

# ESG REPORT 2022



## About this report

This is the Environmental, Social and Governance Report (“ESG Report”) 2022 for **Syngenta AG group**, also referred to as ‘**Syngenta**’ in this report. Syngenta AG group encompasses Syngenta AG, a company domiciled and incorporated in Switzerland, and all of its more than 150 subsidiaries globally, and covers the following operations of Syngenta Group: **Syngenta Crop Protection, Syngenta Seeds and operations of Syngenta AG group that now form part of Syngenta Group China**. The information and data contained in this report relate to the activities within this scope unless otherwise specified.

Syngenta Group Co. Ltd. is domiciled in Shanghai, China, with its management headquarters in Basel, Switzerland. Syngenta Group encompasses four business units: Syngenta Crop Protection, Syngenta Seeds, ADAMA and Syngenta Group China. We have started to transition our ESG reporting to cover the entire Syngenta Group, but aligning ESG disclosures and reporting processes across the new organization takes time. We expect to publish our first Syngenta Group report in the upcoming months.

This Syngenta AG group ESG Report is structured to address non-financial reporting requirements from selected reporting standards and frameworks, in particular the [Global Reporting Initiative](#) (GRI), the [United Nations Global Compact](#) (UNGC), the [Sustainability Accounting Standards Board](#) (SASB) and the [Task force on Climate-related Financial Disclosures](#) (TCFD). It is also meant to provide information relevant to ESG rating agencies, investors and other stakeholders.

In 2022, we started using the new GRI Universal Standards 2021 and introduced new key performance indicators (KPIs) and disclosures in our Sustainable operations, People, and Business integrity focus areas. Our aim is to provide increased transparency on our performance and further align to new reporting requirements. More detailed information about new KPIs, changes in KPI definitions, reporting periods and data collection processes as well as restatements are included in the [Non-financial performance summary](#) and throughout the document. For the first time, we also publish a separate document, entitled [Basis of Preparation: ESG Report 2022](#), with more detailed information on definitions, scope and reporting processes relating to the KPIs outlined in this report.

Data presented in this report relates to the period October 1 to September 30 unless otherwise specified. Selected non-financial performance indicators aggregated as of and for the twelve months ending September 30, 2022 or December 31, 2022 have been externally assured.

The publication date of this Syngenta AG group ESG Report 2022 is May 11, 2023.

Should you have any questions, please contact us at: [sustainability.syngenta@syngenta.com](mailto:sustainability.syngenta@syngenta.com)

# Contents

<b>About this report</b>	<b>2</b>
<b>2022 highlights</b>	<b>5</b>
<b>Statement of the Sustainability Committee Chair</b>	<b>6</b>
<b>Statement of the Chief Sustainability Officer</b>	<b>7</b>
<b>1 Organizational profile</b>	<b>8</b>
1.1 Syngenta Group	8
1.2 Syngenta Crop Protection and Syngenta Seeds	8
1.3 Syngenta AG group	8
1.4 Our business model	9
1.5 Syngenta Foundation for Sustainable Agriculture	11
<b>2 Sustainability</b>	<b>12</b>
2.1 The Good Growth Plan	12
2.2 In focus: Working to reduce greenhouse gas emissions	13
<b>3 Ethics and integrity</b>	<b>15</b>
<b>4 Governance</b>	<b>17</b>
4.1 Syngenta Group Co. Ltd. corporate governance	17
4.2 Syngenta AG corporate governance	17
4.2.1 Board of Directors of Syngenta AG	17
4.2.2 Executive Team of Syngenta AG	19
4.3 Sustainability governance	20
<b>5 Engagement and collaboration</b>	<b>22</b>
5.1 Engaging with stakeholders	22
5.2 Partnering for impact	24
<b>6 Non-financial reporting practice</b>	<b>26</b>
6.1 Focus on quality	26
6.2 Materiality analysis	27
6.3 Transparency and open data	30
6.4 ESG ratings and rankings	31
<b>7 Disclosures</b>	<b>32</b>
7.1 Sustainable agriculture	33
7.1.1 Innovation in agriculture	33
7.1.2 Lowest residues in crops and the environment	35
7.1.3 Carbon capture and mitigation in agriculture	37
7.1.4 Soil health	39
7.1.5 Biodiversity	42

