

Welcome to your CDP Water Security Questionnaire 2022

W0. Introduction

W0.1

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

Ingredion Incorporated is a Fortune 500 global ingredient solutions company with 2021 net sales of \$6.894 billion. We turn corn, tapioca, potatoes, stevia, grains, fruits, and vegetables into value-added ingredients and biomaterials for the food, beverage, brewing and other industries. Headquartered in Westchester, IL, in the western suburb of Chicago, Ingredion employs approximately 12,000 people world-wide and operates global manufacturing, R&D and sales offices in four business segments: North America, South America, Asia Pacific and Europe, Middle East, and Africa ("EMEA"). Our people are our strength. Our product lines include starches and sweeteners, animal feed products and edible corn oil. Our starch-based products include both food-grade and industrial starches, and biomaterials. Our sweetener products include glucose syrups, high maltose syrups, high fructose corn syrup, stevia, caramel color, dextrose, polyols, maltodextrins, and glucose and syrup solids. Our products are derived primarily from the processing of corn and other starch-based materials, such as tapioca, potato, and rice. We continue to expand our product portfolio through capital investments and acquisitions. We are making investments through our plant-based protein product lines, including pulse-based concentrates, flours and isolates. We believe our approach to production and service, focusing on local management and production improvements of our worldwide operations, provides us with a unique understanding of the cultures and product requirements in each of the geographic markets in which we operate, bringing added value to our customers through innovative solutions. At the same time, our corporate functions allow us to identify synergies and maximize the benefits of our global presence. We have a global network of more than 500 scientists working on research and development in 32 Ingredion Idea Labs® innovation centers. Activities include plant science and physical, chemical and biochemical modification to food formulations, food sensory evaluation, and development of non-food applications such as starch-based biopolymers. In addition, we have product application technology centers that direct our product development teams worldwide to create product application solutions to better serve the ingredient needs of our customers. We take pride in continuing to be recognized by reputable third parties as an employer of choice, leading and operating with a purpose, making values-based decisions, and creating positive change in global communities. In 2021, Ingredion was recognized by Fortune magazine for the 13th consecutive year as one of the World's Most Admired Companies. We are proud to be included



on the Bloomberg Gender-Equality Index for the fifth consecutive year and, for the second consecutive year, have earned a near-perfect score on the Human Rights Campaign Corporate Equality Index. These distinguished awards and rankings are recognition and validation for our ongoing efforts to live our purpose and values. In 2021, Ingredion published its 11th annual sustainability report and our first DEI Report which highlighted progress made across all programs in our All Life sustainability platform. From electricity sourcing to water use, we have committed to using science in the setting of our targets. We did this for a simple reason: It is the best way to identify and implement change that will make a lasting difference. This has also led to productive, company-wide conversations around our environmental impact reduction objectives, as well as collaboration with our customers around supply chain (Scope 3) emissions. Better understanding the ways to measure and reduce the carbon emissions of our agricultural suppliers is another way we're striving to reduce our overall environmental impact. We continue to work with our agricultural and non-agricultural suppliers to improve sustainability across our supply chain and deliver on the expectations of our stakeholders. Ingredion is committed to operating with integrity and maintaining high ethical standards everywhere we do business. We recognize the rights of all people to fair and decent work, clean water, and to be treated with dignity and respect. As a signatory to the Global Compact, we are committed to aligning our global operations with universally recognized principles on human rights, labor, anti- corruption, and the environment.

W-FB0.1a

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

Processing/Manufacturing

W0.2

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

	Start date	End date
Reporting year	January 1, 2021	December 31, 2021

W0.3

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

Brazil Canada China Colombia Germany Malaysia Mexico Pakistan Peru Republic of Korea Thailand



United Kingdom of Great Britain and Northern Ireland United States of America

W0.4

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

USD

W0.5

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

Companies, entities or groups over which operational control is exercised

W0.6

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

Yes

W0.6a

Exclusion Please explain Non-manufacturing Water use is not significant at these sites compared to manufacturing facilities not co-located at locations. In most cases, water is provided through the lease and manufacturing sites managed in multi-tenant buildings by a landlord or property manager. Using standard factors per worker, withdrawals from non-manufacturing locations are estimated to total <0.008% of Ingredion's total withdrawals in 2021. A leased, 25-acre farm Water use is not significant compared to manufacturing locations. The used primarily for research farm is not irrigated and relies on rainwater. Water use is estimated to and development be <0.0002% of Ingredion's total water withdrawals. Facilities that were We allow newly acquired facilities one year to understand our systems acquired during 2021 and and expectations around reporting. These facilities will be integrated into Ingredion's reporting systems. In 2021 one acquisition is did not operate as Ingredion for the entire excluded: Ingredion completed the acquisition of KaTech, which year included a manufacturing facility located in Reinfeld Germany.

(W0.6a) Please report the exclusions.

W0.7

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



Indicate whether you are able to provide a unique identifier for your organization.	Provide your unique identifier
Yes, an ISIN code	US4571871023

W1. Current state

W1.1

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

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Important	Vital	We use fresh water in our direct processes and for boiler feed water to make steam necessary for our manufacturing operations. Sufficient quantities of fresh water are needed for our operations and the quality is important but not vital because most of our facilities treat incoming water prior to use. Good quality freshwater is a competitive advantage because in-plant treatment costs, prior to use are reduced. Future freshwater dependency for our direct operations is expected to continue to be important because water is an integral raw material in our operations. Sufficient quantities of indirect use, good quality freshwater used for irrigation is rated as vital because agricultural products are a critical raw material in our supply chain. Access to adequate quantities of fresh water through either direct rainfall or irrigation is critical for crop yield. Future freshwater dependency for our indirect use (supply chain) will continue to be vital because our raw material agriculture products are dependent on freshwater availability.
Sufficient amounts of recycled, brackish and/or produced water available for use	Not very important	Not very important	To the extent possible, we recycle water within our direct processes and use treated wastewater as a source of boiler feed water and cooling water. Use of recycled water within our facilities is important to our cost structure and environmental strategy and will become increasingly more important in the future as water costs potentially increase based on potential supply demands. However,



reuse of treated process water in our
manufacturing processes is currently limited due
to food quality regulations. External sources of
recycled, brackish or produced water are not an
important aspect of our operations as they would
only be used if no other water sources were
available. Future use of this water source is also
not expected to be important in direct operations
due to the difficulty to treat the water to an
acceptable level for food quality. Indirect use in
our supply chain is rated as not very important
because crops (our primary raw material) do not
typically utilize recycled, brackish or produced
water. Future use of this water source is also not
expected to be important in indirect agricultural
crops due to the toxic nature to plants in some
cases.

W-FB1.1a

(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
Maize	More than 80%	Sourced	Corn, primarily yellow dent, is the primary basic raw material we use to produce starches and sweeteners. We contract directly with growers for some of our specialty grains such as waxy and high amylose corn. In other cases, we purchase corn as a commodity through brokers and do not have direct contact with growers. Corn comprises approximately 96% of our crop usage globally, while cassava makes up an additional 3%. The remaining 1% is comprised of multiple crops such as potato, rice, pulses, stevia, and blueberries, etc
Other, please specify Cassava	Less than 10%	Sourced	Cassava root (i.e., tapioca) is sourced from growers and used to produce tapioca starches at our manufacturing locations in the Asia-Pacific region, Brazil and Colombia. Cassava comprises approximately 3% of our



crop usage globally, while corn is the majority at 96%. The remaining 1% is comprised of multiple crops such as potato, rice, pulses, stevia, and
blueberries, etc.

W1.2

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

	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	100%	Water withdrawal rates are important to our operational stability, cost structure and sustainability goals. This will continue to be relevant into the future. Tracking and reducing water withdrawal is one of our company sustainability goals. Each of our manufacturing sites enters this data into a corporate database on a monthly schedule. Total water withdrawals are measured using various methods depending on the site, including direct measurement (e.g., flow meters) or mass balances. 100% of sites are monitored for this aspect.
Water withdrawals – volumes by source	100%	Water withdrawal volumes by source, including municipal, groundwater and surface water, are important to understand due to potential impacts to the local environment, as well as potential risk from drought or changing regulations. This will continue to be a relevant aspect into the future. Each of our manufacturing sites enters this data into a corporate database on a monthly schedule. Water withdrawals by source are measured using various methods depending on the site, including direct measurement (e.g., flow meters) or mass balances. 100% of sites are monitored for this aspect.
Water withdrawals quality	100%	As a food ingredients solutions provider, understanding the quality of our process water is critical to Good Manufacturing Processes (GMP). This will continue to be a relevant and important aspect into the future. Water quality testing for potable water parameters occurs a minimum of annually. Measurement and analysis are in accordance with standard



		methods as specified in site permits and often in accordance with the World Health Organization (WHO) guidelines. WHO includes recommended limits on a variety of parameters including metals (e.g., arsenic, barium, chromium), organics (e.g., benzene, toluene, xylene) and other parameters. In addition, sites measure water volumes being withdrawn by measures including flow meters or pump discharge rates. 100% of sites are monitored for this aspect.
Water discharges – total volumes	100%	Monitoring discharges by volume and source is important to understanding risks and vulnerabilities, as well as cost control. This will continue to be a relevant aspect into the future. Each of our manufacturing sites enters this data into a corporate database on a monthly schedule. Water discharge total volumes are measured using various methods depending on the site and may include direct measurement or mass balance. 100% of sites are monitored for this aspect.
Water discharges – volumes by destination	100%	Monitoring discharges by destination and volume is important to understanding potential impact to the environment as well as the potential impact of emerging regulations. Each of our manufacturing sites enters this data into a corporate database on a monthly schedule. Water discharges by destination (e.g., direct to surface water, discharge to municipal system, etc.) are measured using various methods depending on the site. 100% of sites are monitored for this aspect.
Water discharges – volumes by treatment method	100%	Monitoring water discharge volume by treatment method along with treatment efficiency is necessary to make Scope 1 CO2 emission estimates, and to understand potential offsite impacts as well as potential impact of emerging regulations. This will continue to be relevant into the future. Water discharge volumes by treatment method are measured using various methods depending on the site and may include direct measurement or mass balance. 100% of sites are monitored for this aspect.



