge according to samples taken on a weekly basis and in line with the permits that govern the water use. Where the permit does not prescribe the frequency for water discharge quality testing, Illovo has implemented a weekly testing parameter as a minimum standard. This testing includes a full spectrum analysis including metal and biological parameters. Although the temperature of the discharge water is not governed by the permits, the Illovo standard prescribes a three-degree variation. If the discharge temperature is three degrees above the abstracted water temperature, it is considered a pollution load.
Water consumption – total volume	100%	Continuously	Monitoring water consumption is material for sugar businesses as, crop dependent, a large percentage of water entering the site comes from the raw material and used in the processes in our factories in preference to using fresh water. Therefore, AB Sugar facilities constantly monitor their total water footprints.	For the reporting year, ABF did not require our businesses to report to group their water consumption. However, a large proportion of our businesses collect this data to assist with their own management decisions.
Water recycled/reused	100%	Monthly	ABF sites measure, monitor and maintain records for water recycled / reused for operational reasons. This year our operations reused 26% of our total water abstracted figure. This water was used more than once before being discharged, therefore reducing the need to withdraw fresh water. The water is treated before being used mainly for irrigation, land-spreading or vehicle washing.	Reused water is mainly utilised by Illovo, George Weston Foods and AB Mauri due to their operating and natural environments, availability of water and volumes required. Over the last 10 years, AB Mauri has delivered programmes to improve effluent treatment and optimise water reuse, using an effluent treatment management system to improve technical guidance. In many of its plants, energy-efficient concentration technologies have been adopted, generating by-products for the animal feed and fertiliser industries, and enabling water to be reused.
The provision of fully-functioning, safely managed WASH services to all workers	100%	Monthly	All ABF companies provide appropriate water and sanitation facilities for our employees and contractors. As part of our publicly available Supplier Code of Conduct, we have a commitment that 'workers shall...be given access to clean toilet facilities and potable water.'	Illovo's sugar estates provide many of their employees with basic amenities, for example, Illovo Nchalo in Malawi houses 2,000 employees and their families. Water supply and domestic effluent are managed by Illovo as part of this accommodation provision. In Zambia, Illovo provides potable water to a population of more than 16,000 people on the estate.

(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	796098	Lower	Other, please specify (Impact of Tropical Storm Ana)	About the same	Investment in water-smart technology/process	<p>This year, we abstracted 796 million m3 of water for use in our operations. This is a decrease of 8% compared with 2021. In part, this reduction was a result of the floods caused by Tropical Storm Ana, which prevented irrigation at Illovo in Malawi and Mozambique.</p> <p>Most of the water used by our businesses is sourced from water occurring naturally on the earth's surface, such as rivers and lakes, as well as man-made dams. Our sites are regulated by water permits or licences and they withdraw water within their agreed limits.</p> <p>As Illovo, within our Sugar segment, accounts for 96% of the Group's total water, in our own operations, we note the Group's decrease in water abstraction is driven by Illovo's water performance. Illovo's water abstraction reduced this year primarily as a result of continued investment in water irrigation methods, water efficiencies and also due to weather conditions this year.</p> <p>All Illovo sites across southern Africa continue to focus on water stewardship activities including upgrades to water canals around the sugar estates to minimise evaporation, the installation of more flow meters to improve monitoring of water used for irrigation, investigations into the use of more boreholes to reduce reliance on municipal water, and communication campaigns to raise awareness about water conservation.</p> <p>As many of our sugar businesses are reliant on abstracted water as opposed to rainfed water, we anticipate that our total withdrawals will remain relatively constant and will only increase in the event of less rainfall.</p> <p>ABF uses the following approach when determining the comparative thresholds:</p> <ul style="list-style-type: none"> ● Much higher: > 10% ● Higher: > 5% but < 10% ● About the same: between -5% and 5% ● Lower: < -5% but > -10% ● Much lower: < -10%
Total discharges	126720	About the same	Investment in water-smart technology/process	About the same	Investment in water-smart technology/process	<p>This year 127 million m3 of wastewater left our sites for final disposal via sewerage systems or was treated and then discharged to receiving watercourses.</p> <p>This water was used more than once before being discharged and therefore reduced the various sites' needs to withdraw fresh water.</p>
Total consumption	669378	Lower	Investment in water-smart technology/process	About the same	Investment in water-smart technology/process	<p>Our water consumption figure is based on the group level calculation for direct operations of water withdrawn subtracting water discharged. This year there was a 9% decrease in water consumption compared with 2021. At a business level, water consumption figures are calculated based on a number of variances such as water availability within crop. This level of detailed information is not currently collated at group level.</p>

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	76-99	Much higher	Change in accounting methodology	About the same	Change in accounting methodology	WRI Aqueduct WWF Water Risk Filter	<p>In 2022, to ensure that we are aware of and are appropriately addressing the risks posed by our use of water across our global operations, we conducted a new water stress assessment.</p> <p>This year we conducted a more comprehensive evaluation of Illovo sites, the group's most significant water user. As a result we identified three Illovo sites operating in water-stressed areas that had not been previously included. As a result, there has been an increase in the percentage of water withdrawn from water-stressed areas compared to the previous year.</p> <p>As part of our assessment we combined the use of two separate tools, WRI Aqueduct and WWF Water Risk Filter, and took a three-stage assessment approach.</p> <ul style="list-style-type: none"> Assessment stage 1 - All factories, laboratories, stores and distribution centre locations were input to Aqueduct which primarily assesses water risk based on location irrespective of site water usage. The tool presents the results on a scale of Low to Extremely High. Assessment stage 2 - Where the Aqueduct tool indicated sites as having High or Extremely High risk (based on location) and any sites with water usage over 100,000m3 per year, irrespective of location, were then input to the WWF Water Risk Filter. The rationale for this is that the WWF tool enables site operational factors, such as water usage to be considered as part of the assessment. A site is considered as 'water stressed' where the Water Scarcity risk score is equal to/greater than 3 (the risk score ranges from 1 to 5). We identified the sites operating within areas of water stress where the Aqueduct Baseline Water Stress risk score is 40% or higher and the WWF Water Scarcity risk score is equal to or greater than 3. Assessment stage 3 - We applied an operational lens and engaged with the businesses to confirm the outputs of both tools. In addition, because Illovo is the group's most significant water user, a further operational questionnaire was completed. This questionnaire identified three Illovo sites not previously reported as operating in areas of water stress. <p>The group-level assessment supplemented the range of tools and methodologies already used by our businesses to understand their operational water risks and the stress levels of the basins in which they operate. Based on the results of both sets of tools, as well as these discussions with the individual businesses and the additional operational questionnaire, we identified the sites that withdraw water from areas of high water stress.</p> <p>Our businesses operating in other water basins continue to address water risk as relevant to their operations and local catchment requirements. As Illovo accounts for a significant proportion of the Group's total water, abstraction and conservation, use and availability are identified as material issues to the business. Illovo's key focus area is how to ensure "more crop per drop". As part of its water aspiration, Illovo is converting its furrow and sprinkler systems to more efficient subsurface drip irrigation and looking to produce more cane, sugar and downstream products per drop of water.</p> <p>ABF uses the following approach when determining the comparative thresholds:</p> <ul style="list-style-type: none"> Much higher: > 10% Higher: > 5% but < 10% About the same: between -5% and 5% Lower: < -5% but > -10% Much lower: < -10%

W-FB1.2e/W-AC1.2e

(W-FB1.2e/W-AC1.2e) For each commodity reported in question W-FB1.1a/W-AC1.1a, do you know the proportion that is produced/sourced from areas with water stress?

Agricultural commodities	The proportion of this commodity produced in areas with water stress is known	The proportion of this commodity sourced from areas with water stress is known	Please explain
Sugar	Yes	Yes	<p>All of AB Sugar's facilities monitor the status of the basins in which they operate and when required, respond to changes in the stress levels. In response to water scarcity issues, many of Illovo's operations invest in projects designed to increase water efficiency. Projects to convert existing irrigation systems to drip irrigation, which is more effective and efficient in terms of water use, are underway in Malawi, Zambia and eSwatini.</p> <p>Illovo's sugar operations in southern Africa account for 99.6% of ABF's total volume of water abstracted for own operations from water-stressed areas. Water conservation, use and availability have all been identified as material issues to the business. Consequently, Illovo's sustainability framework includes water governance criteria. Two of the key objectives of the sustainability framework are to reduce water consumption per unit of production and to review wastewater management to identify opportunities for improvement.</p> <p>Illovo's key focus is to ensure "More crop per drop". As part of its water aspiration, Illovo is investing in upgrading current sprinkler technology, investing further in drip irrigation in locations including Nchalo in Malawi and aiming to produce more cane, sugar and downstream products per drop of water.</p>
Other commodities from W-FB1.1a/W-AC1.1a, please specify (Cotton)	Not applicable	No, not currently but we intend to collect this data within the next two years	We recognise the importance of understanding the proportion of cotton sourced from water stressed areas due to the water intensity of the commodity and the impact cotton has on ABF's revenue. Primark has initiated a project that investigates the volume of cotton sourced from areas of water stress.
Other commodities from W-FB1.1a/W-AC1.1a, please specify (Wheat)	Not applicable	No, we do not have this data and have no plans to obtain it	Wheat is sourced primarily by our bakeries, other grocery businesses and agriculture business. As less than 10% of our revenue is dependent on wheat, and due to the costs associated therewith we have not undertaken a water stress assessment on this commodity. Therefore, we do not have a group wide figure for the proportion of wheat originating from water stressed areas. However, our relevant businesses are aware of the water risks in their supply chain and address these through tailored approaches.

W-FB1.2f/W-AC1.2f

(W-FB1.2f/W-AC1.2f) What proportion of the produced agricultural commodities reported in W-FB1.1a/W-AC1.1a originate from areas with water stress?

Agricultural commodities	% of total agricultural commodity produced in areas with water stress	Please explain
Sugar	51-75	To obtain this figure, we have used data supplied by our AB Sugar sites for their total product tonnage, including co-products and by-products which includes molasses, animal feed, agricultural fertilizer and topsoil. The amount of product output is then calculated from the sites identified as located in water stress sites. Compared with last year, there is a 46% increase in the amount of sugar and co-/by-product output from areas of water stress. Other methodologies and internationally recognised water stress tools are used internally which provide more detailed results.

W-FB1.2g/W-AC1.2g

(W-FB1.2g/W-AC1.2g) What proportion of the sourced agricultural commodities reported in W-FB1.1a/W-AC1.1a originate from areas with water stress?

Agricultural commodities	% of total agricultural commodity sourced from areas with water stress	Please explain
Sugar	51-75	Our sugar businesses work closely with their sugar suppliers and therefore they know the basins from which their suppliers source water for irrigation. At an AB Sugar level, we are working with our individual businesses to consolidate and harmonise this information, noting that various tools are used to identify water stress basins, and then validate the findings. However, as the majority of sugar beet and cane is sourced from local farmers we have made the assumption that the percentage of sugar sourced from areas of water stress is equivalent to the percentage of sugar produced in areas with water stress.

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	766563	Lower	Increase/decrease in efficiency	Fresh surface water is ABF's most significant source of water and includes water from wetlands, rivers and lakes. These sources are monitored at a site level to ensure that withdrawals are in line with extraction permits. The total volume of surface water is obtained from direct measurement and is reported by the local teams to ABF on an annual basis. The data is verified by ABF and assured by EY.
Brackish surface water/Seawater	Relevant	2058	Higher	Increase/decrease in business activity	The 6% increase in reported brackish or seawater this year is primarily driven by the re-starting of Vivergo Fuels from a mothballed position.
Groundwater – renewable	Relevant	17823	About the same	Increase/decrease in business activity	The increase of 2% in groundwater use this year is due to an increase in production at a specific site.
Groundwater – non-renewable	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	
Produced/Entrained water	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	<Not Applicable>	Produced or entrained water is monitored and measured by our relevant businesses. The data is not collated at group level.
Third party sources	Relevant	9652	Higher	Increase/decrease in business activity	There was an increase of 5% in the amount of water used from municipal and other third-party sources. A substantial portion of this increase is as a result of the re-starting of Vivergo Fuels from a mothballed position.

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	110639	Higher	Change in accounting methodology	Our sites annually report to ABF the actual volume of water discharged by destination. This data was verified by ABF and EY conducted limited assurance of the total volumes discharged. The data provided here is based on sourced data provided by our sites. Previously some of our sites were not reporting the specific destination of the water discharge; however they are now in a position to do so. The 9% increase in the volume of water discharged to fresh surface water is primarily due to improvements in the collation of data for the destinations of wastewater.
Brackish surface water/seawater	Relevant	1588	Much higher	Increase/decrease in business activity	Our sites annually report to ABF the actual volume of water discharged by destination. This data was verified by ABF and EY conducted limited assurance of the total volumes discharged. The data provided here is based on sourced data provided by our sites. This year we report a 17% increase in the volume of water discharged as brackish surface water or seawater, in part linked to an increase in production at one of Illovo's sites as well as to the re-starting of Vivergo Fuels.
Groundwater	Relevant	3935	Much higher	Change in accounting methodology	Our sites annually report to ABF the actual volume of water discharged by destination. This data was verified by ABF and EY conducted limited assurance of the total volumes discharged. The data provided here is based on sourced data provided by our sites. Previously some of our sites were not reporting the specific destination of the water discharge; however they are now in a position to do so. The 13% increase in the volume of water discharged to groundwater is primarily due to improvements in the collation of data for the destinations of wastewater.
Third-party destinations	Relevant	10557	Much lower	Change in accounting methodology	Our sites annually report to ABF the actual volume of water discharged by destination. This data was verified by ABF and EY conducted limited assurance of the total volumes discharged. The data provided here is based on sourced data provided by our sites. Previously some of our sites were not reporting the specific destination of the water discharge; however they are now in a position to do so. This year we report a 48% decrease in the volume of water discharged to third party destinations, primarily due to improvements in the collation of data for the destinations of wastewater.

W1.2j

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

	Relevance of treatment level to discharge	Volume (megaliters/year)	Comparison of treated volume with previous reporting year	Primary reason for comparison with previous reporting year	% of your sites/facilities/operations this volume applies to	Please explain
Tertiary treatment	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	Tertiary treatment is relevant for the majority of our sites and is monitored and managed at the site level. ABF does not collate this data from our sites.
Secondary treatment	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	Secondary treatment is relevant for many of our sites and is monitored and managed at the site level. ABF does not collate this data from our sites.
Primary treatment only	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	Primary treatment is relevant for some of our sites and is monitored and managed at the site level. ABF does not collate this data from our sites.
Discharge to the natural environment without treatment	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	ABF does not discharge to the natural environment without treatment.
Discharge to a third party without treatment	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	Discharge to a third party without treatment is relevant for some of our sites and is monitored and managed at the site level. ABF does not collate this data from our sites.
Other	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	Other methods of discharge may be relevant for some of our sites and is monitored and managed at the site level. ABF does not collate this data from our sites.

W1.3

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

	Revenue	Total water withdrawal volume (megaliters)	Total water withdrawal efficiency	Anticipated forward trend
Row 1	16997000000	796098	21350.3865102035	We anticipate that the forward trend is likely to be down as water-efficiency activities are implemented.

W-FB1.3/W-AC1.3

(W-FB1.3/W-AC1.3) Do you collect/calculate water intensity for each commodity reported in question W-FB1.1a/W-AC1.1a?