7.1.6	Safe use of products.....	44
7.1.7	Access to technology.....	47
7.1.8	Responsible agricultural land use.....	49
7.1.9	Water conservation.....	50
7.1.10	Nutritious food and feed.....	52
7.2	Sustainable operations.....	54
7.2.1	GHG emissions.....	54
7.2.2	Energy.....	58
7.2.3	Other air emissions.....	60
7.2.4	Water and wastewater.....	62
7.2.5	Waste.....	65
7.2.6	Working with suppliers.....	67
7.3	People.....	71
7.3.1	Employment and engagement.....	71
7.3.2	Employee development.....	74
7.3.3	Diversity and inclusion.....	76
7.3.4	Health and safety.....	80
7.3.5	Human rights.....	84
7.4	Business integrity.....	87
7.4.1	Corporate conduct.....	87
7.4.2	Security management.....	89
7.4.3	Animal welfare.....	92
7.4.4	Biotechnology and regulatory compliance.....	94
7.4.5	Economic value shared.....	96
7.4.6	Community engagement.....	97
7.4.7	Responsible lobbying.....	99
7.4.8	Enterprise risk management.....	101
7.4.9	Tax governance.....	104
<b>8</b>	<b>Implementing TCFD's recommendations.....</b>	<b>106</b>
<b>9</b>	<b>Non-financial performance summary.....</b>	<b>109</b>
<b>10</b>	<b>Independent assurance report.....</b>	<b>117</b>
<b>11</b>	<b>Content indexes.....</b>	<b>119</b>
11.1	GRI content index.....	120
11.2	SASB content index.....	129
11.3	UNGC content index.....	134
11.4	SDG content index.....	136



## 2022 highlights

### Achieving record growth

Driven by innovations across products, digital solutions, business models and agronomic advice, we delivered strong financial results and overall business growth in 2022 despite weather extremes, COVID-19 and the war in Ukraine.

### Delivering on our Good Growth Plan

We invested USD 289 million in sustainable agriculture breakthroughs, amounting to a total investment of USD 1,325 million since 2020. We helped farmers produce over 2 million tonnes of crops with programs for lowest residues, benefited 6 million hectares of farmland through our soil and biodiversity projects, and trained 12.9 million people on the safe use of our products.

### Bringing new sustainable solutions to the market

We constantly bring new sustainable technology breakthroughs to the market. Our new TYMIRIUM® technology for seed treatment and soil application fights plant-parasitic nematodes and soil-borne diseases. Thanks to our CROPWISE™ Sustainability app, growers can more easily capture data and deliver continuous improvements from regenerative agriculture practices. A new digital solution launched in Brazil also helps soybean farmers detect stresses from harmful nematodes using satellite imagery.

### Working to reduce greenhouse gas emissions

We continued reducing our intensity-based scope 1+2 carbon emissions, but faced challenges with scope 3 emissions. This year, our total absolute emissions were 11.7 million tonnes of CO<sub>2</sub>e, with scope 3 emissions increasing by 2 million tonnes. To address this, we are developing new plans to tackle emissions across our largest supply chains and working with our suppliers to deliver on our scope 3 emission reductions. At the same time, we continue to enable agricultural practices and provide innovative solutions that help farmers mitigate climate change. In 2022, our soil and biodiversity projects generated a carbon benefit potential on farmland of an estimated 3 million tonnes of CO<sub>2</sub>e, and the use of our Enogen® corn for feed accounted for an estimated 1.8 million tonnes of avoided CO<sub>2</sub>e emissions. Our aim is to build on this work and help farmers avoid emissions that exceed those generated by our operations.

### Collaborating with our strategic partners

By the end of 2022, as part of our Reverte project with The Nature Conservancy, regenerative farming practices had been implemented on 80,000 hectares across 60 farms in Brazil. Reverte aims to return degraded pastureland into productive cropland. With Solidaridad, we continued to develop business models for smallholders and identify improvement opportunities for our Seeds' Fair Labor Program.

### Scaling up our LIVINGRO™ program

LIVINGRO™ brought together academic and research organizations to assess more than 50 biodiversity and soil health parameters in farming ecosystems. With our food value chain partner Walmart, we helped tomato farmers implement Operation Pollinator and LIVINGRO™ principles to increase their yields and protect the environment.

