

W0. Introduction

---

W0.1

---

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

This CDP submission is for Syngenta AG group, which encompasses the following operations of the Syngenta Group ([www.syngentagroup.com](http://www.syngentagroup.com)): Syngenta Crop Protection, Syngenta Seeds and the operations of Syngenta AG group that now form part of Syngenta Group China. This scope is referred to as 'Syngenta' or 'Syngenta AG group' in this document.

Syngenta AG group ([www.syngenta.com](http://www.syngenta.com)) comprises just over 30,000 employees and delivered USD 16.7 billion in sales in 2021. Syngenta plays a vital role in enabling the food chain to feed the world safely and take care of our planet. Our ambition is to be the most collaborative and trusted team in agriculture, providing leading seeds and crop protection innovations to enhance the prosperity of farmers, wherever they are. We support farmers with technologies, knowledge and services so they can sustainably provide the world with better food, feed, fiber and fuel.

Whether they grow corn or rice, vegetables or flowers, farmers trust Syngenta to help them produce healthy, premium crops and minimize the use of precious natural resources. We accelerate our innovation and invest to advance a more sustainable agriculture, which is good for nature, farmers and society. We contribute to addressing the global challenge of food security by increasing yields through technology, improving crop quality, helping farmers use natural resources more efficiently and creating benefits for rural communities. We also encourage farmers to adopt climate-smart farming practices that help them to optimize inputs, reduce soil-based carbon emissions and build crop resilience to changing weather patterns.

We are committed to helping farmers and fighting climate change, making agriculture more resilient and sustainable. At the heart of our contribution is the Good Growth Plan, which includes bold commitments to reduce agriculture's carbon footprint and help farmers deal with extreme weather patterns caused by climate change. Our business – and the world's food security – depend on sustainable natural resources, healthy ecosystems and thriving rural communities. Which is why we cooperate with industry partners, governments, academia and non-governmental organizations to support the achievement of the United Nations Sustainable Development Goals.

W-CH0.1a

---

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

Specialty organic chemicals  
 Other, please specify (Seed production)

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	October 1 2020	September 30 2021

W0.3

---

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

- Albania
- Algeria
- Andorra
- Argentina
- Armenia
- Australia
- Austria
- Azerbaijan
- Bangladesh
- Belarus
- Belgium
- Belize
- Bolivia (Plurinational State of)
- Bosnia & Herzegovina
- Brazil
- Bulgaria
- Burkina Faso

Cameroon  
Canada  
Chile  
China  
Colombia  
Costa Rica  
Côte d'Ivoire  
Croatia  
Cuba  
Cyprus  
Czechia  
Denmark  
Dominican Republic  
Ecuador  
Egypt  
El Salvador  
Estonia  
Eswatini  
Ethiopia  
Finland  
France  
French Guiana  
French Polynesia  
Gabon  
Georgia  
Germany  
Ghana  
Greece  
Guadeloupe  
Guatemala  
Honduras  
Hong Kong SAR, China  
Hungary  
India  
Indonesia  
Iran (Islamic Republic of)  
Iraq  
Ireland  
Israel  
Italy  
Jamaica  
Japan  
Jordan  
Kazakhstan  
Kenya  
Kuwait  
Kyrgyzstan  
Latvia  
Lebanon  
Libya  
Lithuania  
Luxembourg  
Malawi  
Malaysia  
Mali  
Malta  
Mauritius  
Mexico  
Morocco  
Mozambique  
Myanmar  
Namibia  
Netherlands  
New Caledonia  
New Zealand  
Nicaragua  
Nigeria  
Norway  
Oman  
Pakistan  
Panama  
Paraguay  
Peru  
Philippines  
Poland  
Portugal  
Puerto Rico  
Qatar  
Republic of Korea  
Republic of Moldova  
Réunion

Romania  
 Russian Federation  
 Saudi Arabia  
 Senegal  
 Serbia  
 Singapore  
 Slovakia  
 Slovenia  
 South Africa  
 Spain  
 Sri Lanka  
 State of Palestine  
 Sudan  
 Sweden  
 Switzerland  
 Taiwan, China  
 Tajikistan  
 Thailand  
 Tunisia  
 Turkey  
 Turkmenistan  
 Uganda  
 Ukraine  
 United Arab Emirates  
 United Kingdom of Great Britain and Northern Ireland  
 United Republic of Tanzania  
 United States of America  
 Uruguay  
 Uzbekistan  
 Viet Nam  
 Yemen  
 Zambia  
 Zimbabwe

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

(W0.6a) Please report the exclusions.

Exclusion	Please explain
Very small sites and office activities	The water consumption is insignificant (sites with <0.1 % of the total water consumption).

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
No	<Not Applicable>

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	Important	DIRECT OPERATIONS: * Use in production of certain seeds and flowers: important as water is essential to grow seeds and flowers * Use in sites manufacturing crop protection products: important as water is used in many processes and activities, including cleaning and cooling, as well as within some finished products INDIRECT OPERATIONS: * Seed supply farms: important for the production of seeds in contracted field production * Chemical suppliers: not as important as water is mainly used for cleaning or cooling FUTURE OUTLOOK: Based on the current business model and observed trends, we don't expect the importance of our use of freshwater to change in direct and indirect operations in the near future. In the medium term, we will continue to expand the implementation of water management practices among our seed supply networks, mainly through the training of growers, and we will prioritize the use of water management practices when selecting growing areas.
Sufficient amounts of recycled, brackish and/or produced water available for use	Not very important	Not very important	DIRECT OPERATIONS: We have no or only very limited use of recycled, brackish and/or produced water. We do not use brackish water because we have no supply of brackish water (no Syngenta site is located near a sea). Further, brackish water cannot be used to produce seeds. We only use recycled water in specific processes, for instance in cleaning processes or as formulation agents, which are mixed with the final product. Our activities do not produce water, so we have no produced water. INDIRECT OPERATIONS: We have no or only very limited use of recycled, brackish and/or produced water as surface or underground water is typically used for irrigation purposes along the value chain. FUTURE OUTLOOK: Based on the current business model and observed trends, we don't expect the importance of our use of recycled, brackish and/or produced water to change in the near future in direct and indirect operations.

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	76-99	METHOD AND FREQUENCY: Large sites and sites deemed as large water users (i.e., those considered environmentally significant because they account for more than 0.1% of our total annual energy and water consumption) report total volumes of water withdrawals in our company-wide SERAM system (Syngenta Environmental Reporting And Management) annually. Additionally, smaller sites have been added for the purposes of monitoring and reporting to drive cultural change. Data that sites enter into SERAM are formally validated by a regional environmental manager.
Water withdrawals – volumes by source	76-99	METHOD AND FREQUENCY: Large sites and sites deemed as large water users (i.e., those considered environmentally significant because they account for more than 0.1% of our total annual energy and water consumption) report volumes of water withdrawals by source in our company-wide SERAM system (Syngenta Environmental Reporting And Management) annually. Additionally, smaller sites have been added for the purposes of monitoring and reporting to drive cultural change. Data that sites enter into SERAM are formally validated by a regional environmental manager.
Entrained water associated with your metals & mining sector activities - total volumes [only metals and mining sector]	<Not Applicable>	<Not Applicable>
Produced water associated with your oil & gas sector activities - total volumes [only oil and gas sector]	<Not Applicable>	<Not Applicable>
Water withdrawals quality	76-99	METHOD AND FREQUENCY: Across Syngenta operations, the quality of water withdrawals is controlled at site level as necessary using standard parameters depending on water destination. Frequency varies from site to site based on type of use and local regulations. The approach and frequency of the regulatory monitoring are conducted in accordance with the permit. This covers more than 90% of water withdrawals.
Water discharges – total volumes	76-99	METHOD AND FREQUENCY: Large sites and sites deemed as large water users (i.e., those considered environmentally significant because they account for more than 0.1% of our total annual energy and water consumption) report total volumes of water discharges in our company-wide SERAM system (Syngenta Environmental Reporting And Management) annually. Additionally, smaller sites have been added for the purposes of monitoring and reporting to drive cultural change. Data that sites enter into SERAM are formally validated by a regional environmental manager. For small sites, water discharge is typically done through municipal sewer systems, meaning that precise measurement is not possible, but the total quantity is negligible.
Water discharges – volumes by destination	76-99	METHOD AND FREQUENCY: Large sites and sites deemed as large water users (i.e., those considered environmentally significant because they account for more than 0.1% of our total annual energy and water consumption) report volumes of water discharges by destination in our company-wide SERAM system (Syngenta Environmental Reporting And Management) annually. Additionally, smaller sites have been added for the purposes of monitoring and reporting to drive cultural change. Data that sites enter into SERAM are formally validated by a regional environmental manager.
Water discharges – volumes by treatment method	76-99	METHOD AND FREQUENCY: Large sites and sites deemed as large water users (i.e., those considered environmentally significant because they account for more than 0.1% of our total annual energy and water consumption) report volumes of water discharges by treatment method in our company-wide SERAM system (Syngenta Environmental Reporting And Management) annually. Additionally, smaller sites have been added for the purposes of monitoring and reporting to drive cultural change. Data that sites enter into SERAM are formally validated by a regional environmental manager.
Water discharge quality – by standard effluent parameters	51-75	METHOD AND FREQUENCY: Covering more than 75% of the total water discharge, our selected sites control the quality of water discharges using standard effluent parameters such as BOD, suspended solids, etc. in accordance with local water regulations or site-specific permits. The majority of Syngenta sites discharge their wastewater to effluent treatment plants (ETPs) operated by third parties, for instance municipal ETPs, and therefore standard effluent parameters are controlled by those third parties. Frequency varies from site to site – from daily to annually – based on type of use and local regulations.
Water discharge quality – temperature	1-25	METHOD AND FREQUENCY: Covering more than 75% of the total water discharge, our selected sites monitor the temperature of water discharge quality on an ongoing basis. Most Syngenta sites discharge their wastewater to effluent treatment plants (ETPs) operated by third parties, for instance municipal ETPs, and therefore temperature is controlled by those third parties.
Water consumption – total volume	76-99	METHOD AND FREQUENCY: Large sites and sites deemed as large water users (i.e., those considered environmentally significant because they account for more than 0.1% of our total annual energy and water consumption) report their total volume of water consumption in our company-wide SERAM system (Syngenta Environmental Reporting And Management) annually. Additionally, smaller sites have been added for the purposes of monitoring and reporting to drive cultural change. Data that sites enter into SERAM are formally validated by a regional environmental manager.
Water recycled/reused	76-99	METHOD AND FREQUENCY: Large sites and sites deemed as large water users (i.e., those considered environmentally significant because they account for more than 0.1% of our total annual energy and water consumption) report the volume of water they recycle/reuse in our company-wide SERAM system (Syngenta Environmental Reporting And Management) annually. Additionally, smaller sites have been added for the purposes of monitoring and reporting to drive cultural change. Data that sites enter into SERAM are formally validated by a regional environmental manager.
The provision of fully-functioning, safely managed WASH services to all workers	100%	METHOD AND FREQUENCY: We provide access to clean water and sanitation to all our employees around the world on a constant basis. The provision of fully-functioning, safely managed WASH services to all workers is an integral part of our HSE policy and is monitored by sites on an on-going basis. We also use regular management audits to monitor the implementation of our policy.