Agricultural commodities	Water intensity information for this produced commodity is collected/calculated	Water intensity information for this sourced commodity is collected/calculated	Please explain
Sugar	No, not currently but we intend to collect/calculate this data within the next two years	No, not currently but we intend to collect/calculate this data within the next two years	We collect and calculate the water intensity of our sugar at an individual business level
Other commodities from W-FB1.1a/W-AC1.1a, please specify (Cotton)	Not applicable	No, not currently but we intend to collect/calculate this data within the next two years	As part of our approach to water stewardship, we recognise the need to evaluate and manage the sustainability of our cotton supply. Primark's long-term ambition is for all the cotton in its supply chain to be sourced more sustainably. Over the next two years we will begin to assess the water intensity of materials used to make products by the business. Primary data will be used where available and life cycle assessment (LCA) data will be used where this information is not available.
Other commodities from W-FB1.1a/W-AC1.1a, please specify (Wheat)	Not applicable	No, not currently and we have no plans to collect/calculate this data within the next two years	We are not planning to calculate the water intensity of wheat at a group level in the next two years. Each business is aware of the water risks concerned with wheat and have agreed to purchase responsibly sourced wheat. Furthermore, our Supplier Code of Conduct sets out the standards we expect of our suppliers, including our requirement that they continually strive towards improving the efficiency and sustainability of their operations.

W1.4

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

	Products contain hazardous substances	Comment
Row 1	Yes	<Not Applicable>

W1.4a

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

Regulatory classification of hazardous substances	% of revenue associated with products containing substances in this list	Please explain
Candidate List of Substances of Very High Concern for Authorisation above 0.1% by weight (EU Regulation)	Don't know	ABF has dedicated HSE resources who have the technical skills and expertise to identify, assess and manage products that contain substances that are classified as hazardous by regulatory authorities. In addition, ABF takes seriously the environmental impact of the supplier factories in which its products are made.
Candidate List of Substances of Very High Concern (UK Regulation)	Don't know	ABF has dedicated HSE resources who have the technical skills and expertise to identify, assess and manage products that contain substances that are classified as hazardous by regulatory authorities. In addition, ABF takes seriously the environmental impact of the supplier factories in which its products are made.

W1.5

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

	Engagement	Primary reason for no engagement	Please explain
Suppliers	Yes	<Not Applicable>	<Not Applicable>
Other value chain partners (e.g., customers)	Yes	<Not Applicable>	<Not Applicable>

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
- Supplier impacts on water quality

Number of suppliers identified as having a substantive impact

% of total suppliers identified as having a substantive impact

Unknown

Please explain

Our Supplier Code of Conduct sets out the standards we expect of our suppliers, including our requirement that they continually strive towards improving the efficiency and sustainability of their operations. Where identified as material, our businesses engage with suppliers on water issues and monitor progress. For example, ABF's Spanish sugar business, Azucarera recognises that beet growing and sugar production are vital industries for large rural areas of Spain and for the sugar supply in Spain. Azucarera works in collaboration with field technicians, AIMCRA (Research Association for Improving the Sugar Beet Crop, in beet research and promotion) and Agroteo (in services for growers) to promote productive activity. As a further example, Primark is a member of SAC (Sustainable Apparel Coalition) and has introduced the Higg Index FEM (Facility Environmental Module) to its top 100 suppliers and their facilities representing approximately 80% of Primark's turnover.

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	Comment
Row 1	Yes, suppliers have to meet water-related requirements, but they are not included in our supplier contracts	<Not Applicable>

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

Unknown

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

Unknown

Mechanisms for monitoring compliance with this water-related requirement

On-site third-party audit

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

Retain and engage

Comment

Our Supplier Code of Conduct sets out the standards we expect of our suppliers, including our requirement that they continually strive towards improving the efficiency and sustainability of their operations. Where identified as material, our businesses engage with suppliers on water issues and monitor progress. For example, Primark is a member of SAC (Sustainable Apparel Coalition) and has introduced the Higg Index FEM (Facility Environmental Module) to its top 100 suppliers and their facilities representing approximately 80% of Primark's turnover. The FEM data is a holistic measure of a factory's sustainability performance and includes a water module which assesses its annual water consumption and management practices. In all, 1232 facilities completed the assessment in 2022. For the same cohort of suppliers Primark has conducted a water risk assessment, using WWF water risk filter. This work has allowed Primark to identify critical risk hotspots to guide future interventions.

W1.5d

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

Type of engagement

Innovation & collaboration

Details of engagement

Educate suppliers about water stewardship and collaboration

% of suppliers by number

1-25

% of suppliers with a substantive impact

100%

Rationale for your engagement

To ensure a continuous and sustainable cane supply, Illovo provides agronomy extension services to a number of smallholder farmers, through dedicated teams of

extension officers. Illovo assists with technical and material expertise and resources, such as dredging of canals, crop diversification and adaptation, pest and disease control, and maintenance of pumping equipment. In certain countries, Illovo also provides out-grower associations with inputs to farming operations at cost-price. At Illovo Tanzania, the Kilombero Growers Department have introduced an extension department with 24 extension staff fully employed with effect from February 2019. The extension staff help growers improve productivity and have visited approximately half of the existing growers. In addition, the Kilombero Sugar Company works closely with the Sugar Research Institute of Tanzania and the Government extension officers in driving productivity efficiencies into the production value chain.

Impact of the engagement and measures of success

In order to help sugar farmers in South Africa to improve yields, increase their incomes and provide a sustainable cane supply for the Illovo mill in Noodsberg, Illovo developed a comprehensive growing guide. With many growers having little formal education, the booklet provides simple step-by-step guidance and employs infographics to illustrate the necessary actions. These are also summarised on a single-page, highly visual 'roadmap'. The materials also raise awareness of the guidelines for sugar cane production, such as the South African Sugarcane Research Institute (SASRI) standards. The roll-out of the guide tripled attendance at Illovo's field days, and more growers are now applying for supply agreements. The booklet will now be distributed to all Illovo operations across southern Africa, while a version suitable for schools and a mobile app for use in the field are also being considered.

Comment

Please note that the percentages reported for "% of suppliers by number" and "% of suppliers with a substantive impact" refer to our Illovo sugar business in Tanzania only and not to ABF Group. Illovo provides agronomy extension services to all the growers at Kilombero representing 100% of suppliers with a substantive impact in this location. The % of growers has been used to estimate the "% of suppliers by number". Our Illovo sugar businesses in Tanzania account for around 1% of ABF revenues.

Type of engagement

Innovation & collaboration

Details of engagement

Educate suppliers about water stewardship and collaboration

% of suppliers by number

1-25

% of suppliers with a substantive impact

Unknown

Rationale for your engagement

Primark's long-term ambition is for all the cotton in its supply chain to be sourced sustainably with a commitment that 100% of the cotton in its clothes will be sourced from the Sustainable Cotton Programme, organic or recycled by 2027 and to make all its products from recycled fibres or more sustainably sourced materials by 2030. Primark's Sustainable Cotton Programme trains farmers on using fewer chemical pesticides and fertilisers and less water, lowering input costs and thereby improving profits for the farmer. We refer here to farmers within Primark's supply base.

Impact of the engagement and measures of success

Primark launched the first pilot in India in 2013 with 1,251 female farmers, in collaboration with agronomic experts, Cotton Connect, and the grassroots organisation, the Self-Employed Women's Association, with the aim of reducing Primark's impact on the environment, improving the livelihoods of farmers and changing the way the business sources its cotton. Equipping smallholder farmers with the knowledge and means to grow cotton using more sustainable farming methods has resulted in improved cotton yields.

PSCP has successfully trained 252,800 farmers in more sustainable farming methods. Cotton farmers are trained over four years to address an over-dependence on chemical fertilizers and pesticides in order to reduce the environmental impact of cotton farming. On average, farmers in the programme use 40% less chemical pesticides and fertilisers and 10% less water used by acre, with a 14% increase in yield and growth in profits by 200%. Percentages are in comparison to control farmers. Average results from the Primark Sustainable Cotton Programme in India, 2013-2019, based on results from 6,274 programme farmers and 363 control farmers over the same period.

PSCP has now expanded into other countries, including Pakistan and Bangladesh, where Primark is working with CottonConnect and local partners. Overall, Primark has committed to train 275,000 farmers by the end of 2023, equipping them with the knowledge and means to grow cotton using more sustainable farming methods.

Comment

Please note that the percentages reported for "% of suppliers by number" refer to Primark only and are not related to the ABF Group. Primark is ABF's biggest division accounting for 45% of total Group revenues.

Type of engagement

Innovation & collaboration

Details of engagement

Educate suppliers about water stewardship and collaboration

% of suppliers by number

Less than 1%

% of suppliers with a substantive impact

Unknown

Rationale for your engagement

In Pakistan, where Westmill Foods source basmati rice, water has become an increasingly contentious issue because agriculture uses more than 90% of the country's fresh water. Traditional rice-growing methods are particularly water-intensive and release a significant amount of GHGs into the atmosphere. Traditional rice cultivation is estimated to be responsible for 10% of the world's methane emissions.

Together with their partners, the Swiss Development Corporation (SDC), Helvetas and their supplier Galaxy Rice, Westmill Foods is encouraging positive change in the Punjab region by promoting the standards of the Sustainable Rice Platform protocol (SRP), – a multi-stakeholder partnership set up by the United Nations. Helvetas and Galaxy Rice provide training in SRP techniques, and Westmill purchases the rice produced. The training is wide-ranging and benefits both farmers and their communities. It covers the use of water-saving technologies including land laser levelling and alternate wetting and drying, as well as other interconnected topics such as pesticide management and agribusiness techniques.

Impact of the engagement and measures of success

By the end of the 2021/22 reporting year impressive results had been achieved:

- 30% reduction in water use
- 13% increase in yields
- 21% increase in net incomes

- 48% reduction in GHG emissions

After starting out with 600 farmers, there are currently 800 farmers who are now involved. The project has been expanded until 2025 with an ambition to reach 1,200 farmers. Westmill Foods has also explored how to replicate this approach in Thailand.

Comment

Please note that the percentages reported for "% of suppliers by number" refer to Westmill Food only and are not related to the ABF Group. Our Westmill Food businesses account for around 1% of total Group revenues.

Type of engagement

Innovation & collaboration

Details of engagement

Engage with suppliers to advocate for policy or regulatory change to address WASH provision challenges

% of suppliers by number

Unknown

% of suppliers with a substantive impact

Unknown

Rationale for your engagement

As part of Twinings' Sourced with Care programme, we accelerate the provision of water and sanitation by supporting the building of safe, suitable and long-lasting toilets and water supplies on tea gardens as well as raising awareness on hygiene from handwashing to menstrual health. Many people in remote communities where we source from, lack access to adequate water and sanitation. This can lead to health issues that affect people's lives and wellbeing, as well as hamper their economic development. Our aim is for people to have adequate access to water and sanitation in every tea garden we source from by 2025. We prioritise areas where there is the largest gap and complements the work of local governments and producers.

The steep terrain of Darjeeling makes the provision of water and sanitation an on-going challenge. We partnered with WaterAid to transform the lives of 2,870 people in two tea estates in the region, by providing a piped water supply system, sufficient toilets as well as promoting hygiene education in villages and schools. In Assam, the rising population on tea estates, and among non-tea-workers, means that the industry has not been able to provide adequate water and sanitation facilities to all. Since 2017, we have been building safe sanitary latrines. We have also extended our work to Sri Lanka where we supported the provision of water and sanitation infrastructures.

Impact of the engagement and measures of success

Our partnership with WaterAid helped demonstrate the return on investment from investing in water, sanitation and hygiene across various sectors. We saw a 27% increase in productivity attributed to WASH on our suppliers' tea estates in Darjeeling.

In addition:

- 2900 latrines built, which provided access to safe and dignified sanitation to over 18,600 people
- 320 water points built enabling access to clean drinking water for over 20,000 people
- On participating tea gardens in Darjeeling, 74% of households now have a water source close by, compared to 55% at the start of the project
- 76.4% of mothers and adolescents now live in households that have improved sanitation and safe drinking water sources.

Comment

Type of engagement

Innovation & collaboration

Details of engagement

Educate suppliers about water stewardship and collaboration

% of suppliers by number

1-25

% of suppliers with a substantive impact

100%

Rationale for your engagement

ABF's Spanish sugar business, Azucarera recognises that beet growing and sugar production are vital industries for large rural areas of Spain and for the sugar supply in Spain. Azucarera works in collaboration with field technicians, AIMCRA (in beet research and promotion) and Agroteo (in services for growers) to promote productive activity. For over 50 years Azucarera has been supporting and co-financing with our growers the work of the Research Association for Improving the Sugar Beet Crop (AIMCRA), closely cooperating with their researchers and technical staff in testing and analysing the performance of new beet varieties and products for pest control and plant disease, among other initiatives.

Impact of the engagement and measures of success

We have engaged our beet growers across a number of areas including:

- Precision agriculture: Progress in precision agriculture using Big Data and remote sensing systems. This technique offers a new approach to agricultural work and the most important aspects of crop management, such as nitrogen management, water stress, state of ripening and the sugar content of the beet.
- Irrigation recommendations: These recommendations take into account the state of the plant and land and use information from satellites and local weather stations to optimise the irrigation systems used.
- Fertilization of areas through a pilot project: To establish the nitrogen curve and allow growers to adopt decisions on fertilization based on the nutritional state of the crop.
- Boosting of solar irrigation: We have continued to promote solar irrigation through a campaign with growers and visits to fields in which these systems have already been implemented and are fully operational.
- Efficient control of disease: Joint projects with AIMCRA to test beet species resistant to beet leaf spot.
- Training for beet growers: Jointly with AIMCRA and Agroteo, we provide training courses in pursuance of the training requirements established in the "Agri-Environment and Climate Aids".
- "Irrigation advice" and other initiatives: Through this plan, among other actions, we send our growers weekly indications through an app of how much water the beet needs.
- Free energy counselling: With the aim of helping growers reduce their energy consumption. In addition, over the past year we renegotiated the rates they are charged.
- Advice on the use of nitrogen and other fertilizers: To avoid as far as possible an excessive use of pesticides in keeping with the goals set in the European Green Deal.
- Improvement of soil quality: We are collaborating with others in the testing of different actions to increase and improve soil microbiota. We already have an integrated production method in this regard for La Rioja and Andalusia.

Comment

Please note that the percentages reported for "% of suppliers by number" and "% of suppliers with a substantive impact" refer to our Azucarera only and is not related to the ABF Group. All the Azucarera growers are engaged through the joint projects with AIMCRA representing 100% of suppliers with a substantive impact in this location.

Type of engagement

Innovation & collaboration

Details of engagement

Encourage/incentivize suppliers to work collaboratively with other users in their river basins toward sustainable water management
Educate suppliers about water stewardship and collaboration

% of suppliers by number

1-25

% of suppliers with a substantive impact

100%

Rationale for your engagement

At Illovo's site in Malawi, the effects of climate change are consistently being felt, with increased temperatures, erratic rainfall, and droughts now common in the country. All this can significantly impact agriculture. Our growers have experienced particularly challenging circumstances in recent years with Cyclone Idai (2019), Tropical Storms Ana and Gombe (2022), as well as two consecutive years of drought in 2016 and 2017.

In climates like this, sugarcane cannot be cultivated without irrigation, and so growers in Malawi have become dependent on equipment to help them lift water from rivers and canals. But this infrastructure is not only expensive to maintain and operate, it is also vulnerable to flood damage, and subject to unreliable and increasingly costly energy sources.

While climate change presents many challenges, partnerships can bring valuable solutions. In Malawi, Phata Co-operative, a smallholder farmer-owned organisation made up of 1,130 members, has been working in partnership with Agricane, an agricultural engineering and development company, to support our growers to deliver in the face of these challenges.

