

## Associated British Foods – CDP Report – Water Security 2018

### W0 Introduction

---

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

---

Associated British Foods is a diversified international food, ingredients and retail group with sales of £15.4bn, 133,000 employees and operations in 50 countries across Europe, southern Africa, the Americas, Asia and Australia. Our purpose is to provide safe, nutritious, affordable food and clothing that is great value for money. The group operates through five strategic business segments: Grocery, Sugar, Agriculture, Ingredients and Retail. We aim to achieve strong, sustainable leadership positions in markets that offer potential for profitable growth and deliver quality products and services that are central to people's lives.

Each business in the group enjoys a high degree of autonomy in the running of their operations, but at the heart of the way we operate is a principle of 'value together' – the benefit the group gains from each business being part of the larger organisation.

**Grocery** comprises consumer-facing businesses that manufacture and market a variety of well-known food brands both nationally and internationally. Some of its best-known household brands include Twinings, Ovaltine, Ryvita, Kingsmill, Silver Spoon, Tip Top, Mazola and Spice Islands. George Weston Foods in Australia enjoys a 75% penetration of Australian households.

**AB Sugar** - The heart of our business is making and selling sugar, but we do much more than that. As well as 'core products', made from sugar beet and sugar cane, we also make 'co-products', which can include anything one or two 'steps' away from the sugar-making process: animal feed, soil conditioners, electricity, bioethanol and seed enhancements. Our operations are in the UK, Spain, southern Africa and north China. In the EU, Azucarera is the major producer in Iberia and British Sugar is the sole processor of the UK sugar beet crop and is one of Europe's most efficient processors. Illovo Sugar is the biggest sugar processor in Africa and is one of the world's foremost low-cost producers. We also have a beet sugar business in north China. The group currently operates in ten countries and has 24 factories with the capacity to produce some 4.5 million tonnes of sugar and 600 million litres of ethanol annually. We also have the capacity to generate power sufficient to meet most of our internal needs and, in a number of locations, we export power to the national grid.

**AB Agri** operates at the heart of the agricultural industry. Its unique breadth and experience enable it to add value all along the food, drink and biofuel industry supply chains. AB Agri supplies products and services to farmers, feed and food manufacturers, processors and retailers. It also buys grain from farmers and supplies crop inputs through its joint venture arable operation, Frontier Agriculture.

**Ingredients** comprises a number of businesses that supply a range of ingredients to food and non-food manufacturers. AB Mauri has a global presence in bakers’ yeast with significant market positions in The Americas, Europe and Asia, and is a technology leader in, and supplier of, bread improvers, dough conditioners and bakery mixes. ABF Ingredients comprises businesses focusing on high-value ingredients for food, feed, pharmaceutical and industrial applications.

**Primark** is one of the largest clothing retailers in Europe. Primark employs more than 68,000 people across eleven countries across Europe and the northeast of the USA. It offers customers value for money clothing in more than 300 stores and more than 12 million square feet of retail selling space.

We have always had a decentralised approach to doing business. Operational decisions are made locally because, in our experience, they are most successful when made by the people who have the best understanding of their markets and who have to implement them. This culture of setting strategy and priorities locally gives our businesses an advantage in being able to swiftly respond to local market, environmental and people issues. The corporate centre aims to provide a framework in which our business leaders have the freedom and decision-making authority to pursue opportunities. The centre is small and uses short lines of communication to ensure prompt, incisive and unambiguous decision-making. It seeks to ensure that business activities are appropriately monitored and supported.

Our group corporate responsibility priorities are focused on: protecting the environment; the safety of our people; the diversity of our workforce; addressing modern slavery and promoting ethical trade.

**W-FB0.1a Which activities in the food, beverage, and tobacco sector does your organization engage in?**

- Agriculture
- Processing/Manufacturing
- Distribution

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

Start date	End date
From: 08/01/2016	To: 07/31/2017

**W0.3 Select the countries for which you will be supplying data.**

---

Argentina	Netherlands
Australia	New Zealand
Austria	Pakistan
Belgium	Peru
Brazil	Philippines
Canada	Poland
Chile	Portugal
China	Singapore
Colombia	South Africa
Czechia	Spain
Denmark	Sri Lanka
Ecuador	Swaziland
Finland	Switzerland
France	Thailand
Germany	Turkey
India	United Kingdom
Ireland	United republic of Tanzania
Italy	United States of America
Malawi	Uruguay
Malaysia	Venezuela
Mexico	Vietnam
Mozambique	Zambia

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

GBP

**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.**

Entities where we have 50% + ownership

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

Yes

**W0.6a Please report the exclusions.**

Exclusion	Please explain
Gledhow Sugar Company (Pty) Ltd, South Africa	Illovo is a minority shareholder of Gledhow Sugar Company (Pty) Ltd and provides operational management to the mill but does not have direct control over the strategic direction and priorities of the operation.

**W1 Current state**

**W1.1 Rate the importance (current and future) of water quality and water quantity to the success of your business.**

Water quality and quantity	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Vital	Important	<p>Sufficient, secure amounts of good quality freshwater are required by ABF businesses especially those in agriculture and manufacturing. Water quality is critical as many sites rely on pure fresh or potable water for their food related operations. Water is used throughout ABF’s value chain e.g 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. For example, Westmill and PGP depend on reliable sources of water for a consistent supply of rice. Illovo's main water use is for irrigating the sugar cane in operations outside of South Africa. Insufficient water supply would specifically impact yield, cane quality and production facilities in our end to end supply chain. Over half of the sugarcane processed by Illovo is cultivated by independent farmers or outgrowers. A reduction in outgrower sugarcane supply could significantly impact Illovo's capacity.</p>
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Important	<p>Sufficient and secure amounts of recycled water are used by a large proportion of ABF companies especially those in agriculture and manufacturing and most significantly across our sugar business. 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. Water is used throughout ABF’s value chain e.g. by independent farmers or within suppliers wet processing facilities. A reduction in either raw material supply or finished goods from our suppliers could significantly impact the output of our business. Over half of the sugarcane processed by Illovo is cultivated by independent farmers or 'outgrowers'. A reduction in outgrower sugarcane supply could significantly impact Illovo's production. Illovo leads with the requirement that all outgrowers should have water supply agreements with the relevant</p>

			national authorities.
--	--	--	-----------------------

**W-FB1.1a 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	21-40	Both	AB Sugar, a subsidiary division of ABF, operates sugar beet factories in the UK, Spain and northern China. And operates sugar cane plantations and mills in six African countries. Sugar represents the largest water user in the group with Illovo alone accounting for 95% of the group’s total water in the reporting year. Unlike the other ABF divisions, AB Sugar uses water in both agriculture and factory facilities.

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

Water aspect	% of sites/facilities/operations	Please explain
--------------	----------------------------------	----------------

Water withdrawals – total volumes	100%	<p>All ABF companies are responsible for reporting their individual site data for water withdrawal on an annual basis to ABF. This data is verified by ABF and independently assured by external auditors (for the reporting year, Ernst &amp; Young). This information is used to evaluate the performance of an operation and aids in a range of activities such as the identification of potential water conservation opportunities, legal compliance and effective agricultural management.</p>
Water withdrawals – volumes from water stressed areas	76-99%	<p>Towards the end of 2017, ABF applied the WWF Water Risk Filter Tool assessment to our sites to identify those operating in water stress basins. Sites excluded from this exercise included offices.</p> <p>This 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.</p> <p>Use of the Tool enabled ABF to list the sites ranging from those operating in basins with negligible stress to those operating in high stress basins as per the outcomes of the WWF Tool.</p> <p>Further work is being conducted with sites to apply operational knowledge to the Tool's outcomes.</p>
Water withdrawals – volumes by source	100%	<p>In 2016/17, ABF expanded the water data requirements within its annual health, safety and environment key performance indicators; all sites provide this data to ABF each year. Within total water withdrawn, each site provided the volume by source. This internal reporting development enables ABF to report volumes by source accurately this year rather than estimating the proportions.</p> <p>A significant proportion of our facilities monitor this data for their own management decisions. For example, AB Sugar businesses all monitor 100% of their water sources to evaluate the sustainability of their supply and ensure legal compliance.</p>
Water withdrawals quality	100%	<p>For the majority of our factories, offices and stores, water quality is paramount for use within our operations and for potable use. For other uses, the quality of sourced water is less paramount as it will not be directly consumed. For example, it will be used for irrigation or as a coolant within our factories. However, the quality is still monitored and managed as constraints on the quality of water impacts our ability to operate efficiently and may have associated costs.</p>