**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	33200	Higher	CHANGE VS. PREVIOUS YEAR: Total withdrawals increased (+6.8%) due to increased production, weather patterns and the need for additional irrigation and cooling water. The increase in total withdrawals correlates with an increase in production; the water use intensity has actually decreased. Although we experienced an increase in absolute total withdrawals, our water usage intensity decreased compared to last year. FUTURE OUTLOOK: Based on observed trends, we do not expect material changes to our total water withdrawals in the near future. THRESHOLD FOR YEAR-TO-YEAR COMPARISON: About the same (<±5%), higher/lower (±5% to ±20) and much higher/lower (>±20).
Total discharges	30200	Higher	CHANGE VS. PREVIOUS YEAR: The increase (+10.2%) in total discharges relates to increased production rates. FUTURE OUTLOOK: Based on observed trends, we do not expect material changes to our total water discharges in the near future. THRESHOLD FOR YEAR-TO-YEAR COMPARISON: About the same (<±5%), higher/lower (±5% to ±20) and much higher/lower (>±20).
Total consumption	3000	Lower	We define consumption as withdrawals minus discharges. CHANGE VS. PREVIOUS YEAR: Our total water consumption decreased (-18%) in 2021 vs. 2020 due to increased efficiencies in our processes. FUTURE OUTLOOK: Based on observed trends, we do not expect material changes to our total water consumption in the near future. THRESHOLD FOR YEAR-TO-YEAR COMPARISON: About the same (<±5%), higher/lower (±5% to ±20) and much higher/lower (>±20).

**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	% withdrawn from areas with water stress	Comparison with previous reporting year	Identification tool	Please explain
Row 1	Yes	26-50	About the same	WRI Aqueeduct	DESCRIPTION OF TOOL TO DEFINE AND IDENTIFY STRESSED AREAS: Previously, Syngenta used the Maplecroft water risk mapping tool to identify sites located in water-scarce areas. Sites in areas of high or extreme stress are required to develop a water use assessment, including a water minimization plan. Updates and checks to this assessment are now completed using the WRI's Aqueeduct tool. DEFINITION: Sites are considered to be in a water-stressed area if the tool classifies this area as having "high" or "extremely high" water stress. CHANGE VS. PREVIOUS YEAR: The location and number of sites in water-scarce areas is about the same as last year, thus the volume of water withdrawn in 2021 is about the same as in 2020.

**W1.2h**

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	22000	Higher	RELEVANCE: Fresh surface water is relevant because our major sites are located alongside major rivers (e.g., Mississippi or Rhône). Water is mainly used for cooling purposes and sent back to the river uncontaminated. 100% of collected rainwater are included in the reported value (i.e., approximately 180 megaliters/year). CHANGE VS. PREVIOUS YEAR: In 2021, withdrawals from fresh surface water increased (+6.3%) compared to 2020. This is primarily related to increases in production. FUTURE OUTLOOK: Based on observed trends, we do not expect material changes in fresh surface water withdrawals in the near future. THRESHOLD FOR YEAR-TO-YEAR COMPARISON: About the same (<±5%), higher/lower (±5% to ±20) and much higher/lower (>±20).
Brackish surface water/Seawater	Not relevant	<Not Applicable>	<Not Applicable>	RELEVANCE: Brackish surface water/Seawater are not relevant as we do not have sites located close to a sea. FUTURE OUTLOOK: We do not expect to use brackish surface water/Seawater in the near future.
Groundwater – renewable	Relevant	9000	Higher	RELEVANCE: Renewable groundwater is mainly relevant for irrigation purposes and the quantity depends on the level of rain. CHANGE VS. PREVIOUS YEAR: In 2021, withdrawals from renewable groundwater were higher (+9.8%) compared to 2020 because more irrigation was needed in 2021 due to climatic conditions and the product mix. FUTURE OUTLOOK: The volume of renewable groundwater depends on the level of rain and agricultural needs, but we do not expect material changes in the near future. THRESHOLD FOR YEAR-TO-YEAR COMPARISON: About the same (<±5%), higher/lower (±5% to ±20) and much higher/lower (>±20).
Groundwater – non-renewable	Not relevant	<Not Applicable>	<Not Applicable>	RELEVANCE: Non-renewable groundwater is not relevant as we do not use it in our operations. FUTURE OUTLOOK: We do not expect to use non-renewable groundwater in the near future.
Produced/Entrained water	Not relevant	<Not Applicable>	<Not Applicable>	RELEVANCE: Produced/Entrained water is not relevant because we do not use it in our operations. FUTURE OUTLOOK: We do not expect to use produced/ entrained water in the near future.
Third party sources	Relevant	2200	About the same	RELEVANCE: Water from third-party sources (coming from the public network) is relevant because we use it both as sanitary water and production water. CHANGE VS. PREVIOUS YEAR: In 2021, withdrawals from third-party sources were about the same compared to 2020 because there was similar activity on some of the sites using water from third-party sources. FUTURE OUTLOOK: Based on observed trends, we do not expect material changes to water from third-party sources in the near future. THRESHOLD FOR YEAR-TO-YEAR COMPARISON: About the same (<±5%), higher/lower (±5% to ±20) and much higher/lower (>±20).

**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	21300	Higher	RELEVANCE: Discharge to fresh surface water is relevant because this represents our main water discharge, essentially made of uncontaminated cooling water sent back to the river where it is drawn from. CHANGE VS. PREVIOUS YEAR: In 2021, total water discharges to fresh surface water increased (+14.5%) compared to 2020 due to increases in production. FUTURE OUTLOOK: Based on observed trends, we do not expect material changes to total discharges to fresh surface water in the near future. THRESHOLD FOR YEAR-TO-YEAR COMPARISON: About the same (<±5%), higher/lower (±5% to ±20) and much higher/lower (>±20).
Brackish surface water/seawater	Not relevant	<Not Applicable>	<Not Applicable>	RELEVANCE: Discharge to brackish surface water/seawater is not relevant because we do not use, nor discharge effluents to brackish surface water/ seawater. FUTURE OUTLOOK: We do not expect changes to discharge to brackish surface water/seawater in the near future.
Groundwater	Not relevant	<Not Applicable>	<Not Applicable>	RELEVANCE: Discharge to groundwater is not relevant because we do not discharge significant quantities of effluents to groundwater. FUTURE OUTLOOK: We do not expect changes to discharge to groundwater in the near future.
Third-party destinations	Relevant	8900	About the same	RELEVANCE: Discharge to third-party destinations is relevant because many sites send water back to external wastewater treatment plants (e.g., municipal effluent treatment plants). CHANGE VS. PREVIOUS YEAR: In 2021, total water discharges to third-party destinations were about the same as in 2020. FUTURE OUTLOOK: Based on observed trends, we do not expect material changes to discharges to third-party destinations in the near future. THRESHOLD FOR YEAR-TO-YEAR COMPARISON: About the same (<±5%), higher/lower (±5% to ±20) and much higher/lower (>±20).

**W1.2j**

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

	Relevance of treatment level to discharge	Volume (megaliters/year)	Comparison of treated volume with previous reporting year	% of your sites/facilities/operations this volume applies to	Please explain
Tertiary treatment	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	<Not Applicable>	See row below labelled "Other". At this time, we cannot break down the volume and percentage of sites based on the level of treatment.
Secondary treatment	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	<Not Applicable>	See row below labelled "Other". At this time, we cannot break down the volume and percentage of sites based on the level of treatment.
Primary treatment only	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	<Not Applicable>	See row below labelled "Other". At this time, we cannot break down the volume and percentage of sites based on the level of treatment.
Discharge to the natural environment without treatment	Relevant	21300	Higher	61-70	This would primarily consist of untreated, uncontaminated cooling water, which is returned to the environment. Since the water is not contaminated, no treatment is required by regulation and no additional voluntary measures are undertaken. The water is monitored for compounds required by local legislation.
Discharge to a third party without treatment	Relevant but volume unknown	<Not Applicable>	<Not Applicable>	<Not Applicable>	See row below labelled "Other". At this time, we cannot break down the volume and percentage of sites by level of treatment. Discharges to third parties without treatment would primarily consist of highly contaminated wastewaters, which are sent for incineration or for use in a cement kiln.
Other	Relevant	8900	Lower	21-30	This value represents the volume discharged to third parties. At this time, we are not able to report a breakdown per treatment level. Each site operates according to its permit.

**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	16733000000	33200	504006.024096386	We anticipate the water efficiency of our operations will improve as we have on-going initiatives in this area.

**W-CH1.3**

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

Yes

**W-CH1.3a**

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

**Product type**

Specialty organic chemicals

**Product name**

Herbicides, fungicides, insecticides

**Water intensity value (m3)**

0.58

**Numerator: water aspect**

Freshwater consumption

**Denominator**

Ton

**Comparison with previous reporting year**

Much lower

**Please explain**

METHODOLOGY: Syngenta produces dozens of specialty chemicals; therefore, it is not possible to extract data for the 5 main products. Instead, we have included the total metric tons of active ingredients or intermediates as finished products only from our active ingredient sites as a metric. Fresh water consumption is defined as the quantity of water consumed in our finished products. Non-contact cooling water is excluded from this calculation. CHANGE FROM PREVIOUS YEAR: The decrease is due to the year-on-year variation in product mixes and operational efficiency measures. USE OF METRICS: The intensity metrics are used internally to help drive resource efficiency and to achieve our targets on water efficiency. Syngenta has committed to reduce water intensity in its operations by 20% by 2030 (vs. the 2016 baseline). STRATEGY TO REDUCE WATER INTENSITY: Since the launch of our targets on water reduction, there have been efficiency gains at some of our larger facilities. There is a targeted effort to be more efficient with wash-down procedures during change-over of formulation lines. The lines need to be flushed with water to remove the previous formulation to ensure the correct quality of the next formulation. Thanks to more efficient wash-down procedures during change-over of formulation lines, we have been able to reduce water use, waste generation and energy used. In addition, we have programs at larger facilities to identify and repair leaks in infrastructure. We are also looking at options to reuse water, which will result in decreased use of water and decreased waste generation. FUTURE OUTLOOK: In line with our target, we expect to reduce water consumption and achieve a 20% gain in efficiency by 2030.