Impact of the engagement and measures of success

With the help of Agricane, Phata has worked to transform the land of over 1130 smallholder farmers into a profitable, high-yielding and sustainable project. With their combined space, ambition and expertise, the two organisations have helped farmers to make the most of their land, discovering and investing in innovative methods that can overcome the challenges of climate change – and ultimately securing all-year-round commercial production. The growers have also incorporated other crops into their project – from kidney beans to mangoes – which ensures food security in their community, and makes them more resilient to climate change and everyday shocks.

Illovo Sugar Africa has a long-term agreement with the partnership to buy their sugar, which has helped to create a long-standing and reliable income for many, and has transformed the livelihoods of those in and around the community. As Phata grows its products, it does so with a focus on biodiversity and has been awarded a silver equivalence FSA 3.0 for its excellent environmental practices. The co-operative is dedicated to protecting and encouraging the indigenous flora and fauna through rehabilitation of drainage lines, pivot fallout areas and woodlots that increase the presence of valuable beneficial pest predators.

Comment

All the Phata Co-operative farmers are engaged representing 100% of suppliers with a substantive impact in this location.

Please note that the percentages reported for "% of suppliers by number" and "% of suppliers with a substantive impact" refer to our Illovo sugar businesses in Malawi only and is not related to the ABF Group. The % of grower base has been used to estimate the "% of suppliers by number".

Our Illovo sugar businesses in Malawi account for around 1% of total Group revenues.

W1.5e

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

Type of stakeholder

Other, please specify (Industry body)

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

The values of ABF include acting with integrity and progressing through collaboration. In order to respect the environment, we recognise that by working with others, we will be able to help ensure a sustainable supply of natural resources upon which our business relies, and the local communities in which we reside requires. Our businesses are entrusted to make decisions locally which are commercially relevant but also important for the long-term benefit. As such, they determine how to prioritise engagements with customers and other value chain partners.

As an example, British Sugar partners with the British Beet Research Organisation (BBRO) whose mission statement is to commission and implement research and technology transfer designed to increase the competitiveness and profitability of the UK sugar beet industry in a sustainable and environmentally acceptable manner. In the UK, the BBRO launched the Brilliant Basics campaign with British Sugar, AB Sugar and grower representative NFU Sugar during 2019. This is expected to help British Sugar's 2,500 growers in the East of England and East Midlands to maximise yields. Easy-to-follow messages advice, based on BBRO research, is shared through the British Sugar Beet Review, and feedback on how growers are interpreting and acting on the information is gathered through surveys, webinars and direct conversations.

Impact of the engagement and measures of success

The delivery of knowledge to the industry is a key part of the BBRO mission and the BBRO has changed the way it works with its growers by moving away from large outdoor events and holding more smaller focussed activities. This has seen interaction with growers increase and a closer working relationship with crop advisors.

Demonstration sites were located on 5 farms, providing local hubs for BBRO, growers and agronomy knowledge exchange throughout the 2021 season. In addition, the BBRO publishes an annual Sugar Beet Reference Book which provides technical advice on harvest techniques, soil management and crop nutrition and protection. This partnership allows British Sugar to engage with their growers on best practices and strengthen the resilience of British sugar beet agriculture.

British Sugar supports the work of the BBRO and, for the past eight years, all the farms and growers supplying the company with sugar beet are fully certified Red Tractor members. BBRO works hard on behalf of the industry to find new and innovative solutions to help farmers grow a sustainable and healthy sugar beet crop. It actively engages with scientists across Europe through the International Institute of Sugar Beet Research (IIRB) but also looks to other industries to see where we can bring in existing technology to our industry.

W2. Business impacts

W2.1

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

Yes

W2.1a

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

Country/Area & River basin

Zambia	Zambezi
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Type of impact driver & Primary impact driver

Acute physical	Drought
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Primary impact

Supply chain disruption

Description of impact

Zambia has suffered from droughts and prolonged dry spells in recent years, impacting agricultural production. Illovo's Nakambala estate in Zambia is located in the south-western region alongside the Kafue River. To support the cultivation of sugar cane for the sugar manufacturing process, water is withdrawn from the river under the terms of an extraction licence, and the water is used for irrigation as well as for factory heating, cooling and cleaning.

The 2015/2016 drought experienced in Zambia was followed by another severe drought in 2018/2019. These droughts had an impact on hydro power generation and triggered extensive periods of electricity load-shedding that hindered the smooth operation of the production facilities and also adversely affected the ability to fully irrigate the crop as required. There was a 7% drop in cane production as a result of load shedding. Nakambala then experienced a wetter than normal 2020/2021 season. This erratic nature of rainfall and its impact on hydro power generation creates operational challenges for Illovo Nakambala.

Primary response

Adopt water efficiency, water reuse, recycling and conservation practices

Total financial impact

Description of response

Zambia Sugar is committed to working with strategic stakeholders to manage the Kafue catchment area with a clear focus on providing long-term water security. This is a primary water catchment area which serves local communities downstream of the Nakambala plant and other large-scale livestock and agricultural enterprises. The company has implemented a four-point mitigation plan which includes standard operating procedures to improve water efficiency in both fields and factory; acting as agents for change, both internally and externally; improving the quality of water returned for re-use; and a governance framework which includes regular steering committee oversight of progress and management review.

Zambia Sugar has commenced the implementation of the AWS International Water Stewardship Standard which defines water stewardship as "the use of water that is socially and culturally equitable, environmentally sustainable and economically beneficial, achieved through a stakeholder-inclusive process that includes both site- and catchment-based actions". The implementation has also required the signing of a Memorandum of Understanding with the WWF (World Wildlife Fund) Zambia in late 2021 which commits both organisations to "monitor and evaluate the impact of the joint activities in promoting AWS approach within the Kafue Flats Joint Action Group (KFJAG) and externally to attain water security and respond to climate impacts".

Country/Area & River basin

Malawi	Zambezi
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Type of impact driver & Primary impact driver

Acute physical	Cyclone, hurricane, typhoon
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Primary impact

Reduction or disruption in production capacity

Description of impact

Malawi experienced a number of tropical storms along with heavy rains and subsequent flooding in the first quarter of 2022. Nchalo estate was dominated by extreme weather conditions negatively affecting agricultural yield and crop removal performance. Nchalo experienced a record dry month of December 2021, followed by tropical storm Ana in January 2022. Two further tropical depressions, Batsirai and Gombe, followed causing further flood-related infrastructure damage. The crop yield was negatively impacted by 5% due to the flooding as well as the time taken to repair the damaged irrigation infrastructure. The cane fields that were submerged during the floods accumulated abnormal silt deposits, mud and sand deposits on the cane stalks that were inadvertently delivered to the factory despite special harvesting mitigation measures. This mud impacted boiler operations, in turn causing low and varying steam pressures, which led to inconsistent factory operations with poor sugar recovery. The flooding also impacted road infrastructure and households within the estate villages. Illovo responded swiftly to the flooding including the repair of roads and damaged infrastructure. The estate also provided immediate relief to estate households and surrounding communities, including the provision of tents, the distribution of relief items and the supply of potable water. In addition, Illovo refurbished a maize mill to enable communities to process maize for food.

Primary response

Develop flood emergency plans

Total financial impact

13000000

Description of response

As part of the implementation of flood emergency plans, the mill at Nchalo has identified further flood mitigating strategies, leading to modifications of some operations as well as the adjustment of standard operating procedures to better equip the estate to cope with any future flood related challenges. The figure reported here is the total impact of the floods experienced at Illovo Nchalo and includes direct costs incurred, including mechanical, electrical and civil works, wet bagasse handling costs, business interruption costs and various cane-related costs and losses.

Country/Area & River basin

Australia	Other, please specify (Brisbane River)
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Type of impact driver & Primary impact driver

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

Reduction or disruption in production capacity

Description of impact

During the reporting period, flooding in SE Queensland impacted GWF's Mauri Flour Mill at Moorooka resulting in facility damage, stock losses and business interruption. The site was fully inoperable following the flood, with significant clean up activity and repair work required. The site was able to stagger return to operations as different equipment and processes were re-instated. It is noteworthy that the impact of the 2022 flooding was less, in terms of time and cost to recover, than the impact of the previous flooding in 2011. This is a result of the efficiencies in response planning and execution.

Primary response

Amend the Business Continuity Plan

Total financial impact

6000000

Description of response

GWF's response to the 2022 flooding included:

- developing risk management and asset protection strategies,
- establishing business continuity and emergency response plans,
- monitoring and tracking river levels during significant rainfall events,
- communicating flood warnings within the business and to key stakeholders as necessary.

In addition, flood protection and preparation measures have been adopted. These include improved site design, minimising critical systems located at ground level and ensuring that key equipment can be raised or lifted to avoid inundation.

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	Fines, enforcement orders, and/or other penalties	Comment
Row 1	Yes	Fines, but none that are considered as significant Enforcement orders or other penalties but none that are considered as significant	

W2.2a**(W2.2a) Provide the total number and financial value of all water-related fines.****Row 1****Total number of fines**

4

Total value of fines

11664

% of total facilities/operations associated

0.6

Number of fines compared to previous reporting year

About the same

Comment

In this reporting year four environmental fines were received. These were largely due to the treatment of wastewater. Last year five wastewater-related fines were received. These are issues that are being addressed by the relevant sites across the ABF group with targeted support to the specific sites. We regret any issues caused as a result of these incidents, and always prioritise timely remedial action to ensure we meet the standards expected of us by our neighbours and other stakeholders, as well as the regulations under which we operate.

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	Please explain
Row 1	Yes, we identify and classify our potential water pollutants	Each ABF facility has dedicated HSE resources who have the technical skills and expertise to identify, assess and manage potential water pollutants in their direct operations and factories. Most ABF factories discharge their industrial wastewater into municipal treatment systems under strict discharge limits, which include total volume, BOD, COD, suspended solids, grease/oil/fats and pH levels. The wastewater from our food factories such as bakeries is mostly biologically degradable as the ingredients are mostly natural substances such as wheat, sugar and yeast which break down naturally. To speed up the process the municipal systems introduce selected bacteria to ensure adequate treatment for the large volume of wastewaters.	<Not Applicable>

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

Other, please specify (Discharges from food factories)

Description of water pollutant and potential impacts

Our food factories discharge industrial wastewater into municipal treatment systems under strict discharge limits including total volume, BOD, COD, suspended solids, grease/oil/fats and pH levels. The wastewater from our food factories such as bakeries is mostly biologically degradable as the ingredients are mostly natural substances such as wheat, sugar and yeast which break down naturally. To speed up the process the sewage systems introduce selected bacteria to ensure adequate treatment for the large volume of wastewaters. Therefore, the concentrations limits applied to these factors are there to protect the digesting bacteria so that they operate to the desired level of efficacy.

Our typical food factories will have a two-pronged approach to preventing pollution. Firstly, in order to not exceed their permitted discharge concentrations, they minimise any polluting materials entering their wastewater. Secondly, they ensure that there is sufficient monitoring, quality controls and treatment on site so that whatever is eventually discharged complies with the terms of its discharge permit. Any treatment could use one or more of a range of technologies including settlement of solids, aerobic digestions and anaerobic digestion. The selection of technologies addresses the local aquatic sensitivities and water quality objectives.

Value chain stage

Direct operations

Actions and procedures to minimize adverse impacts

Assessment of critical infrastructure and storage condition (leakages, spillages, pipe erosion etc.) and their resilience
Discharge treatment using sector-specific processes to ensure compliance with regulatory requirements

Please explain

Our food factories need to rely on the expertise of the regulatory bodies to determine what is safe to be discharged. The role of the factories is therefore to ensure that those discharge limits are not exceeded. Lack of or ineffective wastewater treatment could lead to exceeding the limits applied to volume, chemicals, solids, pH levels and other determinants and as a result impact the balance of the receiving watercourse. For example, AB Mauri's production processes require a significant amount of water to produce yeast. AB Mauri established an effluent steering group to develop tools and standards to manage its water use. Through this committee, AB Mauri asked its sites to predict future effluent legal requirements so that any operational upgrades can be future-proofed. At the Pederneiras site in Brazil, AB Mauri is in the process of commissioning an upgraded effluent treatment plant so that it can meet legal requirements.

Water pollutant category

Other, please specify (Fertilizers)

Description of water pollutant and potential impacts

Nitrates, ammonia and phosphates from fertiliser into surface and ground water have the potential to negatively impact aquatic life and environmental habitats by causing potential algal blooms and resultant oxygen depletion.

Value chain stage

Direct operations
Supply chain

Actions and procedures to minimize adverse impacts

Provision of best practice instructions on product use

Please explain

To manage our fertiliser related risks, we follow the recommendations of soil and leaf samples analysed by reputable laboratories and use enhanced nitrogen carriers where necessary. As an example, Azucarera which collaborates with AIMCRA on fertilization and the adjustment of the use of fertilizers based on annual soil analyses in the fields to be sown. This helps to reduce the use of nitrogen fertilizers, avoiding the negative effects of overuse on the crops and nitrite soil contamination.

Water pollutant category

Pesticides

Description of water pollutant and potential impacts

Insecticides utilised as insect control for our sugar cane crops. Pesticides have toxic properties and have the potential to contaminate ground and surface water sources, negatively affecting ecosystems and biodiversity. In Illovo, previously the spraying of chemicals to control pests like Yellow Sugarcane Aphids and Thrips was done via aerial application. However, with the conversion to sub-surface drip irrigation in Nchalo, Malawi, Illovo is now in a position to apply these chemicals through the irrigation system. In particular, this is via sub-surface irrigation, reducing the risk of contamination to the environment considerably. As the risk of runoff is reduced, so is the

environmental risk of polluting the wetlands and water sources on the sugar estate.

Value chain stage

Direct operations

Actions and procedures to minimize adverse impacts

Provision of best practice instructions on product use

Please explain

AB Sugar promotes sustainable agricultural practices across all our operations, including the conversion to sub-surface drip irrigation where financially feasible. AB Sugar promotes the use of the best available registered and recommended insecticides and apply these according to the manufacturer standards. As an example, Azucarera in Spain collaborates with AIMCRA on disease and pest control. Dosage has been adjusted to cut back on the use of herbicides, insecticides and fungicides to control weeds, pests and diseases. This reduces the quantity of product used, the associated costs of production and the exposure to and adverse effects of excessive use on the crops, growers and the environment. Integrated pest control was also included within crop rotation, as well as use of the type of product best suited to the particular conditions of each area to control plant disease.

Water pollutant category

Other, please specify (Wastewater discharge quality)

Description of water pollutant and potential impacts

Primark uses industry tools to restrict the use of almost 300 chemicals during the manufacture of its products. Its Chemical Management Programme is aligned to industry best practice.

Value chain stage

Supply chain

Actions and procedures to minimize adverse impacts

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

Please explain

Primark's commitment to work with the ZDHC Foundation since 2015 strengthens the industry-wide approach to managing chemicals sustainably throughout the global supply base. To help verify conformance to ZDHC's Manufacturing Restricted Substances List (MRSL) and improve the quality of discharged water, Primark requires facilities within our supply chain to test their wastewater to the ZDHC Wastewater Guidelines. In the reporting year, Primark scaled its number of facilities in Bangladesh testing wastewater to 76. 68 of the facilities achieved ZDHC Foundational level. We have worked with the other 8 facilities and remediated any issues identified. Primark is currently scaling wastewater testing in other key sourcing regions.