Water discharges – total volumes	100%	<p>ABF facilities report volume of water discharge to regulators as part of their water discharge permits. All ABF businesses are required to report annually to ABF the volume of effluent discharged over the course of the reporting year. This data is verified by ABF.</p> <p>Some businesses have a current objective to decrease waste water discharged. For example, Illovo's approach to water includes an aim to decrease waste water discharge by increasing water reuse and recycling. Water discharge is therefore monitored at 100% of Illovo's operations to identify recycling opportunities and inform the development of the operations' water footprint.</p>
Water discharges – volumes by destination	100%	<p>ABF facilities report volume of water discharge and destination to regulators as part of their water discharge permits. As well as legal compliance, our facilities use this information to monitor and ensure minimal impact on surrounding natural and social environments. In 2014, ABF supported our material water users with the WWF Water Risk Filter Tool to identify the destination of their water discharges. We use information provided in 2014 to estimate the volumes by destination for our businesses; checking with them if operational or other local changes may have altered to where they discharge their waste water.</p>
Water discharges – volumes by treatment method	100%	<p>ABF businesses measure, monitor and maintain records for water discharges by treatment method for their own operational reasons and for regulatory purposes. ABF does not require our businesses to report this information to the group. However, if the data were required, ABF can obtain it from the individual business records. For Illovo, the monitoring of water discharged from industrial operations 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.</p>
Water discharge quality – by standard effluent parameters	100%	<p>All ABF's businesses operate within and comply with a regulatory water and wastewater framework. As such, our sites regularly measure and monitor the quality of their water discharges to ensure legal compliance and minimal impact on the surrounding natural and social environments.</p>

Water discharge quality – temperature	76-99%	All ABF's businesses 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.
Water consumption – total volume	76-99%	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. For example, 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 monitor their total water footprints.
Water recycled/reused	1-25%	Across the group, recycled or 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.
The provision of fully-functioning, safely managed WASH services to all workers	100%	<p>All ABF companies provide appropriate water and sanitation facilities for our workers 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.’</p> <p>In Illovo’s Code of Conduct and Business Ethics under “Safe Working Conditions” it is stated that “Accommodation, where provided, should be clean, safe, and meet the basic needs of the workers.”</p> <p>In Africa, all our Sugar operations supply workers with basic amenities, such as water and electricity, and also to some of the communities in which Illovo is situated. This water is consequently monitored at all operations.</p>

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

Water aspect	Volume	Comparison with	Please explain
--------------	--------	-----------------	----------------

	(megaliters/ year)	previous reporting year	
Total withdrawals	811,914	About the same	We are reporting a 1.5% increase in total water withdrawal compared with the previous year. This increase can be attributed to the inclusion of cooling water in this key performance indicator (KPI) for all our sites, as well as production increases and increased water levels in some of the southern African sites, permitting more water to be used for irrigating our crops.
Total discharges	67,052	Higher	The data reported this year is higher mainly due to the inclusion of waste water from agricultural operations which were not reported in the previous year.
Total consumption	0		We are currently unable to report a robust water consumption figure for the whole group.

**(W1.2d) Provide the proportion of your total withdrawals sourced from water stressed areas.**

% withdrawn from stressed areas	Comparison with previous reporting year	Identification tool	Please explain
62%	This is our first year of measurement	WWF Water Risk Filter	In 2014, we first conducted a groupwide water stress assessment for the sites withdrawing a material amount of water. We piloted the internationally recognised WWF Water Risk Filter Tool and asked our sites to validate the findings. We repeated this assessment towards the end of 2017 and continue to work with our sites to confirm the output from using the tool. In most cases, using their operational and local knowledge, our environmental and operational teams at the sites confirm that the basins from which they access water are experiencing some level of stress. Offices were excluded from this assessment this year. This 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. Use of the Tool enabled ABF to list the sites ranging from those operating in basins with negligible stress to

			<p>those operating in high stress basins as per the outcomes of the WWF Tool.</p> <p>We have adopted the WWF’s ‘total basin score’ as to whether a basin is considered to be stressed. Using WWF’s guidance for its individual risk indicators, we have applied the same parameters for the total basin score, splitting the score of 1 to 5 into:</p> <p>1 - 1.9 = No or very limited stress                  2 - 2.9 = Limited stress                  3 - 3.9 = Some stress                  4 - 5 = High stress.</p> <p>In order to determine where we prioritise resources, we are using the score of 3 to 5 as our group of water stressed basins. This parameter means we include sites determined by the WWF Tool as experiencing some or high levels of stress. We continue to work with our businesses operating in other water basins on their approach to water risk management.</p>
--	--	--	--

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

Agricultural commodities	The proportion of this commodity produced in water stressed basins is known	The proportion of this commodity sourced from water stressed basins is known	Please explain
Sugar	Yes	Yes	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.

**W-FB1.2f What proportion of the produced agricultural commodities reported in W-FB1.1a originate from water stressed areas?**

Agricultural commodities	% of total agricultural commodity produced in water stressed areas	Please explain
Sugar	52%	To obtain this figure, we have used data supplied by our AB Sugar sites for their total product tonnage (which also includes co-products) for the reporting year. We also used the output from the WWF Water Risk Filter Tool assessment conducted towards the end of 2017. Therefore this figure is the outcome of one tool. Other methodologies and internationally recognised water stress tools are used internally which provide more detailed results.

**W-FB1.2g What proportion of the sourced agricultural commodities reported in W-FB1.1a originate from water stressed areas?**

Agricultural commodities	% of total agricultural commodity sourced in water stressed areas	Please explain
Sugar		Our sugar businesses work closely with their own grown and 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. We will be able to report via CDP the percentage of sugar sourced from water stressed areas in future years.

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

Source	Relevance	Volume (megaliters)	Comparison with previous	Please explain
--------	-----------	---------------------	--------------------------	----------------

		/year)	reporting year	
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	771,514	About the same	Source data was previously estimated based on a sample of sites providing their actual data. This year we obtained source information from all sites. Compared with last year, this year is 0.7% less.
Brackish surface water/seawater	Relevant	959	About the same	A small proportion of our total group water is brackish or seawater. This is less than 1% of our total water.
Groundwater – renewable	Relevant	27,633	Much Higher	Source data was previously estimated based on a sample of sites providing their actual data. This year we obtained source information from all sites. Compared with last year, this year is nearly double the amount we estimated last year sourced from groundwater.
Groundwater – non-renewable	Not Relevant			
Produced water	Relevant	1,036	Higher	Source data was previously estimated based on a sample of sites providing their actual data. This year we obtained source information from all sites. Compared with last year's estimate, this year's reported figure is higher.
Third party sources	Relevant	11,011	Much higher	Source data was previously estimated based on a sample of sites providing their actual data. This year we obtained source information from all sites. Compared with last year's estimate, this year's reported data is 65% higher.

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

Destination	Relevance	Volume (megaliters /year)	Comparison with previous reporting year	Please explain
Fresh surface water	Relevant	40,902	Higher	An increase in the amount of water entering our sites from withdrawn water, an increase in the amount of raw material processed and flooding at some of our material water using sites all contributed to this increase in the volume of waste water produced.
Brackish surface water/seawater	Relevant	5,297	Higher	An increase in the amount of water entering our sites from withdrawn water, an increase in the amount of raw material processed and flooding at some of our material water using sites all contributed to this increase in the volume of waste water produced.
Groundwater	Relevant	67	Higher	An increase in the amount of water entering our sites from withdrawn water, an increase in the amount of raw material processed and flooding at some of our material water using sites all contributed to this increase in the volume of waste water produced.
Third-party destinations	Relevant	20,786	Higher	An increase in the amount of water entering our sites from withdrawn water, an increase in the amount of raw material processed and flooding at some of our material water using sites all contributed to this increase in the volume of waste water produced.

**W1.2j What proportion of your total water use do you recycle or reuse?**

% recycled or reused	Comparison with previous reporting year	Please explain
11-25%	About the same	Compared with last year, our businesses have reused or recycled approximately the same amount of water for reuse within their operations.

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

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	<p>We collect and calculate the water intensity of our sugar at an individual business level. For example, British Sugar, which sources sugar beet, is a signatory to the voluntary Food and Drink Federation (FDF) which is helping UK food and drink manufacturers to improve their environmental sustainability by reducing water use by 20% by 2020 (2011/12 baseline).</p> <p>We are not in a position this year to disclose our consolidated sugar/water intensity figure.</p>

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

- Yes, our suppliers

- Yes, our customers or other value chain partners

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

% of suppliers by number	% of total procurement spend	Rationale for this coverage	Impact of the engagement and measures of success
Unknown	Unknown	<p>Our group wide Supplier Code of Conduct sets out the standards we expect of our suppliers. The Code includes our requirement that suppliers will continually strive towards improving efficiency and sustainability of their operations which include water conservation.</p> <p>Where identified as a material supply chain issue, our individual businesses engage with their suppliers on water issues. For example, Primark works closely with suppliers to manage and monitor incoming water and wastewater discharge. Primark has a chemical management programme with specific focus in China where government reporting of incoming water use and discharge is prioritised.</p> <p>Across AB Sugar, the businesses work with their beet and cane growers on water. For example, Azucarera has an Agronomic Improvement Plan</p>	<p>Primark is committed to the adoption of ZDHC’s Wastewater Guidelines and have communicated expectations regarding wastewater to their product suppliers. The ZDHC Gateway – Wastewater portal has been operational since July 2017. Primark’s Sustainable Cotton programme has trained 1,251 female cotton farmers in the Gujurat region in India in the first three years since launching. By the end of year three, the programme saw a 10% decrease in water usage, 44% reduction in chemical pesticide use and 40% reduction in fertiliser use.</p> <p>Through its Agronomic Improvement Plan and in collaboration with AIMCRA, Azucarera has delivered training attended by 350 beet growers to highlight the benefits of irrigation powered by solar energy; demonstrated irrigation systems to show growers they can achieve savings of up to 30% of the water needed to irrigate and shared the benefits of irrigation systems</p>

		which aims to improve the efficient use of energy and water of their beet growers via training, regular communications and irrigation system demonstrations.	that work at low pressure. Via an app to all growers, weekly water consumption updates are provided.
--	--	--	--

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

Type of engagement	Details of engagement	% of suppliers by number	% of total procurement spend	Rationale for the coverage of your engagement	Impact of the engagement and measures of success
Innovation & collaboration	Provide training and support on sustainable agriculture practices to improve water stewardship	Unknown	Unknown	Water is a vital resource to all of AB Sugar's businesses; it is increasingly under risk due to climate change, population rises and other increasing constraints. Therefore, there is a strong business case for AB Sugar to reduce their environmental impact and work with their growers to ensure a secure supply of raw materials. At the end of 2016, AB Sugar became a member of the Sustainable Agriculture Initiative (SAI) Platform. Within the SAI, AB Sugar has joined	Sugar beet supplied to British Sugar meets the Red Tractor assurance standards. Red Tractor's sugar beet and cereals assurance standards combined with UK legislative requirements have achieved Silver level equivalence with SAI Platform's Farm Sustainability Assessment (FSA) 2.0.