	1000/	
Water discharge quality – by standard effluent parameters	100%	We monitor and track standard effluent parameters as a measure of plant efficiency; for regulatory compliance; and, in addition to discharge volume and destination, to understand potential impacts to the local environment. This will continue to be a relevant aspect into the future. Each manufacturing site enters monthly data into a corporate database. Water effluent discharge parameters are measured in accordance with site-specific regulations. Most permits require monitoring of wastewater discharge flow rates, and effluent quality for biological oxygen demand, total solids, pH and other parameters. For example, in the United States, a National Pollutant Discharge Elimination System permit (generally issued by state authorities), specifies provisions and discharge limits tailored to the operations and receiving streams. 100% of sites are monitored for this aspect. In addition, we have set a target to reduce Chemical Oxygen Demand 10% from our wastewater discharges by the end of 2030.
Water discharge quality – temperature	100%	We track and monitor the discharge temperature of non-contact cooling water and other wastewater, as required by regulatory permit, on monthly basis. This will continue to be a relevant aspect into the future. Temperature is measured in accordance with site-specific permit requirements at each site. Temperature limits in site permits for direct discharge are set based on regulatory (e.g., NPDES permit) requirements to not significantly change the ambient temperature of the receiving stream (limits may be seasonal). Permit limits for discharge to sewer systems for additional treatment are set by the sewer authority and are generally in the 35 to 40 °C range at some sites. 100% of sites are monitored for this aspect.
Water consumption – total volume	100%	Tracking the volume of water consumed is important to understanding our water balance and tracking progress on our company sustainability goals. This will continue to be relevant into the future. Each of our manufacturing sites enters this data into a



		corporate database on a monthly schedule. Water consumption is measured through various methods including direct readings (e.g., flow meters) and mass balances. 100% of sites are monitored for this aspect.
Water recycled/reused	100%	We tracked water recycling/reuse at approximately 90% of our sites in 2021. We currently measure recycling in a variety of ways on a monthly schedule, including direct measurement or mass balance calculations. There has been little guidance on what should be considered water recycling/reuse in our industry because reuse of water in operations is integral in the way corn wet mills operate. For example, water from our starch washing process is reused in multiple processing steps. However, our definition and tracking categories emphasize water recycled and reused that is not part of our traditional design. This creates more value to us through easier identification of opportunities and best practices. Tracking new water recycling/reuse, beyond that integral to site operations will be a relevant aspect into the future.
The provision of fully- functioning, safely managed WASH services to all workers	100%	We are dedicated to the welfare of our employees and business associates; and, therefore, this aspect will continue to be relevant. We continued our commitment to, and participation in, the Sedex Members Ethical Trade Audit (SMETA), which includes an evaluation of WASH services. 100% of sites have been audited to SMETA, and new acquisitions will continue to be folded into our existing program as they are integrated into the business. SMETA audits are conducted at least every three years for each of our manufacturing sites by an independent, third-party auditor using the criteria mandated by SEDEX. 100% of sites are monitored for this aspect.

W1.2b

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



	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	111,860	About the same	In comparison to 2020, our 2021 total withdrawals were within +/-10%. We consider +/-10 % variance to be about the same when making year over year comparisons. The volume of water withdrawn remained about the same. Operational efficiencies improved slightly as production volumes increased from pandemic lows. The numbers for withdrawal, discharges and consumption balance. Total water withdrawals are anticipated to increase as production continues to recover from the pandemic downturn.
Total discharges	99,216	About the same	In comparison to 2020, our 2021 total discharges were within +/-10%. We consider +/- 10 % variance to be about the same when making year over year comparisons. The volume of water withdrawn remained about the same. Operational efficiencies improved slightly as production volumes increased from pandemic lows. The numbers for withdrawal, discharges and consumption balance. Total water discharges are anticipated to increase as production continues to recover from the pandemic downturn.
Total consumption	12,644	Higher	In comparison to 2020, our 2021 total withdrawals were higher by approximately 13%. We consider +/-10 % variance to be about the same when making year over year comparisons. The numbers for withdrawal, discharges and consumption balance. Total water discharges are anticipated to increase as production continues to recover from the pandemic downturn.

W1.2d

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



	Withdrawals are from areas with water stress	Please explain
Row 1	Yes	To determine if our manufacturing sites are located in water stressed areas, we mapped our locations on the WWF Water Risk Filter. Approximately 5 percent of our total water intake as indicated by the WWF Water Risk Filter was identified from areas with either: 1) annual average monthly net water depletion equal to or greater than 75%, or 2) seasonal water depletion equal to or greater than 75% (one or months). In comparison to 2020, our 2021 total discharges were within +/-10%. We consider +/-10 % variance to be about the same when making year over year comparisons.

W-FB1.2e

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

Agricultural commodities	The proportion of this commodity produced in areas with water stress is known	The proportion of this commodity sourced from areas with water stress is known	Please explain
Maize	Not applicable	Yes	We do not produce maize (corn) but rather source it from various farms across the globe. To determine if the corn we source is grown in water stressed basins, we identified the region where our sourced corn is grown and mapped it using the WWF Water Risk Filter from areas with either: 1) annual average monthly net water depletion equal to or greater than 75%, or 2) seasonal water depletion equal to or greater than 75% (one or months)
Other commodities from W-FB1.1a, please specify Cassava	Not applicable	Yes	We do not produce cassava but rather source it from various farms primarily in Thailand, but also smaller amounts from Brazil and Colombia. To determine if the cassava we source is grown in water stressed basins, we identified the region where our sourced cassava is grown and mapped it using the WWF Water Risk Filter from areas with either: 1) annual



average monthly net water depletion
equal to or greater than 75%, or 2)
seasonal water depletion equal to or
greater than 75% (one or months)

W-FB1.2g

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

Agricultural commodities	% of total agricultural commodity sourced from areas with water stress	Please explain
Maize	1-10	We assessed the locations of our corn suppliers using the WWF Water Risk Filter Map and identified that 9.7% of our purchased maize was grown in areas having either annual average monthly net water depletion equal to or greater than 75%, or seasonal water depletion equal to or greater than 75% (one or months). The percentage was calculated using the total metric tons of corn sourced from areas meeting the above criteria. 60 percent of the identified crops in water stressed areas were from areas with seasonal water depletion (one or months), while 40% were from areas with annual average water depletion. As we continue to raise awareness around this metric, we anticipate maintaining or reducing this trend.
Other sourced commodities from W-FB1.2e, please specify Cassava	51-75	We source cassava from various farms primarily in Thailand, but also smaller amounts from Brazil and Colombia. Central Thailand experiences a typical tropical Savannah wet/dry seasonal climate. As such there are seasonal periods with little rain fall as well as periods with abundant rainfall. These periods generally fall in the same months each year and farmers compensate for these periods as part of their normal operations, mitigating risk to our business. We assessed the locations of our cassava suppliers using the WWF Water Risk Filter Map and identified that 67% of cassava was sourced from areas the WWF classifies as having seasonal water depletion (equal to or greater than 75% in one or months). We did not identify any Cassava sourced from areas having an annual average monthly net water depletion equal to or greater than 75%. As we continue to raise awareness around this metric, we anticipate



	maintaining or reducing this trend when we select areas
	to source cassava.

W1.2h

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

	Relevance	-	Comparison	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	69,999	About the same	Fresh surface water is measured at all our sites and is relevant to our operations because we use fresh water in our processes and for boiler feed water to make steam necessary for our manufacturing operations. In comparison to 2020, our total 2021 withdrawal of fresh water was within +/- 10%. We consider +/-10% Variance to be about the same when making year over year comparisons. Water withdrawals remained about the same while our production increased slightly as we continue to recover from the slowdown related to the COVID-19 pandemic. Operational efficiencies increased as customer demand increased.
Brackish surface water/Seawater	Not relevant			Ingredion does not use brackish surface water/seawater and we do not expect this to change in the future. Brackish water is not an important aspect of our operations as it would only be used if no other water sources were available. Future use of this



				water source is also not expected to be important due to the difficulty to treat the water to an acceptable level for food quality.
Groundwater – renewable	Relevant	18,831		Groundwater withdrawal volumes are measured at all sites and we have verified approximately 90% of our total groundwater is renewable. We believe the remaining 10% is also renewable but are seeking an authoritative reference. In comparison to 2020, our total 2021 withdrawal of renewable groundwater was within +/- 10%. We consider +/-10% variance to be about the same when making year over year comparisons. Groundwater withdrawal may be expected to increase in future years as production volumes increase.
Groundwater – non- renewable	Not relevant			Ingredion does not use Groundwater-non- renewable. Sites that use groundwater are located within renewable groundwater sources. We do not anticipate this to change in the future.
Produced/Entrained water	Not relevant			The moisture content of our agricultural raw materials represents <1.5% of the water intake and is not considered relevant when considering other water intake sources.
Third party sources	Relevant	23,030	About the same	Water supplied by third party sources is measured at all our sites (where present) and is relevant to our



	operations because we use
	fresh water in our processes
	and for boiler feed water to
	make steam necessary for
	our manufacturing
	operations. In comparison to
	2020, our total 2021
	withdrawal of fresh water
	was within +/- 10%. We
	consider +/-10% variance to
	be about the same when
	making year over year
	comparisons.

W1.2i

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Relevant	72,447	About the same	Discharge to fresh surface water is relevant at our sites that treat wastewater for discharge in accordance with regulations. Stormwater runoff from many sites is also discharged to fresh surface water. In comparison to 2020, our total 2021 discharges were within +/- 10%. Water discharges remained about the same while our production increased slightly as we continue to recover from the slowdown related to the COVID-19 pandemic. This is likely attributed to an increase in operational efficiencies at the manufacturing facilities. On an absolute basis our facilities reduced water use by. We anticipate that the discharge volume to groundwater will remain about the same in future years. We consider +/-10% variance to be about the same when making year over year comparisons.



Brackish surface water/seawater	Not relevant			Discharge to brackish surface water/seawater is not relevant because Ingredion does not discharge to brackish surface water/seawater. We do not anticipate this changing in the future.
Groundwater	Relevant	2,657	Lower	We do not discharge water directly to groundwater through injection wells. The volume discharged to groundwater represents irrigation of land both onsite and offsite. In comparison to 2021, 2020 discharges were 13% lower likely due to continued operational disruptions resulting from the global pandemic. Overall, irrigation is a small percentage of our water discharge volume. We consider +/-10% variance to be about the same when making year over year comparisons. We anticipate that the discharge volume to groundwater will remain about the same in future years.
Third-party destinations	Relevant	24,112	About the same	Discharge to third-party destinations is relevant because many of our sites direct discharge or pretreat and discharge wastewater to municipal wastewater treatment facilities for treatment. In comparison to 2020, our 2021 discharges to third parties were within +/- 10% of 2019. Discharge volume to third parties was about the same despite increased production related to COVID-19 pandemic restrictions lifting. We consider +/- 10% variance to be about the same when making year over year comparisons. We anticipate this volume to increase in future years as production volumes increase.