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

Coverage

Full

Risk assessment procedure

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

Frequency of assessment

More than once a year

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Enterprise risk management

International methodologies and standards

Other

Tools and methods used

Environmental Impact Assessment

Internal company methods

External consultants

Other, please specify (Independent river basin studies)

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

Implications of water on your key commodities/raw materials

Water regulatory frameworks

Status of ecosystems and habitats

Access to fully-functioning, safely managed WASH services for all employees

Stakeholders considered

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

Comment

The Board is accountable for effective risk management, for agreeing the principal, including emerging, risks facing the Group and ensuring they are successfully managed by the businesses. The process for identifying, assessing and managing climate-related risks, and water-related risks, is the same as for other risks within the Group and sits with the business where the risk resides. These risks are collated and reviewed at both a business and divisional level, and then any material risks are reported to the Director of Financial Control who reviews the key risks with the Board.

Climate risk is considered a material risk to the Group and is included in the principal risk 'Our use of natural resources and managing our environmental impact' of the 2021 Annual Report, recognising the impact it may have on the business in the short, medium and long term. The Board also monitors the Group's exposure to risks as part of performance reviews with each business.

In our 2021 Annual Report and Accounts, we outlined a 2022 action plan for more in-depth assessments on the identification, assessment and management of climate-related risks and opportunities. We have now conducted a comprehensive risk assessment, across the supply chain, focused on climate-related risks and opportunities at a divisional level, aligned with the risk management processes at ABF and our decentralised structure. In our assessment of climate-related business risks we recognise that the cumulative impacts of changes in weather and water availability could affect our operations at a Group level.

Value chain stage

Supply chain

Coverage

Partial

Risk assessment procedure

Water risks are assessed in an environmental risk assessment

Frequency of assessment

Not defined

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
Other

Tools and methods used

Environmental Impact Assessment
Internal company methods
External consultants
Other, please specify (Engage with management catchment agencies)

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
Implications of water on your key commodities/raw materials
Water regulatory frameworks
Status of ecosystems and habitats
Access to fully-functioning, safely managed WASH services for all employees

Stakeholders considered

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

Comment

If identified as a material issue through their risk and opportunity assessments, and considered important depending on the nature of the raw material, security of supply and geography, our businesses will engage with their suppliers. For example, our sugar businesses work with growers to minimise soil damage and compaction which can affect performance and yields. This includes selecting fields carefully for the right soil type and developments in weight reduction and tyre technology on modern harvesters. Our agronomists seek ways to minimise the amount of soil left on the beet during harvesting, storing and transportation.

Value chain stage

Other stages of the value chain

Coverage

Partial

Risk assessment procedure

Water risks are assessed as a standalone issue

Frequency of assessment

Not defined

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
Databases

Tools and methods used

Other, please specify (SMETA Audits)

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
Implications of water on your key commodities/raw materials
Water regulatory frameworks
Status of ecosystems and habitats
Access to fully-functioning, safely managed WASH services for all employees

Stakeholders considered

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

Comment

Maintaining brand reputation and value for our customers are of primary importance and therefore, included in our water management, we manage water risks which may impact reputation and / or have an impact on costs. On a business to business commercial basis, a number of our businesses share information about operational water use with their customers. For certain products, customers have been consulted on their use of water with the product in order to provide us with insights into potential water reduction strategies in our value chain. As a further example, Illovo benefits from independent external third-party sustainability assessments conducted on behalf of their customers. In South Africa, Illovo operations have been assessed against the Pro Terra standard on behalf American Sugar Refining Inc (ASR).

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
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	Rationale for approach to risk assessment	Explanation of contextual issues considered	Explanation of stakeholders considered	Decision-making process for risk response
Row 1	<p>Our process for identifying, assessing and responding to water-related risks and opportunities is integrated into our group-wide approach to risk management. The delivery of our strategic objectives and the sustainable growth (or long-term shareholder value) of our business, is dependent on effective risk management.</p> <p>We regularly face business uncertainties and it is through a structured approach to risk management that we are able to mitigate and manage these risks and embrace opportunities when they arise.</p> <p>The diversified nature of our operations, geographical reach, assets and currencies are important factors in mitigating the risk of a material threat to the Group's sustainable growth and long-term shareholder value. However, as with any business, risks and uncertainties are inherent in our business activities. These risks may have a financial, operational or reputational impact.</p> <p>The Board is accountable for effective risk management, for agreeing the principal, including emerging, risks facing the Group and ensuring they are successfully managed by the businesses. The Board undertakes a robust annual assessment of the principal risks, that would threaten the business model, future performance, solvency or liquidity. The Board also monitors the Group's exposure to risks as part of the performance reviews conducted at each Board meeting. Financial risks are specifically reviewed by the Audit Committee.</p>	<p>Water is a primary resource for the majority of our businesses particularly those in the sugar, cotton, yeast, baking and pharmaceutical industries. Consequently, understanding quality and quantity risks at the local level is critical.</p> <p>Competition for water is an issue for a number of basins in which we operate. Where affected our businesses are represented in catchment bodies or basin management agencies.</p> <p>The availability of water has a direct bearing on the production of some of our key commodities such as sugar, tea, wheat and other grocery ingredients. For example, wheat and sugar beet in the UK is rain fed with approximately 3% reliance on irrigation and therefore the crop may be affected by drought conditions.</p> <p>Our businesses operate within a water and wastewater regulatory framework and tariff system. As such, monitoring changes and engaging with national and local regulators is important to anticipate potential impacts to our operations.</p> <p>ABF's water risk assessment reviews ecosystems at facility level. Some businesses rely on ecosystem services such as water purification, flood defence and pollination. The loss or degradation of these may affect production efficacy and operating costs while some businesses support ecosystem conservation as part of their sustainability objectives.</p> <p>ABF businesses provide fully-functioning WASH services for all employees and contractors and these are assessed by many of our businesses as part of their internal risk assessments.</p>	<p>Maintaining brand reputation and value for our customers are important and therefore included in our water management, we manage water risks which may impact reputation and / or have an impact on costs.</p> <p>ABF businesses using, for example, large volumes of water, water which requires intensive cleaning or heating incorporate employee safety into their water management.</p> <p>Increasingly investors ask for our water data and management approach and as such, investor concerns are increasingly included in water risk assessments.</p> <p>We share water with others in the local community. Their needs and impacts on the water sources are vital to our long-term assessments of water availability and quality for all.</p> <p>We engage with NGOs on a range of environmental issues including water use and quality. We benefit from their local knowledge and networks.</p> <p>Our businesses operate within a water and wastewater regulatory framework, including permits and licenses for water abstraction and discharge allowances. The concerns and plans of local regulators are critical within our water risk assessments.</p> <p>Engagement with local water utilities and suppliers is critical for our licence to operate. Understanding their plans for short and long-term water management is vital.</p> <p>Our businesses engage with their suppliers on water issues where it is fundamental for the growth and sustainable supply of raw materials or for production.</p>	<p>Our decentralised business model empowers the management of our businesses to identify, evaluate and manage the risks they face, on a timely basis, to ensure compliance with relevant legislation, our business principles and Group policies.</p> <p>Our business Chief Executives are empowered to determine the identification of and the prioritisation of mitigation of environmental impacts as a central aspect of their business plans, sharing learnings from the leaders in other Group businesses and from the Group and applying industry best practice. The Board reviews each division in-depth every year, and material ESG factors are part of the analysis and discussion.</p>

W4. Risks and opportunities

W4.1

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

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

W4.1a

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

The delivery of our strategic business objectives and long-term shareholder value are of paramount importance to ABF and are dependent on effective risk management. An event, or series of events, resulting in the inability to deliver the strategic objectives of the business and long-term shareholder value would be considered an event that would have a substantive financial or strategic impact on our business. As with any business, risks and uncertainties are inherent in our business activities. ABF regularly faces business uncertainties, and it is through a structured approach to risk management that it is able to mitigate and manage these risks and embrace opportunities when they arise.

The Board has identified £65 million as a material financial impact threshold for the group. An event or series of events that exceed this financial threshold could be considered to have a substantive financial or strategic impact as it would most likely impact the delivery of the group's strategic objectives or have a detrimental effect on the group's sustainable growth and long-term shareholder value. The Board undertakes a robust annual assessment of the principal risks, including emerging risks which could threaten the business model, future performance, solvency or liquidity. These are the principal risks of the group as a whole and the risks which could prevent ABF from delivering its strategic objectives. These are the principal risks which ABF believes are likely to have the greatest current or near-term impact on our strategic and operational plans and reputation.

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	19	1-25	<p>19/700 of our operating sites, representing 3% of our company-wide facilities and 25% of global production, have been identified as being exposed to water risks with facilities within regions of water stress. These facilities have been identified using the WRI Aqueduct tool, WWF Water Risk Filter and an operational lens.</p> <p>As ABF consists of five business segments a substantive risk to the group as a whole is very rare because if something impacts one segment, the other four will continue to operate and it is unlikely to move the group's share price. The impact of site-level water risks at the group level is low and unlikely to meet the material financial impact threshold of £65 million or have a strategic impact. At an aggregated level, the sites consolidated within a division may meet the ABF financial threshold of £65 million or be considered a potential strategic risk based on reputational issues. These consolidated sites within AB Sugar, GWF and AB Mauri could amount to a potential substantive financial risk or strategic risk based on reputation, for example, the risk of not meeting water commitments or maintaining employment levels.</p> <p>We therefore still report these within CDP for transparency. The term 'facility' for water risk assessment covers ABF's direct operations which includes factories, warehouses, distribution centres and retail space but excludes offices.</p>

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

Zambia	Zambezi
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Number of facilities exposed to water risk

1

% company-wide facilities this represents

Less than 1%

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

% company's total global revenue that could be affected

Less than 1%

Comment

Illovo's site in Zambia accounts for 31% of ABF's total abstracted water.

Country/Area & River basin

Australia	Murray - Darling
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Number of facilities exposed to water risk

3

% company-wide facilities this represents

Less than 1%

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

% company's total global revenue that could be affected

Less than 1%

Comment

George Weston Foods' three sites operating in the Murray Darling basin account for 0.1% of ABF's total abstracted water.

Country/Area & River basin

China	Other, please specify (Yellow sea & East China Sea)
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Number of facilities exposed to water risk

3

% company-wide facilities this represents

Less than 1%

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

% company's total global revenue that could be affected

Less than 1%

Comment

Water abstracted from three sites in China account for 0.2% of ABF's total extracted water.

Country/Area & River basin

Spain	Douro
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Number of facilities exposed to water risk

2

% company-wide facilities this represents

Less than 1%

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

% company's total global revenue that could be affected

Less than 1%

Comment

Two of Azucarera's sites in Spain account for 0.01% of ABF's total abstracted water.

Country/Area & River basin

South Africa	Other, please specify (Indian Ocean)
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Number of facilities exposed to water risk

4

% company-wide facilities this represents

Less than 1%

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

% company's total global revenue that could be affected

Less than 1%

Comment

Illovo's four sites in South Africa account for 0.4% of ABF's total extracted water.

Country/Area & River basin

Spain	Other, please specify (Iberian Peninsula)
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Number of facilities exposed to water risk

1

% company-wide facilities this represents

Less than 1%

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

% company's total global revenue that could be affected

Less than 1%

Comment

One of Azucarera's sites in Spain accounts for 0.08% of ABF's total abstracted water.

Country/Area & River basin

Spain	Ebro
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Number of facilities exposed to water risk

1

% company-wide facilities this represents

Less than 1%

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

% company's total global revenue that could be affected

Less than 1%

Comment

One of Azucarera's sites in Spain accounts for 0.02% of ABF's total abstracted water.

Country/Area & River basin

Malawi	Other, please specify (Lake Nyasa)
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Number of facilities exposed to water risk

1

% company-wide facilities this represents

Less than 1%

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

% company's total global revenue that could be affected

Less than 1%

Comment

One of Illovo's sites in Malawi accounts for 11% of ABF's total abstracted water.

Country/Area & River basin

Malawi	Other, please specify (Shire)
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Number of facilities exposed to water risk

1

% company-wide facilities this represents

Less than 1%

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

% company's total global revenue that could be affected

Less than 1%

Comment

One of Illovo's sites in Malawi accounts for 20% of ABF's total extracted water.

Country/Area & River basin

United Republic of Tanzania	Rufiji
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Number of facilities exposed to water risk

1

% company-wide facilities this represents

Less than 1%

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

% company's total global revenue that could be affected

Less than 1%

Comment

Illovo's site in Tanzania accounts for 11% of ABF's total extracted water.

Country/Area & River basin

Eswatini	Maputo
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Number of facilities exposed to water risk

1

% company-wide facilities this represents

Less than 1%

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

% company's total global revenue that could be affected

Less than 1%

Comment

Illovo's site in Eswatini accounts for 21% of ABF's total extracted water.

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

Malawi	Zambezi
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Type of risk & Primary risk driver

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

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

In 2019 Illovo's Nchalo site in Malawi was impacted by cyclone Idai which resulted in heavy rains and flooding which affected the crop and communities surrounding the site. Illovo's Dwangwa site in Malawi also experienced flooding of approximately 125ha of sugarcane fields with cane submerged. Concrete canals and field feeders collapsed while bridges and field culverts were also damaged. The flood protection dyke along the Dwangwa River and the dyke fields were breached in many places. This all resulted in disruption to manufacturing processes and, for a short period of time, impacted the output of product to market.

Illovo's Dwangwa estate in Malawi experienced flooding again during the 2019/2020 season. The floods affected 77 hectares and damaged 6,000 tonnes of cane. The fields were covered in sand and the irrigation structure damaged, including damage to the supply canal and feeders. The flooding resulted in a reduced harvest area.

Malawi experienced a number of tropical storms along with heavy rains and subsequent flooding in the first quarter of 2022. Nchalo estate was dominated by extreme weather conditions negatively affecting agricultural yield and crop removal performance. Nchalo started off with a record dry month of December 2021, followed by tropical storm Ana in January 2022. Two further tropical depressions namely Batsirai and Gombe followed Ana causing further flood related infrastructure damage. The crop yield was negatively impacted by 5% due to the flooding as well as the time taken to repair the damaged irrigation infrastructure. The cane fields that were submerged during the floods covered around 20% of the fields for Nchalo. The fields accumulated abnormal silt deposits, mud, and sand deposits on the cane stalks that were inadvertently delivered to the factory despite special harvesting mitigation measures. This mud impacted boiler operations, in turn causing low and varying steam pressures, which led to inconsistent factory operations with poor sugar recovery.

The Dwangwa estate experienced less than normal rainfall between September 2021 and February 2022 but significantly higher than normal rainfall in March and April 2022. The higher-than-normal rainfall caused some flood bund damage. With the 2022 floods the river ran at 1499 cusecs, just under the designed flood bund capacity of 1500 cusecs fortunately with no significant damage to the bund and the estate.

Timeframe

Current up to one year

Magnitude of potential impact

Medium-low

Likelihood

More likely than not

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

13000000

Potential financial impact figure - minimum (currency)

<Not Applicable>

Potential financial impact figure - maximum (currency)

<Not Applicable>

Explanation of financial impact

The figure reported here is the total impact of the floods experienced at Illovo Nchalo and includes direct costs incurred, including mechanical, electrical and civil works, wet bagasse handling costs, business interruption costs and various cane-related costs and losses.

Primary response to risk

Develop flood emergency plans

Description of response

At Dwangwa, the planned annual maintenance for both the bund and the Dwangwa Riverbed have been revised and upgraded to mitigate the increased risk and frequency of flooding. At Nchalo, the mill has since come up with strategies leading to modifications of some operations as well as adjustment of standard operating procedures to better equip the estate to cope with any future flood related challenges.