## 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

##### % of total procurement spend

51-75

#### Rationale for this coverage

**RATIONALE:** Since the launch of our first Good Growth Plan in 2013, we have been working to include our suppliers in our sustainability and fair labor programs. Particularly relevant for our chemical suppliers, our Supplier Sustainability Program includes on-site audits by our own teams, and audits or online EcoVadis-supported assessments conducted through the chemical industry's Together for Sustainability (TfS) initiative. The objective of this program is to ensure that our suppliers have appropriate processes in place to adequately manage topics such as health, safety, labor and environment. **INCENTIVES:** We assess the relevant risks associated with our suppliers and purchasing categories. Based on this risk assessment, suppliers who are identified as posing a high or medium risk are required to undergo a sustainability audit or assessment. This requirement is a key part of our procurement process. We also incentivize our suppliers to reduce water consumption through our supplier awards. In particular, our sustainability award recognizes actions taken by suppliers in the areas of carbon, water and waste.

#### Impact of the engagement and measures of success

**TYPE AND USE OF INFORMATION:** The assessments and audits address water management practices, such as whether manufacturing sites are intensive consumers of fresh water and are located in areas of water scarcity, whether they have established and are following specific processes and procedures for water management, and whether or not sites are monitoring and setting targets to reduce water consumption. Where gaps are identified, our procurement teams follow up with our suppliers to close those gaps. Progress and results of sustainability assessments and audits are reviewed in monthly management meetings with our procurement teams. During these meetings, KPIs pertaining to the coverage of our program and the performance of our suppliers are monitored and reviewed. We are in the process of rolling out the TfS academy to our suppliers, which is an online platform containing e-learning modules in various languages covering topics such as water management. This will be offered to suppliers to help them to address any gaps identified during sustainability audits and assessments. **MEASURES OF SUCCESS:** The more recent award submissions from our suppliers totaled 500,000 m3 of water savings through actions such as recovery and recycling of condensate and wastewater, use of more efficient cooling systems, and process optimization to consume less water.

#### Comment

## W1.4b

---

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

#### Type of engagement

Innovation & collaboration

#### Details of engagement

Educate suppliers about water stewardship and collaboration

#### % of suppliers by number

76-100

#### % of total procurement spend

1-25

#### Rationale for the coverage of your engagement

**RATIONALE OF ENGAGEMENT:** Agriculture uses about 70% of the world's fresh water. Intensified by climate change, shortages and changes in water availability pose significant challenges to farmers' ability to produce food for a growing population. At Syngenta, we have set a target to reduce our water intensity in our own operations by 20% by 2030. A significant part of our water consumption is in the supply chain, both our chemical (see previous question 1.4a) and seed suppliers. **RATIONALE OF COVERAGE:** We aim to engage with all our seed suppliers around the world. Requirements on the use of good agricultural practices are part of our regular engagement with them. We are working to provide water management training to growers using irrigation, prioritize good practices when selecting growing areas, and expand the implementation of water management technologies.

#### Impact of the engagement and measures of success

**BENEFICIAL OUTCOMES:** We are training seed supply farmers to improve their water management practices. When growers adopt these practices, they can optimize water use, increase soil water holding capacity and reduce water runoff. We estimate that adopting good water management practices, such as using water probes, in an additional 20% of our seed production areas could save approximately 11 million cubic meters of water. **MEASURES OF SUCCESS:** We aim to train all our farmers on good water management practices by end of 2022 and increase seed production areas adopting good water management practices by 50% vs. 2019 baseline figures. In 2021, we trained over 1,000 growers on water management practices. We also doubled seed production areas that adopted good water management practices vs. 2019 baseline figures.

#### 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?**

**RATIONALE OF ENGAGEMENT:** Agriculture uses about 70% of the world's fresh water. Shortages and changes in water availability affect growing seasons, pests and crop productivity, hindering farmers' ability to produce food. Syngenta has an important role to play to help farmers and players in the food value chain address these challenges.

**PARTNERS:** We partner with farmers (i.e., our customers) and value chain companies to further research and promote innovative solutions for water protection. Associations and NGOs support us with these activities.

**STRATEGY WITH FARMERS:** We encourage farmers to adopt conservation agriculture practices, which help them optimize water use, increase soil water holding capacity, reduce water runoff and build crop resilience to changing weather patterns. We have products that improve the water productivity of plants and increase tolerance to drought and heat. We engage with customers to provide tools and knowledge through our commercial teams and through associations such as CropLife International.

**STRATEGY WITH THE VALUE CHAIN:** Our global and regional Value Chain teams engage with players in the food chain to help them address sustainability challenges, including water conservation. For example, in Vietnam, we continue working to improve soil management on coffee plantations with Louis Dreyfus Company, Jacobs Douwe Egberts and IDH The Sustainable Trade Initiative. Using demonstration plots and direct action on farms, the project aims to develop sustainable landscapes that reduce soil degradation, combat deforestation, conserve irrigation water and improve climate change resilience. Since the start of the project in 2016, we have trained more than 7,200 farmers, group leaders and agronomists on sustainability issues, eliminating overuse and unsafe use of pesticides.

**MEASURING SUCCESS:** Key metrics include the number of farmers and hectares involved, return on investment for farmers and resource efficiency improvements.

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

**W2.2a**

---

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

**Row 1**

**Total number of fines**

1

**Total value of fines**

380

**% of total facilities/operations associated**

0.5

**Number of fines compared to previous reporting year**

About the same

**Comment**

A warehouse facility received a fine in July 2021 due to the absence of a wastewater discharge permit for the construction of a toilet septic tank.

**W3. Procedures**

---

**W-CH3.1**

---

### (W-CH3.1) How does your organization identify and classify potential water pollutants associated with its activities in the chemical sector that could have a detrimental impact on water ecosystems or human health?

**IDENTIFICATION AND CLASSIFICATION:** Syngenta uses standard and custom analytical methods to identify and classify potential water pollutants. This starts with water pollutants governed by regulatory requirements, including parameters such as pH, temperature, COD, BOD, TSS, VOCs, SVOCs and inorganic compounds. Additionally, we monitor potential water pollutants associated with our active ingredients, degradation by-products, metabolites and/or specific components of a formulation or a product of interest. In some cases, these are part of a regulatory requirement, however, in most cases they are beyond regulatory requirements. Syngenta has hundreds of sites with many different product mixes, and it is therefore not possible to list every variant herein. However, chemical manufacturing sites take a similar approach. The volumes of products used, their relative toxicity and the times of the year when they are used are evaluated to design a rational monitoring program. Regional environmental specialists and global specialists help develop these programs.

**MEASUREMENT:** Syngenta works with externally certified laboratories to conduct the standard analyses required by regulations. For beyond regulatory and activity-specific analyses, Syngenta also works with externally certified laboratories to complete the analyses. In addition, Syngenta validates these laboratories using known methodologies and standards. Where allowed by law, Syngenta conducts analyses using internally validated laboratories. Syngenta also conducts internal and external audits of laboratories to ensure data quality.

**IMPACT ASSESSMENT:** We use the World Health Organization's Guidelines for Drinking-Water Quality as well as national drinking water standards. Water-related impacts on ecosystems from Syngenta activities should be negligible as we are looking at acute and chronic exposure scenarios for Predicted No Effect Concentrations (PNECs). We do not evaluate these impacts on human health on a regular basis as an exposure is not expected. Currently, we are looking at Syngenta sites globally and considering expanding the program to other parts of the value chain. For sites within the European Union, we derive PNECs based on the European Commission's Technical Guidance For Deriving Environmental Quality Standards (Guidance Document No. 27), Common Implementation Strategy for the Water Framework Directive (2000/60/EC). We use this guidance as a basis but apply additional scientific evidence where available to provide a more robust understanding.

Approximately 65% of total water usage at our sites is used for non-contact cooling, of which almost 100% is released as uncontaminated water back into rivers and lakes. Before release and according to local permits, quality parameters are checked to ensure there are no adverse impacts on the receiving water environment. For example, in our Monthey site (Switzerland), which represents about 80% of total non-contact cooling water usage, we test for pH, temperature, COD, N, P, solvents and micropollutants.

For the program described above, the regulatory monitoring is conducted in accordance with the permit. The beyond regulatory component is conducted on a quarterly basis, with impacts assessed on a continuous basis.

**VALUE CHAIN:** Syngenta is a member of Together for Sustainability, an initiative that audits the environmental performance of suppliers, including wastewater prevention and treatment. Further, for supplier sites considered of significant risk, we also conduct our own audits, which include the review of their water management practices.

**MANAGEMENT PROCEDURES:** Regulatory and beyond regulatory monitoring programs for water ecosystems and human health are implemented globally. Syngenta has developed global requirements in its HSE Management System for monitoring drinking water and wastewater discharges at its sites. Syngenta has a support network of internal and external experts on ecological fate and transport as well as human health to support these efforts.

Environmental and health aspects are also considered throughout our R&D processes. We undertake comprehensive assessments that cover human and environmental risks at all stages of development – from concept through to final use and consumption. Our human safety assessments address potential risks to product users and consumers of food and feed, while our environmental safety programs seek assurance that the product will not adversely affect the soil, water, air, flora or fauna.

We also provide customers with support to promote good practice, ensure safe handling and minimize environmental impacts. We carry out extensive programs to understand and track the impact of our products, as well as provide solutions that keep unwanted products out of the environment, such as farm-scale residual pesticide treatment solutions, container take-back schemes and obsolete stock removal.