W1.2j

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

	Relevanc e of treatment level to discharge	Volume (megaliters/year)	Compariso n of treated volume with previous reporting year	% of your sites/facilities/operation s this volume applies to	Please explain
Tertiary treatment	Relevant	2,635	About the same	1-10	Discharge of water treated by tertiary treatment increased approximatel y 3% between 2020 and 2021. Tertiary treatment includes membranes for salt removal, Dissolved Air Floatation (DAF) units for precipitating Phosphorous , and additional chemical dosing to remove sulfates after anaerobic treatment. These facilities also have primary and



					secondary treatment systems. Ingredion considers changes with +/- 10% to be about the same. Secondary treatment includes aerobic and anaerobic treatment.
Secondary treatment	Relevant	16,427	About the same	41-50	Discharge of water treated by secondary treatment decreased by 2% in 2021 vs 2020. Secondary treatment includes aerobic or anaerobic digestion facilities, or a combination of both. Ingredion considers changes with +/- 10% to be about the same.
Primary treatment only	Relevant	20,455	About the same	31-40	Discharge of water treated by primary treatment decreased by 6% in 2021 vs 2020. Primary



					treatment includes pH adjustment and removable of settle-able solids. Ingredion considers changes with +/- 10% to be about the same.
Discharge to the natural environmen t without treatment	Not relevant				We do not discharge process wastewater to the environment without treatment.
Discharge to a third party without treatment	Relevant	37	About the same	1-10	Discharge of untreated water to a third party treatment facility increased by 7% in 2021 vs 2020. Ingredion considers changes with +/- 10% to be about the same.
Other	Relevant	59,662	About the same	11-20	This represents non-contact single pass cooling water that is treated, as applicable, to meet local



			regulatory
			requirements.
			Discharge of
			non-contact
			single pass
			cooling water
			increased by
			1% in 2021
			vs 2020.
			Ingredion
			considers
			changes with
			+/- 10% to be
			about the
			same.

W1.3

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

	Revenue	Total water withdrawal volume (megaliters)	Total water withdrawal efficiency	Anticipated forward trend
Row 1	5,894,000,000	111,869	52,686.6245340532	Ingredion has water reduction goals to reduce water consumption by 2030 vs a 2019 base year. It is anticipated that our water withdrawal efficiency will increase as we make significant progress towards our goals.

W-FB1.3

(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
Maize	Not applicable	Yes	We do not produce agricultural commodities. For sourced specialty corn in the US, we collect water intensity information through the Field to Market program based on



			data entered by our suppliers. Field to Market uses this data to generate an Irrigation Water Use metric to assess the overall efficiency of irrigation water applied in terms of incremental crop yield improvement. This metric was designed to consider the water factor most directly under the grower's control – the efficiency of water supplied through irrigation. The grower can compare their efficiency against other growers and regional averages to make improvements. Ingredion is also a member of the SAI Platform which is in the process of developing a metrics module to collect on-farm data. When finalized, Ingredion anticipates utilizing it globally with our growers. In other cases, we purchase corn as a commodity through brokers and do not have direct contact with growers or access to this information. As we look to the future, as part of our commitment to the AgWater challenge we commit to demonstrating our progress through the measurement and reporting of water quality and water efficiency improvements on an annual basis.
Other commodities from W- FB1.1a, please specify Cassava	Not applicable	Yes	We do not produce agricultural commodities. We have estimated the water intensity of cassava based on published data. A literature review (www.mdpi.com/journal/water ISSN 2073-4441) indicated that the average water intensity is approximately 399 m3/ton of cassava grown in Thailand which produces ~70% of the world market share of cassava. Approximately 80% of the water is from precipitation.



		We are seeking partners similar to
		Field to Market in locations outside
		the US to assist with more specific
		data collection from Cassava
		suppliers. We anticipate having
		information within the next two
		years. Ingredion is also a member of
		the SAI Platform and they are in the
		process of developing a module to
		collect on-farm data. We anticipate
		utilizing this mechanism to collect
		on-farm data from our cassava
		growers. We train growers through
		the Thailand Model Farmer program
		to be more efficient users of
		fertilizers and pesticides, which has
		a positive impact on runoff from
		rainwater that might get into local
		waterways. As we look to the
		future, as part of our commitment to
		the AgWater challenge we commit
		to demonstrating our progress
		through the measurement and
		reporting of water quality and water
		efficiency improvements on an
		annual basis.

W-FB1.3b

(W-FB1.3b) Provide water intensity information for each of the agricultural commodities identified in W-FB1.3 that you source.

Agricultural commodities Maize Water intensity value (m3) 0.7

Numerator: Water aspect

Other, please specify Acre-inch

Denominator

Other, please specify



Thousand Bushels of Corn

Comparison with previous reporting year

About the same

Please explain

Water Intensity is calculated from data collected by suppliers in the Field to Market program. Volume is calculated as the depth of irrigated water applied across the total irrigated field areas ratioed to the total field acreage in the program (irrigated and nonirrigated) expressed as acre-inch per thousand corn bushels grown (0.7 acreinch/thousand bushels). Of the total acres in the data collection program, ~3.1% were irrigated. The average volume of water/acre was slightly higher in 2021 compared to 2020 due to different weather conditions in the irrigated fields. We anticipate that water use for Field to Market suppliers will decrease over time as a result of customer collaboration and suppliers being able to measure and compare irrigation efficiencies. Further to this, our commitment to the AgWater challenge has set the stage for deeper collaboration within our agricultural supply chain, which includes utilizing the Farm Sustainability Assessment (FSA) to identify region and crop-specific practices such as those that promote soil health, improve nutrient management, and reduce irrigation.

Agricultural commodities

Other sourced commodities from W-FB1.3, please specify Cassava

Water intensity value (m3)

399

Numerator: Water aspect

Total water consumption

Denominator

Tons

Comparison with previous reporting year

About the same

Please explain

We do not have supplier specific quantitative information for this commodity. However, a literature review* indicated that the average water intensity of cassava is approximately 399 m3/ton of cassava grown in Thailand. Thailand produces approximately 70% of the world market share of cassava. The majority (approximately 80%) of the water is from precipitation. While, we do not have supplier specific water intensity data, cassava growers are taught the importance of water management through the Model Farmer Program. We anticipate that water use will decrease over time as a result of education, awareness, and implementation of water management strategies. Further to this, our commitment to the AgWater challenge has set the stage for deeper collaboration within our agricultural supply chain, which includes utilizing the Farm Sustainability



Assessment (FSA) to identify region and crop-specific practices such as those that promote soil health, improve nutrient management, and reduce irrigation. *www.mdpi.com/journal/water ISSN 2073-4441

W1.4

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

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

W1.4a

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

Row 1

% of suppliers by number

1-25

Rationale for this coverage

Water resilience related to agricultural operations have a material impact on our business and it is critical that we work to better understand our suppliers' practices around stewardship. The purpose of this engagement is to encourage the uptake of sustainable agriculture practices that help reduce climate change and water stress. Through Field to Market we track water and carbon footprint of farm-level activity and can provide farmers with a comparison of their metrics versus other farmers in their areas. We collect water and carbon emission information annually on our growers using Field to Market's Fieldprint Calculator in conjunction with data collected via Ingredion's "Sell your corn" web platform and our Ag Software partner MyFarms. The environmental data collected through this platform will allow us to determine the positive environmental impacts (e.g. lower carbon emissions, lower water use) of our sustainable agriculture efforts. By having accurate, representative, and transparent farm-level data Ingredion can strategically pursue opportunities to collaborate on projects that deliver tangible Water and CO2 reductions as part of our overall sustainable agriculture program.

Further to this, through our sustainable sourcing program, we collect grower information on water management utilizing the Sustainable Agriculture Initiative's (SAI) Farm Sustainability Assessment platform. As part of the sustainability assessment, the survey requires our suppliers to disclose essential elements of their water management strategy. We use this information to evaluate which suppliers we will source from and where to deploy resources to help drive improvements.

Comment



W1.4b

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

Type of engagement

Innovation & collaboration

Details of engagement

Provide training and support on sustainable agriculture practices to improve water stewardship

% of suppliers by number

1-25

% of total procurement spend

1-25

Rationale for the coverage of your engagement

We engage with our diverse network of global farms to support our goal to sustainably source 100% of our Tier 1 priority crops (Corn, Cassava, Potatoes, Pulses, and Stevia) by the end of 2025. Through our sustainable sourcing program, we collect grower information on climate/water related issues and use it to evaluate the suppliers to source from and where to deploy resources to help drive improvements. This in turn helps incentivize suppliers to participate in the program. To qualify our corn as sustainable we utilize the Sustainable Agriculture Initiative's (SAI) Farm Sustainability Assessment platform, or a benchmark program equivalent. The FSA platform acts as the starting point for identifying sustainability elements in our agricultural supply chain. The FSA is divided into three types of questions: Essential, Intermediate and Advanced and a negative response to any essential questions automatically disqualifies the farm from being considered sustainable. Recognizing that different global regions may face unique local challenges (Infrastructure, government policy, access to raw material inputs, economic challenges, etc), Ingredion may engage with suppliers who have not met the requirements set forth in the sustainability assessment process and help identify a pathway for improvement Finally, we may engage with stakeholders on strategic local projects focused on sustainable agriculture practices that help reduce climate change (e.g., no tillage, reduced chemical usage, reduced water irrigation, reduced fertilizer and pesticides etc.), which can then be scalable to other regions. Ingredion has sustainable sourcing efforts active in Brazil, Canada, China, Colombia, France, Hungary, Mexico, Pakistan, Thailand, and the United States.

Impact of the engagement and measures of success

We measure success of our engagement by demonstrating progress towards our sustainability sourcing goal. We continue to make progress on our goal to sustainably source 100% of all priority one crops by 2025, and have improved our metric from 31% to 33% globally. Given the continued pandemic related challenges, we are pleased to have made some progress on this goal and are looking to deliver even more



significant gains in 2022. We also measure success of our engagement by the number of growers we engage with. We engaged ~15,350 growers globally in 2021. In 2021, our engagements were relatively flat due to the pandemic and the limited ability to further interact with growers. In 2021, Ingredion officially became members of the SAI Platform's Regenerative Agriculture Program (RAP).