Cost of response

Explanation of cost of response

W4.2a

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

Country/Area & River basin

Kenya	Not known
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Stage of value chain

Supply chain

Type of risk & Primary risk driver

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

Primary potential impact

Other, please specify (Climate impact on tea yields)

Company-specific description

Tea is sourced by Twinings from third party suppliers in multiple tea regions. The crop model projects that changing chronic climate change should have a positive impact on tea yields in 2030 and 2050 across all tea growing regions assessed. However, due to the crop model's under-representation of acute climate risks, these gains could be limited by the impacts of extreme temperatures, heavy rainfall and droughts, which are expected to increase in both frequency and magnitude, particularly in the long term.

Past drought events in Kenya have caused average reductions in tea yields, and extreme precipitation is projected to increase in these regions, where heavy rainfall and waterlogging already present a challenge to tea producers. Twinings has experience in dealing with volatility in regional tea yields as a result of weather events and has developed deep knowledge of the world's tea growing regions. This capability ensures there is a degree of flexibility in the origin of tea purchased and that master blending expertise can be used to produce tea to a high and consistent standard year after year. There are some single origin blends that would be harder to source if a particular region had a negative climate-related impact, but they are not material to the business.

Timeframe

More than 6 years

Magnitude of potential impact

Low

Likelihood

Unknown

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure - minimum (currency)

<Not Applicable>

Potential financial impact figure - maximum (currency)

<Not Applicable>

Explanation of financial impact

Determining the potential impact of climate risks is challenging due to their significant time horizon and inherent difficulty in accurate quantification. Medium term impacts judged not to be significant once mitigating actions are considered. As such, the impact has not been quantified financially.

Primary response to risk

Upstream	Increase supplier diversification
----------	-----------------------------------

Description of response

Currently, Twinings sourcing capability coupled with its blending capability enables the business to manage localised yield issues. In the future, Twinings will continue to focus on enhancing farming practices, particularly irrigation.

Cost of response

Explanation of cost of response

Country/Area & River basin

India	Not known
-------	-----------

Stage of value chain

Supply chain

Type of risk & Primary risk driver

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

Primary potential impact

Supply chain disruption

Company-specific description

Climate impact on cotton yields

The key climate-related physical risks for cotton production are extreme temperatures, heavy rainfall and the timing and duration of the monsoon season. Our work on climate change scenarios to 2030 shows that the effects on cotton yields are minimal. (Analysis focused on Primark Sustainable Cotton Programme locations in India and Pakistan which represent some 97% of Primark's Primark Sustainable Cotton Programme). The outcomes range from virtually no impact to a reduction of some 4%. These projections are well within the bounds of the year-on-year yield variations that we have already experienced, and even then the capability is in place to work with smallholders to mitigate these effects. For example, training helps farmers make better seed selections and understand planting patterns to maximise yields. In 2050, the yield impact is projected to decline by 14% under RCP8.5 and 4% under RCP2.6, before mitigating actions. Based on yield uplifts we have seen historically, the majority of this impact would be offset by sourcing all cotton from recycled cotton sources or more sustainable cotton programmes.

Timeframe

More than 6 years

Magnitude of potential impact

Medium

Likelihood

Unknown

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure - minimum (currency)

<Not Applicable>

Potential financial impact figure - maximum (currency)

<Not Applicable>

Explanation of financial impact

Determining the potential impact of climate risks is challenging due to their significant time horizon and inherent difficulty in accurate quantification. Medium term impacts judged not to be significant once mitigating actions are considered. As such, the impact has not been quantified financially.

Primary response to risk

Upstream	Map supplier water risk
----------	-------------------------

Description of response**Current mitigations**

Currently 40% of Primark's cotton clothing sales (units) contain cotton that is organic, recycled or is sourced from Primark's Sustainable Cotton Programme. Cotton sourced through our PSCP is grown using farming methods with lower environmental impact, including reducing water, chemical pesticide and fertiliser use and training farmers in these methods. Switching to more sustainable cotton is assumed to lead to a 14% increase in yields in line with the results Primark's 2013-2019 study of the yields(kg/acre) of Indian PSCP farmers compared to control farmers. As of August 2022, some 252,800 farmers have received training in our Sustainable Cotton Programme.

Future mitigating actions

- Increase the proportion of cotton which is grown through more sustainable cotton programmes so that all cotton clothing sales contain cotton that is organic, recycled or sourced from Primark's Sustainable Cotton Programme by 2027.
- Use more resilient cotton varieties and recycled/new fibres.
- Increase farmers trained in Primark's Sustainable Cotton Programme to 275,000 by the end of 2023.

Cost of response**Explanation of cost of response****Country/Area & River basin**

Bangladesh	Not known
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Stage of value chain

Supply chain

Type of risk & Primary risk driver

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

Primary potential impact

Supply chain disruption

Company-specific description

Impact of flooding risk on Primark's third-party manufacturers

Many of our suppliers' factories are located in the greater Dhaka region. This is a low-lying, densely populated area on the Ganges Delta that is exposed to both coastal and river flooding. We estimate that flood risk will increase minimally by 2030 with a more marked increase by 2050. In 2050, under RCP8.5 and considering a 100-year return period, it is projected that less than 3% of Primark's global orders would be exposed to a severe coastal flooding event, while less than 6% of Primark's global orders would be exposed to a severe river flooding event.

A proportion of Primark's third-party factories in China are at risk of being disrupted by flooding. This risk only changes minimally by 2030 and 2050. Given the geographical spread of Primark's third-party factories in China, the river flood impacts disclosed above would require a number of rivers across China to flood simultaneously. The analysis we have undertaken in Bangladesh and China has identified the individual sites at higher risk from flooding. Mitigating actions are currently being explored.

Timeframe

More than 6 years

Magnitude of potential impact

Medium

Likelihood

Unknown

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure - minimum (currency)

<Not Applicable>

Potential financial impact figure - maximum (currency)

<Not Applicable>

Explanation of financial impact

Determining the potential impact of climate risks is challenging due to their significant time horizon and inherent difficulty in accurate quantification. Medium term impacts judged not to be significant once mitigating actions are considered. As such, the impact has not been quantified financially.

Primary response to risk

Supplier engagement	Develop supplier flood emergency plans
---------------------	--

Description of response

Current mitigations

- The majority of Primark's Bangladesh suppliers are located in areas of Dhaka which are less susceptible to flooding.
- The local Dhaka community regularly deals with flooding and has adapted processes to mitigate its impacts.
- Primark's Sourcing Strategy has existed for two years with a focus on geographical diversification for sourcing product, creating a more balanced global footprint and developing risk mitigation strategies to increase flexibility and agility when unexpected events occur.

Future mitigating actions:

- Primark will consider flood risk as part of its Structural Integrity programme and is currently developing a pilot to test an approach in Bangladesh.
- Bangladesh's National Determined Contribution plan includes a focus on infrastructure and risk management.
- Primark will continue to consider how best to diversify the sourcing of product in line with its Sourcing Strategy.

Cost of response

Explanation of cost of response

W4.3

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

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

W4.3a

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

Type of opportunity

Efficiency

Primary water-related opportunity

Improved water efficiency in operations

Company-specific description & strategy to realize opportunity

Agricultural operations require significant energy to pump water for abstraction and irrigation, at significant cost. Illovo has identified three primary opportunities to reduce the energy requirement and improve water use efficiency:

1. Improving the efficiency of conveyance systems to minimise losses
2. Improving irrigation efficiency to reduce the water required to grow a stick of sugarcane
3. Improving the accuracy of irrigation scheduling to ensure the crop is irrigated effectively.

As part of Illovo's aim to be more energy efficient, to produce more cane, sugar and downstream products per drop of water and to utilise water responsibly and retain its quality during its usage cycle, Illovo has approved long-term irrigation upgrade projects. At Nanga in Zambia, Phase 1 of a five phased project to replace drag line and floppy sprinkler irrigation systems with sub surface drip (SSD) irrigation has been completed and successfully running since 2016. Phase 2 involved the replacement of 157 hectares of sprinkler irrigation systems which were old and inefficient, while Phase 3 envisages the conversion of 77 hectares to SSD. At Nakambala in Zambia, Phase 1 of a five phased project will convert 171 hectares of the old furrow irrigation system to a modern and efficient irrigation system

The six-year upgrade plan for Ubombo, eSwatini was proposed and approved in March 2017 and Phase 1 and Phase 2 have been successfully implemented. The project has now been put on hold until the business can support the funding required.

At Nchalo in Malawi, Phase 4 of the irrigation system conversion program converted 330ha of an existing drag line irrigation system with a drip irrigation system. A post-implementation review of completed projects has been positive showing a solid payback with increases in water productivity (more crop per drop) and reductions in input costs (electricity, and manpower for both irrigation operations and for other operational inputs). Phase 5 of the irrigation system conversion program at Nchalo will replace 480ha of ineffective drag line sprinkler irrigation system with SSD irrigation. The drip irrigation infrastructure will support mechanised green cane harvesting when deployed in future.

The drip systems have accelerated precision irrigation in Illovo through scheduling tools and software that assist the Farm Manager to supply water and agronomic inputs on time, in full, and at the right quality.

Estimated timeframe for realization

More than 6 years

Magnitude of potential financial impact

High

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact

In 2013, Illovo developed water footprints for each of their operations. The assessment modelled each agricultural system in terms of precipitation (green water) and irrigation (blue water) requirements. This analysis enabled Illovo to identify and quantify losses within each operation which were correlated to potential cost savings. Today Illovo is using this information as part of their cost planning and forecasting within the company's water strategy. The financial impact of this opportunity is based on the assumed cane production improvements associated with the implementation of drip irrigation technologies across 6,370ha.

Type of opportunity

Efficiency

Primary water-related opportunity

Improved water efficiency in operations

Company-specific description & strategy to realize opportunity

British Sugar has been on a journey to reduce water usage at the factory, they have achieved cutting water use by 23% since 2012 through equipment upgrades, investments in wastewater treatment and reusing condensate water for cooling. Water reduction at sites over the past year has primarily been delivered through Continuous Improvement (CI) activities, ongoing focus on reducing water usage, addressing leaks and promoting good practice.

As an example, British Sugar's Newark site is constantly looking to reduce water usage, and one area of particular focus is maintaining existing infrastructure. At the plant, good water management practices include looking after the water pipes, continuing to uphold high standards of maintenance, and stopping leaks. In 2021, the consumption and extraction data of the site revealed a discrepancy and on investigation a leak was identified. Our teams partnered with the water provider Water Plus to replace part of Newark town's main water pipe which was leaking onto our site. By taking the quick action to repair the pipes, we will save approximately 72 cubic meters (m3) per day, or 26,280 cubic metres (m3) per year.

Previously, at its Cantley factory, British Sugar put in place changes to its ultrafiltration system, which removed solid material from feed water, and its reverse osmosis plant, which removed smaller impurities. These alterations enabled the factory to use more borehole water, under licence, and less high-quality mains water for the purification plants that supply its high-pressure boilers. To implement the project, the reverse osmosis plant was altered to allow borehole water to be heated (which increases throughput and allows for more effective cleaning). A heat exchanger was fitted to use waste heat to warm the feed water. As a result of these upgrades, the plant has been restored to maximum capacity while reducing mains water use.

Estimated timeframe for realization

Current - up to 1 year

Magnitude of potential financial impact

Low-medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact

The impact has not been quantified financially.

Type of opportunity

Efficiency

Primary water-related opportunity

Improved water efficiency in operations

Company-specific description & strategy to realize opportunity

In 2019 AB Sugar launched its Innovate Irrigation Challenge, inviting individuals or teams to submit ideas about ways to reduce water losses from irrigation. AB Sugar's operations account for 96% of ABF's total water abstraction. Illovo Sugar Africa, in particular, manages sugar cane estates totalling approximately 70,000 hectares, of which 82% is irrigated and the remainder is rain-fed. We partnered with experts, WaterAid and the Centre for Industrial Sustainability at the University of Cambridge, who played an integral role in selecting the winning idea. The winning idea, submitted by two civil engineers in Uganda, has now been developed into 'Project SWIM', which stands for Smart Water Irrigation Management. In simple terms, SWIM uses a network of flow and power meters with remote sensors which feedback to a cloud-based Smart Water Management Tool.

Estate managers and farmers can use the tool to detect leaks, adjust irrigation schedules and carry out water audits, all based on the real-time data it provides. Proof of concept for SWIM was completed at Illovo Sugar Malawi's Nchalo Estate in 2020. This process produced promising results. The system functioned well, and the web-based reporting platform was intuitive to use. In terms of performance, early indications were that SWIM could save up to 9% of water currently lost through unidentified leaks and reduce power consumption by 11%.

A group of suppliers has been selected to develop the concept further by running a pilot across 742 hectares at Nchalo in 2022. This will test SWIM at scale and assess how it might dovetail with other innovations, including drip irrigation. Illovo Sugar Africa believes that SWIM could ultimately increase sugar cane yields by up to three tonnes per hectare using the same net water, whilst supporting its 'more crop per drop' mantra. Currently, around 82% of land cultivated by Illovo Sugar Africa is irrigated and could benefit from SWIM in future.

Estimated timeframe for realization

1 to 3 years

Magnitude of potential financial impact

Low-medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact

The impact has not been quantified financially.

Type of opportunity

Efficiency

Primary water-related opportunity

Improved water efficiency in operations

Company-specific description & strategy to realize opportunity

At AB Mauri's yeast plant in Tucuman, Argentina, evaporative cooling towers were installed over a multi-year period following a phased approach to facilitate yeast fermenter cooling. The cooling towers replaced an existing process of "once through" use of river water. The project has resulted in a 92% reduction of water used for once-through cooling since it started.

Estimated timeframe for realization

Current - up to 1 year

Magnitude of potential financial impact

Low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact

The impact has not been quantified financially.

Type of opportunity

Efficiency

Primary water-related opportunity

Improved water efficiency in operations

Company-specific description & strategy to realize opportunity

In Malawi, the Shire Valley Irrigation project entails reversing the existing on-farm pumping infrastructure of Nchalo Estate to a gravity pressurised pipeline distributed system from the Shire Valley Irrigation Project (SVIP) high-level canal. The SVIP potentially represents a significant opportunity to reduce the cost of production for Nchalo by reversing the existing irrigation infrastructure from an electricity intensive lift pumping system to a gravity water feed system with energy savings of up to 91% of the current energy consumption and +-17.5% saving in irrigation bulk water consumption due to the change over from an open channel canal to an embedded pipeline.

Estimated timeframe for realization

4 to 6 years

Magnitude of potential financial impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

1200000

Potential financial impact figure – maximum (currency)

1500000

Explanation of financial impact

We report here the annual maintenance cost savings anticipated by Illovo as a result of the change from an open canal conveying system to an embedded pipeline at Nchalo. The expected savings are expected to be realised on post construction of the embedded pipeline in 2025, primary arising from savings on maintenance costs of mechanisation vehicles and savings on maintenance of electrical and mechanical infrastructures due to the 46 pump stations that will be made redundant.

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)

Country/Area & River basin

Malawi	Other, please specify (Lake Nyasa)
--------	------------------------------------

Latitude

-12.56667

Longitude

34.149999

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

84119

Comparison of total withdrawals with previous reporting year

Much lower

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

84119

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)

0

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

0

Total water consumption at this facility (megaliters/year)

84119

Comparison of total consumption with previous reporting year

Much lower

Please explain

There is zero effluent at this site. The water consumption data reported here is a simple calculation of withdrawal minus discharge. It does not take into account site-level measurements which may include evaporation, water incorporated in crops or controlled water storage.