#### W-CH3.1a

---

**(W-CH3.1a) Describe how your organization minimizes adverse impacts of potential water pollutants on water ecosystems or human health. Report up to ten potential pollutants associated with your activities in the chemical sector.**

Potential water pollutant	Value chain stage	Description of water pollutant and potential impacts	Management procedures	Please explain
Traces of active ingredients	Direct operations Supply chain	This water pollutant could impact soils, waterways or groundwater if an accidental release of traces of active ingredients occurred. Syngenta has direct control over hundreds of sites globally and interacts with thousands of suppliers. Each scenario has a different potential pollutant and impact. Each scenario and potential impact are managed in an environmentally responsible and appropriate fashion.	Compliance with effluent quality standards Measures to prevent spillage, leaching, and leakages Providing best practice guidance to suppliers Auditing supplier compliance to industry standards Other, please specify (Standards beyond regulation)	PROCEDURES: For our direct operations, our HSE Policy and Standards and associated HSE Management System establish minimum requirements that must be followed to reduce potential soil, surface water and groundwater contamination. Syngenta has developed internal requirements and standards for the discharge of wastewater and management of unplanned releases. For our supply chain, we provide technical support on the identification and classification of potential pollutants. Syngenta works to continuously upskill the performance of its suppliers through industry groups such as CropLife International and Together for Sustainability as well as through direct relationship management and audits. Additionally, for our seed supplier network, requirements on the use of good water management practices are part of our regular engagement with suppliers. We provide water management training to growers using irrigation, prioritize good practices when selecting growing areas and expand implementation of water management technologies. MEASUREMENT AND EVALUATION: For our direct operations, we track performance through internal monitoring systems. Incidents are investigated and corrective actions are put in place. We report on the number of significant unplanned releases externally on an annual basis. For our supply chain, we measure and evaluate performance through our Supplier Sustainability Program, which includes HSE audits. We report externally on the percentage of suppliers covered by this program on an annual basis. For our seed supply network, we also conduct audits that include the assessment of water-related practices such as trickle irrigation. We aim to have 50% of our seed suppliers using good water management practices by 2022.
Agrochemicals	Product use	If an agrochemical is not adequately selected (e.g., right crop, soil) or applied, this could lead to potential runoff or leaching. Runoff is the movement of water and any pollutants across a soil surface. It occurs when irrigation or rain adds water to a surface faster than it can enter the soil. Water running off the land toward rivers and lakes can also move chemicals, such as pesticides and fertilizers. Leaching is the movement of pollutants carried by water downward through permeable soils. The quantity of run-off or leaching will depend on the chemical's characteristics, soil properties, weather conditions, site features and agricultural practices.	Providing best practices instructions on product use	PROCEDURES: In our Principles for Sustainable and Responsible Agriculture, we outline our commitment to working with our stakeholders and providing products and services that help farmers optimize water use and protect water quality. We encourage farmers to adopt conservation agriculture practices, which include water management actions that reduce run-off and leaching. We do this through groundwater monitoring as well as through our interactions with customers, training, detailed risk analysis and provision of use recommendations, including sales restrictions in vulnerable areas. We also use digital tools to communicate with farmers. MEASUREMENT AND EVALUATION: We perform extensive groundwater monitoring programs to support soil vulnerability mapping and provide differentiated product use recommendations to farmers. Adoption of these recommendations by growers is measured through commercial and market research tools. We also measure the number of farmers and farm workers trained per year by our sales and stewardship teams on the ground. We collect information about the type of training (e.g., safe use, good agriculture practices, application technology) and duration. We evaluate training practices and look for better ways to provide advice. The number of people trained is reported annually in our ESG Report. We also collect feedback from farmers through our direct interaction with farmers, retailers and other actors.

**W3.3**

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

Yes, water-related risks are assessed

**W3.3a**

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

**Value chain stage**

Direct operations

**Coverage**

Full

**Risk assessment procedure**

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

**Frequency of assessment**

More than once a year

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

3 to 6 years

**Type of tools and methods used**

Enterprise risk management  
International methodologies and standards  
Databases

**Tools and methods used**

ISO 31000 Risk Management Standard  
Environmental Impact Assessment  
Other, please specify (WRI Aqueduct)

**Contextual issues considered**

Water availability at a basin/catchment level  
Water quality at a basin/catchment level  
Stakeholder conflicts concerning water resources at a basin/catchment level  
Implications of water on your key commodities/raw materials

Water regulatory frameworks  
Status of ecosystems and habitats  
Access to fully-functioning, safely managed WASH services for all employees

#### Stakeholders considered

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

#### Comment

Water-related risks are part of our Enterprise Risk Management Framework, which is further integrated into the company's business planning and review processes. Environment is one of the framework dimensions to assess the impact of a risk. Identification and assessment of water-related risks take place both at the company and asset levels (i.e., sites). The time horizon for water-related risk assessments varies from 1-3 years typically; however, for climate scenario-related analysis, we look beyond 6 years. Similarly, much of the work and analysis with our corporate insurer have a long-term time horizon. Every site with significant water use or located in an area of high or extremely high water stress is also required to undertake an annual water supply sustainability assessment as part of our HSE Management System (risk identification). Sites can also conduct self-assessments using the WRI's Aqueduct tools. Sites located in areas of high or extreme stress as well as larger users are required to develop a water use assessment, including a minimization plan. In 2017, we completed an internal water stress assessment for all our sites globally with the support of Maplecroft. The assessment considered current and future water risk quantities and uncertainties in regulatory changes with regards to water issues. The results form the basis of our HSE Management System water requirements, and sites with high and extremely high water stress exposure are monitored via HSE audits.

---

#### Value chain stage

Supply chain

#### Coverage

Full

#### Risk assessment procedure

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

#### Frequency of assessment

More than once a year

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

3 to 6 years

#### Type of tools and methods used

Tools on the market  
Enterprise risk management  
Databases

#### Tools and methods used

WRI Aqueduct  
ISO 31000 Risk Management Standard  
Other, please specify (NATHAN (Munich Re))

#### Contextual issues considered

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

#### Stakeholders considered

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

#### Comment

Water risk assessments are part of our Enterprise Risk Management Framework and assurance processes undertaken at third parties. Chemical manufacturing plants within our supply chain can be impacted by extreme weather events such as floods. We operate a comprehensive risk management process within our supply chain, and one of the risk elements we assess is natural catastrophe. We have analyzed the top 250 chemical supplier sites by business contribution to understand which of these sites may be exposed to natural risks. The location of each supplier site is analyzed to determine potential exposure to flood, storm, hail, tsunami and storm surge risks using external risk data. We adjust this analysis to consider the impact of climate change on the likelihood and severity of those risks. In addition, to enhance the visibility of the likelihood of a climate-related event occurring at any Syngenta office, manufacturing, production, toller or supplier site, we use a tool from Munich Re called NATHAN (Natural Hazard Assessment Network). NATHAN analyzes the likelihood of natural disasters happening based on data from events that have occurred. The tool receives direct data feeds from NASA, IPCC (Intergovernmental Panel on Climate Change), the German weather service, the Royal Netherlands Meteorological Institute, the UK Met Office, Météo-France, the Bureau of Meteorology (Australia) and the National Oceanic and Atmospheric Administration (USA).

---

#### Value chain stage

Other stages of the value chain

**Coverage**

Full

**Risk assessment procedure**

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

**Frequency of assessment**

More than once a year

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

3 to 6 years

**Type of tools and methods used**

Enterprise risk management

**Tools and methods used**

ISO 31000 Risk Management Standard

**Contextual issues considered**

Water availability at a basin/catchment level

Water quality at a basin/catchment level

Stakeholder conflicts concerning water resources at a basin/catchment level

Implications of water on your key commodities/raw materials

Water regulatory frameworks

Status of ecosystems and habitats

**Stakeholders considered**

Customers

Employees

Investors

Local communities

NGOs

Regulators

Suppliers

Water utilities at a local level

Other water users at the basin/catchment level

**Comment**

Although some water risks could exist at the site level (i.e., own operations) or in the supply chain, the largest potential impact would be downstream on our value chain. Changes in water availability directly affect agriculture in terms of growing seasons, pests and crop productivity, and thus the demand for our products. As a result, water risks mainly impact our sales at regional and country levels. The overall risk for the global business is largely mitigated by geographical differences. In 2020, we conducted climate scenarios to identify which climate-related risks and opportunities were likely to pose a material financial risk or opportunity to Syngenta. Our analysis showed that the two scenarios used (<2°C and 4°C) presented both financial risks and financial opportunities for Syngenta in 2030. While certain financial risks in our operations and activities would need to be managed, we would also be able to actively pursue innovation opportunities to help farmers deal with the impacts of climate change.

---

**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.**

**APPROACH:** At Syngenta, risk management is everyone’s responsibility from leadership teams through to each employee. All must consider and be accountable for risks within their functions and operations.

The process of identifying, assessing and responding to water-related risks is integrated into our overall multi-disciplinary Enterprise Risk Management (ERM) Framework. Governed by the Group Leadership Team, the framework follows five steps: context, identification, assessment, treatment, and monitoring.

**TOOLS AND TIME HORIZON:** Our ERM framework is based on the ISO 31000 Risk Management Standard. In the framework, water-related risks are assessed on a regular basis and have a time span of 1-3 and beyond 6 years. We also conduct water-related deep dives and specialized risk programs. For instance, in 2017, we completed an internal water stress assessment for all our sites globally with the support of Maplecroft. Now, sites can conduct self-assessments using the WRI’s Aqueduct tool. In 2020, we conducted climate scenarios to identify climate-related risks and opportunities, such as floods and droughts, likely to pose a material financial risk or opportunity to Syngenta. In addition, to enhance the visibility of the likelihood of a climate-related event occurring at any Syngenta office, manufacturing, production, toller or supplier site, we use the Munich Re tool called NATHAN (Natural Hazard Assessment Network).

**COVERAGE:** Water-related risk assessments take place at corporate and asset levels, across the value chain covering the supply chain, our own operations and the customer side. Water-related risks are viewed both from a strategic long-term business value impact perspective (e.g., opportunity to provide drought-resistant seeds to customers) and a short-term, operational perspective at corporate and business unit levels (e.g., supply chain disruptions and contingencies due to flooding).

Within our HSE Management System, we also require all sites to assess their water-related risks and implement water reduction programs, which are reviewed at a corporate level annually. Larger sites are also audited as part of our HSE assurance program, and compliance against these requirements is assessed and followed by corrective actions if necessary.

**RELEVANCE OF ISSUES CONSIDERED:** Water availability and quality are relevant for daily operations at our production sites and field production activities where water is required to reproduce seeds. Sound ecosystems and habitats as well as the absence of stakeholder conflicts concerning water resources are essential to maintain our license to operate. To ensure we can source our key supplies, we look at water implications on our key commodities/raw materials. Water-related regulatory frameworks are relevant for the continuity of our operations and compliance. WASH services are important to ensure the health and safety of employees and those working on behalf of Syngenta.