In 2021 we identified targeted projects in the Midwest US, and in Brazil. In Brazil, we collaborated with Heineken for corn growers in both Brazil and the United States. Heineken incentivized growers in both locations to adopt new practices on their farms such as innovative technologies for nitrogen application and modified timing of cover crop planting. Outputs of these new practices were measured versus previous year baselines in the Cool Farm Tool. We also joined our customer PepsiCo and the Soil and Water Outcomes Fund (SWOF) in piloting regenerative agriculture practices across 15,000 acres of Illinois farms supplying corn into our U.S. operations to provide a monetary incentive for growers to adopt regenerative practices, such as cover crops and no-till practices. We also committed to the AgWater Challenge in 2021. As part of the challenge we commit to promote the adoption of locally relevant sustainable agriculture principles that improve water-related outcomes – with an emphasis on regenerative agriculture practices such as soil health and nutrient

Comment

W1.4c

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

We engage with customers through CDP Supply Chain and directly through information requests. We engage with agricultural suppliers on sustainable practices including no tillage, reduced chemical usage, and reduced water irrigation. We assess grower water usage through SAI's Farm Sustainability Assessment to understand water related challenges and programs to mitigate. For example, we worked with growers in Pakistan to improve farming techniques and install drip-fed irrigation systems. In Thailand, we co-developed the Model Farmer Program to train growers, including the efficient use of water. Success is measured by the number of growers in the SAI platform and other programs. We engaged ~15,350 growers globally in 2021 which is flat from 2020. Engagements were flat due to COVID-19 restrictions. For key nonagricultural suppliers, we use the WWF Water Risk Filter to understand water stress in geographies they operate. We engage investors through CDP and direct dialogue around water and strategies. Success is measured through the number of investor engagements. We engage with NGO's including the SAI Platform and Field to Market on the agricultural impact of climate change and strategies to mitigate. Success is measured by the number of growers included in the SAI platform and other engagements. Our engagement priorities are focused on customer geographic interest; potential supply risks (e.g., areas of low yield); and areas where existing mechanisms are well developed. For non-agricultural suppliers, we consider "key" suppliers based on factors such as overall spend and business continuity impacts. Customer outreach focuses on leveraging strategic partnerships through supply chain risk mitigation or brand enhancement (e.g. supporting enhanced label statements or claims). Connecting these



activities with the commercial value enables us to connect downstream customers with upstream suppliers to further accelerate our efforts.

W2. Business impacts

W2.1

(W2.1) Has your organization experienced any detrimental water-related impacts? No

W2.2

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

Yes, enforcement orders or other penalties

W2.2b

(W2.2b) Provide details for all significant fines, enforcement orders and/or other penalties for water-related regulatory violations in the reporting year, and your plans for resolving them.

Type of penalty Enforcement order Financial impact 0

Country/Area & River basin

Pakistan Indus

Type of incident

Effluent limit exceedances

Description of penalty, incident, regulatory violation, significance, and resolution

In March 2021, our Rafhan Maize Mehran plant in Pakistan received a notice from the local Sind Environmental Protection Agency (SEPA) regarding improperly treated effluent being discharged from the facility. An internal investigation revealed that our wastewater treatment facility was not operating properly, and we responded by immediately lowering production levels to align with the system's capacity. We then mobilized a team along with an external consultant to fix the issue before ramping up production levels again. System performance is being monitored regularly to make certain it continues to function properly.



W3. Procedures

W-FB3.1

(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?

The quality of process water for our food grade products must meet stringent standards and, in general, meet potable water standards. We test all sites at least annually in accordance with local requirements and, in most cases, the World Health Organization (WHO) potable water requirements. Our process wastewater is generally high in biological oxygen demand (BOD) as well as total suspended solids (TSS) which, if discharged to a receiving stream without treatment, may result in lower oxygen levels available for aquatic organisms to thrive or excess sedimentation that could disrupt reproduction or affect benthic organisms and food sources for other aquatic species. In extreme cases, low oxygen in receiving streams could increase bacteria in the water and cause algal blooms, making the water unfit for human recreation or consumption. Identification and categorization of the water pollutants is generally provided through regulations and permits and varies by location based on the capacity of a municipal treatment plant and/or receiving stream to accommodate those levels. For example, in the United States, the Clean Water Act prohibits anyone from discharging pollutants into a water of the United States without a National Pollutant Discharge Elimination System (NPDES) permit. Pollutant is very broadly defined in the Clean Water Act. NPDES permits (generally issued by state regulatory authorities), translate the Clean Water Act requirements into specific provisions tailored to the operations and receiving streams. In some cases, municipal wastewater treatment systems use the sugars and nutrients in our wastewater as a food source for their biological systems and, therefore, can accommodate higher levels of BOD. Analysis of water pollutants is conducted in accordance with local permit requirements and standard laboratory analytical procedures. Some of our facilities conduct pre-treatment (e.g., pH adjustment, settling solids, and/or partial biological pre-treatment) with discharge to a municipal wastewater treatment plant for additional processing prior to surface water discharge. Others operate biological wastewater treatment systems to reduce solids and oxygen demand prior to direct discharge to a receiving water body; and, in some cases, sites complete tertiary treatment for removal of specifically targeted and locally regulated pollutants (e.g., phosphorous). Other locations have worked with local universities and the government to find beneficial use for wastewater streams, such as providing nutrients and water for the growing of Napier grass. Discharge of wastewater, whether directly to a stream or through a municipal system, is highly regulated with limits on the amount of pollutants that can be discharged and extensive sampling programs to ensure compliance. Through our value chain, we understand that there is great variability in farm practices that may impact water ecosystems and human health. We engage with agricultural suppliers on sustainable agriculture practices (e.g., Field to Market and the Sustainable Agricultural Initiative) that help reduce climate impacts including no tillage, reduced chemical usage, and reduced water irrigation. By protecting topsoil and reducing the use of chemicals on crops, our agricultural suppliers limit runoff of potential pollutants (solids, fertilizers, etc.) that may negatively impact surface and groundwater quality.



W-FB3.1a

(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

Wastewater and sludge with high organic or suspended solids content

Activity/value chain stage

Manufacturing - direct operations

Description of water pollutant and potential impacts

Biological oxygen demand and Total Suspended Solids are two critical pollutants that are essential to mitigate to minimize the adverse impacts on water ecosystems or human health.

Biological oxygen demand (BOD) limits the oxygen available for aquatic organisms to thrive. All our manufacturing sites generate BOD; therefore, the scope of potential impact is our global manufacturing sites. However, BOD is a highly treatable parameter which mitigates potential adverse impacts. The primary potential impact of BOD is to aquatic species from discharges of untreated or inadequately treated wastewater to surface water. This could result from a spill or process upset affecting wastewater treatment.

Total Suspended Solids (TSS) may settle into water streams causing sedimentation that could disrupt reproduction of aquatic organisms or affect benthic organisms and food sources for other aquatic species. All our manufacturing sites generate TSS; therefore, the scope of potential impact is our global manufacturing sites. TSS is a highly treatable parameter which mitigates the potential adverse impacts. The primary potential impact of TSS is to aquatic species from discharges of untreated or inadequately treated wastewater to surface water. This could result from a spill or a process upset affecting wastewater treatment.

Management procedures

Waste water management Follow regulation standards

Please explain

Our process wastewaters are treated prior to discharge to a water body. Our facilities generally either conduct some pre-treatment with discharge to a municipal wastewater treatment plant for additional processing prior to discharge; or, facilities operate biological wastewater treatment systems to reduce solids and oxygen demand prior to direct discharge to a receiving water body. Discharge of wastewater, whether directly to a stream or through a municipal system, is highly regulated with limits on the amount of pollutants that can be discharged and extensive sampling programs to ensure



compliance. We utilize several management system processes including control charting to monitor wastewater operations. Success is measured by meeting or exceeding our compliance obligations. In the event a site experiences a process upset resulting in higher levels of wastewater BOD, a root cause investigation is conducted with corrective actions implemented to reduce the likelihood of repeat failures.

Potential water pollutant

Fertilizers

Activity/value chain stage

Agriculture - supply chain

Description of water pollutant and potential impacts

Runoff from agriculture fields may be in high in fertilizers resulting in excess nutrient loading potentially impacting surface water or groundwater due to infiltration. Over application or spills of fertilizers can result in negative impacts. This issue is global in scope and has an adverse impact on water sources if not managed. Phosphorus from fertilizer can cause algae to accumulate in lakes and ponds, harming aquatic organisms by reducing available oxygen. Fertilizers can also contaminate water with an overabundance of phosphates and nitrates, making it unsafe for consumption.

Management procedures

Crop management practices Sustainable irrigation and drainage management Fertilizer management Calculation of fertilizer intensity data

Please explain

We engage with agricultural suppliers on sustainable agriculture practices that help reduce climate impacts through several mechanisms which include items such as no tillage, reduced irrigation water, and reduced on-farm chemical usage. The reduction of on-farm chemicals would include both fertilizers and pesticides. Additionally, many of our growers utilize efficient farming practices such as precision agriculture, in which soil samples across multiple points on the farm are taken and analyzed, so that inputs such as fertilizers and irrigation water are only utilized in the exact areas they are needed. This more efficient use of inputs leads to less wasted items like fertilizer and water by the growers, which in turns helps minimize the potential for impacts such as fertilizer runoff. Additionally, practices like no tillage improve the soil health, so that agricultural inputs applied to the field are better retained in the soil and less like to runoff into nearby areas. Ingredion utilizes programs such as the Sustainable Agriculture Initiative Platform and Field to Market, both of which assess areas like the growing practices and chemical storage at the farm level. Through the Field to Market Fieldprint Calculator, we can look at metrics such as fertilizer use intensity and see how our growers compare to local, state, and national averages. This offers us data we can discuss with our growers on areas they might consider for improvement. In the United States, we utilize the MyFarms tools which enable our growers to more easily provide us with their agricultural inputs.



We are in the process of upgrading this system to include a nitrogen tool, which will better allow us to track nitrogen (fertilizer) use at the farm level and help track how and where sustainable agriculture practices are leading to reduced fertilizer use. We measure success by the number of growers in the SAI platform as well as other engagements. We engaged ~15,350 growers globally in 2021 which is flat from 2020.

Potential water pollutant

Pesticides and other agrochemical products

Activity/value chain stage

Agriculture - supply chain

Description of water pollutant and potential impacts

Runoff from agriculture fields may be in high in pesticides resulting in impacts to surface water, or groundwater due to infiltration. This issue is global in scope. Over application or spills of pesticides can result in negative impacts, if not managed. Pesticides have been linked with deleterious effects on human health and that of the environment, including impacts to flora and fauna. With proper pesticide management, including integrated pesticide management practices, the impact of field runoff is low.

Management procedures

Crop management practices Sustainable irrigation and drainage management Pesticide management Substitution of pesticides for less toxic or environmentally hazardous alternatives

Please explain

We engage with agricultural suppliers on sustainable agriculture practices that help reduce climate impacts through several mechanisms which include items such as no tillage, reduced irrigation water, and reduced on-farm chemical usage. The reduction of on-farm chemicals would include both fertilizers and pesticides. Additionally, many of our growers utilize efficient farming practices such as precision agriculture, in which soil samples across multiple points on the farm are taken and analyzed, so that inputs such as fertilizers and irrigation water, and pesticides are only utilized in the precise areas they are needed. This more efficient use of inputs leads to less wasted items like pesticides, fertilizer and water by the growers, which in turns helps minimize the potential for impacts such as fertilizer runoff. Additionally, practices like no tillage improve the soil health, so that agricultural inputs applied to the field are better retained in the soil and less like to runoff into nearby areas. Ingredion utilizes programs such as the Sustainable Agriculture Initiative Platform ("SAI Platform") and Field to Market, both of which assess areas like the growing practices and chemical storage at the farm level. Through the SAI Platform Farm Sustainability Assessment, we assess whether growers utilize practices such as Integrated Pest Management (IPM). Where possible, Ingredion agricultural personnel work with growers to help improve the use of IPM instead of chemical pesticides. For example, in Thailand Ingredion personnel worked with local government and universities to help address the problem of mealy bugs that in the past



have damaged significant portions of the country's tapioca crops. Working together, we were able to help introduce tiny Brazilian wasps that are natural predators of the mealy bugs. This dramatically reduced the mealy bug damage to crops without introducing any chemical pesticides into the local environment. Ingredion's Statement on Agricultural Sustainability, which is available on our website, outlines our commitment to reducing the use of pesticides and promoting Integrated Pest Management. We measure success by the number of growers in the SAI platform as well as other engagements. We engaged ~15,350 growers globally in 2021 which is flat from 2020.