				<p>the Sugar Beet Working Group and Farm Assessment Group. British Sugar and Azucarera’s beet growing farmers are already benefiting from this engagement across the value chain, with practical solutions for farmers to benchmark, assess and communicate their sustainability practices.</p>	
--	--	--	--	---	--

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

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, our businesses respond to customer requests to collaborate on a range of environmental management projects including water reporting and considering ways to implement water efficiencies. For certain products, customers have been consulted on their use of water with the product to provide us with insights into potential water reduction strategies in our value chain.

W2 Business impacts

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

Yes

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

Country	River basin	Type of impact driver	Primary impact driver	Primary impact	Description of impact	Primary response	Total financial impact	Description of response
Malawi	Zambezi	Physical	Increase water scarcity	Reduction or disruption in production capacity	During the 2016/17 season, Illovo’s Nchalo operation in Malawi experienced a reduction in sugar production of 11% due to poor rainfall, low river and lake levels and multiple power interruptions. This increased pump lost time analysis (LTA) and reduced effective water supplied to crops by 350mm (20% less than the long	Infrastructure maintenance	113,000	In response to unreliable water and energy supply, Nchalo Sugar has embarked on a number of mitigation actions including: <ul style="list-style-type: none"> <li>- Irrigation conversion – in the process of converting 2280 ha (17% of the estate) to more efficient drip irrigation systems</li> <li>- Improved pump and electricity infrastructure reliability – pump replacement (15% of the estate) and improved maintenance systems</li> <li>- Increased water storage capacity – installation of water for storage dams aimed at mitigating short</li> </ul>

					term mean of 1,765mm).			<p>power outages, river fluctuations and optimising on and off peak power use</p> <ul style="list-style-type: none"> <li>- Irrigation management – improved management of current system</li> <li>- Alternative energy – investigating options for alternate energy sources such as solar, diesel and factory cogeneration</li> <li>- Engagement – Nchalo continues to support the High Level Canal initiative</li> <li>- Technology – adoption of new technology where applicable e.g. RCM eef, Biometrics and CanePro Mobile.</li> </ul>
Malawi	Zambezi	Physical	Increased water scarcity	Reduction or disruption in production capacity	Illovo’s Dwangwa operation has suffered power outages linked to national grid instability. This has resulted in an increase in pump lost time analysis (LTA) and	Infrastructure maintenance		The site’s response has been to plan for the installation of two new diesel generators with modern control systems. These generators will improve power supply reliability and enhance factory capability to recover quicker from national grid outage in order to

					reduced effective water supply to crops.			continue power exports to agriculture. The financial impact is not quantified.
--	--	--	--	--	--	--	--	---

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

Yes, fines, other penalties or enforcement orders but none that are considered as significant

**W2.2a Provide the total number and financial value of all water-related fines.**

Total number of fines	Total value of fines	% of total facilities/operations associated	Number of fines compared to previous year	Comment
4	101,548	1%	Higher	In the previous year, one fine was received for water related regulatory violations.

### W3 Procedures

---

#### **W-FB3.1 How does your organization identify and classify potential water pollutants associated with its food, beverage, and tobacco sector activities that could have a detrimental impact on water ecosystems or human health?**

---

Most ABF factories discharge their industrial wastewater into municipal treatment systems under strict discharge limits including total volume, BOD, COD, suspended solids, grease/oil/fats, pH levels and sometimes other specialist determinants. The municipal treatment systems use bacteria to 'digest' the pollutants and bring them down to concentrations which do not, when added to the discharges from other industrial, commercial and domestic premises, cause harm to aquatic ecosystems and cause loss of animals, flora and local amenities. Anything which would compromise the treatment systems is heavily controlled and strictly enforced. 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.

Our typical food factories will have a two-pronged approach to preventing pollution i.e. not exceeding their permitted discharge concentrations. They minimise any polluting materials entering their wastewater. Secondly, they ensure that there is sufficient monitoring, quality controls and pre-treatment on site so that whatever is eventually discharged complies with the terms of its discharge permit. Some factories, particularly our yeast factories, install buffer tanks to allow an aggregation of discharge liquids to allow it to balance out peaks of concentrated potential pollutants and ensure all discharges meet their limits or have on-site treatment systems before discharging. They usually have a combination of different treatment techniques according to the local ecological and health risks.

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.

There are some hazardous substances which some of our factories may discharge into the rivers which, unless strictly limited, could cause damage. These include non-natural chemicals, oils/greases and other eco-toxic substances such as heavy metals and paints which are sometimes used in the analytical quality control laboratories or by the engineers for special purposes. These substances require a higher level of control and our factories comply with the strict legislation placed on the discharge of such materials.

#### **W-FB3.1a Describe how your organization minimizes the adverse impacts of potential water pollutants on water ecosystems or human health associated with your food, beverage, and tobacco sector activities.**

Potential water pollutant	Activity/value chain stage	Description of water pollutant and potential impacts	Management procedures	Please explain
Fertilizers	Agriculture – direct operations	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.	Fertilizer management Calculation of fertilizer intensity data	<p>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. There is no advantage for us in applying excess fertilisers as the costs would outweigh the yield benefit and would incur needless cost.</p> <p>In British Sugar, since 2001 incremental rate of growth has increased to 3% annually. Yield increases have been achieved with significantly lower inputs of fertiliser and herbicides per hectare.</p>
Pesticides and other agrochemical products	Agriculture – direct operations	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.	Pesticide management	We promote sustainable agricultural practices across all of our operations. We promote the use of the best available registered and recommended insecticides and apply these according to the manufacturer standards.

<p>Manure and slurries</p>	<p>Agriculture – direct operations</p>	<p>A potential impact of mismanagement of manure and slurries is leaching through the soil and creating high concentrations of matter and bacteria in the water bodies.</p>	<p>Animal waste management  Waste water management</p>	<p>The manure from our pig farming operations is collected and sent for aerobic and / or anaerobic digestion before disposal.</p>
<p>Discharges from food factories</p>	<p>Agriculture – direct operations</p>	<p>Lack of or ineffective wastewater treatment could lead to exceeding limits applied to volume, chemicals, solids, pH levels and other determinants impacting the balance of the receiving water course.</p>	<p>Waste water management</p>	<p>Most of 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.</p> <p>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.</p> <p>Our typical food factories will have a two-pronged approach to preventing pollution i.e. not exceeding their permitted discharge concentrations. They minimise any polluting materials entering their wastewater. Secondly, they ensure that there is sufficient monitoring, quality controls and pre-</p>

				<p>treatment on site so that whatever is eventually discharged complies with the terms of its discharge permit. Some factories, particularly our yeast factories, install buffer tanks to allow an aggregation of discharge liquids to allow it to balance out peaks of concentrated potential pollutants and ensure all discharges meet their limits or have on-site treatment systems before discharging. They usually have a combination of different treatment technologies according to the local ecological and health risks.</p>
--	--	--	--	---

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

Yes, water-related risks are assessed

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

Value chain stage	Coverage	Risk assessment	Frequency of	How far into the future are	Type of tools and methods used	Tools and methods used	Comment
-------------------	----------	-----------------	--------------	-----------------------------	--------------------------------	------------------------	---------

		procedure	assessment	risks considered?			
Direct operations	Full	Water risks are assessed in an environmental risk assessment	Annually	6 to 10 years	<ul style="list-style-type: none"> <li>- Enterprise Risk Management</li> <li>- International methodologies</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>- Environmental Impact Assessment</li> <li>- IPCC Climate Change Projections</li> <li>- Internal company methods</li> <li>- External consultants</li> <li>- Independent river basin studies</li> </ul>	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. Detailed risk and opportunity assessments are managed by individual businesses at company level and submitted to ABF. They use a range of tools to identify their specific environmental and water risks.
Supply chain	Partial	Water risks are assessed in an environmental risk assessment	Not defined	6 to 10 years	<ul style="list-style-type: none"> <li>- Tools on the market</li> <li>- Enterprise Risk Management</li> <li>- International methodologies</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>- Environmental Impact Assessment</li> <li>- IPCC Climate Change Projections</li> <li>- Engage with</li> </ul>	

						management catchment agencies	
Other stages of the value chain	Partial	Water risks are assessed as a standalone issue	Not defined	6 to 10 years	- Tools on market - Databases	- WWF-DEG Water Risk Filter - SMETA Audits	For example, Illovo has benefitted from independent external third-party sustainability assessments conducted on behalf of their customers. Illovo operations have been assessed against the Pro Terra standard on behalf of American Sugar Refining Inc (ASR). Illovo facilities were also assessed by Partner Africa who conducted an audit on behalf of the Coca Cola Company using the Coca Cola Company's Supplier Guiding Principles (SGP).