### Making progress on diversity and inclusion

We advanced on our journey to create a more diverse and inclusive (D&I) workplace by engaging our employees in D&I discussions and campaigns. We made progress toward equal pay, reducing our global raw mean gender pay gap from -3.90% in 2021 to -2.86% in 2022. We also launched an Inclusion Index to assess our company's inclusiveness.

### Enhancing reporting, transparency and disclosure

To provide increased transparency on our performance and to further align with new reporting requirements, we introduced new KPIs and disclosures. For the first time, we published a stand-alone Basis of Preparation document and started reporting in accordance with the new GRI Standards 2021. As part of the digital transformation of our HSE processes and systems, we launched a new internal reporting tool that collects more detailed environmental data.

## Statement of the Sustainability Committee Chair

The global food and agricultural system faced significant challenges in 2022. The war in Ukraine and associated disruptions to energy and fertilizer markets, coupled with the effects of climate change, put a strain on food affordability and security, especially for those living in poverty and in least developed countries. These challenges are only set to increase in the future, making action crucial.

As the global population continues to grow – passing the 8 billion mark in 2022 – there is an urgent need to increase yields and produce more food with less resources and less environmental impact. Improving yield is indeed critical to ensure food security and lower the impact of land use change associated with the expansion of agriculture. Enhancing the livelihoods of the millions of farmers is also vital, as they are often hit hard by the rising costs of living.

Innovative new technologies and services will be critical to addressing these challenges and Syngenta is at the forefront of the transformation. The company is also working in partnership with NGOs, universities and businesses throughout the food and agriculture value chain to make change happen.

Despite the significant challenges of 2022, Syngenta made good progress toward achieving its sustainability commitments. The company continued to scale its investment into the research and development of solutions that help farmers mitigate climate change. Progress was also made on several important NGO partnerships and value chain projects. Around the world, training programs continued to help farming communities stay safe and healthy. Similarly, Syngenta remains committed to the safety of employees and continues implementing programs that help realize its vision of zero incidents across operations.

At this year's 27<sup>th</sup> UN Climate Change Conference of the Parties (COP27) and 15<sup>th</sup> Convention on Biological Diversity Conference of Parties (CBD COP 15), participating countries acknowledged that a shift toward regenerative agriculture, under a holistic food systems approach, could bring multiple benefits for climate, health, resilience, biodiversity, and social justice. Syngenta is committed to playing its part in this agenda.

This annual ESG Report is for Syngenta AG. Syngenta Group will publish its first consolidated report in the upcoming months, reporting on the activities of all its business units: Syngenta Crop Protection, Syngenta Seeds, ADAMA and Syngenta Group China.

### **Louise O. Fresco**

Chair of the Sustainability Committee  
of the Syngenta Group Board of Directors

## Statement of the Chief Sustainability Officer

In 2022, increased demand for our innovations translated into strong financial results and growth at Syngenta. Our products and services are helping farmers further improve the way crops are grown and protected, allowing them to optimize land productivity while protecting their land. It is estimated that up to 30% of global crop losses are caused by pests and pathogens. As a market leader in crop protection and one of the largest seed developers and producers, we have an important role to play in helping farmers tackle climate change and food security.

Since the launch of our Good Growth Plan in 2020, we invested USD 1.3 billion in sustainable agriculture breakthroughs. This year, we launched TYMIRIUM® technology, a solution for seed treatment and soil application against plant-parasitic nematodes and soil-borne diseases. We also launched digital solutions that help farmers detect stresses caused by pests and improve regenerative agriculture practices.

Ensuring that our products are used correctly is integral to our business to protect not only the health and safety of farm workers and the public, but also the environment. In 2022, we therefore increased our efforts, training approximately 13 million people on the safe use of crop protection products. Similarly, in our own operations, we reported an injury illness rate (IIR) of 0.30, considered as one of the lowest in the agrochemical industry.

Equally important is to regenerate soil and nature. In 2022, our soil and biodiversity projects benefited 6 million hectares of farmland. Launched in 2022, our R&D-driven LIVINGRO™ platform assesses biodiversity and soil health parameters in farming ecosystems, helping growers improve on-farm practices. This year, we also created the role of Chief Soil Scientist to drive our soil health strategy and leverage our soil science activities and R&D capabilities.