Facility reference number

Facility 2

Facility name (optional)

Country/Area & River basin

South Africa	Other, please specify (Indian Ocean)
--------------	--------------------------------------

Latitude

-30.063594

Longitude

30.778772

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

281

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

30

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

251

Total water discharges at this facility (megaliters/year)

0

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

0

Total water consumption at this facility (megaliters/year)

281

Comparison of total consumption with previous reporting year

Much lower

Please explain

Zero discharge effluent site. The water consumption data reported here is a simple calculation of withdrawal minus discharge. It does not take into account site-level measurements which may include evaporation, water incorporated in crops or controlled water storage.

Facility reference number

Facility 3

Facility name (optional)

Country/Area & River basin

United Republic of Tanzania	Rufiji
-----------------------------	--------

Latitude

-7.86171

Longitude

36.890639

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

89082

Comparison of total withdrawals with previous reporting year

About the same

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

89082

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)

362

Comparison of total discharges with previous reporting year

Much lower

Discharges to fresh surface water

362

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)

88720

Comparison of total consumption with previous reporting year

About the same

Please explain

The water consumption data reported here is a simple calculation of withdrawal minus discharge. It does not take into account site-level measurements which may include evaporation, water incorporated in crops or controlled water storage.

Facility reference number

Facility 4

Facility name (optional)

Country/Area & River basin

South Africa	Other, please specify (Indian Ocean)
--------------	--------------------------------------

Latitude

-29.945489

Longitude

30.95923

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

890

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

890

Total water discharges at this facility (megaliters/year)

883

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

883

Total water consumption at this facility (megaliters/year)

7

Comparison of total consumption with previous reporting year

Much lower

Please explain

The water consumption data reported here is a simple calculation of withdrawal minus discharge. It does not take into account site-level measurements which may include evaporation, water incorporated in crops or controlled water storage.

Facility reference number

Facility 5

Facility name (optional)

Country/Area & River basin

Zambia	Zambezi
--------	---------

Latitude

-15.83244

Longitude

27.779939

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

243388

Comparison of total withdrawals with previous reporting year

Much higher

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

240960

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

2428

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)

89660

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

89660

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)

153728

Comparison of total consumption with previous reporting year

Much higher

Please explain

The water consumption data reported here is a simple calculation of withdrawal minus discharge. It does not take into account site-level measurements which may include evaporation, water incorporated in crops or controlled water storage.

Facility reference number

Facility 6

Facility name (optional)

Country/Area & River basin

Malawi	Other, please specify (Shire)
--------	-------------------------------

Latitude

-16.263459

Longitude

34.86889

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

157936

Comparison of total withdrawals with previous reporting year

Much lower

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

157936

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)

314

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

314

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)

157622

Comparison of total consumption with previous reporting year

Much lower

Please explain

The water consumption data reported here is a simple calculation of withdrawal minus discharge. It does not take into account site-level measurements which may include evaporation, water incorporated in crops or controlled water storage.

Facility reference number

Facility 7

Facility name (optional)

Country/Area & River basin

South Africa	Other, please specify (Indian Ocean)
--------------	--------------------------------------

Latitude

-29.355757

Longitude

30.524081

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

407

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

407

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)

377

Comparison of total discharges with previous reporting year

Much higher

Discharges to fresh surface water

377

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)

30

Comparison of total consumption with previous reporting year

Much lower

Please explain

There was a significant increase in final effluent discharged due to the heavy rainfalls experienced in January which resulted in the lake (the final pollution control dam)

overflowing. Furthermore, the heavy floods in April also caused a major overflow of the lake resulting in a much increased discharged hydraulic load. The water consumption data reported here is a simple calculation of withdrawal minus discharge. It does not take into account site-level measurements which may include evaporation, water incorporated in crops or controlled water storage.

Facility reference number

Facility 8

Facility name (optional)

Country/Area & River basin

South Africa	Other, please specify (Indian Ocean)
--------------	--------------------------------------

Latitude

-30.408871

Longitude

30.677118

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

1879

Comparison of total withdrawals with previous reporting year

Lower

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

1677

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

25

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

177

Total water discharges at this facility (megaliters/year)

942

Comparison of total discharges with previous reporting year

Much higher

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

942

Discharges to groundwater

0

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

937

Comparison of total consumption with previous reporting year

Much lower

Please explain

The water consumption data reported here is a simple calculation of withdrawal minus discharge. It does not take into account site-level measurements which may include evaporation, water incorporated in crops or controlled water storage.

Facility reference number

Facility 9

Facility name (optional)

Country/Area & River basin

Eswatini	Maputo
----------	--------

Latitude

-26.78217

Longitude

31.93823

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

165393

Comparison of total withdrawals with previous reporting year

About the same

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

165393

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)

562

Comparison of total discharges with previous reporting year

Much higher

Discharges to fresh surface water

562

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)

164831

Comparison of total consumption with previous reporting year

About the same

Please explain

The water consumption data reported here is a simple calculation of withdrawal minus discharge. It does not take into account site-level measurements which may include evaporation, water incorporated in crops or controlled water storage.

Facility reference number

Facility 10

Facility name (optional)

Country/Area & River basin

China	Other, please specify (Yellow sea & East China sea)
-------	---

Latitude

41.1525

Longitude

114.707779

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

434

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

434

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

0

Total water discharges at this facility (megaliters/year)

451

Comparison of total discharges with previous reporting year

Much lower

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

451

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

-17

Comparison of total consumption with previous reporting year

Much higher

Please explain

The water consumption data reported here is a simple calculation of withdrawal minus discharge. It does not take into account site-level measurements which may include evaporation, water incorporated in crops or controlled water storage. The water consumption data reported here is a simple calculation of withdrawal minus discharge. It does not take into account site-level measurements which may include evaporation, water incorporated in crops or controlled water storage.

Facility reference number

Facility 11

Facility name (optional)

Country/Area & River basin

Spain	Other, please specify (Iberian Peninsula)
-------	---

Latitude

36.666479

Longitude

-6.13227

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

634

Comparison of total withdrawals with previous reporting year

Much higher

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

618

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

16

Total water discharges at this facility (megaliters/year)

291

Comparison of total discharges with previous reporting year

Much higher

Discharges to fresh surface water

291

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)

343

Comparison of total consumption with previous reporting year

Much higher

Please explain

The water consumption data reported here is a simple calculation of withdrawal minus discharge. It does not take into account site-level measurements which may include evaporation, water incorporated in crops or controlled water storage.

Facility reference number

Facility 12

Facility name (optional)

Country/Area & River basin

Spain	Douro
-------	-------

Latitude

42.30236

Longitude

-5.90259

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

51

Comparison of total withdrawals with previous reporting year

Much higher

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

45

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

6

Total water discharges at this facility (megaliters/year)

122

Comparison of total discharges with previous reporting year

Much lower

Discharges to fresh surface water

122

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)

-71

Comparison of total consumption with previous reporting year

Much higher

Please explain

There is less discharge because there has been greater capture of water at site. This captured water has been used for production purposes.

The water consumption data reported here is a simple calculation of withdrawal minus discharge. It does not take into account site-level measurements which may include evaporation, water incorporated in crops or controlled water storage.

Facility reference number

Facility 13

Facility name (optional)

Country/Area & River basin

Spain	Ebro
-------	------

Latitude

42.689979

Longitude

-2.948964

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

139

Comparison of total withdrawals with previous reporting year

Much higher

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

136

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

3

Total water discharges at this facility (megaliters/year)

170

Comparison of total discharges with previous reporting year

Lower

Discharges to fresh surface water

170

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)

-31

Comparison of total consumption with previous reporting year

Much higher

Please explain

The water consumption data reported here is a simple calculation of withdrawal minus discharge. It does not take into account site-level measurements which may include evaporation, water incorporated in crops or controlled water storage.

Facility reference number

Facility 14

Facility name (optional)

Country/Area & River basin

Spain	Douro
-------	-------

Latitude

41.516967

Longitude

-5.385943

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

28

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

14

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

14

Total water discharges at this facility (megaliters/year)

122

Comparison of total discharges with previous reporting year

Much higher

Discharges to fresh surface water

122

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)

-94

Comparison of total consumption with previous reporting year

Much lower

Please explain

The increase in water discharged is because the campaign lasted longer. The water consumption data reported here is a simple calculation of withdrawal minus discharge. It does not take into account site-level measurements which may include evaporation, water incorporated in crops or controlled water storage.

Facility reference number

Facility 15

Facility name (optional)

Country/Area & River basin

Australia	Murray - Darling
-----------	------------------

Latitude

-36.343443

Longitude

143.969081

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

362

Comparison of total withdrawals with previous reporting year

About the same

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

153

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

209

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)

0

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

0

Total water consumption at this facility (megaliters/year)

362

Comparison of total consumption with previous reporting year

About the same

Please explain

There is zero effluent at this site. As part of its effluent treatment system, the site reuses its wastewater for crop irrigation.

The water consumption data reported here is a simple calculation of withdrawal minus discharge. It does not take into account site-level measurements which may include evaporation, water incorporated in crops or controlled water storage.

Facility reference number

Facility 16

Facility name (optional)

Country/Area & River basin

Australia	Murray - Darling
-----------	------------------

Latitude

-37.050637

Longitude

144.208165

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

458

Comparison of total withdrawals with previous reporting year

About the same

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

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

458

Total water discharges at this facility (megaliters/year)

372

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

372

Total water consumption at this facility (megaliters/year)

86

Comparison of total consumption with previous reporting year

Much higher

Please explain

The water consumption data reported here is a simple calculation of withdrawal minus discharge. It does not take into account site-level measurements which may include evaporation, water incorporated in crops or controlled water storage.

Facility reference number

Facility 17

Facility name (optional)

Country/Area & River basin

Australia	Murray - Darling
-----------	------------------

Latitude

-36.386788

Longitude

144.8754

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

86

Comparison of total withdrawals with previous reporting year

Lower

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

54

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

32

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)

0

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

0

Total water consumption at this facility (megaliters/year)

86

Comparison of total consumption with previous reporting year

Lower

Please explain

There is zero effluent at this site. The water consumption data reported here is a simple calculation of withdrawal minus discharge. It does not take into account site-level measurements which may include evaporation, water incorporated in crops or controlled water storage.

Facility reference number

Facility 18

Facility name (optional)

Country/Area & River basin

Please select

Latitude

41.1525

Longitude

114.707779

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

Comparison of total withdrawals with previous reporting year

Please select

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

Withdrawals from brackish surface water/seawater

Withdrawals from groundwater - renewable

Withdrawals from groundwater - non-renewable

Withdrawals from produced/entrained water

Withdrawals from third party sources

Total water discharges at this facility (megaliters/year)

Comparison of total discharges with previous reporting year

Please select

Discharges to fresh surface water

Discharges to brackish surface water/seawater

Discharges to groundwater

Discharges to third party destinations

Total water consumption at this facility (megaliters/year)

Comparison of total consumption with previous reporting year

Please select

Please explain

Facility reference number

Facility 19

Facility name (optional)

Country/Area & River basin

Please select

Latitude

37.533329

Longitude

121.4

Located in area with water stress

Yes

Primary power generation source for your electricity generation at this facility

<Not Applicable>

Oil & gas sector business division

<Not Applicable>

Total water withdrawals at this facility (megaliters/year)

Comparison of total withdrawals with previous reporting year

Please select

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

Withdrawals from brackish surface water/seawater

Withdrawals from groundwater - renewable

Withdrawals from groundwater - non-renewable

Withdrawals from produced/entrained water

Withdrawals from third party sources

Total water discharges at this facility (megaliters/year)

Comparison of total discharges with previous reporting year

Please select

Discharges to fresh surface water

Discharges to brackish surface water/seawater

Discharges to groundwater

Discharges to third party destinations

Total water consumption at this facility (megaliters/year)

Comparison of total consumption with previous reporting year

Please select

Please explain

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

All of ABF sites report their water withdrawal data annually to group level and this data is then verified in alignment with the International Standard for Assurance Engagements (ISAE) 3000 Revised provided by EY. For details of the Assurance Statement, see pages 56 and 57 of ABF's 2022 Responsibility Update. As such all the sites reported in 5.1 have had their water withdrawal data externally verified.

Please explain

<Not Applicable>

Water withdrawals – volume by source

% verified

76-100

Verification standard used

All of ABF sites report their water withdrawal data - by source on an annual basis to group level. This data is verified in alignment with the International Standard for Assurance Engagements (ISAE) 3000 Revised provided by EY. For details of the Assurance Statement, see pages 56 and 57 of ABF's 2022 Responsibility Update. As such all the sites reported in 5.1 have had their water withdrawal data externally verified.

Please explain

<Not Applicable>

Water withdrawals – quality by standard water quality parameters

% verified

Not verified

Verification standard used

<Not Applicable>

Please explain

ABF sites operate within and comply with their local regulatory water requirements. As such, sites regularly measure and monitor the quality of their water withdrawn to meet legal compliance, as a minimum. In many cases sites receive visits from local government bodies as part of their regulatory environmental checks.

ABF does not seek independent verification of the quality of water withdrawn because this is managed at a local site level.

ABF does not intend to obtain third party verification of the quality of water withdrawn for the sites reported in 5.1 within the next two years.

Water discharges – total volumes

% verified

76-100

Verification standard used

All of ABF sites report their water discharge volumes data on an annual basis to group level. This data is verified in alignment with the International Standard for Assurance Engagements (ISAE) 3000 Revised provided by EY. For details of the Assurance Statement, see pages 56 and 57 of ABF's 2022 Responsibility Update. As such all the sites reported in 5.1 have had their water withdrawal data externally verified.

Please explain

<Not Applicable>

Water discharges – volume by destination

% verified

76-100

Verification standard used

All of ABF sites report their water discharge - by destination on an annual basis to group level. This data is verified in alignment with the International Standard for Assurance Engagements (ISAE) 3000 Revised provided by EY. For details of the Assurance Statement, see pages 56 and 57 of ABF's 2022 Responsibility Update. As such all the sites reported in 5.1 have had their water discharge data externally verified.

Please explain

<Not Applicable>

Water discharges – volume by final treatment level

% verified

Not verified

Verification standard used

<Not Applicable>

Please explain

ABF sites operate within and comply with their local regulatory water and wastewater requirements. As such, sites regularly measure and monitor the quality of their water discharges to meet legal compliance, as a minimum. In many cases sites receive visits from local government bodies as part of their regulatory environmental checks.

ABF does not seek independent verification of the treatment of water discharges because this is managed at a local site level.

ABF does not intend to obtain third party verification of the treatment of water discharges for the sites reported in 5.1 within the next two years.

Water discharges – quality by standard water quality parameters

% verified

Not verified

Verification standard used

<Not Applicable>

Please explain

ABF sites operate within and comply with their local regulatory water and wastewater requirements. As such, sites regularly measure and monitor the quality of their water discharges to meet legal compliance, as a minimum. In many cases sites receive visits from local government bodies as part of their regulatory environmental checks.

The quality of water discharge by standard water quality parameters is considered as part of the Group's environmental compliance audit programme. If the compliance audit programme identifies issues, these are reported to Group.

ABF does not seek independent verification of the quality of water discharges because this is managed at a local site level.

ABF does not intend to obtain third party verification of the quality of water discharges for the sites reported in 5.1 within the next two years.

Water consumption – total volume

% verified

Not verified

Verification standard used

<Not Applicable>

Please explain

For the reporting year, ABF did not require the sites to report their water consumption. However, a large proportion of our businesses collect this data to assist with their own management decisions.

ABF does not intend to obtain third party verification for the volume of water consumed for the sites reported in 5.1 within the next two years.

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.