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

Contextual issue	Relevance & inclusion	Please explain
Water availability at a basin/catchment	Relevant, always included	Water is a primary resource for the majority of our businesses particularly those in the sugar, yeast, baking and pharmaceutical industries. Consequently understanding quality and quantity risks associated with current and future water supply at the local level is critical. Water availability and quality parameters are included in ABF's assessment of water risk using GPS co-ordinates of the facility and best available peer reviewed data sets via the WWF Water Risk Filter

<p>level</p>		<p>Tool.</p> <p>In addition, individual businesses conduct local level availability and quality checks to help ensure supply meets demand and quality requirements.</p> <p>For example, Illovo supplies surrounding mill estates and 3rd party users with potable water that needs to meet consumer standards. Over the past few years a number of Illovo's operations have experienced issues with water supply not meeting demand or quality requirements. Internal company knowledge, water footprinting, river basin studies and catchment management agency engagement are all means through which Illovo assesses this risk.</p>
<p>Water quality at a basin/catchment level</p>	<p>Relevant, always included</p>	<p>Water is a primary resource for the majority of our businesses particularly those in the sugar, yeast, baking and pharmaceutical industries. Consequently understanding quality and quantity risks associated with current and future water supply at the local level is critical. Water availability and quality parameters are included in ABF's assessment of water risk using GPS co-ordinates of the facility and best available peer reviewed data sets via the WWF Water Risk Filter Tool.</p> <p>In addition, individual businesses conduct local level availability and quality checks to help ensure supply meets demand and quality requirements.</p> <p>For example, Illovo supplies surrounding mill estates and 3rd party users with potable water that needs to meet consumer standards. Over the past few years a number of Illovo's operations have experienced issues with water supply not meeting demand or quality requirements. Internal company knowledge, water footprinting, river basin studies and catchment management agency engagement are all means through which Illovo assesses this risk.</p>

<p>Stakeholder conflicts concerning water resources at a basin/catchment level</p>	<p>Relevant, always included</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 and work with others to address concerns. British Sugar was involved in stakeholder workshops relating to the Water Framework Directive to identify areas for improvement to water quality and ecosystems. As a means of understanding and responding to other stakeholder needs, Illovo are members of local catchment organisations for all their operations and actively work to improve the effectiveness of water use across their operations.</p>
<p>Implications of water on your key commodities/raw materials</p>	<p>Relevant, always included</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, sugar beet in the UK is rain fed with little reliance on irrigation and therefore the crop may be affected by drought conditions. Approximately half of the sugar cane processed by Illovo is received from third party sugarcane providers. The impact of water supply issues on these operations has a significant impact on our key raw material. Illovo undertake extensive engagement with their outgrowers to identify and manage this risk. Some of our other businesses also work with the most vulnerable raw material suppliers to ensure their sustainable water supply.</p>
<p>Water-related regulatory frameworks</p>	<p>Relevant, always included</p>	<p>All of our businesses operate within a water and wastewater regulatory framework and tariff system. Some of our operations are also regulated by trans-boundary water agreements. As such, monitoring changes and engaging with national and local regulators is important to anticipate potential impacts to our operations.</p> <p>As an example, George Weston Foods' Western Australia sites are part of the mandatory Water Efficiency Management Plan (WEMP). Water Supply Authorities have taken proactive steps to encourage a reduction in the quantity of water used by large water using businesses. These programmes are supported by local regulation and heavily influenced by dam levels within the water supply grid and seasonal conditions. Currently GWF's Perth WA facilities are subject to these WEMPs. The Perth WA WEMP Waterwise Business Programme is a mandatory scheme which requires annual reporting on targets, actions and plans by GWF's Canningvale and Bentley sites. Annual progress reports are a requirement under the Western Australia Water Agencies (Water-Use) By-laws of 2010.</p>

		<p>Activities by the sites have included redirecting wash water to a holding tank for reuse, use of trigger nozzles on hoses and restrictions on the hosing of hard surfaces.</p>
<p>Status of ecosystems and habitats</p>	<p>Relevant, always included</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 have an impact on production efficacy and operating costs. Some businesses support ecosystem conservation such as Jordans Ryvita Dorset which supports an award-winning farming model which pays British farmers a premium for their crop in return for enhancing wildlife biodiversity on their land. Azucarera has an agreement with the Environment Department of the government of Andalusia for managing La Laguna de Las Quinientas near the Guadalete factory in Jerez de la Frontera, as an industrial pond and wetland. The lagoon which receives water from the factory's production process serves as the habitat for protected species of birds.</p> <p>Illovo sites are located to next to resources of conservation importance including the Selous National Park, Tanzania, Kafue Flats Wetland, Zambia and the Incomati Estuary, Mozambique. Important to Illovo's risk assessment process is to ensure that operations do not negatively impact the surrounding natural environment.</p>
<p>Access to fully-functioning, safely managed WASH services for all employees</p>	<p>Relevant, always included</p>	<p>ABF businesses provide fully-functioning WASH services for all employees and contractors and these will be assessed by many of our businesses as part of their internal risk assessments</p> <p>Most of Illovo's operations also supply workers with basic amenities, such as water and electricity and in addition, supply some of the communities in which they are located.</p>
<p>Other contextual issues, please specify</p>	<p>Relevant, sometimes included</p>	<p>River basin management plans –</p> <p>ABF does not include individual river basin management plans in our group level risk assessment. However, many of our facilities participate in their local basin management planning or take them into account when making operational decisions which may involve water as changes in the management of the basins on which they rely can have a significant</p>

		<p>impact on the productivity of their business.</p> <p>Consequently, our onsite risk managers keep abreast of all proposed and planned changes to river basin management through river basin publication and studies and catchment agency engagement.</p>
--	--	--

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

Stakeholder	Relevance & inclusion	Please explain
Customers	Relevant, always included	<p>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.</p> <p>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. For example, AB Sustain's think.water programme is designed to highlight the sourcing and effectiveness of water use within a dairy enterprise. By enabling dairy farmers to benchmark their performance against other farms, the system can help to identify areas for improvements in water efficiency. Working with Dairy Crest, AB Sustain has assessed and benchmarked 252 UK farms' water use, water sourcing and associated costs.</p> <p>Illovo benefits from independent external third-party sustainability assessments conducted on behalf of their customers. Illovo operations have been assessed against the Pro Terra standard on behalf American Sugar Refining Inc (ASR). Illovo facilities were also assessed by Partner Africa who conducted an audit on behalf of the Coca Cola Company using the Coca Cola Company’s Supplier Guiding Principles (SGP).</p>

Employees	Relevant, always included	<p>ABF's first priority is to keep our people safe at work. Businesses using for example large volumes of water, water which requires intensive cleaning or heating incorporate employee safety into their water management. Employees are also briefed on water activities. For example, George Weston Foods incorporates water saving initiatives and water scarcity in its mandatory employee training. Across Illovo, several operations are responsible for the supply of essential services, including potable water, to their employees and their families.</p>
Investors	Relevant, always included	<p>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. Increasingly investors and other shareholders ask for our water data and management approach at a group and individual business level and as such, investor concerns are increasingly included in water risk assessments. For example, sharing with investors how we are managing our impact on water resources and addressing their key concerns such as assessing our exposure to water stressed areas, supports our brand reputation and approach to responsible business practices.</p>
Local communities	Relevant, always included	<p>For most of our businesses, 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. We are also cognisant of social flow requirements downstream of our operations. For example, Twinings is committed to support tea communities through housing, sanitation, water and hygiene. Since 2010, Twinings has partnered with Mercy Corps in Darjeeling and Assam in North India to address access to clean water and sanitation for the communities from which they source tea. Twinings aims to achieve at least a 50% reduction in waterborne diseases by providing households with sanitary latrines; improving the water retention capacity of catchment areas; installing systems to supply filtered water closer to the homes and conducting hygiene awareness and education campaigns. Since 2010, the partnership has provided 5,896 people with access to clean water.</p> <p>In 2016 Twinings piloted their Twinings Community Needs-Assessment (TCNA); a detailed framework developed in consultation with expert organisations including UNICEF, WaterAid, GAIN, Conservation International and others. This approach is designed to help Twinings gain a deeper understanding of the status and needs of farmers, tea workers and</p>