Farming is the backbone of rural communities and a vital economic activity. Syngenta is well positioned to improve rural prosperity by delivering solutions and knowledge to farmers in low-income countries. Through physical centers and digital services, we help smallholders to overcome barriers to higher productivity and profitability.

Reducing our carbon emissions is integral to running sustainable operations. Though we have made significant efforts to tackle our carbon emissions over the years, we are currently falling short of our target. Recognizing that we must adopt a different approach, we conducted an internal audit and several pilot projects in 2022 and used the learnings to adjust our actions. We remain dedicated to achieving our carbon reduction goal in our operations, and we will continue to explore innovative solutions that help farmers mitigate and adapt to climate change.

As we continue to navigate the challenges of the world, we remain committed to finding solutions to help transform our global food system and to achieving a sustainable future for all.

**Daniel Vennard**  
Chief Sustainability Officer

# 1 Organizational profile

## 1.1 Syngenta Group

[Syngenta Group](#) was launched on June 18, 2020, when [Sinochem Agriculture](#), [ADAMA](#) and [Syngenta AG group](#) came together to create a leader in sustainable agricultural innovation and technology.

Syngenta Group is one of the world's leading agriculture innovation companies. Syngenta Group strives to transform agriculture through breakthrough products and technologies that play a vital role in enabling the food chain to feed the world safely, sustainably and with respect for our planet. Swiss-based and Chinese-owned, the Syngenta Group draws strength from its four business units:

- Syngenta Crop Protection, based in Basel, Switzerland
- Syngenta Seeds, based in Chicago, USA
- ADAMA, based in Airport City, Israel
- Syngenta Group China, based in Shanghai, China

Present in more than 100 countries, the Syngenta Group is the most geographically and culturally diverse business in agriculture. Its people strive every day to transform agriculture through tailor-made solutions that benefit farmers, society and our planet. The passion and diversity of its people are distinctive assets and key elements of the Syngenta Group brand and culture.

## 1.2 Syngenta Crop Protection and Syngenta Seeds

[Syngenta Crop Protection](#) provides farmers with advanced and sustainable ways to keep their plants healthy – from sowing to harvest. The business unit develops and produces herbicides, insecticides, fungicides, biological controls, and seed treatments that promote strong and healthy plant growth.

[Syngenta Seeds](#) offers a broad portfolio of crops, with particular strengths in corn, soybean, sunflower, cereals and vegetables. Its flower business, a key global player, is a leader in bedding and pot plants. Syngenta Seeds offers one of the industry's broadest germplasm pools and a strong pipeline of next-generation traits, built through a collaborative, on-farm approach to product development, strong customer focus, and an innovative global research and development program.

## 1.3 Syngenta AG group

Syngenta AG group covers the following operations of Syngenta Group: Syngenta Crop Protection, Syngenta Seeds and operations of Syngenta AG group that now form part of Syngenta Group China. Syngenta AG group delivered USD 19.96 billion in sales in 2022.

More information about Syngenta AG group, including ownership, products and services, markets served, significant changes in the organization and activities, and financial performance for FY 2022 can be found in Syngenta AG's [Financial Report 2022](#).

The scope of this ESG Report 2022 is for Syngenta AG group.