Row	Scope	Content	Please explain
1	Company-wide	Description of business dependency on water Commitment to water stewardship and/or collective action Commitments beyond regulatory compliance	ABF's water policy falls within the Environment Policy which states that "...as a minimum, we comply with current applicable legislation in the countries in which we operate and our operations are conducted with a view to ensuring that...releases to water...do not have an unacceptable environmental impact and do not offend the surrounding community...and that natural resources are used efficiently." Responsibility for compliance with our Environment Policy is devolved to the chief executive or managing director of our businesses. ABF's approach to environmental stewardship includes monitoring, auditing and reporting our environmental performance, particularly in energy and water consumption, waste generation and greenhouse gas emissions, to support continual improvements and be transparent in our performance. Although specific commitments and targets are not included in ABF's Environment Policy due to our decentralized operating model, certain individual businesses have publicly set out their commitments and the manner in which they intend to achieve them. For example, AB Sugar has committed to a 30% reduction in water usage by 2030 (baseline 2018). As part of its risk assessments, British Sugar identified carbon emissions and water use reduction as two long-term priorities, focusing on energy efficiency measures across its sites and improvements to its wastewater treatment plants. To support this, the business has environmental and wastewater specialists at each operational site to support these ambitions. As a further example, in April 2021, Primark became signatories of Textiles 2030, a WRAP initiative to accelerate the whole fashion and textiles industry's move towards circularity and system change in the UK. The voluntary agreement builds on the learning and success of the Sustainable Clothing Action Plan (SCAP 2020), of which Primark was a member, and aims to engage the majority of UK fashion and textiles organisations in collaborative climate action. As a signatory, Primark will collaborate on carbon, water and circular textiles targets, including a commitment to reduce the water footprint of new products by 30% by 2030. ABF046_Environment-Policy.pdf

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	The board of Associated British Foods plc (the Board) is responsible for overseeing our businesses' management of water-related issues. The Board reviews each division in depth every year, which will include a review of material ESG issues, including any relevant climate-related and water-related issues. The Board also monitors the Group's exposure to risks, which includes water-related risks, as part of performance reviews with each business. Both the Board and the Audit Committee have been briefed specifically on the Task Force on Climate-related Financial Disclosures (TCFD) reporting (see 2022 Annual Report pages 83 to 93). In 2021 we created a cross-functional steering committee to oversee governance of the TCFD programme.
Chief Executive Officer (CEO)	The Group CEO receives and reviews a summary of risks, including water-related risk, from each business segment at least annually. In addition, material water-related risks may be reported to the Group CEO via the Group Chief People and Performance Officer, and the Group Company Secretary. Otherwise, water-related risks are incorporated into the Group's standard risk processes. ABF's five business segments are Grocery, Agriculture, Sugar, Ingredients and Retail. Where water-related risks are considered material the Group CEO keeps the other Group directors fully informed of how the risks are being managed.
Chief Financial Officer (CFO)	ABF has implemented an enterprise-wide risk management system for which the Group Finance Director is accountable to the Board of Directors. The Group Finance Director (equivalent title to Chief Risk Officer and Chief Financial Officer) is a member of the Board. The CEO and Group Finance Director are accountable to the Board for matters relating to risk. This includes keeping the board informed of any water-related risks through the Group's risk management procedures. Water-related issues and potential financial implications are reviewed, monitored and if material may be escalated to the Board through this risk management system for which the Group Finance Director has responsibility.

W6.2b

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

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - some meetings	Monitoring implementation and performance Overseeing major capital expenditures Reviewing and guiding annual budgets Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding strategy	The Board receives updates and provides views on TCFD-related matters, including water-related issues. As part of an annual standing agenda item, the Board receives updates in February and September from the Group Corporate Responsibility Director and the Chief People and Performance Officer on any material climate, water and environmental issues. In February 2022, the Director of Legal Services and Company Secretary, Group Corporate Responsibility Director and the Finance Project Director for ESG and TCFD Reporting presented an ESG update to the Board. This included an update on the Primark Sustainable Cotton Programme. Individual businesses may also include water-related matters in their regular updates to the Board.

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	Primary reason for no board-level competence on water-related issues	Explain why your organization does not have at least one board member with competence on water-related issues and any plans to address board-level competence in the future
Row 1	Yes	We believe that members of the Board should collectively possess a diverse range of skills, expertise, industry knowledge, business and other experience necessary for the effective oversight of the Group. In our 2022 Annual Report and Accounts (p 188) we published a director skill sets matrix which seeks to provide a snapshot of the range of skills including Board members with environmental skills. Board members are appropriately informed, skilled and with a range of experiences from other roles to make informed decisions to create long-term value for our shareholders, business partners, employees and the communities and environments in which we operate. In addition, the Board have received specific briefings on climate change matters and on TCFD throughout the year, with external experts engaged to support our knowledge growth and TCFD implementation. As demonstrated during our third ESG investor day, held in May 2022, members of our board possess knowledge and skills related to climate-related risks and opportunities relevant to our businesses. This year we held our third ESG (environmental, social and governance) investor day in response to increasing requests from investors to understand more about what we do as a Group in respect of ESG matters. This third event focused on the most material environmental factors across a broad range of companies in the Group. We included an analysis of the most important environmental factors relevant to our businesses, including an overview of our TCFD analysis. Investors had the opportunity to ask questions at the events and three subsequent events were held for banks, insurers and employees respectively, giving them the opportunity to ask questions which included those relating to climate-related issues. All the investor events, including the questions and answers, are open source and available on the ABF website.	<Not Applicable>	<Not Applicable>

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)

Other C-Suite Officer, please specify (Director of Legal Services and Company Secretary)

Water-related responsibilities of this position

Assessing water-related risks and opportunities
Managing water-related risks and opportunities
Conducting water-related scenario analysis
Monitoring progress against water-related corporate targets
Managing public policy engagement that may impact water security
Managing value chain engagement on water-related issues
Managing water-related acquisitions, mergers, and divestitures

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

The Director of Legal Services and Company Secretary has overall accountability to the Chief Executive for corporate responsibility issues and acts as the focal point for communications to the Board and shareholders on corporate responsibility matters, including climate-related issues.

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

Other C-Suite Officer, please specify (Divisional CEOs)

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
Managing public policy engagement that may impact water security
Managing value chain engagement on water-related issues
Integrating water-related issues into business strategy
Managing annual budgets relating to water security
Managing major capital and/or operational expenditures related to low water impact products or services (including R&D)

Frequency of reporting to the board on water-related issues

Quarterly

Please explain

Our divisional CEOs are responsible for managing the impacts of climate change, including water-related issues, in their division, with the Chief Executive responsible for the impacts of climate change across the Group. The divisions and the Chief Executive, Finance Director, members of the Executive Committee and the Financial Controller hold quarterly reviews where any material climate-related or water-related matters are raised.

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

Other, please specify (Chief People and Performance Officer)

Water-related responsibilities of this position

Monitoring progress against water-related corporate targets

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

The Chief People and Performance Officer, who reports to the Chief Executive, is responsible for measuring and reporting the environmental performance of our own operations.

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

Other, please specify (Group Corporate Responsibility Director)

Water-related responsibilities of this position

Assessing water-related risks and opportunities
Managing water-related risks and opportunities
Monitoring progress against water-related corporate targets
Managing public policy engagement that may impact water security
Managing value chain engagement on water-related issues

Frequency of reporting to the board on water-related issues

Half-yearly

Please explain

The Group Corporate Responsibility Director, who reports to the Director of Legal Services and Company Secretary, is responsible for monitoring climate-related and water-related activities across the Group and for reviewing the robustness of external non-financial targets set by each of our businesses. The Group Corporate Responsibility Director leads the Corporate Responsibility Hub, which supports all our businesses on environmental issues and brings together all the professionals in our businesses working in these areas to share knowledge and best practice.

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	In 2021/22, ESG measures were included in both the personal performance targets for the short term incentive plan (STIP) and the discretionary framework for the long term incentive plan (LTIP). A narrative in relation to delivery against STIP personal performance measures in the year is set out on pages 142 and 143 of our annual report. A description of progress on ESG KPIs is set out on page 144 of our 2022 annual report.

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 Executive Officer (CEO)	Other, please specify (Oversaw progress on locally developed and led initiatives across the Group to reduce volume of water abstracted.)	In 21/22, ESG measures were included in both the personal performance targets for the short term incentive plan (STIP) and the discretionary framework for the long term incentive plan (LTIP). A narrative in relation to delivery against STIP personal performance measures in the year is set out on pages 142 and 143 of our annual report. A description of progress on ESG KPIs is set out on page 144 of our 2022 annual report.	The incentive will be linked to the delivery of projects that will lead to progress against our top ESG priorities.
Non-monetary reward	No one is entitled to these incentives	<Not Applicable>	<Not Applicable>	

W6.5

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

- Yes, direct engagement with policy makers
- Yes, trade associations
- Yes, funding research organizations

W6.5a

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

ABF is both diversified and decentralised. We wholly support policies that are aligned with the goals of the 2015 Paris Climate Agreement to limit the rise in global temperatures to well below 2°C above pre-industrial levels, and to pursue efforts to limit the temperature increase even further to 1.5°C. The group centre engages with our business leaders but it doesn't dictate the agendas or methods used by the businesses. Our Group Company Secretary acts as a focal point for corporate governance and corporate responsibility communications. This role regularly liaises with Corporate Responsibility, Public Relations and other advocacy-related roles within the businesses to ensure alignment. This happens when required and through a formal annual reporting process whereby the businesses provide information on their internal activities, work with their value chain and any public policy activities related to a range of corporate responsibility issues including water stewardship. Any public policy engagement conducted by the businesses must be approved at a senior level. The businesses review engagement activities to ensure they are aware of current and future legislation that will impact their value chains. Policy engagement covers energy, waste, water and other issues that the businesses and the group as a whole consider to represent a risk or an opportunity. Engagement activities are reviewed at least annually to ensure alignment with group strategy and the policy landscape.

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)
- ABF Responsibility Report 2022.pdf.downloadasset.pdf
- ABF Annual Report 2022.pdf.downloadasset.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	5-10	<p>Integrated into ABF's long-term business objectives is to remain a socially useful company where we remain vigilant of, and consider, the needs of others around us. Therefore, when we review our business strategy, we consider the environmental impacts of our plans. When our businesses are considering their growth or divestment plans, they conduct risk assessments which incorporate environmental risks including water management and the requirements of others around our operations.</p> <p>In 2018, AB Sugar published its 2030 global commitments which includes a 30% reduction in water usage by 2030 (baseline 2018). AB Sugar businesses integrate water related themes into their plans – considering opportunities to use water more efficiently and invest in performance improvement in the CAPEX and OPEX.</p> <p>For example, ensuring access to a reliable supply of water is a critical strategic priority for Illovo to meet both its business needs and those of surrounding communities. The company has undertaken a number of initiatives to improve the management of water, including substituting sprinkler and furrow irrigation with more efficient centre pivot irrigation application systems, the installation of water-efficient linear irrigation systems, the concrete lining of bulk water supply canals to decrease water losses and the undertaking of water mass-balance assessments at all Illovo operations to provide accurate water consumption data.</p>
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	5-10	<p>Our businesses are responsible for their environmental impact. Where water risks and opportunities are most prevalent, particularly in our direct and upstream agricultural activities, they form part of regular decision-making, are integrated into strategy development and are part of the group's risk management. All businesses are responsible for annually reporting to ABF their water performance (abstraction, reuse and discharge) using KPIs determined by ABF. Physical climatic changes impacting the supply of sugar cane, beet and other commodities have placed pressures on our supply chains. In some cases, we have had to source raw materials from new regions or change our strategy around current supply. Our businesses continuously adapt to this new environment and engage with key suppliers to address climate and water issues. For example, Illovo has identified four risks related to water usage, namely reducing sugar cane supply, bulk water supply, water quality and changes in weather patterns. As a result, a water strategy development team was established to drive the development of water strategies for Head Office and per site.</p>
Financial planning	Yes, water-related issues are integrated	5-10	<p>Revenues: If water issues impact our ability to produce or source raw materials, there will be a direct influence on our ability to generate revenue. However, as our group consists of five segments, a substantive risk to ABF as a whole is unlikely because if a variable impacts one segment, the other four will continue and it will unlikely lead to a move in the share price of the group.</p> <p>Operating costs: Although production and supply costs may increase due to water stress, there are also reductions in operating costs as we invest in water efficiency projects.</p> <p>Capital expenditures: Our businesses invest in environmental risk management of which significant amounts are spent on water efficiency projects. Capital funding is made available to our businesses where returns meet or exceed clearly defined criteria. Investment into the management of water stress is managed at the local level. For example, capital has been allocated to investigating Synergistic Sustainable (short-furrow) Irrigation and Drainage (SSID), a sustainable irrigation technology to be piloted in Zambia Sugar. There are no time horizons or barriers associated with these projects and they are considered on an individual basis. AB Sugar businesses generate performance improvement programmes and CAPEX proposals to address water related issues with the objective of using less resource, improving efficiency and improving yield.</p>

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)

200

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

200

Water-related OPEX (+/- % change)

15

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

15

Please explain

We report here capex and opex water-related figures from our sugar business which accounts for 96% of ABF's total water abstraction. Over the past year, our sugar businesses have invested just over £16 m on various capital projects including significant upgrades to effluent and sewage plants, flood defence projects as well as the rebuilding of pollution control dam walls. A significant capital project is anticipated within Illovo and will be reported on more fully in next year's report.

The increase in operational expenditure experienced is in line with anticipated year-on-year increased operating costs. In the reporting year operating costs have been occurred across consulting services (water quality testing and flow meter gap analysis), an increase in permit renewal costs and general maintenance of water systems including dams and canals, irrigation systems and water treatment facilities due to better management practices.

W7.3

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

	Use of scenario analysis	Comment
Row 1	Yes	<p>In 2021/22 we decided to undertake a detailed assessment of climate risks and opportunities focusing on AB Sugar, Primark and Twinings. We used our third-party experts, South Pole, to advise us on, and then carry out, scenario analysis. While many scenario models and techniques are advanced, we recognise that knowledge in this area is growing and we should expect models and pathways to evolve with time. Models also have limitations, and there are certain areas which are challenging to model, such as the frequency and severity of extreme weather events. However, our businesses are still able to consider how they would mitigate or adapt to such events. Additionally, in certain situations different models can project contrasting results. In these situations, we have considered how different outcomes would impact our businesses.</p>

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	Climate-related	<p>We used our third-party experts, South Pole, to advise us on, and then carry out, scenario analysis.</p> <p>The International Energy Agency's (IEA) scenarios have been used to assess transition impacts with each scenario built on a set of assumptions on how the energy system might evolve. Each scenario has a different temperature outcome. We used scenarios covering 1.5°C, <2°C and <3°C.</p> <p>We used the Intergovernmental Panel on Climate Change's (IPCC) Representative Concentration Pathways (RCP) to assess physical climate risk. RCPs are commonly used by climate scientists to assess physical climate risk, with each pathway representing a different greenhouse gas concentration trajectory which can then be translated into global warming impacts. We used climate data from the World Climate Research Programmes Coupled Model Intercomparison Project – Phase 5 (CMIP 5 adjusted for spatial resolution and bias corrected) to do this translation. RCPs feed into climate, crop and flood models.</p> <p>In all physical risk analysis we have used the RCP8.5 scenario, which is widely considered to represent one of the worstcase climate scenarios. In addition to RCP8.5, the evaluation of physical risks has been supplemented where useful, with analysis using either RCP2.6 or RCP4.5 scenarios, depending on which climate scenario is most applicable to the risk.</p> <p>Our third-party experts advised us which crop models to use to assess climate change impacts on crop yields. In some cases (e.g. for cotton and tea), only one crop model was available that was deemed to be sufficiently robust to use to evaluate future climate impacts on yields. Although in these situations only one crop model was used, the analysis was based on the input of five climate models providing sensitivity to the analysis. For other crops (e.g. sugar cane, wheat and corn), multiple crop models were used.</p>	<p>We have determined that the most significant water-related impacts from climate change on operations will be from the impact on key agricultural crops and the impact of flooding on end-to-end supply chain, including operations.</p> <p>We have assessed the impact of climate risks and opportunities taking into consideration different scenarios including <2°C and 4°C scenarios to assess the resilience of the Group to climate change. On the basis of our analysis, we believe that in the period to 2030, the risks the risks to the Group are not material. There is less clarity in the data further out to 2050.</p>	<p>The diversified and decentralised nature of ABF means that mitigation or adaptation strategies are considered and implemented by the individual businesses.</p> <p>ABF operates a decentralised business model because we believe in giving the leaders of our businesses the scope and accountability to create and run the best businesses they can. They are therefore responsible for identifying and implementing strategies that both create value and ensure value is protected by taking action to mitigate or adapt to the impacts of climate change.</p> <p>We understand that strategic decision making around climate change can be complex. Decisions in this area must be taken carefully and should be flexible enough for adaptation if events or knowledge change. Care must also be taken to ensure that problems are not simply transferred elsewhere or lead to unintended social consequences.</p> <p>The results of the scenario analysis, for those risks which we believe are either the most significant or of most interest to shareholders, are disclosed on pages 88 to 92 of our 2022 Annual Report.</p>

W7.4

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

Row 1

Does your company use an internal price on water?