		<p>communities from which the business sources. Of the 10 topics covered Water and Sanitation; Natural Resources and arming Practices are included. So far assessments have been conducted in India, Sri Lanka and China, with plans to extend coverage in these regions and to roll out to all other tea sourcing regions in 2017.</p> <p>See Twinings Social Impact Report 2016 for more detail.</p>
NGOs	Relevant, always included	<p>We engage with NGOs on a range of environmental issues including water use and quality. We benefit from their local knowledge and networks as well as sharing with them our own water performance to help us with our continuous improvements in water activities. For example, Primark has engaged with Solidaridad and the International Finance Corporation (IFC) to look at improving energy and water use within its supply chains. Primark have had an ambitious chemical programme in place since 2014, incorporating their commitment to the Greenpeace DETOX campaign and clean chemical use and discharge in collaboration with the ZDHC (Zero Discharge of Hazardous Chemicals) industry brand collaboration group. Primark are also an active member of the Sustainable Apparel Coalition (SAC) which covers water issues from an industry wide perspective.</p> <p>Illovo engages with NGOs such as the Climate Resilient Infrastructure Development Facility (CRIDF), the German Deutsche Gesellschaft für International Zusammenarbeit (GIZ) and local stakeholders to improve access to safe drinking water by the communities surrounding their operations.</p>
Other water users at a basin/catchment level	Relevant, sometimes included	<p>Competition for water is an issue within a number of basins in which we operate. As a means of understanding and responding to the risks associated with water, many of our sites are represented within the local catchment organisations. We work in partnership with other local users to improve the long-term sustainability of the local water resources. For example, in Bangladesh Primark is participating in the Partnership for Cleaner Textile (PaCT) programme, part of which focuses on multi-stakeholder or cluster engagement. Four textile wet processing clusters around Dhaka will benefit from the financing of new water saving and treatment technologies, water foot print assessments and initiatives to establish commonalities across all local stakeholders. In addition to this Primark are working closely with the Institute of Public and Environmental Affairs (IPE) China to target supplier violations relating to environmental discharge and to improve</p>

		<p>environmental management in factories. A specific concern that is being targeted is the reporting of environmental pollution from common Effluent Treatment Plants (ETPs), as there is a lack of ownership after combination of wastewater discharge streams.</p>
Regulators	Relevant, always included	<p>All our businesses operate within a water and wastewater regulatory framework, including permits and licenses for water abstraction and discharge allowances, and so the concerns and plans of local regulators are critical within our water risk assessments. Certain jurisdictions where we operate require water management plans, outcomes of water use audits and monitoring data on water use and outputs. For example, George Weston Foods' Western Australian sites adhere to state-based water efficiency programmes which require selected facilities to have Water Efficiency Management Plans (WEMPs) in place.</p>
River basin management authorities	Relevant, always included	<p>Changes in the management of the basins in which we operate can have a significant impact on the productivity of our businesses. This is for upstream activity which may impact water quality and quantity and downstream which may have repercussions for our waste water treatment. For most of our businesses, our onsite risk or operational managers kept abreast of all proposed and planned changes to river basin management through river basin studies and catchment agency engagement. The complexity of engagement with basin authorities is heightened in Illovo's operations in Swaziland and Mozambique which are regulated by trans-boundary water agreements</p>
Statutory special interest groups at a local level	Relevant, always included	<p>The needs and concerns of local interest groups are important in terms of brand reputation and our licence to operate. For example, George Weston Foods participates in the local activities of industry bodies such as the Australian Food and Grocery Council including making submissions and presentations on site level water performance.</p> <p>In China, the Institute of Public and Environmental Affairs (IPE) promotes the public disclosure of environmental information by local government and businesses. IPE's work has led to manufacturing sites in China remedying environmental issues. Primark has worked with IPE for two years to ensure that sites making products and materials for Primark are acting to address such issues through training and on-site remediation. Primark strongly supports IPE approach which encourages supplier sites to take ownership of their environmental performance. In 2017, Primark supported supplier sites in China to</p>

		disclose their environmental performance data including water consumption and wastewater discharge and emissions.
Suppliers	Relevant, always included	<p>Our businesses engage with their suppliers on water issues where it is fundamental for growth of raw materials or production. For example, Azucarera has been building information on the water irrigation practices of their main beet growers to ensure water is used at the right time and quantity. Primark's programme with CottonConnect has reduced the environmental impact of cotton production via reducing the amount of water, fertilisers and pesticides used. During the initial 3 years, 1251 smallholder farmers from 5 villages in India were trained through classroom sessions and in-field trainings to adopt more sustainable farming methods. By the end of year three, the programme saw a 10% decrease in water usage, 44% reduction in chemical pesticide use and 40% reduction in fertiliser use. The results exceeded Primark's expectations and thus over the next six years an additional 10,000 female farmers will be taken through the programme.</p> <p>Twinings supports the Ethical Tea Partnership to help tea farmers in Kenya adapt to climate change through water harvesting, conservation and drip irrigation. 2,500 farmers have received and installed rainwater harvesting and / or drip irrigation.</p>
Water utilities at a local level	Relevant, always included	Engagement with local water utilities and suppliers is critical for our licence to operate. Understanding their plans for short and long-term water management are vital for our access to clean and sustainable water.
Other stakeholder, please specify	Relevant, always included	<p>Regional and national governments - Some of our businesses engage directly with governments on water issues. E.g. British Sugar engages with UK and EU Trade Associations and directly with the UK Government. Voluntary special interest groups - British Sugar is a signatory to the voluntary Food and Drink Federation (FDF) which is helping UK food and drink manufacturers to improve their environmental sustainability by reducing water use by 20% by 2020 (2011/12 baseline).</p> <p>Water and industry experts - Azucarera established a 'Water Working Group' in 2014/15 to share knowledge and experience amongst water experts and others in industry with the aim of improving water efficiencies in factories. AB Sugar China has been running the Sugar Beet Academy for five years; a partnership between academics, industry professionals and scientists to address sustainable beet production which includes effective use of water.</p>

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

---

Our decentralised business model empowers the management of our businesses to identify and manage the risks they face to ensure compliance with relevant legislation, our business principles and group policies. The risk assessments consider materiality, risk controls and the likely impact against a range of criteria such as health and safety, financial performance, the environment and community, regulation and reputation. The collated risks from each business are shared with the divisional CEOs who present their risks to the group executive.

The group’s Director of Financial Control receives the business level risk assessments on an annual basis and, with the Group Finance Director, reviews and challenges them with the divisional CEOs. A summary of risks is shared and discussed with the Group Finance Director, Chief Executive and board at least annually. Each business must ensure that adequate resources are in place to manage any potential environmental risks. They are required to complete an annual return on environmental performance and provide evidence that all significant aspects of such performance have been reviewed at a senior level. It is the responsibility of the CEO of each business to embed assessments into their business and implement necessary response strategies.

If water is not managed effectively, operating costs relating to volume, quality management and discharge can be substantive especially in our water intensive operations such as sugar, yeast, manufacture of other ingredients, pharmaceuticals and clothing production. As such there is a strong focus on utilizing water efficiently. This is part of our ethos that less water used equates to less wastewater to treat, lowering business costs and reducing business risk.

**W4 Risks and opportunities**

---

**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 How does your organization define substantive financial or strategic impact on your business?**

---

ABF defines substantive change in our business, operations, revenue or expenditure as change which could eventually result in a financial impact on the group such as affecting our group’s ability to generate profit or through movements in our share price.

A material change could also be one that impacts our ability to continue supplying our valuable customers. An event that may receive attention from national or international media may also be considered as potentially material to the group.

If a change stopped ABF from being a socially useful business or conducting our activities in a socially responsible way, that would be classified as substantive change.

ABF consists of five divisions of which Primark and AB Sugar are the largest. A substantive risk to ABF as a whole is very rare because if something impacts one business or division, the other four will survive and it is unlikely to move the group’s share price.

**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
14	1-25	<p>We include all of Illovo's operations here as Illovo accounts for 95% of the group’s total water use and many of the sites are exposed to water related risk to varying degrees of significance ranging from impacting hydro-electric supply to drought.</p> <p>The risks are not generic to these identified sites, which are in multiple countries, and therefore all these sites being impacted by water risk is very unlikely.</p> <p>The term ‘facility’ covers all of ABF’s direct operations which includes factories, offices, warehouses and retail space.</p>

**W4.1c By river basin, what is the number and proportion of facilities exposed to water risks that could have a substantive impact on your business, and what is the potential business impact associated with those facilities?**

Country	River basin	Number of facilities	% company-wide facilities this	% company’s total global revenue that	Comment
---------	-------------	----------------------	--------------------------------	---------------------------------------	---------

		exposed to water risk	represents	could be affected	
South Africa	Pongola-Uzimkulu	6	Less than 1%	Unknown	The percentage of ABF's total global revenue is known but we are not in a position to disclose this information. Illovo accounts for 95% of the group's total water use.
Malawi	Zambezi	2	Less than 1%	Unknown	The percentage of ABF's total global revenue is known but we are not in a position to disclose this information. Illovo accounts for 95% of the group's total water use.
Zambia	Zambezi	1	Less than 1%	Unknown	The percentage of ABF's total global revenue is known but we are not in a position to disclose this information. Illovo accounts for 95% of the group's total water use.
United Republic of Tanzania	Rufiji	1	Less than 1%	Unknown	The percentage of ABF's total global revenue is known but we are not in a position to disclose this information. Illovo accounts for 95% of the group's total water use.
Mozambique	Incomati	1	Less than 1%	Unknown	The percentage of ABF's total global revenue is known but we are not in a position to disclose this information. Illovo accounts for 95% of the group's total water use.
Swaziland	Maputo	1	Less than 1%	Unknown	The percentage of ABF's total global revenue is known but we are not in a position to disclose this information. Illovo accounts for 95% of the group's total water use.