**RELEVANCE OF STAKEHOLDERS:** Customers have high relevance to Syngenta and farmers’ needs are at the core of our strategy. Employees are relevant for our water-related risk management, awareness and stewardship activities. Given the growing interest from investors in sustainable business practices and our planned re-listing subject to regulatory approval, this group is increasingly relevant. Suppliers are relevant to source key supplies to maintain operations and grow our business. To maintain our license to operate and the continuity of our operations globally and locally, we consider regulators, NGOs, local communities, river basin management authorities and statutory special interest groups. Water utilities at a local level and other water users are relevant to ensure water availability and the continuity of our operations.

**RISK CLASSIFICATION:** Water-related risk assessments combine both qualitative and quantitative aspects of the ERM Framework. Risks are classified based on their impact on people, the environment and the business, and their potential likelihood of materializing. Risk severity is determined by our ERM Framework definitions.

**OUTCOMES AND DECISION MAKING:** Outcomes of water-related risk assessments are collected and stored in a central risk repository. Decisions on water-related risk treatment plans (mitigate, transfer, accept or control) are based on factors such as risk severity, business case for investing in mitigation, relevant regulations and local conditions affected by such decisions. Once treatment plans have been identified and established, mitigation plans and progress are discussed and monitored on a continuous basis by the on-site management with functional/specialist support from Corporate. Adjustments to treatment plans reflect the potential changes in the business.

---

## W4. Risks and opportunities

---

### W4.1

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

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

---

#### W4.1a

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

According to our enterprise-wide framework definitions, a substantive impact has a major effect on the delivery of the objectives and the organizational strategy. The framework is dynamic for use both at corporate and asset levels and reflects adjusted definitions.

In financial terms, a substantive impact may represent a gross profit impact of 5-10% (major) or 10% and more (critical) in a year. The thresholds apply to Corporate (Syngenta AG group), assets (e.g., sites, countries), direct operations and the supply chain.

In environmental terms, a substantive impact would typically mean any release to the environment, which would justify media attention, regardless of the entity level in question. Environmental-related impacts would be escalated for assessment with regards to criticality and strategic impact on the business.

**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	Less than 1%	As part of our insurance coverage analysis, we have identified that one of our main sites is exposed to flood risk. However, although some water risks could exist at site level in our own operations or in the supply chain, the largest potential substantive impact would be downstream on our value chain. Changes in water availability directly affect agriculture in terms of growing seasons, pests and crop productivity, and thus the demand for our products.

**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**

United Kingdom of Great Britain and Northern Ireland	Other, please specify (Humber)
--	--------------------------------

**Number of facilities exposed to water risk**

1

**% company-wide facilities this represents**

Less than 1%

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

Less than 1%

**Comment**

The Strategic Flood Risk Assessment records the site to be located in Flood Zone 3a (high risk) where the probability of a flood occurring is considered to be more than 1 in 100 years but less than 1 in 20 years.

**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**

United Kingdom of Great Britain and Northern Ireland	Other, please specify (Humber)
--	--------------------------------

**Type of risk & Primary risk driver**

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

**Primary potential impact**

Reduction or disruption in production capacity

**Company-specific description**

The Strategic Flood Risk Assessment records the site to be located in Flood Zone 3a (high risk) where the probability of a flood occurring is considered to be more than 1 in 100 years but less than 1 in 20 years. Floods could cause disruption in the production of active ingredients and our product manufacturing. Like many businesses, other Syngenta sites could be indirectly exposed to climate-related events, which temporarily limit production through e.g., disruption of transport networks, or restrictions on water usage.

**Timeframe**

More than 6 years

**Magnitude of potential impact**

Medium-low

**Likelihood**

Very unlikely

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

70000000

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

<Not Applicable>

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

<Not Applicable>

**Explanation of financial impact**

A flood, with potential to occur once in 100 years at this site, could restrict operations and cause property damage. The value was calculated based on the probable maximum loss in property damage and business interruption, as per the insurance report for the site.

**Primary response to risk**

Develop flood emergency plans

**Description of response**

A written and proven emergency response plan exists. Flood resilience measures have also been implemented at the site, including the deployment of temporary flood defense to protect some buildings and equipment, concrete walls to protect Combined Heat and Power, and raising of some critical equipment. Response actions have been fully implemented and site employees regularly trained on emergency plans. We have recognized the likely increasing frequency and severity of extreme weather events due to man-made climate change, and we incorporate this into our business continuity plans.

**Cost of response**

500000

**Explanation of cost of response**

The cost of response to this risk is part of the operational costs and general contingency plans at the site and cannot easily be disaggregated and specified. We estimated this figure over five years: USD 100,000 in capital expenditure on plant protection measures, and USD 400,000 in revenue expenditure to clean out debris from the river.

W4.2a

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

**Country/Area & River basin**

Switzerland	Other, please specify (Several countries)
-------------	---

**Stage of value chain**

Use phase

**Type of risk & Primary risk driver**

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

**Primary potential impact**

Reduced revenues from lower sales/output



### Company-specific description

Agriculture uses about 70% of the world's fresh water. Shortages and changes in water availability (floods but also droughts) pose significant challenges to farmers in terms of growing seasons, pests and crop productivity. Syngenta provides inputs to farmers and, as a result, changes in water availability directly affect the demand for our products. Syngenta results may be affected positively or negatively by extreme weather conditions that could impact demand for certain products over the course of a season or affect the ability to collect revenues from customers impacted by the events. Although climate change may make growing certain crops more or less viable in different geographic areas in the long term, Syngenta believes it is not likely to reduce the overall demand for food and feed. We currently sell and develop new products to improve the water productivity of plants and increase tolerance to drought and heat, thus helping farmers to fight crop losses.

### Timeframe

1-3 years

### Magnitude of potential impact

Medium

### Likelihood

More likely than not

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

Yes, an estimated range

### Potential financial impact figure (currency)

<Not Applicable>

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

300000000

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

350000000

### Explanation of financial impact

The climate scenario analysis conducted in 2020 identified a potential annual financial impact of approximately USD 300 million and USD 350 million in 2030 in a <2°C and 4°C climate scenario respectively. Under both scenarios, the physical risk of extreme weather events (floods and droughts) on our customers increases and consequently reduces the demand for our products as customers suffer severe crop damage. The financial impact is slightly more in a 4°C scenario and in the case of droughts. The potential impact was estimated by analyzing flood and drought risks in 20 key customer countries based on corn and soybean sales and the impact of past similar events, such as the floods experienced in the USA and the droughts in Australia in 2019. Financial implications are derived mainly from loss of sales, inability to collect receivables or missed product delivery and high inventories.

### Primary response to risk

Downstream	Other, please specify (Accelerating innovation to provide solutions to farmers)
------------	---

### Description of response

Farmers must have the right tools and skills to prosper. Syngenta has products available – and in the pipeline – that improve the water productivity of plants and increase tolerance to drought and heat. Weed control using herbicides lowers the need for tillage, leaves roots in the soil and improves water absorption. Efficient irrigation systems deliver water to roots, and planting grass or wildflowers around fields helps keep water in the soil. In combination, these practices dramatically reduce surface evaporation and water runoff. Thanks to our acquisition of Valagro in 2020, our portfolio now includes biostimulants that offer farmers products with active ingredients of purely natural origin, which stimulate the main physiological processes of plants while promoting their growth and productivity. In particular, Valagro's innovative biostimulant TALETE increases crop water productivity in conditions of adequate water availability and permanent or temporary water scarcity. Further, drought-tolerant seeds, such as our AGRISURE ARTESIAN® corn hybrids, can help produce reliable yields in drier and semi-arid conditions. Our HYVIDO® hybrid barley seeds offer farmers consistently higher yields. Their root systems form earlier, with bigger and more roots, leading to stronger hybrid vigor, better water and nutrient uptake and stronger growth under stressful conditions. When these products are combined with good management practices, agriculture is made more resilient to changes in water availability and in the climate.

### Cost of response

546000000

### Explanation of cost of response

Water risks mainly impact our sales at country and regional levels, and the overall risk for the global business is mitigated by geographical differences. Part of the cost of response is also accounted for in our investment in the research and development of abiotic stress-related products. In 2021, as part of our Good Growth Plan's commitment to accelerate innovation, we invested USD 546 million in sustainable agriculture breakthroughs, including the strategic acquisition of Valagro, a leading biologicals and biostimulants company, which enables Syngenta to build a world-leading biologicals business. Overall, the USD 546 million figure includes investments in development and delivery of products, services and programs that – among other sustainability-related objectives – help farmers tackle the impacts of climate change such as droughts and floods. We are not able to disaggregate this figure to identify only the cost of addressing extreme weather events. We use our Sustainability Investment Criteria (<https://www.syngenta.com/sites/syngenta/files/GRI/Sustainability-Investment-Criteria.pdf>) to decide on these investments. Only investments that provide breakthrough technologies or have clear benefits enabling a step change in sustainability are counted toward our target.

### Country/Area & River basin

Switzerland	Other, please specify (Several countries)
-------------	---

### Stage of value chain

Supply chain

### Type of risk & Primary risk driver

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

### Primary potential impact

Reduction or disruption in production capacity

### Company-specific description

Severe weather events such as floods could negatively impact our chemical supply chain, which represents a significant proportion of our business. We operate a

comprehensive risk management process within our supply chain, and one of the risk elements we assess is natural catastrophe. We have analyzed the top 250 chemical supplier sites by business contribution to understand which of these sites may be exposed to natural risks. The location of each supplier site is examined to determine potential exposure to flood, storm, hail, tsunami and storm surge risks using external risk data. We adjust this analysis to consider the impact from climate change to determine the likelihood and severity of those risks. In addition, to enhance the visibility of the likelihood of a climate-related event occurring at any Syngenta office, manufacturing, production, toller or supplier site, we use a tool from Munich Re called NATHAN (Natural Hazard Assessment Network). NATHAN analyzes the likelihood of natural disasters happening based on data from events that have occurred.

**Timeframe**

1-3 years

**Magnitude of potential impact**

Medium-low

**Likelihood**

About as likely as not

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

120000000

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

<Not Applicable>

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

<Not Applicable>

**Explanation of financial impact**

We assess each site to determine the likelihood and impact of a 100-year risk event and of a 500-year risk event for severe weather events such as floods, tsunamis, etc. The impact provides us with a number of potential downtime days (i.e., the number of days the plant will be non-operational) for each risk. We then take the most severe downtime scenario and calculate the estimated days of business interruption considering: a) safety stock of the product held by Syngenta and b) the time taken to move to an alternative source. We then multiply these days proportionally to the manufacturing site's contribution to Syngenta's profit to estimate a potential overall business impact. We took the risk scenarios where we classify the likelihood of the risk occurring as "possible", which according to our framework means within a decade or less, to estimate the potential financial impact figure above.