W3.3

(W3.3) Does your organization undertake a water-related risk assessment? Yes, water-related risks are assessed

W3.3a

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

Value chain stage Direct operations Supply chain Other stages of the value chain

Coverage

Full

Risk assessment procedure

Water risks are assessed as a standalone issue

Frequency of assessment

Annually

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Tools on the market International methodologies and standards Databases Other

Tools and methods used

SEDEX WRI Aqueduct WWF Water Risk Filter IPCC Climate Change Projections



Internal company methods Materiality assessment Other, please specify Sustainable Agriculture Initiative (SAI) Farm Sustainability Assessment (FSA)

Contextual issues considered

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

Stakeholders considered

Customers Employees Investors Local communities NGOs Regulators Suppliers

Comment

At a corporate level, we use an Ensemble Tool comprised of multiple models, including WRI Aqueduct current Baseline Water Stress, WWF current Water Depletion, and WWF Basin Risk projected change in drought and flood occurrence. The ensemble tool assesses various aspects of water risk, at our operating facilities, surrounding communities, and agricultural supply chain. Scenarios including both current water stress and predicted changes in water stress to 2040, as well as predicted changes for the 2 degree C climate change scenario. To ensure our materiality aligns with our customers and investors we use external guidance material from sources such as the UN SDG's, CDP, GRI, and SAI as considerations.

At a local level we conduct a biennial internal water survey for sites to assess water risk at each of our facilities. Furthermore, each site is required to ensure their operations protect baseline water quality by ensuring that effluent streams are properly managed and treated to the required quality objectives set forth by local regulators. Influent water quality, and access to WASH services for all employees is integrated in our global safety and quality systems. Each facility complies with policies which require monitoring the quality of water inputs to ensure safe, clean, sanitized water for employee and product safety requirements. By assessing the capabilities to meet withdrawal and discharge quality objectives our sites have the information to identify a future risk mitigation strategy.

Ingredion considers customer and supply chain impacts due to potential disruptions in the transportation system in business continuity risk assessments. Flooding may preclude railroads operations or delay truck deliveries. The business continuity risk assessments consider the probability and likelihood of occurrence and the severity of the impact to customers.



We use the WWF Water Risk Filter to map the key supplier/grower locations to understand specific water stress and ecosystem stressors. We assess agricultural supplier water usage through the SAI Platform's Farm Sustainability Assessment to understand where we have water-related risks with growers, so we can implement programs to help address them.

W3.3b

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

We assess water-related risks globally on an annual basis within our direct manufacturing operations using a comprehensive, multi-faceted approach of both quantitative and qualitative tools, including the use of an Ensemble Risk Tool. The ensemble tool is comprised of multiple models, including WRI Aqueduct current Baseline Water Stress, WWF current Water Depletion, Aqueduct future change in water stress, and WWF Basin Risk projected change in drought and flood occurrence. The ensemble tool assesses various aspects of water risk, including both current water stress and predicted changes in water stress to 2040, as well as predicted changes for the 2 degree C climate change scenario. We have found that the combination of tools provides us a more reliable assessment and moderates the weaknesses inherent in some of the models. In addition, we conduct a biennial water surveys at the local level for all manufacturing sites. This internal survey is both quantitative and qualitative in nature and addresses contextual and stakeholders' issues. This combined approach allows us to assess risk both on a macro level as well as "on the ground" observations at the asset/site level. As potential water-related risk is identified at any of our manufacturing locations, we look for opportunities to mitigate through studies conducted by our Continuous Improvement Teams, recycling opportunities (e.g., use of treated wastewater for cooling water), equipment and operational efficiencies, and capital projects, as appropriate. Each site is responsible for maintaining a forward-looking capital project plan which may include risk mitigation projects. For example, a future looking capital plan may include costs to upgrade waste treatment capabilities to address tightening regulatory restrictions around a certain contaminant of concern.

Our risk assessment process is a critical component for the development of our long-term sustainability goals that support our All Life plan and are communicated in our annual Sustainability report. First, our goals need to meet the expectations of our investors and customers. Secondly, these sustainability goals guide our internal business teams priorities. In 2010-2020 Ingredion had a global, uniform reduction goal of 10%. However, when we created our new targets for 2030 we recognizing that we needs to consider individual stressors on local watersheds; this led us to publicly commit to a 30% reduction in water use for extremely high water-stress geographies. An outcome of this strategic response led our site level engineers, and our corporate sponsored Water Engineering Excellence team, to prioritize innovative water reduction initiatives in these locations. In 2021 we invested in a dedicated biotreatment channel to treat a process effluent to the point where it can be recovered as cooling tower makeup, which reduced withdrawal demand in an extreme water-stress region by approximately 88 million liters annually.



Our tools to assess water availability and quality are used as part of the due diligence process of any acquisition we consider. This assessment may preclude a transaction based on future costs of compliance, supply chain risks, or expected operational challenges due to an unsecure water supply.

With our agricultural suppliers, we continue to work with SAI and Field-to-Market to drive improvements in farming practices that reduce impacts to water and protect ecosystem services. As applicable, we can also look for new suppliers if water-related risks may potentially impact our raw material supply. We engage with customers to tackle shared risks due to a sustainable agriproduct supply chain. In 2021 we collaborated with Pepsi to improve sustainable agriculture practices at Corn and Soy fields in our supply shed located in the Midwest United States. While our direct funding provided incentives for growers to implement projects with verified emission reductions, a USDA RCPP grant incentivized these growers to adapt water management practices that had quantifiable improvements in water quality and water quantity. Furthermore, in 2021 Ingredion assessed our operations and supply chain in relation to the Critical Ecosystem Partnership Fund's (CEPF) list of global biodiversity hotspots, as a starting point for a deeper assessment on how our operations and supply chain may impact, or be impacted by, biodiversity loss.

In 2021 we were selected along with Danone and Mars, as part of the new AgWater Challenge cohort sponsored by Ceres and the WWF. For us, this commitment includes implementing regenerative agriculture practices within our supply chain, including in high water stress geographies. Being part of the new AgWater Challenge cohort will help us leverage outside expertise in promoting more sustainable water management practices at the farm level. It also helps highlight Ingredion's commitment to protecting water as a natural resource.

W4. Risks and opportunities

W4.1

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

Yes, only within our direct operations

W4.1a

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

We define substantive site-level water risks as any facility (direct operation) meeting all of the following criteria:

1. Site is identified as being High or Extremely High risk utilizing our ensemble risk tool methodology;

- 2. Site accounts for >5% of our global production by volume; and
- 3. Site is considered strategic to the growth strategy of the organization.

Sites are evaluated against these criteria annually to determine if they meet this definition, indicating a potentially substantive impact.



In addition to site level impacts, our Business Continuity Plan (BCP) risk assessment process considers supply chain impacts, including lack of raw material availability (primarily agriculture). The BCP risk a combination of: (1) the probability or likelihood that a consequence/ impact will occur; (2) the severity of the consequences if the impact occurs; and, (3) the strength of the controls in place. Substantive risks would include those that have the potential to impact production and ability to meet commitments to our customers.

We evaluate our suppliers by mapping locations in the WWF Water Risk Filter to determine if any are located in areas having annual average monthly net water depletion equal to or greater than 75%, or seasonal water depletion equal to or greater than 75% (one or months). An example of a substantive impact would be a strategic facility (e.g., site that accounts for >5% of our global production by volume) needing to curtail production due to lack of water or agricultural raw material availability. In our environmental management system, we define disruption to operations of greater than seven days as high severity. The current probability of this occurring is ranked as unlikely (i.e., has not occurred or may be anticipated to occur less than once/year). This would also result in an impact to our customers if we were to be unable to supply product to them.

W4.1b

(W4.1b) What is the total number of facilities exposed to water risks with the potential to have a substantive financial or strategic impact on your business, and what proportion of your company-wide facilities does this represent?

	Total number of facilities exposed to water risk	% company-wide facilities this represents	Comment
Row 1	1	1-25	One of our manufacturing sites meets the definition of having the potential to result in a substantive impact. This facility is located in an area defined as high water stress using our ensemble risk tool. While we have evaluated risk and impacts within the supply chain; none currently meet the definition of substantive impact.

W4.1c

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

Country/Area & River basin Mexico Panuco



Number of facilities exposed to water risk

1

% company-wide facilities this represents 1-25

% company's total global revenue that could be affected 11-20

Comment

The facility represents approximately 12% of our global production volume.

W4.2

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

Country/Area & River basin

Mexico Panuco

Type of risk & Primary risk driver

Acute physical Drought

Primary potential impact

Increased operating costs

Company-specific description

This site has been identified as being High or Extremely High risk utilizing our ensemble risk tool methodology; accounts for >5% of our global production by volume; and is considered strategic to the growth strategy of the organization. In 2020, this facility represented approximately 12% of our global production volume. Increased water stress may increase the site's operating costs primarily due to increased cost of water supply. While this may impact site operating costs, it is not expected to have a substantial financial impact on the overall company. Operating costs with respect to water decreased in 2020 primarily related to decreased production rates as a result of 2020 pandemic-related operational impacts.

Timeframe

More than 6 years

Magnitude of potential impact Low

Likelihood



Unlikely

Are you able to provide a potential financial impact figure? Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

10,000

Potential financial impact figure - maximum (currency) 50.000

Explanation of financial impact

If the site were unable to meet all the water supply needs from the on-site water wells, water could be purchased from third party suppliers. It is estimated that the cost to obtain water from third party suppliers could increase operating cost by 10% or approximately \$50,000/year. This assumes that water costs remain relatively flat year over year. We do not expect to incur this cost within the next six years.

Primary response to risk

Adopt water efficiency, water reuse, recycling and conservation practices

Description of response

The company would deploy several risk control strategies depending on the types and magnitude of risk posed. To address increased operating costs, the site will continue their continuous improvement strategies around water efficiency, water re-use, recycling and conservation practices and request capital to expand the wastewater treatment plant to facilitate additional treatment and recycle of treated wastewater in non-food related processes. In addition, we continue to research new technologies, including zero liquid discharge strategies, which would allow treatment of wastewater to a level that would be acceptable for reuse in food production. Acceptance by both regulators and customers will also be needed to deploy this strategy. These response actions are in line with the UN Sustainable Development Goal 6 - Clean Water and Sanitation.