**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	River basin	Type of risk	Primary risk driver	Type of potential impact	Company-specific description	Timeframe	Magnitude of potential impact	Likelihood	Potential financial impact
Zambia, Swaziland, Tanzania	All basins in which we operate	Physical	Drought	Reduced revenues from lower sales/output	Increased pressure on water supply, drought, revoking of permits, and poor maintenance of irrigation infrastructure result in water supply disruptions at Illovo’s operations.	4-6 years	High	Very likely	
Mozambique	Incomati	Physical	Declining water quality	Reduction or disruption in production capacity	Increased salinity of river water due to salt water intrusion has resulted in reduced irrigation volumes to prevent a negative impact of saline water on cane quality.	1-3 years	High	Very likely	
United Republic of Tanzania	Rufiji	Physical	Severe weather events	Impact on company assets	Climate change projections for the Rufiji River Basin predict an increase in temperature and an increase in rainfall	1-3 years	Medium	Likely	

					variation with more volatile intensity resulting in both flooding and droughts. This could result in reduced cane production and crop damage at Kilombero. MCP yields have decreased due to precipitation variability.				
--	--	--	--	--	--	--	--	--	--

Continued... Explanation of financial impact	Primary response to risk	Description of response	Explanation of cost of response
The financial impact has been quantified and is not disclosed. It is based on the potential impact of drought on yield over six years for Illovo’s irrigated sites.	Infrastructure maintenance	<ol style="list-style-type: none"> <li>1. Planned and focused maintenance/replacement of infrastructure</li> <li>2. Irrigation scheduling and drought mitigating strategies</li> <li>3. Abstraction permits and entrenchment of water rights</li> <li>4. Construction of additional water storage dams</li> <li>5. Investment in more efficient irrigation systems</li> <li>6. Engagement with stakeholders</li> <li>7. Water Footprint exercise leading to a better understanding of our water use in order to reduce our risk exposure by increasing water efficiency (yield per unit of water)</li> <li>8. Wastewater recovery from mills to irrigation</li> </ol>	The cost of response has been quantified and is not disclosed. The cost is spread over 5 years.
Not quantified	Water related capital expenditure	Improved pumping and drainage control, increased replant and gapping, harvesting improvements, and improved varieties, fertiliser and pesticide practices were included in the site’s strategic plan	The impact on water and energy use of these initiatives has not been fully quantified.

<p>The financial impact is reflected in the estimated lost opportunity for not implementing measures to mitigate against severe weather conditions at the site in terms of revenue generated from cane production by the year 2023.</p>	<p>Water related capital expenditure</p>	<p>Plans include vertical expansion comprising conversion of 1 548 ha of rain-fed cane to drip irrigation using ground water. This irrigation conversion should result in an increase in production.</p>	<p>The costs of managing this risk cover projects for improved irrigation efficiency, scheduling improvements, reduced reliance on river water by supplementing with ground water, improved monitoring, and improved dam management.</p>
---	--	--	--

**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	River basin	Stage of value chain	Type of risk	Primary risk driver	Primary potential impact	Company-specific description	Timeframe
Mozambique	Incomati	Supply Chain	Physical	Seasonal supply variability/ inter annual variability	Reduction or disruption in production	<p>The site’s supply chain is largely made up of small scale growers, of which 76% produce from rain-fed cane. A recent study undertaken by CRIDF (Climate Resilient Infrastructure Development Facility) identified the key risks to this supply being:</p> <ol style="list-style-type: none"> <li>1. Higher and more irregular rainfall events</li> <li>2. Flooding</li> <li>3. Shorter rainy season</li> <li>4. Increased temperatures</li> </ol>	4-6 years

Magnitude of potential financial impact	Likelihood	Explanation of financial impact	Primary response to risk	Description of response	Explanation of cost of response
Medium	Likely	The financial impact of this risk has been quantified but not disclosed. It is based on lost opportunity between 16/17 and 21/22 from potential revenue generated through the processing of grower cane supplies.	Water-related capital expenditure	The site’s strategic plan includes horizontal grower expansion of 1 540 ha of sprinkler systems as part of a project sponsored by the EU.	Not quantified

**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 but are unable to realize them

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

Type of	Primary water-	Company-specific description & strategy to	Estimated	Magnitude of	Explanation of financial impact
---------	----------------	--	-----------	--------------	---------------------------------

opportunity	related opportunity	realize opportunity	timeframe for realization	potential financial impact	
Efficiency	Improved water efficiency in operations	<p>Water demand and scarcity is increasing, to varying degrees, within most of the basins in which Illovo operates. This is projected to impact availability as well as abstraction permit allocations. By working to improve the effective use of water within operations Illovo aims to increase production without significantly altering overall consumption.</p> <p>Illovo identified the greatest water supply risk as well as the greatest water efficiency opportunities at each operation and has developed water strategies specific to each operation focused on improving water monitoring and management.</p>	1 to 3 years	Low-medium	Projects included the upgrading of irrigation systems, infrastructure and water storage capacity.
Efficiency	Improved water-related efficiency in operations	<p>Agricultural operations require significant energy to pump water for abstraction and irrigation, which entails significant cost. Illovo has identified three primary opportunities to reduce this energy requirement and improve water use efficiency:</p> <ol style="list-style-type: none"> <li>1. Improving the efficiency of conveyance systems to minimise losses.</li> <li>2. Improving irrigation efficiency to reduce the quantity of water required to grow a stick of</li> </ol>	>6 years	High	The financial impact of this opportunity is based on the assumed cane production improvements associated with the implementation of drip irrigation technologies across 6 370 ha.

		<p>sugarcane.</p> <p>3. Improving the accuracy of irrigation scheduling to ensure the crop is irrigated effectively.</p>			
Markets	Increased brand value	<p>Customers and external stakeholders are interested in the environmental impact of our business. Within direct operations, Illovo has committed to the effective use of water and has undertaken to significantly increase the number of farms which comply with best practice outlined in the Sustainable Sugarcane Farm Management System (SUSFARMS®).</p>	Current – up to 1 year	Low	<p>The avoided loss of sales resulting from the non-implementation of SUSFARMS® has been estimated but is not disclosed.</p>
Resilience	Increased resilience to impacts of climate change	<p>Increased water storage capacity has been identified as an operational opportunity at Illovo’s Nakambala and Nchalo sites. The implications of this includes improved water availability during dry seasons and power savings during peak times due to reduced pumping requirements.</p> <p>1. L3 dam increase in capacity (Nchalo) resulting in:</p> <ul style="list-style-type: none"> <li>- Power saving during peak periods;</li> <li>- Cane produced with water during times when</li> </ul>	4 to 6 years	Medium	<p>The financial impact in capital costs and additional returns has been estimated and is not disclosed.</p>

		<p>water was usually not available;</p> <ul style="list-style-type: none"> <li>- Extra area irrigated during peak periods with saved power.</li> </ul> <p>2. Split dam 7 (Nchalo)</p> <ul style="list-style-type: none"> <li>- Increased cane yield (2-5tcha) and reduce crop risk over 6000 ha of cane area and improve water application.</li> </ul> <p>3. Dam 10 – Increase capacity (Nakambala)</p>			
--	--	---	--	--	--

**W5 Facility-level water accounting**

**W5.1 For each facility referenced in W4.1c, provide coordinates, total water accounting data and comparisons with the previous reporting year.**

Facility reference number	Facility name (optional)	Country	River basin	Latitude	Longitude
Facility 1	Zambia Sugar	Zambia	Zambezi	-15.82325	27.77548
Facility 2	Maragra	Mozambique	Incomati	-25.703413	32.357483
Facility 3	Ubombo	Swaziland	Maputo	-26.797636	31.935026
Facility 4	Kilombero	Tanzania	Rufiji	-7.8118	36.89767
Facility 5	Dwangwa	Malawi	Zambezi	-12.56667	34.15
Facility 6	Nchalo	Malawi	Zambezi	-16.195845	34.774079

Facility 7	Umzimkulu	South Africa	Pongola-Umzimkulu (WMA)	-30.275858	30.754607
Facility 8	Sezela	South Africa	Pongola-Umzimkulu (WMA)	-30.275858	30.754607
Facility 9	Noodsberg	South Africa	Pongola-Umzimkulu (WMA)	-29.342117	30.630057
Facility 10	Eston	South Africa	Pongola-Umzimkulu (WMA)	-30.42973	30.563965
Facility 11	Glendale	South Africa	Pongola-Umzimkulu (WMA)	-30.70843	30.34915
Facility 12	Merebank	South Africa	Pongola-Umzimkulu (WMA)	-29.944058	30.959172

Facility reference number	Total water withdrawals (megaliters/year) at this facility	Comparison of withdrawals with previous reporting year	Total water discharges (megaliters/year) at this facility	Comparison of discharges with previous reporting year	Please explain
Facility 1	193,416	Much Lower	25,540	Much higher	Unable to pump to meet demand due to interruptions in the hydropower supply.
Facility 2	13,658	Lower	5,172	About the same	Reduction in water withdrawn due to higher effective rainfall levels during the growing season.
Facility 3	173,950	Lower	522	About the same	Lower water withdrawn due to drought conditions during the growing season.
Facility 4	77,191	Higher	16	Much lower	Dry year with almost no rain from July to October resulting in high water use.