**Primary response to risk**

Direct operations	Include in Business Continuity Plan
-------------------	-------------------------------------

**Description of response**

Where considerable risk is identified, actions are taken such as developing mitigation or emergency response plans with the supplier, increasing the safety stock we hold, and finding additional sources for the product. The process enables us to gain greater visibility of risks and exposure, quantify the risks through a likelihood and impact analysis, prioritize the risks that require mitigation actions, and ensure there is a clear owner responsible for taking action.

**Cost of response**

**Explanation of cost of response**

The cost of response for this risk cannot be disaggregated and specified as it is part of the overall cost of our supplier-related activities.

---

**W4.3**

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

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

---

**W4.3a**

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

**Type of opportunity**

Products and services

**Primary water-related opportunity**

Sales of new products/services

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

Shortages and changes in water availability pose significant challenges to farmers. They affect growing seasons and crop productivity. These effects are compounded by the increasingly warm and wet climates that many growers are working in, allowing weeds, pests, and fungal diseases in crops to thrive. Farmers must have the right tools and skills to prosper. We have products available – and in the pipeline – that improve the water productivity of plants and increase tolerance to drought and heat. These include hybrid and genetically modified seeds, crop protection and seed treatment products, and growth regulators. These products create direct financial benefits to the company across all regions. We develop crops that tolerate drier conditions. For example, AGRISURE ARTESIAN® delivers improved yields on dryland and in land with limited irrigation or prone to drought stress. This corn hybrid enables the plant to convert water to grain more effectively than other hybrids. It consistently matches or exceeds comparable hybrid yields in optimal growing conditions or under moderate drought stress. Under extreme drought stress, it outperformed trial averages by nearly 12% over five years. It also produced 38.5% higher yields compared to the plot average. Our HYVIDO® hybrid barley seeds offer farmers consistently higher yields. Their root systems form earlier, with bigger and more roots, leading to stronger hybrid vigor, better water and nutrient uptake, and stronger growth under stressful conditions. Our crop protection products also help conserve water by controlling weeds that threaten scarce water resources and protect crops from pests that reduce water use efficiency. Our seed treatment products help plants to develop stronger root systems to access water and nutrients in the soil. Plant regulator products also promote longer, finer roots that better reach water and nutrients in drought-prone areas. For example, the root stimulant effects of VIBRANCE™, a mode of action for the seed treatment market, results in better abiotic stress management. Thanks to the acquisition of Valagro in 2020, we offer farmers biostimulants with active ingredients of purely natural origin. Products such as TALETE increase crop water productivity in conditions of adequate water availability and permanent or temporary water scarcity.

**Estimated timeframe for realization**

1 to 3 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)**

140000000

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

<Not Applicable>

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

<Not Applicable>

**Explanation of financial impact**

The potential financial impact of the opportunities associated with our product offer is sensitive information that cannot be disclosed. We expect sales of solutions for shifting pest patterns, new drought-tolerant plants as well as nitrogen and water-efficient technologies to increase. The figure reported is based on a selected product and provided as an example. In the climate scenario analysis conducted in 2020, we assessed the potential financial impact of increased droughts on the demand of our drought-resistant portfolio. We assessed it based on the risk of droughts for a specific drought-resistant product in 30 countries. In this 2020 analysis, we estimated that the annual potential financial impact would be approximately USD 140 million in 2030 under both <2° and 4°C climate scenarios.

---

**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)**

UK site

**Country/Area & River basin**

United Kingdom of Great Britain and Northern Ireland	Other, please specify (Humber)
--	--------------------------------

**Latitude**

53.66

**Longitude**

-1.75

**Located in area with water stress**

No

**Primary power generation source for your electricity generation at this facility**

<Not Applicable>

**Oil & gas sector business division**

<Not Applicable>

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

2334

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

Higher

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

1282

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

1052

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

2726

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

Higher

**Discharges to fresh surface water**

26

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

2700

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

20

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

Lower

**Please explain**

"Total water discharge" includes rainwater collected (the quantity is not monitored) and sent to third-party wastewater treatment plants with process effluents. "Total water consumption" is the amount of water used as product ingredient.

**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**

ISAE 3000

**Please explain**

<Not Applicable>

#### Water withdrawals – volume by source

**% verified**

76-100

**Verification standard used**

ISAE 3000

**Please explain**

<Not Applicable>

#### Water withdrawals – quality by standard water quality parameters

**% verified**

76-100

**Verification standard used**

All waters in the UK would be subject to third-party verification and analysis under the UK Standing Committee of Analysts (<https://standingcommitteeofanalysts.co.uk/library/>). For surface water, this is completed through the Environment Agency, and for municipal water, it is through the water utility. These results are completed by UK-accredited laboratories.

**Please explain**

<Not Applicable>

#### Water discharges – total volumes

**% verified**

76-100

**Verification standard used**

ISAE 3000

**Please explain**

<Not Applicable>

#### Water discharges – volume by destination

**% verified**

76-100

**Verification standard used**

ISAE 3000

**Please explain**

<Not Applicable>

#### Water discharges – volume by final treatment level

**% verified**

76-100

**Verification standard used**

ISAE 3000

**Please explain**

<Not Applicable>

#### Water discharges – quality by standard water quality parameters

**% verified**

76-100

**Verification standard used**

ISAE 3000

**Please explain**

<Not Applicable>

#### Water consumption – total volume

**% verified**

76-100

**Verification standard used**

ISAE 3000

**Please explain**

<Not Applicable>

## 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	<p>Description of business dependency on water</p> <p>Description of business impact on water</p> <p>Description of water-related performance standards for direct operations</p> <p>Company water targets and goals</p> <p>Commitments beyond regulatory compliance</p> <p>Commitment to water-related innovation</p> <p>Commitment to stakeholder awareness and education</p> <p>Commitment to water stewardship and/or collective action</p> <p>Recognition of environmental linkages, for example, due to climate change</p>	<p>RATIONALE: Water is a critical input for agricultural production and plays an important role in food security. Currently, agriculture accounts for about 70% of the world's freshwater withdrawals. Shortages and changes in water availability affect growing seasons, pests and crop productivity, hindering farmers' ability to produce food. Due to population growth and climate change, demand and competition for water resources are expected to increase, with a particular impact on agriculture. As an agtech company, we have an important role to play by both helping farmers tackle water challenges and reducing water consumption in our own operations. CONTENT OVERVIEW: In our Principles for Sustainable and Responsible Agriculture, we outline our commitment to working with our stakeholders and providing products and services that help farmers to optimize water use and protect water quality and quantity. This includes providing customer/grower education on conservation agriculture practices, which help them optimize water use, increase soil water holding capacity, reduce water runoff and build crop resilience to changing weather patterns. This is also communicated in our Public Policy Position: Syngenta and climate change. In our Good Growth Plan launched in June 2020, we committed to dedicate USD 2 billion over five years to innovation targeted at delivering a step change in agricultural sustainability, and in particular to help farmers prepare for and tackle the increasing threats posed by climate change such as changes in weather patterns and associated water challenges. We have also committed to reduce the water intensity of our operations by 20% by 2030. We have activities underway to help us to make our own operations more sustainable, including actions to reduce water use. Our HSE Policy and Standards state that actively promoting environmental protection is an integral part of how Syngenta conducts its business. This includes promoting water conservation in our direct operations and beyond. Our Code of Conduct states our commitment to protect the environment and to ensure the health and safety of our employees and others potentially affected by our activities.</p> <p>SYNGENTA_Principles_Sus_Resp_Ag.pdf</p>

### W6.2

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

Yes

### W6.2a

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

Position of individual	Please explain
Board-level committee	<p>RESPONSIBILITIES OF BOARD OF DIRECTORS: The sustainability governance is led by the Board of Directors of the parent company Syngenta Group Co. Ltd., which provides strategic direction regarding all sustainability matters – this includes water issues – and exercises oversight over the Syngenta Group Co. Ltd. Group Leadership Team in this respect. The Syngenta Group Co. Ltd. Board of Directors delegates some of its powers and duties to the board level Syngenta Group Sustainability Committee. The committee is mainly responsible for sustainability matters in innovation and operations, and for the review of the company's sustainable practices – these matters and practices include water issues. It also oversees the company's sustainability framework and standards, including public ESG reporting, its sustainability plan, strategic sustainability partnerships and innovation dialogues. RESPONSIBILITIES OF BOARD-LEVEL COMMITTEE: The company's efforts on conservation agriculture practices, which include optimizing water use, increasing soil water holding capacity, reducing water runoffs and building crop resilience to weather changes such as droughts and floods, fall under the responsibility of the Sustainability Committee. This committee is chaired by an individual with extensive experience and expertise in sustainable and responsible agriculture and food production. EXAMPLE 1: In June 2020, Syngenta and Syngenta AG's Board of Directors took the decision to launch the new Good Growth Plan and commit to invest USD 2 billion over five years to innovation targeted at delivering a step change in agricultural sustainability and helping farmers tackle the increasing threats posed by climate change such as increased floods and droughts. EXAMPLE 2: Syngenta AG's ESG Report 2021, including information about the company's water performance and activities, was reviewed by the board's Sustainability Committee and approved by the Syngenta AG Board of Directors in March 2022.</p>

W6.2b

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

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - some meetings	Monitoring implementation and performance Providing employee incentives 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 Setting performance objectives	The Sustainability Committee of the Syngenta Group Board of Directors meets several times a year to discuss sustainability issues and reviews the business sustainability-related strategy and actions, including those related to water issues. The Board of Directors and its Sustainability Committee provide strategic direction regarding these matters and exercise oversight over the Group Leadership Team. The Sustainability Committee was established at the Syngenta Group Board of Directors in 2021. In March 2022, the committee reviewed the Syngenta AG ESG Report 2021, which includes water-related performance information, and recommended it for approval to the Syngenta AG Board of Directors. Past examples driven by the Syngenta AG Board of Directors include the approval of our Good Growth Plan launched in 2020. This plan consists of four ambitious global commitments to reduce agriculture’s carbon footprint and to help farmers deal with the extreme weather patterns caused by climate change. The Board of Directors also discusses performance objectives and long-term incentive plans, which are put in place once a year. The long-term incentive plans consider sustainability targets. The Chief Sustainability Officer (CSO) regularly briefs the Sustainability Committee on sustainability matters, which include climate change and 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	Criteria used to assess competence of board member(s) on water-related issues	Primary reason for no board-level competence on water-related issues	Explain why your organization does not have at least one board member with competence on water-related issues and any plans to address board-level competence in the future
Row 1	Yes	The company's efforts on sustainable and climate-smart agriculture fall under the responsibility of the Sustainability Committee. This Committee is chaired by an individual, whose extensive experience and expertise in sustainable and responsible agriculture and food production is of key relevance for the committee activities.	<Not Applicable>	<Not Applicable>

W6.3

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

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

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 Chief Sustainability Officer, who reports to the CEO, leads the Sustainability function. This function coordinates and channels sustainability initiatives, performance management and policy engagements – including those related to water. It assesses and monitors the company’s performance in relation to climate change, water and the wider sustainability agenda. The CSO advises the company on conservation agriculture practices, which include: optimize water use, increase soil water holding capacity, reduce water runoff and build crop resilience to droughts and floods. The CSO briefs the Board of Directors at least quarterly on all sustainability matters and half-yearly on water performance and actions. He also provides regular updates to the Group Leadership Team on the progress made regarding the company’s sustainability commitments. The Sustainability function has global, regional, territory and country representatives to ensure alignment across the organization.