Cost of response

7,000,000

Explanation of cost of response

Projects at this site are being evaluated to:

1. Increase the percentage of recovered water for reuse

2. Longer-term achieve zero discharge. Cost estimates for these strategies are based on preliminary engineering evaluations, implementation of similar projects at other facilities, and in accordance with our capital strategic planning guidelines.

The \$7,000,000 cost of response estimate is based on engineering estimates of capital expenditures required to upgrade wastewater treatment facilities to treat water to a level that it can be recycled and used in cooling towers and non-food related processes. This would reduce water use. As Ingredion begins implementation of its 2030 Sustainability



target to reduce our water use intensity by 30% in all extremely high-stress geographies where we manufacture, including this site, it is likely that additional treatment capacity for this facility will occur within the next ten years.

W4.2c

(W4.2c) Why does your organization not consider itself exposed to water risks in its value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact?

	Primary reason	Please explain
Row 1	Risks exist, but no substantive impact anticipated	The supply chain risk is primarily related to the inability to obtain raw materials. Agricultural supply may be impacted by both floods and droughts, either through not being able to plant fields or reduced yield. Flooding may also impact our ability to transport finished goods, particularly by rail, which may delay shipment to customers. While the risks of increased droughts or flooding may impact the ability to obtain and receive raw materials at select sites, the overall impact to the company is not substantive. We define substantive site-level water risks as any facility (direct operation) meeting all the following criteria: 1. Site is identified as being High or Extremely High risk utilizing our ensemble risk tool methodology; 2. Site accounts for >5% of our global production by volume; and, 3.Site is considered strategic to the growth strategy of the organization. We have completed an assessment of the geographic locations of our agricultural suppliers and none have been identified to have a substantive impact on the business. Additionally, comprehensive business planning related to planting and potential weather impacts (i.e., droughts, floods, etc.) is completed on an annual basis. Ingredion recognizes that drought could be a threat to our raw material sourcing for our manufacturing sites. To mitigate this risk, Ingredion sources raw materials from a variety of geographies via a variety of shipping methods. Furthermore, Ingredion has a global network of manufacturing sites that can act as a backstop by providing raw materials or finished products in the event of a widespread weather issue. Disruption to transportation from flooding may be mitigated by increasing shipment volumes to customers prior to anticipated storm events or by changing modes of transportation.

W4.3

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

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



W4.3a

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

Type of opportunity

Efficiency

Primary water-related opportunity

Cost savings

Company-specific description & strategy to realize opportunity

Every 1% reduction in process water use intensity results in savings up to approximately \$2,357,000 annually when considering purchase, pumping, preparation, and subsequent wastewater treatment costs.

We use a project prioritization scoring system to define opportunities with a substantive impact. The scoring system includes metrics on business performance, customer initiatives, EHS performance, sustainability (including achieving company goals), and employee development/engagement.

Our continuous improvement teams continually seek opportunities to reduce water consumption, which in turn has a positive cost impact. Many of these opportunities include behavioral changes, employee awareness and operational changes to improve production efficiency.

Ingredion has implemented an environmental conservation initiative to reduce water use intensity 10-30% by 2030 from a baseline of 2019. This strategy has been implemented and is allowing us to track and realize the opportunity of and track water savings initiatives, which leads to cost savings, improved community relations, and improved water efficiency.

On an absolute basis, we reduced water use by 15.2% between 2010 and 2020. For example, upgrades to existing wastewater treatment facilities, recovery of several wastewater streams including CPV, condensate, and steam (which also are used as heat recovery and energy savings), and reuse of treated wastewater for cooling towers.

Estimated timeframe for realization

More than 6 years

Magnitude of potential financial impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

18,856,000

Potential financial impact figure - minimum (currency)



Potential financial impact figure – maximum (currency)

Explanation of financial impact

Cost to realize water savings is estimated as 25 to 50% of the realized savings (\$5.89 to \$11.8MM). Each 1% reduction in process water use intensity results in savings up to approximately \$2,357,337 annually when considering purchase, pumping, preparation, and subsequent wastewater treatment costs. The figure of 18,856,000 represent the potential cumulative savings for a a 1% reduction over the next 8 years (2357337 X 8).

W5. Facility-level water accounting

W5.1

(W5.1) For each facility referenced in W4.1c, provide coordinates, water accounting data, and a comparison with the previous reporting year.

Facility reference number Facility 1 Facility name (optional) Facility 1 Country/Area & River basin Mexico Panuco Latitude 20.41 Longitude -99.99 Located in area with water stress Yes Total water withdrawals at this facility (megaliters/year) 2.763 Comparison of total withdrawals with previous reporting year About the same Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes 0 Withdrawals from brackish surface water/seawater



0

Withdrawals from groundwater - renewable 2,701 Withdrawals from groundwater - non-renewable 0 Withdrawals from produced/entrained water 0

Withdrawals from third party sources

61.89

Total water discharges at this facility (megaliters/year) 1,318

Comparison of total discharges with previous reporting year About the same

Discharges to fresh surface water 0

Discharges to brackish surface water/seawater 0

Discharges to groundwater 0

Discharges to third party destinations

1,318

Total water consumption at this facility (megaliters/year) 1.444

Comparison of total consumption with previous reporting year About the same

Please explain

We do not withdraw fresh surface water, brackish surface water, or non-renewable groundwater. Moisture content of our agricultural raw materials represents <1.5% of the water intake and is not considered relevant when considering other water intake sources. Reported volumes are direct measurements that are reported into a corporate database. We consider +/-10% variance to be about the same when making year over year comparisons. We have implemented water reuse programs to reuse treated wastewater as makeup water for cooling towers. We continue to research water efficiency and recycling initiatives applicable to this site.



W5.1a

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

Water withdrawals - total volumes

% verified 76-100

Verification standard used

For the facility referenced in W5.1, 100% was verified using ISAE 3000. A third-party verification statement is attached in W9.1. In addition to the facility reported in W5.1, all our facilities were externally verified using ISAE 3000. A third-party verification statement is attached in W9.1.

Water withdrawals - volume by source

% verified

76-100

Verification standard used

For the facility referenced in W5.1, 100% was verified using ISAE 3000. A third-party verification statement is attached in W9.1. In addition to the facility reported in W5.1, all our facilities were externally verified using ISAE 3000. A third-party verification statement is attached in W9.1.

Water withdrawals - quality by standard water quality parameters

% verified

76-100

Verification standard used

For the facility referenced in W5.1, 99% of discharge volume was verified using ISAE 3000. A third-party verification statement is attached in W9.1.

Water discharges – total volumes

% verified

76-100

Verification standard used

For the facility referenced in W5.1, 100% was verified using ISAE 3000. A third-party verification statement is attached in W9.1. In addition to the facility reported in W5.1, all



our facilities were externally verified using ISAE 3000. A third-party verification statement is attached in W9.1.

Water discharges - volume by destination

% verified

76-100

Verification standard used

For the facility referenced in W5.1, 100% was verified using ISAE 3000. A third-party verification statement is attached in W9.1. In addition to the facility reported in W5.1, all our facilities were externally verified using ISAE 3000. A third-party verification statement is attached in W9.1.

Water discharges - volume by final treatment level

% verified

76-100

Verification standard used

For the facility referenced in W5.1, 100% was verified using ISAE 3000. A third-party verification statement is attached in W9.1

Water discharges – quality by standard water quality parameters

% verified

76-100

Verification standard used

For the facility referenced in W5.1, 100% was verified using ISAE 3000. A third-party verification statement is attached in W9.1

Water consumption - total volume

% verified

76-100

Verification standard used

For the facility referenced in W5.1, 100% was verified using ISAE 3000. A third-party verification statement is attached in W9.1. In addition to the facility reported in W5.1, all our facilities were externally verified using ISAE 3000. A third-party verification statement is attached in W9.1



W6. Governance

W6.1

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

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

W6.1a

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

	Scope	Content	Please explain
Row 1	Company- wide	Description of business dependency on water Description of business impact on water Description of water- related performance standards for direct operations Description of water- related standards for procurement Reference to international standards and widely- recognized water initiatives Company water targets and goals Commitment to align with public policy initiatives, such as the SDGs Commitments beyond regulatory compliance Commitment to water- related innovation Commitment to stakeholder awareness and education Commitment to water stewardship and/or collective action	We selected a company-wide scope for the water policy because our business relies on access to water in all areas where we operate and water is essential not only for our direct operations, but across our entire value chain. We recognize the rights of all people to clean water and sanitation; and, we support initiatives that minimize our impact on climate, biodiversity and water resources. We understand that climate change impacts both water availability and quality. We are committed to water stewardship through: • Understanding the local conditions and water scarcity risks in areas where we operate, complying with local regulations and meeting water quality standards (such as those published by the World Health Organization) consistent with food safety requirements. • Setting goals and targets to improve efficiencies and/or reduce water consumption, including going beyond regulatory compliance • We are committed to monitoring and measuring our water use, reporting trends and results to our executives, and maintaining our commitment to transparency through external reporting initiatives. • Exploring innovative solutions to reduce the impacts of our direct operations through process changes, water conservation, recycling and reuse, education and awareness, and transparency. • Utilizing recognized and respected programs and tools to align with recognized global standards, including the SDGs and as a signatory to the United Nations Global Compact.



Commitment to safely managed Water, Sanitation and Hygiene (WASH) in the workplace Commitment to safely managed Water, Sanitation and Hygiene (WASH) in local communities Acknowledgement of the human right to water and sanitation	 Improving water efficiency in agriculture through supplier education, awareness, and technology sharing, as well as working with collaborative organizations such as the SAI Platform and Field to Market. Procurement of sustainably sourced raw materials using the SAI platform to assess our growers Responsible wastewater discharge through compliance and regulations and treatment sufficient to guard against degradation of water quality. Dialogue with interested stakeholders. Access to WASH services in the workplace and in
human right to water and	 Dialogue with interested stakeholders. Access to WASH services in the workplace and in local communities.

W6.2

(W6.2) Is there board level oversight of water-related issues within your organization? $$_{\mbox{Yes}}$$

W6.2a

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

Position of individual	Please explain
Chief Sustainability Officer (CSO)	The Board of Directors Governance and Nominating Committee has direct oversight for environmental and sustainability related matters. Ingredion's Executive Leadership Team (C-Suite Officers) attends Board Meetings and reports progress on initiatives. Ingredion's SVP, Chief Commercial and Sustainability Officer is the Executive Leadership Team member responsible for sustainability, including water-related issues, and review with the Board. Environmental and sustainability matters are discussed with the Board of Directors at least annually. In addition, water issues, as applicable, are addressed at meetings of the Ingredion Sustainability Council and Operations Leadership Team. In 2020, our 2030 sustainability goals were presented, including reducing water use intensity by 30% in all extremely high-stress geographies where we manufacture products by the end of 2030, to the Board of Directors. Based on the review, the Board, including the CSO agreed to publish the goals in Ingredion's publicly available Sustainability Report.