Facility 5	95,759	Much Lower	-	Much lower	Due to the dry conditions less rainwater was supplied to the operation and consequently consumed.
Facility 6	210,647	Lower	1,593	Much lower	Decrease in water withdrawn due to multiple grid power supply failures, resulting in reduced pump time at the operation.
Facility 7	254	Higher	44	About the same	Higher water withdrawal due to a longer campaign than previous year, going back to a normal season after drought conditions.
Facility 8	5,862	Higher	1,121	Higher	The region has come out of a drought, therefore water withdrawn and discharged higher, with higher production volumes.
Facility 9	389	Lower	173	Higher	More process water used than previous years allowing for less abstraction required.
Facility 10	304	Lower	95	Higher	The region has come out of a drought, therefore water withdrawn and discharged higher, with higher production volumes.
Facility 11	278	Higher	166	About the same	The region has come out of a drought, therefore water withdrawn and discharged higher, with higher production volumes.
Facility 12	804	Higher	1,083	Much higher	Only slight increase in abstraction due to increased production. A new effluent monitoring system was installed at this site during the reporting year improving the accuracy of

					measurement.
--	--	--	--	--	--------------

W5.1a For each facility referenced in W5.1, provide withdrawal data by water source.

Facility reference number	Facility name	Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Brackish surface water /seawater	Groundwater (renewable)	Groundwater (non-renewable)	Produced water	Third party sources	Comment
Facility 1	Zambia Sugar	193,416						
Facility 2	Maragra	13,658						
Facility 3	Ubombo	173,950						
Facility 4	Kilombero	77,191						
Facility 5	Dwangwa	95,759						
Facility 6	Nchalo	210,647						
Facility 7	Umzimkulu	146					107	
Facility 8	Sezela	4,073					1,789	
Facility 9	Noodsberg			389				
Facility 10	Eston			64			240	

Facility 11	Glendale						278	
Facility 12	Merebank						804	

**W5.1b** For each facility referenced in W5.1, provide discharge data by destination.

Facility reference number	Facility name	Fresh surface water	Brackish surface water/ Seawater	Groundwater	Third party destinations	Comment
Facility 1	Zambia Sugar	25,540				
Facility 2	Maragra	5,172				
Facility 3	Ubombo	522				
Facility 4	Kilombero	16				
Facility 5	Dwangwa					Zero effluent discharge
Facility 6	Nchalo	1,593				
Facility 7	Umzimkulu	44				
Facility 8	Sezela		1,121			
Facility 9	Noodsberg	35			138.4	
Facility 10	Eston	95				
Facility 11	Glendale		166			

Facility 12	Merebank				1,083	
-------------	----------	--	--	--	-------	--

**W5.1c** For each facility referenced in W5.1, provide the volume and proportion of your total water use that is recycled or reused, and give the comparison with the previous reporting year.

Facility reference number	Facility name	% recycled or reused	Comparison with previous reporting year	Please explain
Facility 1	Zambia Sugar	26-50%	This is our first year of measurement	
Facility 2	Maragra	26-50%	This is our first year of measurement	
Facility 3	Ubombo	26-50%	This is our first year of measurement	
Facility 4	Kilombero	51-75%	This is our first year of measurement	
Facility 5	Dwangwa	11-25%	This is our first year of measurement	
Facility 6	Nchalo	2-10%	This is our first year of measurement	
Facility 7	Umzimkulu	51-75%	This is our first year of measurement	

Facility 8	Sezela	11-25%	This is our first year of measurement	
Facility 9	Noodsberg	26-50%	This is our first year of measurement	
Facility 10	Eston	76-99%	This is our first year of measurement	
Facility 11	Glendale	51-75%	This is our first year of measurement	
Facility 12	Merebank	None	This is our first year of measurement	

**W5.1d For each of the facilities referenced in W5.1, what proportion of water accounting data has been externally verified?**

Water aspect	% verified	What standard and methodology was used?
Water withdrawals – total volumes	76-100	Illovo's total volume of water withdrawn has been verified in alignment with AA1000AS Type II (Moderate) assurance standard.
Water withdrawals – volume by source	76-100	Illovo's total volume of water withdrawn has been verified in alignment with AA1000AS Type II (Moderate) assurance standard.
Water withdrawals – quality	Not verified	
Water discharges – total volumes	76-100	Illovo's total volume of water discharged has been verified in alignment with AA1000AS Type II

		(Moderate) assurance standard.
Water discharges – volume by destination	Not Verified	
Water discharges – volume by treatment method	Not Verified	
Water discharge quality – quality by standard effluent parameters	Not Verified	
Water discharge quality – temperature	Not Verified	
Water consumption – total volume	Not Verified	
Water recycled/reused	Not Verified	

## W6 Governance

---

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

---

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

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

Scope	Content	Please explain
Company-wide	<p>Description of business dependency on water</p> <p>Commitments beyond regulatory compliance</p>	<p>ABF’s environment policy 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.” The responsibility for compliance with our Environment Policy is devolved to the chief executive or managing director of our businesses. Read the full policy at <a href="http://www.abf.co.uk/responsibility/our_policies_and_appendices">http://www.abf.co.uk/responsibility/our_policies_and_appendices</a>.</p> <p>ABF's Supplier Code of Conduct stipulates sound environmental management should be followed by suppliers; this includes "improving efficiency and sustainability of...operations which will include water conservation programmes." Suppliers are also expected to provide their workers with "access to clean toilet facilities and to potable water...".</p>

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

Yes

**W6.2a Identify the position(s) of the individual(s) on the board with responsibility for water-related issues.**

Position of individual	Please explain
------------------------	----------------

<p>Director on board</p>	<p>The Company Secretary, who is accountable at board level for matters relating to corporate responsibility, is a member of the Executive Board.</p> <p>Responsibility for water management lies with the Company Secretary, reporting into the Chief Executive. The Company Secretary position is a board member and therefore has the ability to review, influence and monitor changes at a group level.</p>
<p>Chief Risk Officer (CRO)</p>	<p>The Chief Risk Officer, who is accountable at board level for matters relating to risk and opportunity management of which water is included, is a member of the Executive Board.</p> <p>Responsibility for all risk management lies with the CRO, who reports into the Audit Committee, and therefore has the ability to review, influence and monitor changes at a group level. The board as a whole is responsible for overall risk management. As water is integrated into groupwide risk assessment, the board has ultimate responsibility for all risk.</p>

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

<p>Frequency that water-related issues are a scheduled agenda item</p>	<p>Governance mechanisms into which water-related issues are integrated</p>	<p>Please explain</p>
<p>Scheduled - some meetings</p>	<p>Reviewing and guiding business plans</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 balance sheet and</p>

	<p>Reviewing and guiding risk management policies</p> <p>Reviewing and guiding corporate responsibility strategy</p>	<p>results. Effective risk management is still central to the board’s role in providing strategic oversight and stewardship of the group. The board is accountable for ensuring that risk is successfully managed and undertakes a robust annual assessment of the principal risks, including those that would threaten the business model and future performance, together with the internal controls devoted to them. The board also monitors the group’s exposure to risks as part of the performance reviews conducted at each board meeting. Risks are specifically reviewed by the Audit Committee which also reviews the effectiveness of the group’s risk mitigation processes.</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. The risk assessments consider materiality, risk controls and the likely impact against a range of criteria such as business objectives, health and safety, financial performance, reputation, community and the environment, including water management. The collated risks from each business are shared with the respective divisional chief executives who present their risks to the group executive.</p>
--	--	--

**W6.3 Below board level, provide the highest-level management position(s) or committee(s) with responsibility for water-related issues.**

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on water-related issues	Please explain
Chief Sustainability Officer (CSO)	Both assessing and managing water-related risks and opportunities	Half-yearly	The Chief Sustainability Officer role, performed by the Director of Company Secretariat at ABF, is responsible for the long-term aims and day to day management of corporate responsibility across the group.