W6.4

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

	Provide incentives for management of water-related issues	Comment
Row 1	Yes	See more details in the following question

**W6.4a**

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

	Role(s) entitled to incentive	Performance indicator	Please explain
Monetary reward	Corporate executive team Chief Executive Officer (CEO) Chief Financial Officer (CFO) Chief Operating Officer (COO) Chief Sustainability Officer (CSO) Other C-suite Officer (Chief Human Resources and Group General Counsel) Other, please specify (Senior Management group)	Improvements in efficiency - direct operations Improvements in efficiency - supply chain Improvements in efficiency - product-use	The remuneration of the GROUP LEADERSHIP TEAM – comprising for example the CEO, CFO, Presidents (COOs) Global Crop Protection and Global Seeds, Chief HR Officer, and Group General Counsel – is linked to the overall company performance, including financial and sustainability performance (also efficiency improvements). Sustainability targets are set in Syngenta's new Good Growth Plan launched in 2020 and evaluated annually. The plan's goals are of material importance to our business. It consists of ambitious global commitments to make agriculture more resilient and sustainable. We are accelerating our innovation to provide solutions to help farmers deal with extreme weather patterns such as floods and droughts. We are committed to reducing our carbon, water and waste footprint. SENIOR MANAGEMENT's remuneration also includes sustainability performance associated with our Good Growth Plan. As a member of the senior management group, the CSO remuneration also includes non-financial performance associated with the Good Growth Plan. As the most senior employee solely responsible for sustainability, the CSO's annual performance goals and results are directly linked to sustainability topics, including water. The LONG-TERM INCENTIVE PLANS (i.e., three-year cash incentive plans) are put in place for the Group Leadership Team and the senior management group. The long-term incentive plans consider sustainability criteria associated with the Good Growth Plan.
Non-monetary reward	Corporate executive team Chief Executive Officer (CEO) Chief Financial Officer (CFO) Chief Operating Officer (COO) Chief Sustainability Officer (CSO) Other C-suite Officer (Chief Human Resources and Group General Counsel) Other, please specify (Senior Management group)	Reduction in consumption volumes Improvements in efficiency - direct operations Improvements in waste water quality - direct operations Improvements in waste water quality - product-use	The GROUP LEADERSHIP TEAM, advised by the Chief Sustainability Officer, directs business sustainability-related standards, strategy, objectives and partnerships. It reviews and advises on the effectiveness of implementation of internal policies to make our own operations more sustainable, including actions to reduce water use. Sustainability should be every employee's responsibility. Members of the GROUP LEADERSHIP TEAM and the SENIOR MANAGEMENT group are responsible for embedding sustainability in their area of responsibility.

**W6.5**

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

- Yes, direct engagement with policy makers
- Yes, trade associations

**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?**

We coordinate and channel all our global policy engagements on water, directly or indirectly, through our global Sustainability function to ensure consistency across geographies and company functions.

Our local-level policy engagements are carried out through our respective regional and country Sustainability teams in close collaboration with the global team. Regular communications (e.g., weekly Business Plan Review calls with leadership teams across regions and townhalls with all members of the function) and policy positions ensure all our policy engagements are consistent with our company position as outlined in Syngenta’s Principles for Sustainable and Responsible Agriculture.

Through such regular communication, we are able to identify and address potential inconsistencies. In case an inconsistency is discovered, actions would include internal realignment and education, correction of external messaging and engagement with policy makers to clarify our position.

This process ensures all our policy engagements are consistent with our water-related strategies and our Good Growth Plan.

**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)

Syngenta-AG-2021-Financial-Report.pdf

**W7. Business strategy**

**W7.1**

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

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	11-15	Syngenta’s ambition is to “... play a vital role in the food chain to safely feed the world and take care of our planet. We will be the most collaborative and trusted team in agriculture, providing leading seeds and crop protection innovations to enhance the prosperity of farmers, wherever they are.” As climate, water is a key determinant for Syngenta’s products and services. Shortages and changes in water availability affect growing seasons, pests and crop productivity, hindering farmers’ ability to produce food, as a result altering demand for our products. Syngenta products – and those in the pipeline – and the guidance we provide to farmers aim to help them address these challenges (see more information on next row). The TIME HORIZON of 11-15 years was selected because, on average, the research, development and registration of any new crop protection product takes 10 years before a product is commercially launched. Similarly, for a new biotech trait, it takes around 13 years from the point of discovery of a new genetic sequence through to the complex registration process.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	11-15	Syngenta has products available – and in the pipeline – that help plants tolerate drought and conserve water. These include crop protection and seeds, for example: * Our crop protection products conserve water by controlling weeds that threaten scarce water resources and protect from pests and diseases that reduce water efficiency. * We develop crops that tolerate drier conditions, including drought-tolerant sunflower and corn. * Our seed treatment products help plants to develop stronger root systems to access water and nutrients in the soil. * Plant regulator products prevent plants from growing too tall and collapsing. They promote longer, finer roots that better reach water and nutrients in drought-prone areas. * With the acquisition of Valagro in 2020, we are able to offer farmers leading biologicals, including selected biostimulants that increase crop water productivity. We also encourage growers to adopt conservation agriculture practices, which help them optimize water use, increase soil water holding capacity, reduce water runoff and build crop resilience to changing weather patterns. The TIME HORIZON of 11-15 years was selected because the research and development and market launch of crop protection products and new biotech traits take around 10 and 13 years respectively.
Financial planning	Yes, water-related issues are integrated	11-15	A changing climate affects water availability for farmers. This creates the opportunity for Syngenta to develop solutions that help farmers mitigate and adapt to these changes. Capital allocation and decision on capital expenditure or potential acquisitions are thus driven by our desire to address their needs and support the research, development, and manufacturing of our products. With the launch of the Good Growth Plan in 2020, we committed to invest USD 2 billion in 5 years to reduce agriculture’s contribution to climate change, use its mitigation capacity, and help the food system stay within planetary boundaries. Our investment model directs resources toward products, services, programs, partnerships and capital expenditures that offer a differentiated sustainability benefit or are breakthrough technologies enabling a step change in agricultural sustainability. As part of this commitment, in 2021, we invested USD 546 million in sustainable agriculture breakthroughs, which was mainly driven by the investments in crop protection and seeds R&D and our strategic acquisition of Valagro. The TIME HORIZON of 11-15 years was selected because the research and development and market launch of crop protection products and new biotech traits take around 10 and 13 years respectively. To define this time horizon, we have taken the concept of “financial planning” in the broader sense as outlined in the CDP guidance, and not the 5-year financial plans traditionally used in business.

**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)

0

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

10

Water-related OPEX (+/- % change)

0

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

10

**Please explain**

We estimate that water-related CAPEX and OPEX remained stable vs. last year since we continuously invest in water-related improvements, such as reusing the washing water at several of our formulation sites, which saves up to 40% of the water used (while also reducing waste). Note, these values are estimates as CAPEX and OPEX expenditures are included in day-to-day operations and cannot be accurately reported separately at this point. In 2021, we continued working to reduce water usage from our own operations. For example, in our manufacturing site in Karachi (Pakistan), the total water consumption was reduced by about 25% thanks to improved performance monitoring and the implementation of sustainability initiatives during the last five years. This also led to a reduction of more than 60% in water used per tonne of production.

**W7.3**

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

	Use of scenario analysis	Comment
Row 1	Yes	Syngenta supports the recommendations of the Task Force on Climate-related Financial Disclosure (TCFD). We have conducted climate-related scenario analysis in 2020 as part of the work currently underway associated with the implementation of the TCFD recommendations. Summary results were shared with the company, published in our ESG Report 2020 and referenced in our ESG Report 2021. Although further evaluation is required, the results are in line with the climate-related aspects already considered in our business objectives and strategy development processes.

**W7.3a**

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

	Type of scenario analysis used	Parameters, assumptions, analytical choices	Description of possible water-related outcomes	Influence on business strategy
Row 1	Climate-related	We used the transition scenarios IEA SDS and IEA STEPS, and the physical climate scenarios RCP 2.6 and RCP 8.5. PARAMETERS for transition scenarios: • Carbon price introduced • Fossil fuel subsidies phased out • Expanded support for deployment of Carbon Capture & Storage (CSS) • Increased generation from renewables and nuclear PARAMETERS for physical scenarios: • Global emissions trend • Global mean sea level rise • Frequency and intensity of heat waves and extreme precipitation events ASSUMPTIONS: We assumed that Syngenta would have the same business activities in 2030 as in 2020 when the analysis was conducted, and that no additional actions besides those already ongoing or planned were conducted to mitigate or adapt to adverse impacts or to seize positive impacts. ANALYTICAL CHOICES: A 2030 time horizon was used for the analysis as it best aligns with our business planning, strategy and R&D timelines. Calculation pathways were designed to estimate the financial impact of the risks and/or opportunities. Insights to design the pathways and data to perform the calculations were derived from internal and external sources. Internal data used in the calculations (e.g., sales, profits, costs) were mostly from 2019. We used a combination of quantitative and qualitative methods in our analysis, giving preference to quantitative information where good quality, decision-useful data were available from reputable sources.	The climate scenario analysis identified the following potential water-related financial impacts. Financial risks: 1) The potential impact of extreme weather events on our chemical production activities does not differ significantly between the two chosen scenarios under both a <2°C and 4°C scenario in a 2030 horizon, with flooding being the most material risk. 2) The potential impact of extreme weather events on our customers will increase under both a <2°C and a 4°C scenario, impacting our business more in the case of droughts than floods. Financial opportunity: 3) The impact of increased droughts could intensify the demand for drought-resistant seeds under both scenarios but geographical shifts might be observed as impact of chronic changes to the climate will differ depending on the production area.	STRATEGIC RESPONSE & TIMESCALE: Addressing climate change challenges in agriculture is and has been part of our business objectives and strategy considerations. We made our commitment clearer in 2020. In our Good Growth Plan, we committed to invest USD 2 billion over five years (2020-2025) to advance sustainable agriculture, including helping farmers mitigate and adapt to climate change. Among other areas, this investment covers research and development of products, services and programs for farmers to tackle weather events such as floods and droughts, hence addressing findings 2 and 3 outlined in the left column. We also committed to reduce the carbon intensity of our operations by at least 50% by 2030, addressing finding 1 in the left column. We have also aim to reduce water intensity in our operations by 20% by 2030.