W6.2b

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - some meetings	Monitoring implementation and performance Overseeing acquisitions and divestiture Overseeing major capital expenditures Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing and guiding corporate responsibility strategy Reviewing innovation/R&D priorities	The Board meets quarterly with scheduled topics covered each quarter. Environmental and sustainability matters are on the agenda at least semi-annually. However, potential water-related risks may be discussed during meetings on business continuity planning; engineering and capital projects; acquisitions and divestures; and compliance and risk management. Subject matter experts reporting either to the Chief Sustainability Officer or Sr. VP Global Operations, brief the Board on these topics. The Vice President of Sustainability and the Director of Environmental Affairs are primarily responsible for briefing the board on sustainability initiatives and risks as well as our progress on sustainability goals and targets. These briefings with the Board allow insight into potential water-related issues which can then be addressed, as applicable, in risk management policies, strategy and action plans, including setting aggressive 2030 sustainability targets (e.g., reduce water use intensity by 30% in all extremely high- stress geographies where we manufacture products by the end of 2030).

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

W6.2d

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

		Board member(s) have competence on water-related issues	Primary reason for no board-level competence on water- related issues	Explain why your organization does not have at least one board member with competence on water-related issues and any plans to address board-level competence in the future
R 1	low	No, but we plan to address this within the next two years	Important but not an immediate priority	Criteria for Board member competence on climate-related issues is being benchmarked



	against industry best practices and will be reviewed with the Board.
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W6.3

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

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

Chief Sustainability Officer (CSO)

Responsibility

Assessing water-related risks and opportunities Managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

Half-yearly

Please explain

The Board of Directors Governance and Nominating Committee has direct oversight for environmental and sustainability related matters. The Senior Vice President, Chief Commercial and Sustainability Officer (CSO), an executive leadership team member reporting to the CEO, is responsible for reviewing sustainability issues at the Board Level. Topics of discussion include water-related issues, progress on our water reduction goals and alignment with stakeholders on environmental sustainability considerations.

Environmental and sustainability matters are discussed with the Board of Directors at least semi-annually. In addition, water issues, as applicable, are addressed at meetings of the Ingredion Sustainability Council and Operations Excellence Leadership Team. The CSO and the OLT Chair (Senior VP Global Operations) bring issues or concerns, including those related to water, to the Executive Team (i.e., C-Suite) and the Board of Directors, as applicable.

W6.4

(W6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?

	Provide incentives for management of water- related issues	
Row	No, not currently but we	The CEO and certain members of the corporate executive team have
1	plan to introduce them	their goals aligned with our 2030 sustainability agenda, in 4
	in the next two years	categories: (1) carbon reduction, (2) sustainable sourcing, (3) Safety
		performance, and (4) DEI. Performance against these objectives
		impacts a portion of the annual bonus incentive.



W6.5

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

Yes, trade associations

W6.5a

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

Any such activities, should they occur, are coordinated through our Corporate Sustainability Council, Operations Leadership Team (OLT), Executive Leadership Team, and/or our Board of Directors, which ensures they are consistent with our overall water and climate change strategy. Select members of these teams participate in the trade association meetings and would bring forward any matters of inconsistency for discussion with teams referenced above. The internal teams (Sustainability Council, OLT, etc.) are led by an ELT member and are crossfunctional with shared members to provide knowledge and collaboration on such issues.

W6.6

(W6.6) Did your organization include information about its response to water-related risks in its most recent mainstream financial report?

Yes (you may attach the report - this is optional)

Ungredion 10k.pdf

W7. Business strategy

W7.1

	Are water- related issues integrated?		Please explain
Long-term business objectives	Yes, water- related issues are integrated	11-15	 Water-related issues are considered as a key component in the following processes: (1) availability of water and wastewater capacity during due diligence of mergers and acquisitions, (2) impact of long-term water availability and ability to meet discharge criteria during facility expansion planning, (3) continuous improvement initiatives to meet our water

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



Strategy for	Yes, water-	11-15	reduction and conservation targets, and (4) impact of water stress on the resiliency of our agricultural supply chain. Estimated changes in water volumes (+/-) are required for capital projects and considered during project approvals. This information also feeds into our longer- term strategic plans as we use the data to project the impact of projects on our water reduction goals and strategy. In addition, the status on each region's environmental conservation goals are reviewed during quarterly business and operational reviews. This is particularly important as we strive to meet the 2030 sustainability targets. The 2030 sustainability strategy is designed to enhance alignment with the UN Sustainable Development Goals. We have declined mergers and acquisitions due to water availability concerns, the ability to cost-effectively treat wastewater to levels that meets permit limits, and the potential for negative impact on the surrounding community to meet the water needs of the project.
Strategy for achieving long-term objectives	Yes, water- related issues are integrated	11-15	We unveiled our All Life Sustainability Strategy with the purpose to make life better. When developing the strategy, Water-related issues were integrated in numerous aspects: Planet Life - Our focus is to protect and renew the planets resources by enacting science-based targets and other conservation measures to drive improvements. Having science-based targets are crucial inputs when setting operational priorities including future expansions, production planning and continuous improvement plans. The inclusion of water reduction targets that align with regional water-stressors ensures our current and future operational activities respect the boundaries imposed by the local water shed. Connected Life – Our focus is to sustainably source 100% of our priority crops. Improving water resilience in our supply chain is a key output of sustainable agriculture initiatives. The inclusion of water-related issues as a strategic focal point led us to commit to the AgWater Challenge in 2021. As part of the challenge we commit to promote the adoption of locally relevant sustainable agriculture principles that improve water- related outcomes – with an emphasis on regenerative



			agriculture practices such as soil health and nutrient management- for key agricultural commodities grown in high-risk watersheds.
Financial planning	Yes, water- related issues are integrated	11-15	Water-related issues are considered as a key component in the following processes: (1) availability of water and wastewater capacity during mergers and acquisitions, (2) impact of long-term water availability and ability to meet discharge criteria during facility expansion planning, and (3) continuous improvement initiatives to meet our water reduction and conservation targets. Our capital planning system includes an EHS category which is given special consideration for capital requests, including water reduction and wastewater treatment projects. Our quarterly business reviews which include the finance team, allow insight into our financial planning related to water and other issues. Our operations and sustainability leadership teams include cross functional representation from finance, customer excellence, manufacturing, supply chain, engineering and others, including representation from the Executive Leadership Team. Financial planning is a component of our long-term water and other sustainability goals. As part of our All Life Sustainability plan, we are evaluating even better ways to integrate sustainability considerations like water management into financial planning. In addition to previous efforts, we are now including sustainability goals and financing in regional business planning against our sustainability targets (such as sustainable agriculture and water reduction efforts in high-stress geographies).

W7.2

(W7.2) What is the trend in your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

Row 1

Water-related CAPEX (+/- % change) 15



Anticipated forward trend for CAPEX (+/- % change) 23

Water-related OPEX (+/- % change)

4

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

2

Please explain

CAPEX projects have been implemented to improve compliance, implement water recycling initiatives and other water efficiency projects. A significant project implemented in 2021 was to improve waste treatment capacity in order to facilitate the recovery of 88 million liters of water at one of our facilities in Mexico. It is expected that our CAPEX on water spend will increase by 23% to support future targeted water reduction projects.

OPEX includes purchase costs, fees, chemical costs, and pumping costs. OPEX spend in 2021 was incrementally higher then 2020; production volumes increased as we continue to recover from the impact of the global pandemic on operations. In future years we expect overall costs to generally trend upward for purchased water as well as additional chemical costs to support increased water reuse as cooling tower make-up water

W7.3

	Use of scenario analysis	Comment
Row 1	Yes	Our water risk ensemble tool is comprised of multiple models: WRI Aqueduct current Baseline Water Stress, WWF current Water Depletion, Aqueduct future change in water stress, and WWF Basin Risk projected change in drought and flood occurrence. The tool assesses current water stress and predicted changes in water stress to 2040, and predictions for the 2° C climate change scenario. The following future change scenarios were also assessed: • SSP2 RCP4.5 denotes a world with stable economic development and carbon emissions peaking/declining • SSP2 RCP8.5 denotes a world with stable economic development and steadily rising global carbon emissions. • SSP3 RCP8.5 denotes a fragmented world with uneven economic development and steadily rising global carbon emissions. The company utilizes climate risk scenario planning in our agricultural sourcing strategy (changes in annual precipitation and growing degree days) and assesses alternate areas for evaluation in quarterly business reviews.

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



W7.3a

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

	Type of scenario analysis used	Parameters, assumptions, analytical choices	Description of possible water- related outcomes	Influence on business strategy
Row 1	Water-related Climate-related Socioeconomic	The following future change scenarios were assessed: • SSP2 RCP4.5 denotes a world with stable economic development and carbon emissions peaking/declining • SSP2 RCP8.5 denotes a world with stable economic development and steadily rising global carbon emissions. • SSP3 RCP8.5 denotes a fragmented world with uneven economic development and steadily rising global carbon emissions.	A specific water related outcome identified in our scenario analysis is the quantification of water risk at each of our global facilities based on current and predicted changes to water stress. Furthermore, our scenario analysis identified one site as having the potential for substantive impact based on future scenarios.	Scenario planning is integrated into our definition of water- related risk . The planning tool assesses current water stress and predicted changes in water stress to 2040, and predictions for the 2° C climate change scenario. The company utilizes climate risk scenario planning in our agricultural sourcing strategy (changes in annual precipitation and growing degree days) and assesses alternate areas for evaluation in quarterly business reviews. We continue to identify short-term operational efficiencies including water recycling and reduction measures. We constantly research new technologies which would allow treatment of wastewater to a level that would be acceptable for reuse in food production. Acceptance by both regulators and customers will also be



		needed to deploy this
		strategy. We are also
		seeking to collaborate
		with customers to
		develop new or
		reformulated products
		to reduce water use. All
		these response options
		are on-going and are
		expected to continue
		for at least the next 10
		years

W7.4

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

Row 1

Does your company use an internal price on water?

No, but we are currently exploring water valuation practices

Please explain

We continued to explore tools that value water differentially at a site level. The tools containing the robust features we were seeking required business confidential/sensitive inputs and we were concerned with the security of the information in a public tool. We are currently evaluating other methods of determining differential water prices to match the complex geographies in which we operate. Internal cost of water would be used to value go/no-go decisions for project investment.

W7.5

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

	Products and/or services classified as low water impact	Please explain
Row 1	No, but we plan to address this within the next two years	Many experts agree that alternative proteins have a vital role to play in the world achieving food security by 2030. While there is some agreement that, on an equivalency basis, pulse proteins generally require less water than traditional animal based protein sources Ingredion requires a mechanism to properly classify these products as having a low water impact. Our Plant-Based Protein growth platform is well aligned to play a part in



	the broader evolution of our food system. Growing consumer demand for
	plant based and hybrid products is expected to drive dramatic increases
	in sales of these products.