No, and we do not anticipate doing so within the next two years

Please explain

The structure of our decentralised, diversified and the geographic reach of our group means that an internal price on water would not provide value to our operations or in how they manage water. Instead, our businesses manage their operations in the most efficient manner which includes the efficient use of water. For many of our businesses, using water requires energy which has a cost; efficiently using water results in lower energy costs.

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	Primary reason for not classifying any of your current products and/or services as low water impact	Please explain
Row 1	Yes	In June 2021 Primark launched Cradle to Cradle Certified™ Gold certified mom-fit denim jeans. The Cradle to Cradle Certified™ Product Standard is a set of globally recognised criteria for safe, more sustainable products with a lower impact on the planet. These jeans were Primark's most sustainably made yet. They were made from 100% organic cotton, produced using less water and energy, made to last and designed to be recycled.	<Not Applicable>	

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, and we do not plan to within the next two years	ABF has not set a target relating to water pollution.
Water withdrawals	Yes	<Not Applicable>
Water, Sanitation, and Hygiene (WASH) services	No, and we do not plan to within the next two years	ABF has not set a target relating to Water, Sanitation, and hygiene (WASH) services.
Other	Yes	<Not Applicable>

W8.1b

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

Target reference number

Target 1

Category of target

Water withdrawals

Target coverage

Business division

Quantitative metric

Reduction in total water withdrawals

Year target was set

2018

Base year

2018

Base year figure

805107263

Target year

2030

Target year figure

563575084

Reporting year figure

767979227

% of target achieved relative to base year

15.3718797030353

Target status in reporting year

Underway

Please explain

In April 2018, AB Sugar launched its 2030 commitments, as part of its Global Mind, Local Champions sustainability framework. Global Mind, Local Champions sets out AB Sugar's global principles and priorities for how to address the emerging challenges faced across our sugar value chain. The delivery of the framework is implemented on the ground by each of the AB Sugar businesses; AB Sugar China, Azucarera, British Sugar and Illovo Sugar Africa. AB Sugar has committed to a 30% reduction in water usage by 2030 (baseline 2018).

AB Sugar has completed a comprehensive baseline for each of the 2030 commitments based on current data and methodologies. The water baselines have been completed by country, business, site and supply chain. The baselines have comprehensive data and include considerable detail about factory, in-field and growers data, and also usage, loss, evaporation and transport data at site level. The baselines are being used to identify levers and projects to materially change our water footprint.

Target reference number

Target 2

Category of target

Product water intensity

Target coverage

Business division

Quantitative metric

Reduction per product

Year target was set

2021

Base year

2021

Base year figure

Target year

2030

Target year figure

Reporting year figure

% of target achieved relative to base year

<Calculated field>

Target status in reporting year

Underway

Please explain

Primark is currently conducting a business wide water footprint assessment which will provide more accuracy than previous estimations.

W9. Verification

W9.1

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

No, we do not currently verify any other water information reported in our CDP disclosure

W10. Plastics

W10.1

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

	Plastics mapping	Value chain stage	Please explain
Row 1	Not mapped – and we do not plan to within the next two years	<Not Applicable>	<p>Assessing and prioritising the most material environmental and social risks and opportunities starts with our businesses. They are best placed to do so because they understand their markets, supply chains and local communities. They also experience first-hand the direct impacts of global and national trends where they operate. Over the past 12 months, we have engaged with our businesses to understand their material issues and to support them in their materiality assessments if required. More sustainable packaging, including forms of plastic which contain recycled materials and are recyclable, contributes to reducing waste and supporting a circular economy has been identified as a material topic as a direct result of this exercise.</p> <p>We recognise the harmful effects of plastic waste on ecosystems, but also understand that many forms of plastic packaging play a vital role in the food sector, helping to protect consumers by keeping foods safe to eat and reducing waste by extending usable life when supplied to the market. Our challenge is to ensure that we use plastic materials responsibly. Wherever possible, our businesses are removing unnecessary and problematic plastic packaging. For example, some are switching to more easily recyclable types of plastic or are increasing the use of recycled content in the plastics they use, supporting the principle of circularity.</p> <p>We continue to see a focus from business, government and civil society to move towards a more circular economy, which focuses on eliminating waste, keeping material in use and regenerating natural systems. This offers significant opportunities, as well as challenges. We identify food waste, plastic waste and textile waste as three significant challenges where urgent collaborative action is required to combat the economic, environmental and social consequences of waste and enable the move from a linear to a more circular economy.</p>

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	Value chain stage	Please explain
Row 1	Not assessed – and we do not plan to within the next two years	<Not Applicable>	<p>We recognise the harmful effects of plastic waste on ecosystems. We also recognise that plastic packaging plays a vital role within the food industry in keeping food products safe. Wherever possible, we're removing unnecessary and problematic plastic packaging. Where there is currently no viable alternative to plastic packaging, we're increasing our use of recycled content and support the principle of circularity. To that end, we're increasing the recyclability of our packaging materials wherever we can.</p> <p>Our businesses are also implementing circular practices in lots of different ways: by sending plastic packaging to be recycled as industrial feedstocks, by designing clothing to be recycled, transforming organic waste into products that improve soil, or provide animal feed, or by generating renewable energy from sugar cane by-products.</p> <p>We understand that a range of stakeholders will need to join forces to create the infrastructure necessary for a truly circular economy for plastics. Furthermore, opportunities to use bio-based materials are limited, not least due to the strict regulations governing packaging that comes into direct contact with food. Nonetheless, many of our businesses are determined to reduce the environmental impacts of packaging and use recyclable plastic where possible.</p>

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	Value chain stage	Type of risk	Please explain
Row 1	No, risks assessed, and none considered as substantive	<Not Applicable>	<Not Applicable>	<p>The delivery of our strategic business objectives and long-term shareholder value are of paramount importance to ABF and are dependent on effective risk management. An event, or series of events, resulting in the inability to deliver the strategic objectives of the business and long-term shareholder value would be considered an event that would have a substantive financial or strategic impact on our business. ABF regularly faces business uncertainties, and it is through a structured approach to risk management that it is able to mitigate and manage these risks. The Board has identified £65 million as a material financial impact threshold for the group. An event or series of events that exceed this financial threshold could be considered to have a substantive financial or strategic impact as it would most likely impact the delivery of the group's strategic objectives or have a detrimental effect on the group's sustainable growth and long-term shareholder value.</p> <p>The Board undertakes a robust annual assessment of the principal risks, including emerging risks which could threaten the business model, future performance, solvency or liquidity. These are the principal risks of the group as a whole and the risks which could prevent ABF from delivering its strategic objectives. These are the principal risks which ABF believes are likely to have the greatest current or near-term impact on our strategic and operational plans and reputation. The Board has identified "Our use of natural resources and managing our environmental impact" as a principal risk. Our businesses and their supply chains rely on a secure supply of finite natural resources, and our material environmental impacts include waste which is not yet eliminated at source, reused or recycled, including single-use plastics. Although we recognise the potential risks and the harmful effects of plastic waste, we do not anticipate that plastic-related risks could have a substantive financial or strategic impact on ABF.</p>

W10.4

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

	Targets in place	Target type	Target metric	Please explain
Row 1	Yes	Please select		<p>ABF's approach to environmental stewardship is set out in ABF's Environment Policy. It includes managing releases to water and landfill of solid wastes, minimising the generation of raw material waste and reducing, reusing or recycling solid waste where practicable, and minimising the amount of packaging used for our products while meeting requirements for food safety and product protection.</p> <p>Although targets are not included in the Policy certain businesses have set commitments: UK Grocery supports WRAP's UK Plastics Pact. By 2025 this aims: – to take actions to eliminate problematic or unnecessary single-use plastic packaging items through redesign, innovation or alternative (reuse) delivery models; – for 100% of plastic packaging to be reusable, recyclable or compostable; – for 70% of plastic packaging to be effectively recycled or composted; and – for 30% average recycled content across all plastic packaging.</p> <p>As part of the Australian Packaging Covenant Organisation (APCO), GWF has committed to the 2025 National Packaging Targets of Australia and those endorsed by New Zealand: - 100% of all packaging will be reusable, recyclable, or compostable by end 2025 or earlier; - 70% of plastic packaging will be recycled or composted by end 2025; and - 50% average recycled content will be included across all packaging by end 2025. Problematic and unnecessary single-use plastic packaging will be phased out through design, innovation, or introduction of alternatives.</p> <p>AB Sugar has committed to making all its plastic packaging reusable, recyclable, biodegradable or compostable by 2030. Twinings has committed to ensure that, in all markets, consumer packaging is reusable or recyclable and tea bags are compostable by 2025. Primark has committed to eliminate all single-use plastic from the business by 2027.</p>

W10.5

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

	Activity applies	Comment
Production of plastic polymers	No	ABF does not produce plastic polymers.
Production of durable plastic components	No	ABF does not produce durable plastic components.
Production / commercialization of durable plastic goods (including mixed materials)	Yes	Our relevant businesses are aware of the harmful effects of plastic waste and address these through tailored approaches. For example, Primark has committed to eliminate all single-use plastic by 2027.
Production / commercialization of plastic packaging	No	We recognise the importance of understanding our role in the commercialization of plastic packaging. Our relevant businesses are aware of the harmful effects of plastic waste and address these through tailored approaches.
Production of goods packaged in plastics	Yes	<p>Our relevant businesses are aware of the harmful effects of plastic waste and address these through tailored approaches. For example, more than 83% of the plastic used by the businesses in the UK Grocery division is now either widely recycled or can easily be recycled where collection and facilities exist.</p> <p>AB World Foods continued work to minimise environmental impact of packaging via reduction, including light-weighting of PET plastic bottles for their Blue Dragon brand. Blue Dragon Sweet Chilli Dipping Sauce 350-380ml bottles were reduced by 5g per unit, doubling light-weighting achieved since launch; this eliminated around 22.7 tonnes of unnecessary PET in-year and will avoid around 50.5 tonnes in each subsequent year. Blue Dragon Soy Sauce 375ml bottles were reduced by 10g per unit; this eliminated around 8 tonnes of unnecessary plastic in-year and will avoid around 16 tonnes in each subsequent year.</p>
Provision / commercialization of services or goods that use plastic packaging (e.g., retail and food services)	Yes	<p>Our relevant businesses are aware of the harmful effects of plastic waste and address these through tailored approaches. For example, Tip Top Bakeries in Australia replaced polystyrene bread bag tags with 100 per cent recycled and recyclable cardboard material which can be recycled if placed in a used envelope at kerbside collection. This removes over 300 million pieces of plastic bread tags from the environment every year, which is equivalent to 105 tonnes of plastic going to landfill annually. GWF is also supporting in Australia the National Plastics Recycling Scheme through the Australian Food & Grocery Council which is working at taking hard-to-recycle soft plastics out of waste streams.</p> <p>As a further example, Primark has established a Packaging Centre of Excellence to look closely at its packaging and explore ways to reduce it. Since 2019, Primark has estimated it has removed over 600 million units of unnecessary single-use plastic components from its business.</p>

W10.7

(W10.7) Provide the total weight of plastic durable goods/components sold and indicate the raw material content.

Row 1

Total weight of plastic durable goods/components sold during the reporting year (Metric tonnes)

70624

Raw material content percentages available to report

None

% virgin fossil-based content

<Not Applicable>

% virgin renewable content

<Not Applicable>

% post-industrial recycled content

<Not Applicable>

% post-consumer recycled content

<Not Applicable>

Please explain

ABF requires the individual businesses to annually report the total weight of packaging used for the containment, protection, handling, delivery and presentation of goods. The figure provided is the total of all outgoing plastic packaging around ABF products to customers. ABF does not require the individual businesses to report the raw material content of the plastic packaging and therefore the raw material content percentages are not available.

W10.8

(W10.8) Provide the total weight of plastic packaging sold and/or used, and indicate the raw material content.

	Total weight of plastic packaging sold / used during the reporting year (Metric tonnes)	Raw material content percentages available to report	% virgin fossil-based content	% virgin renewable content	% post-industrial recycled content	% post-consumer recycled content	Please explain
Plastic packaging sold	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Plastic packaging used	70624	None	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	ABF requires the individual businesses to report annually the total weight of packaging used for the containment, protection, handling, delivery and presentation of goods. The figure provided is the total of all outgoing plastic packaging around ABF products to customers. ABF does not require the individual businesses to report the raw material content of the plastic packaging and therefore the raw material content percentages are not available.

W10.8a

(W10.8a) Indicate the circularity potential of the plastic packaging you sold and/or used.

	Percentages available to report for circularity potential	% of plastic packaging that is reusable	% of plastic packaging that is technically recyclable	% of plastic packaging that is recyclable in practice at scale	Please explain
Plastic packaging sold	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Plastic packaging used	None	<Not Applicable>	<Not Applicable>	<Not Applicable>	<p>ABF does not require businesses to report the circularity potential of plastic packaging sold or used. Businesses are engaged in activities to reduce the impact of plastic packaging.</p> <p>Sustainable packaging improvement plans are being implemented by businesses across the Group. For example, UK Grocery businesses are focused on increasing the use of recycled content in packaging where it is possible to access certified food-safe recycled packaging materials.</p> <p>Primark has established a Packaging Centre of Excellence to look closely at its packaging and explore ways to reduce it. Since 2019, Primark has estimated it has removed over 600 million units of unnecessary single-use plastic components from its business.</p>

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	Director of Legal Services and Company Secretary who reviews all ESG aspects.	Other C-Suite Officer

SW. Supply chain module

SW0.1

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

	Annual revenue
Row 1	16997000000

SW1.1

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

This is confidential

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	No, this is confidential data	We have the data and will share with customers on a case by case basis as part of our commercial engagements. Given the number of our operating sites, it is not viable to provide all the geolocation data within CDP.

SW2.1

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

SW2.2

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

No

SW3.1

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

Submit your response

In which language are you submitting your response?

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