**W7.4**

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

Row 1

Does your company use an internal price on water?

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

**Please explain**

Given water carries an external price, we have not yet assessed the relevance of an internal price on water.

**W7.5**

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

	Products and/or services classified as low water impact	Definition used to classify low water impact	Primary reason for not classifying any of your current products and/or services as low water impact	Please explain
Row 1	Yes	<p>DEFINITIONS USED FOR CLASSIFICATION: * Rationale: Shortages and changes in water availability pose significant challenges to food security. They affect growing seasons, pests and crop productivity, hindering farmers' ability to produce food for a growing population. Farmers must have the right tools and skills to prosper. * Criteria: We use our Sustainability Investment Criteria (<a href="https://www.syngenta.com/sites/syngenta/files/GRI/Sustainability-Investment-Criteria.pdf">https://www.syngenta.com/sites/syngenta/files/GRI/Sustainability-Investment-Criteria.pdf</a>), a five-step process, to decide on our investments toward our USD 2 billion commitment set in the Good Growth Plan. The criteria include 'water-use efficiency and effectiveness' as a key priority practice, with the associated priority outcome being 'increase water-use efficiency and effectiveness and/or protect water quality' * Part of value chain: downstream, i.e., product used * Water aspects considered: abiotic stress (e.g., tolerance to adverse weather patterns such as flood or draughts, water conservation, protection of water bodies) and biotic stress from weeds, pests and diseases * Standards to assess the impact of crop protection on water are established by the regulatory process for crop protection products. Assessment endpoints are no water contamination and no impact on aquatic flora and fauna. All our products undergo comprehensive human and environmental risk assessments. These cover risks associated with all stages of development – from concept and R&amp;D through to final use and consumption. In particular, our environmental safety program seeks assurance that the product will not adversely affect the soil, water, air, flora or fauna. For a product to receive regulatory approval in any given country, we must first demonstrate it is safe for the environment among other requirements.</p>	<Not Applicable>	<p>Syngenta has products available – and in the pipeline – that improve the water productivity of plants. Drought-tolerant seeds, such as our AGRISURE ARTESIAN® corn hybrids, help produce reliable yields in drier and semi-arid conditions. Our HYVIDO® hybrid barley seeds offer better root systems leading to better water and nutrient uptake. Our TALETE biostimulant increases the water productivity of crops and QUANTIS® improves the ability of many plants to mitigate drought and heat stress. Weed control using herbicides, such as AXIAL® or CALLISTO®, lowers the need for tillage, leaves roots in the soil and improves water absorption. When these products are combined with good management practices, agriculture is made more resilient to changes in climate and water availability. We encourage farmers to adopt practices that optimize water use, increase soil water holding capacity, reduce water runoff and build crop resilience to changing weather patterns.</p>

**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	<p>Company-wide targets and goals</p> <p>Business level</p> <p>specific targets and/or goals</p> <p>Activity level</p> <p>specific targets and/or goals</p>	<p>Targets are monitored at the corporate level</p> <p>Goals are monitored at the corporate level</p>	<p>TARGET SETTING APPROACH: Our HSE Policy and Standards state that actively promoting environmental protection is an integral part of how Syngenta conducts its business. This includes promoting water conservation. Water is one of our focus areas considered relevant to making our operations more sustainable. As such, we have set a company-wide target of 20% reduction in water usage intensity across our operations and supply chain by 2030. This target applies to both business units, i.e., Crop Protection and Seeds, and each defines its specific objectives and projects to contribute to achieving the company target. GOAL SETTING APPROACH: Our Principles for Sustainable and Responsible Agriculture outline our commitment to help farmers to optimize water use and protect water quality and quantity. In our Good Growth Plan, we commit to help farmers address climate change. This includes providing customer/grower education on conservation agriculture practices, which help them optimize water use, increase soil water holding capacity, reduce water runoff and build crop resilience to changing weather patterns. PRIORITIZATION OF WATER-RELATED RISKS AND IMPACTS: To set a target for our own operations and supply chain, we completed an analysis of our overall water consumption footprint, including data from our own sites, chemical supply chain estimations based on spend, and questionnaire-based computation from third-party seed supply sites. Drawing on work at all our sites to understand water stress, we identified the most critical sites in water-scarce areas. For our seed suppliers, we identified the water management practices they use. This is essential to contribute to water security globally. We are now working on conservation programs to reduce consumption at our own sites and in cooperation with third-party seed producers. To make our current Good Growth Plan commitment, we conducted a survey of about 600 large-scale farmers in the USA, France, China, Brazil, India and across Africa to measure their opinions and attitudes toward climate change and associated issues. Results showed that 72% are worried about the impact climate change will have on crop yields, animal health and their ability to do business over the next five years. Shortages and changes in water availability pose significant challenges to farmers. They affect growing seasons and crop productivity. We research and develop products that improve the water productivity of plants and increase tolerance to drought and heat. MONITORING: Water targets are monitored at corporate and business unit levels. For our own operations, information is tracked at local level, reviewed at regional level, and consolidated at global level. The performance of our supply chain is estimated and monitored using a hybrid approach of spend-based and average data methods. Progress is reported internally to the respective leadership teams and externally in our annual ESG Report.</p>

**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 consumption

**Level**

Company-wide

**Primary motivation**

Risk mitigation

**Description of target**

Syngenta has set a target of reducing water usage intensity in our operations and supply chain by 20% by 2030. We have assessed and will continue to assess water stress across our portfolio and will prioritize areas that are under water stress. This target will not only address issues of water scarcity and competition, but will also result in lower waste generation, lower energy use and lower CO2 emissions. Reducing use in general and reducing use in areas of scarcity will help contribute to water security. All these factors are monitored at a corporate level as they are key sustainability metrics.

**Quantitative metric**

% reduction per revenue

**Baseline year**

2016

**Start year**

2020

**Target year**

2030

**% of target achieved**

0

**Please explain**

This target was set in 2019 and reported for the first time in 2020. Compared to our 2016 baseline, intensity-based total water usage (supply chain and own operations) increased by 17% based on sales in 2021. However, total water usage intensity decreased by 29% compared to 2020. Year-on-year changes are driven by water usage from supply chain activities, which represent 99.8% of our total water usage.

---

**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**

Sales of new products/services

**Description of goal**

GOAL: In our Good Growth Plan launched in June 2020, we commit to help farmers deal with the extreme weather patterns caused by climate change. The urgency to conserve water is reinforced by the growing impact of climate change. MANAGEMENT APPROACH: Syngenta has products available – and in the pipeline – that improve the water productivity of plants. Weed control using herbicides lowers the need for tillage, leaves roots in the soil and improves water absorption. Efficient irrigation systems deliver water to roots, and planting grass or wildflowers around fields helps keep water from running off the field. In combination, these practices dramatically reduce surface evaporation and water runoff. We encourage farmers to adopt conservation agriculture practices that optimize water use, increase soil water holding capacity, reduce water runoff and build crop resilience to changing weather patterns. We do this through our interactions with customers, training, detailed risk analysis and provision of product use recommendations, including sales restrictions in vulnerable areas. We also use digital tools to communicate with farmers. For our seed supplier network, requirements on the use of good agricultural practices are part of our regular engagement with them. We are working to provide water management training to growers using irrigation, prioritize good practices when selecting growing areas, and expand the implementation of water management technologies.

**Baseline year**

2020

**Start year**

2020

**End year**

2025

**Progress**

Progress toward achieving the goals of our Good Growth Plan is measured through various quantitative and qualitative indicators. Below are a few examples of indicators and progress in 2021. We have committed to dedicate USD 2 billion over five years to innovation targeted at delivering a step change in agricultural sustainability. In 2021, we invested USD 546 million in sustainable agriculture breakthroughs, supported by the strategic acquisition of Valagro, a leading biologicals and biostimulants company. Valagro's biostimulant portfolio offers farmers products with active ingredients of purely natural origin, which stimulate the main physiological processes of plants while promoting their growth and productivity. In particular, Valagro's biostimulant TALETE increases crop water productivity in conditions of adequate water availability and permanent or temporary water scarcity. We also track and report on the hectares of land positively impacted by soil health practices such as minimum or no tillage, permanent ground cover and water management, and by the re-introduction of local species and buffers for soil and water protection. In 2021, our projects benefited 7.5 million hectares of farmland. We encourage farmers to adopt conservation agriculture practices. We do this through our interactions with customers, including training. In 2021, we trained 11 million people on the responsible handling and use of crop protection products, including 6.6 million smallholder farmers.

## 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

### 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 usage intensity Water usage by type and origin Industrial wastewater discharge intensity Industrial wastewater discharged volume and quality	ISAE 3000	We assured externally the KPIs listed in the "data verified" field. These KPIs are reported in our ESG Report and undergo external assurance every year. PwC's Independent Assurance Report is on pages 97-98 of our ESG Report 2021. As outlined in the assurance report, assurance was conducted on the information presented in the "Non-financial performance summary" on pages 92-96 of the ESG Report, which include these KPIs.
W8 Targets	Change in water usage intensity since 2016 baseline Investment in sustainable agriculture breakthroughs Hectares of farmland benefited by soil conservation and biodiversity enhancement measures People trained on safe use People trained on safe use (smallholders)	ISAE 3000	We assured externally the KPIs listed in the "data verified" field. These KPIs are reported in our ESG Report and undergo external assurance every year. PwC's Independent Assurance Report is on pages 97-98 of our ESG Report 2021. As outlined in the assurance report, assurance was conducted on the information presented in the "Non-financial performance summary" on pages 92-96 of the ESG Report, which include these KPIs.

## 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.

No further comments

### 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	CEO	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