W8. Targets

W8.1

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

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company- wide targets and goals Site/facility specific targets and/or goals Basin specific targets and/or goals	Targets are monitored at the corporate level Goals are monitored at the corporate level	Our corporate goals and targets reflect our commitment to to practice water stewardship in our business operations, our supply chain, and in our communities we operate. Our risk assessment process is a critical component for the development of our long-term sustainability targets/goals that support our All Life plan and are communicated in our annual Sustainability report. These sustainability goals guide our internal business teams objectives and must align with our stakeholder expectations. When we developed our targets for 2030 we recognized that we need to consider individual stressors on local watersheds; this has led us to develop targets for all of our sites based on the background water stress for the geography they are located in. In line with this approach, Ingredion has publicly committed to a 30% reduction in water use for our facilities that operate in extremely high water-stress geographies. Water use data is collected in a corporate database and we track progress on our corporate Intranet site, giving full transparency to all employees. Progress to this target is managed at a regional level, and is monitored at a corporate level. The metrics and status toward target are discussed in site and regional EHS management reviews, in the cross- functional Operations Leadership Team, in the Manufacturing Excellence Water Team monthly meetings, the Sustainability Council meetings, and in the Board of Directors Governance and Nominating Committee meeting at least semi-annually. Achieving these goals will feed into the business objectives of our Operations group and our Manufacturing Excellence teams, leading to project information and opportunities for improvement being discussed and shared across the



	company. All facilities are expected to make progress toward
	these targets and have performance incentives tied to their
	site achieving annual targets that support the overall
	reduction. At a corporate level, many of our employees have
	performance incentives linked to overall progress made
	towards the goal.
	Ŭ

W8.1a

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

Target reference number

Target 1

Category of target

Water withdrawals

Level

Company-wide

Primary motivation

Commitment to the UN Sustainable Development Goals

Description of target

Our target is to reduce water use intensity (m3 water /unit of production) between the baseline (2019) and target year (2030). Every manufacturing site has a goal to reduce water use based on the background water-stress for the geography in which they operate. These range from 30% for extreme high water-stress geographies, to 10% for facilities in low and medium water-stress locations. Our definition of water use includes all water intake except for single pass non-contact cooling water that is withdrawn and returned to the same source.

Quantitative metric

% reduction per unit of production

Baseline year 2019

Start year 2020

Target year 2030

% of target achieved



5.5

Please explain

By the end of 2021 we have achieved 5.5% progress towards our water use reduction goal. While we are slightly off target we continue to identify opportunities and make strategic investments which will help us attain our goal by 2030.

Target reference number

Target 2

Category of target

Water withdrawals

Level

Basin level

Primary motivation

Commitment to the UN Sustainable Development Goals

Description of target

Our target is to reduce water use intensity (m3 water /unit of production) in regions with extreme high water-stress by 30% between the baseline (2019) and target year (2030). Our definition of water use includes all water intake except for single pass non-contact cooling water that is withdrawn and returned to the same source.

Quantitative metric

% reduction per unit of production

Baseline year

2019

Start year 2020

Target year 2030

% of target achieved

6

Please explain

We have achieved 6% progress on our goal to reduce our water intensity in extreme high water-stress geographies by 30% by 2030. This corresponds to a decrease in water intensity of 1.85 % since our base year of 2019. While we are slightly off target we continue to identify opportunities and make strategic investments which will help us attain our goal by 2030. In 2021 this included a significant investment in Guadalajara to recycle water that would have previously been sent to waste. This reduced 88 million liters of water annually.



Target reference number

Target 3

Category of target

Procurement/production of sustainable raw materials

Level

Company-wide

Primary motivation

Reduced environmental impact

Description of target

We engage with agricultural suppliers on sustainable agriculture practices that help reduce water use and reduce climate change (e.g. no tillage, reduced chemical usage, reduced water irrigation, etc.). To qualify our corn as sustainable we utilize the Sustainable Agriculture Initiative's (SAI) Farm Sustainability Assessment platform. We require all our agricultural suppliers to have achieved a FSA bronze level (or equivalent under a benchmark program) to qualify as being sourced sustainably.

Quantitative metric

% increase in procurement/production of crops using sustainable agriculture practices

Baseline year

2019

Start year

2020

Target year 2022

2022

% of target achieved

78

Please explain

At the end of 2021, 87% of our waxy corn has met the threshold criteria to be considered sustainably sourced. Despite our progress, we still faced pandemic-related challenges in 2021. For example, we had difficulty conducting planned third-party audits to validate grower performance against the Platform's Farm Sustainability assessment. In some instances, auditors were prevented from traveling or safety protocol kept them from visiting growers in areas with rising infection rates. With these challenges we joined our customers in prioritizing the safety of our growers, employees and third-party partners.



Target 4

Category of target

Procurement/production of sustainable raw materials

Level

Company-wide

Primary motivation

Reduced environmental impact

Description of target

The milestone target is to sustainably source 100% of our Tier 1 priority crops by the end of 2025. Tier 1 priority crops include Corn Cassava, Potatoes, Pulses and Stevia. To qualify our corn as sustainable we utilize the Sustainable Agriculture Initiative's (SAI) Farm Sustainability Assessment platform. The FSA platform acts as the starting point for identifying deforestation considerations in our agricultural supply chain. The FSA is divided into three types of questions: Essential, Intermediate and Advanced. A negative response to any essential questions automatically disqualifies the farm from being considered sustainable.

Quantitative metric

% increase in procurement/production of crops using sustainable agriculture practices

Baseline year

2020

Start year

2020

Target year

2025

% of target achieved

26

Please explain

We made notable progress this past year against our sustainable agriculture goal of sustainably sourcing 100% of our Tier 1 priority crops. In addition to advancing our efforts from 24% to 33%, we also laid the foundation for even more progress in 2022 by expanding collaborations with both growers and customers. Despite our progress, we still faced pandemic-related challenges in 2021. For example, we had difficulty conducting planned third-party audits to validate grower performance against the Platform's Farm Sustainability Assessment. In some instances, auditors were prevented from traveling or safety protocol kept them from visiting growers in areas with rising infection rates. With these challenges we joined our customers in prioritizing the safety of our growers, employees and third-party partners. 100% of our Stevia growers completed the SAI Platform's FSA self-assessment, with approximately 90% of those growers having external validation audits.



W8.1b

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

Goal

Promotion of sustainable agriculture practices

Level

Company-wide

Motivation

Reduced environmental impact

Description of goal

Ingredion has a 2030 goal to Make life better for growers, mitigate supply chain risks, and help drive food security by implementing robust sustainable and regenerative agriculture programs with our growers.

In this goal we have specific milestones which include:

- 100% of global waxy corn sustainably sourced by the end of 2022;
- 100% of Tier 1 priority crops sustainably sourced by the end of 2025;
- Implement water conservation projects with growers in 100% of
- extremely high water stress sourcing geographies by the end of 2025;

• Confirm that 100% of our agricultural supply is not using pesticides of concern (as defined by WHO) by the end of 2025;

• Educate growers and/or implement integrated pest management in at least 70% of our agricultural supply chain by the end of 2027; and

• 100% of our Tier 1 and Tier 2 priority crops sustainably sourced by the end of 2030.

Baseline year

2019

Start year

2020

End year

2030

Progress

Success of the goal is measured by progress made against our milestones. In 2021 we made progress against our sustainable sourcing goals as we increased the volume of sustainably sourced Tier 1 crops to 33%; Our waxy corn supply is currently at 87%. Our efforts around water conservation was highlighted by us being selected, along with Danone and Mars, as part of the new AgWater Challenge cohort. The AgWater Challenge, led by Ceres and the World Wildlife Fund (WWF), engages major companies with significant agricultural supply chains in promoting leading water stewardship



practices. Being part of the new AgWater Challenge cohort will help us leverage outside expertise in promoting more sustainable water management practices at the farm level. It also helps highlight Ingredion's commitment to protecting water as a natural resource. As part of our commitment to the AgWater Challenge, Ingredion is collaborating with the SAI Platform and it's member organizations on the development of a food and beverage regenerative agriculture standard, planned to be completed in 2022. We will assess our existing supply chain agricultural practices against this standard by the end of 2022 to identify areas for improvement, particularly in high-risk watershed areas.

Goal

Engaging with local community

Level

Company-wide

Motivation

Corporate social responsibility

Description of goal

Ingredion has a 2030 Goal: Make life better for more than 1 million people in the communities where we operate. Included in this goal are milestones to

• Enact programs in 100% of the communities where we produce products to help eradicate childhood hunger by the end of 2025;

• Enact programs to support education and/or educational gender equality in 100% of our operational areas with low graduation rates by the end of 2025;

• Enact programs in support of local water conservation in 100% of extremely high-water stress communities where we produce products by the end of 2027; and

• Enact initiatives to support women entrepreneurs in 100% of the communities in which we operate that have a high gender equality inbalance.

Baseline year

2019

Start year

2020

End year

2030

Progress

In 2021 Ingredion completed a materiality assessment of the communities where we operate to prioritize which community impacts were most significant.

We've also developed a community impact guide to help the regions focus in on the most relevant needs of their local communities and plan events to support one or more of our four community impact goals.

Success of the goal is measured by progress made against the milestones. To increase visibility of the value created by local plant initiatives we began a partnership



with YourCause in 2021. YourCause will be our new platform for empowering employees to volunteer and advance our four community impact goals, including water conservation. Rollout of the platform will begin in 2022.

W9. Verification

W9.1

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

Yes

Ingredion W1 Corporate 2021 CDP Verification Statement Water ISAE 3000_Final.pdf

Ingredion W5.1 Water Assurance Statement_Final.pdf

Ingredion SAI Assurance Statement 2021.pdf

W9.1a

(W9.1a) Which data points within your CDP disclosure have been verified, and which standards were used?

Disclosure module	Data verified	Verification standard	Please explain
W1 Current state	Water Withdrawals total and by source, Water Discharges by source, Water Consumption for facilities listed in W5.1	ISAE 3000	Third-party verification statement for W5.1 is attached in W9.1.
W8 Targets	We have a company sustainability goal to sustainable source 100% of our tier 1 crops by 2030. The attachment is the verification for our total volume of tier 1 crops certified as SAI Bronze in 2021 (question 8.1a target 4)	ISAE 3000	A third-party verification statement for W8.1b is attached in W9.1.
W1 Current state	Company total: Water Withdrawals total and by source, Water Discharges by source, Water Consumption	ISAE 3000	A third-party verification statement for W1.2 is attached in W9.1.



W10. Sign off

W-FI

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

W10.1

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

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

W10.2

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

Yes

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

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

Please confirm below

I have read and accept the applicable Terms