			<p>Supported by the group’s Environmental, Health and Safety Manager and CR Leaders within each business, the CSO is a focal point for the range of CR issues being addressed by ABF.</p> <p>The CSO and HSE roles convene the CR and HSE Leaders from the businesses to meet throughout the year to identify and discuss groupwide issues including climate change and water stewardship. CR and HSE Managers from each of the five divisions are members of the groups as well as representatives from functions such as Procurement, Risk Management and Communications.</p> <p>For further detail and a graphic to show this, see Our CR Reporting Guidance 2017 at <a href="https://www.abf.co.uk/documents/pdfs/arcr-2017/corporate_responsibility_guidance_2017.pdf">https://www.abf.co.uk/documents/pdfs/arcr-2017/corporate_responsibility_guidance_2017.pdf</a></p>
Environmental Health and Safety Manager	Both assessing and managing water-related risks and opportunities	Half-yearly	

**W-FB6.4 Do you provide incentives to C-suite employees or board members for the management of water-related issues?**

No, and we do not plan to introduce them in the next two years

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

Yes, trade associations

Yes, funding research organizations

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

ABF is both diversified and decentralised. We are successful because we trust the people who run our businesses. Close to their markets, they use their knowledge, skills and judgement to serve their customers. The group centre engages with leaders across our portfolio of businesses, but it doesn't dictate the agendas or methods used by individual 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 is carried out on an ad-hoc basis 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 climate change and 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. Accordingly, policy engagement will cover energy, waste, water and other activities that each business, 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 business strategy and the policy landscape.

**W7 Business strategy**

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

Aspect of strategic business plan	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	5-10	Integrated into ABF's long-term business objectives is to remain a socially useful company where remain vigilant of, and consider, the needs of others around us. Therefore, when we review our holistic business

			<p>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. In AB Sugar our businesses integrate water related themes into their plans – considering opportunities to use water more efficiently and invest in performance improvement and CAPEX across the supply chain.</p>
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	5-10	<p>AB Sugar’s businesses approach to water address the following four areas:</p> <ol style="list-style-type: none"> <li>1. Stewardship - instil a water stewardship culture throughout their operations;</li> <li>2. Efficiency - improve water efficiency per ton of sugar/ downstream products produced;</li> <li>3. Quality - return all water to the catchment in good condition, and;</li> <li>4. Supply chain - work with stakeholders to be more water responsible.</li> </ol>
Financial planning	Yes, water-related issues are integrated	5-10	<p>All 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 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?**

Water-related CAPEX (+/- % change)	Anticipated forward trend for CAPEX (+/- % change)	Water-related OPEX (+/- % change)	Anticipated forward trend for OPEX (+/- % change)	Please explain
				<p>Our capital and operational expenditure tend to be part of a long-term approach to making a positive change in our operations and for our local environments. Therefore, providing annual trends would not necessarily demonstrate the extent of investment in water related activities.</p> <p>Our businesses have continued to invest in initiatives this year including waste water treatment, irrigation upgrades, system replacements, water meters and monitoring, water recycling programmes and employee engagement in water management.</p>

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

Use of climate-related scenario analysis	Comment

<p>No plans for the next two years</p>	<p>We are a company which thinks long term, invests consistently in its assets and finances itself conservatively. ABF is both diversified and decentralised. We are successful because we trust the people who run our businesses. Close to their markets, they use their knowledge and skills to serve their customers. The group engages with leaders across our portfolio of businesses, but it doesn't dictate the agendas or methods used by our businesses.</p> <p>Across ABF, we take an active approach to managing and reducing our environmental impact. We invest in environmental improvement activities which are targeted at areas where we have the greatest environmental impact including the use of energy and resultant GHG emissions.</p> <p>At group, we are not considering using climate-related scenario analysis as this approach would not work for our business structure. Some of our businesses have investigated using climate-related scenario analyses and if they progress, we will disclose more in future years.</p>
--	--

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

Does your company use an internal price on water?	Please explain
<p>No, and we do not anticipate doing so within the next two years</p>	<p>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.</p>

**W8 Targets**

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

Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
<p>Business level specific targets and/or goals</p> <p>Site/facility specific targets and/or goals</p>	<p>None are monitored at corporate level</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 businesses set their own environmental targets if it is an issue against which they choose to monitor their performance such as water use. ABF does not require the businesses to report their environmental performance against targets they have set to group level although absolute performance data is required on an annual basis. Nonetheless, sharing of good practice is encouraged and through the Corporate Responsibility and HSE Leaders Groups, the setting of water targets and performance against these are shared with colleagues. Some examples of business level targets are:</p> <ul style="list-style-type: none"> <li>- George Weston Foods is aligned to the Australian Food &amp; Grocery Council's (AFGC) Sustainability Commitment. This incorporates the target to reduce water consumption per tonne of production by 20% by 2020 (2010/2011 baseline).</li> <li>- British Sugar has a target for Direct Water Consumption: achieve a 20% reduction by 2020 (measured against 2011/2012 baseline).</li> <li>- Azucarera has a target to reduce water consumption on sites by 5%.</li> </ul>

**W9 Linkages and tradeoffs**

---

**W9.1 Has your organization identified any linkages or tradeoffs between water and other environmental issues in its direct operations and/or other parts of its value chain?**

---

Yes

W9.1a Describe the linkages or trade-offs and the related management policy or action.

Linkage/trade-off	Type of linkage/tradeoff	Description of linkage/trade-off	Policy or action
Linkage	Increased energy efficiency	Improved water efficiency and efficacy within Illovo’s agricultural operations not only results in decreased operational cost due to water savings but also in energy.	Agricultural operations require significant energy to pump water from abstraction to irrigation, which entails significant cost. Illovo has identified three primary opportunities to reduce this energy requirement: 1) Improve the efficiency of conveyance systems to minimise losses; 2) Improving irrigation system efficiency to reduce the quantity of water required to grow sugarcane; 3) Improving the accuracy of irrigation scheduling to ensure the crop is irrigated effectively.
Linkage	Increased energy efficiency	Energy efficiency through the on-site generation of biogas from waste water treatment.	A significant number of our sugar and yeast operations have enhanced their treatment of waste water using a process called anaerobic digestion. The resultant biogas is recovered from the treatment plants which is used as a fuel within the factory with less energy required from the national grid. The quality of waste water is also improved.
Linkage	Decreased energy use	Process optimisation in AB Mauri’s yeast factories	Our AB Mauri site in Mexico reduced water and energy consumption by operating two separators instead of three. The site has improved and adjusted process conditions in the yeast separation areas, cooling towers and osmosis system resulting in a saving of 17% of water. Using less wash water in the washing and separation of yeast has resulted in a reduction in the drying times which has also contributed to a reduction in energy use.
Linkage	Decreased wastewater	Careful scheduled irrigation helps us	Our Sugar operations are using a scheduled approach to irrigation water

Linkage	<p>treatment</p> <p>Decreased GHG emissions</p>	<p>to move towards reducing the risk of abstracting more water than is required from river catchments as it reduced over application of water.</p> <p>Development and implementation of an innovative approach to solar irrigation.</p>	<p>application which has the benefit of reducing waste of water and consequently energy. It also reduced leaching of fertilisers and will result in improved yields.</p> <p>In southern Spain, Azucarera has developed and implemented an innovative approach to solar irrigation. The initial financial investment has been high but the calculated return will bring reduced operating costs using a sustainable and renewable source of energy. It is also expected that Azucarera will experience a reduction in their greenhouse gas emissions through this approach to powering irrigation. The irrigation systems are working at lower pressures, thus requiring less energy to move the same quantity of water. In addition, Azucarera has joined the European project Maslowaten to spread solar irrigation techniques among beet growers and therefore are taking this approach to their supply chain.</p>
Tradeoff	Increased wastewater treatment	There is a trade off between withdrawn water use and managing the volume and treating the quality of waste water.	For some of our businesses, and in particular AB Mauri, there is a significant cost associated with the approximate treatment of waste water. In our yeast sites, for every 1m <sup>3</sup> of water used, there is approximately 0.7m <sup>3</sup> of waste water to treat. For many sites, the cost of water abstraction is low compared to the high cost of waste water treatment. If the effluent is treated on site, there are operational costs to consider. If the effluent is discharged externally to the municipality, costs are based on volume and concentration of organic and suspended matter. If a site uses less water, this can lead to increased discharge costs due to increased concentrations of organic matter.
Linkage	Regulations and safety	Following new environmental	Use of the new treatment system means the site is compliant with the new

	of waste water	regulations in India regarding the transportation of waste water, our SPI laboratory invested in a new treatment system to adjust the pH levels of their waste stream. This was considered a long-term investment to comply with environmental standards but also to ensure the safe transport of the waste water.	regulation and that the waste water is safely transported on the roads.
--	----------------	--	---

**W10 Verification**

**W10.1 Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1d)?**

Yes

**W10.1a Which data points within your CDP disclosure have been verified, and which standards were used?**

Disclosure module	Data verified	Verification standard	Please explain
W1 Current state	W1.2 water withdrawals – total volumes W1.2b total withdrawals W5.1 facility level	ISAE3000	Ernst & Young LLP assure our groupwide annual health, safety and environment data which is reported in ABF’s annual Corporate Responsibility Update and Annual Report and Accounts. All sites report their annual HSE data to ABF where it is verified by ABF’s HSE function and a range of key performance indicators are independently assured by Ernst & Young. Their independent assurance statement can be found on page 68-69 of

	withdrawals		our Corporate Responsibility Update 2017 at <a href="https://www.abf.co.uk/documents/pdfs/arcr-2017/abf_cr_update_2017.pdf">https://www.abf.co.uk/documents/pdfs/arcr-2017/abf_cr_update_2017.pdf</a>
--	-------------	--	---

**W11 Signoff**

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

Job title	Corresponding job category
Director of Company Secretariat	Chief Sustainability Officer (CSO)