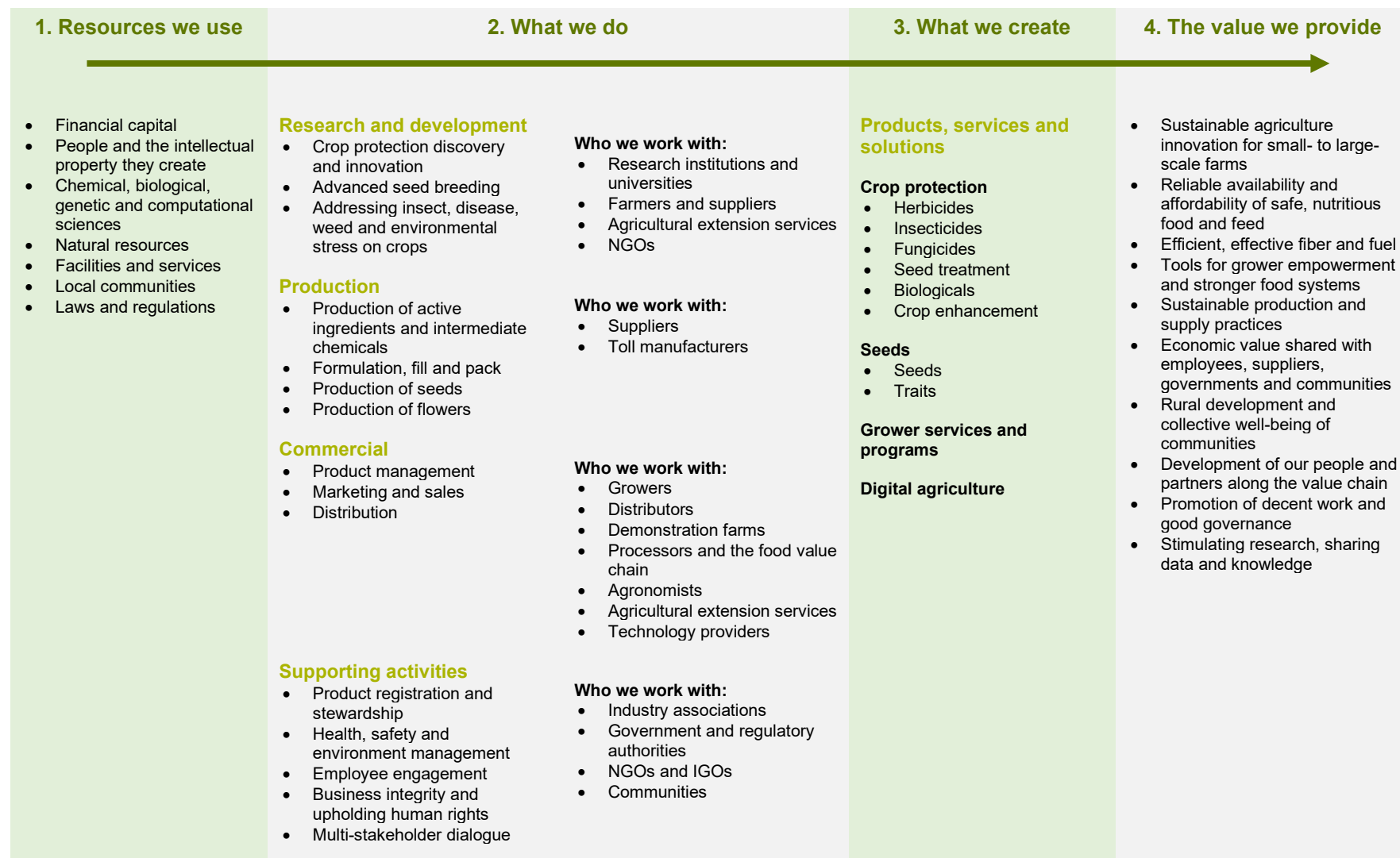


## 1.4 Our business model

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.

Our strategy is to grow through customer focused innovation – not just in product research and development, but in every aspect of our business model. We seek new and more efficient ways to use resources, to develop and deliver better products and services to farmers, and to create value for our many stakeholders – including employees, the communities where they live and society at large.

Syngenta's business model



## 1.5 Syngenta Foundation for Sustainable Agriculture

The vision of the [Syngenta Foundation for Sustainable Agriculture](#) (SFSA) is a bright future for smallholder farming. To achieve this, SFSA stimulates innovations that help small-scale farmers in a dozen developing countries increase their productivity, income and resilience. In collaboration with a wide range of organizations, the Foundation focuses on three areas: access to seeds, insurance and agriservices. To support its initiatives, SFSA also engages in research and development work that improves smallholders' yields, and it promotes policies that encourage better opportunities for farmers and rural youth.

In 2022, the Foundation continued with the implementation of its 2021-25 [strategy](#). A key aspect is the integration of climate-smart, resilient agricultural approaches across the portfolio. SFSA also aims to achieve gender parity among beneficiaries by 2025. Further impact goals include better nutrition, health and food security for smallholders and their customers, as well as at least 20% higher incomes for five million smallholder families.

Based in Basel, Switzerland, the Foundation is a non-profit organization established by Syngenta under Swiss law. The Foundation can access company expertise but is legally independent and has its own Board. Syngenta provides core funding and is sometimes a project partner. In 2022, about half of the program budget came from third parties.

Information about SFSA activities is available on its website. The [Publications](#) section features a Highlights & Performance Report, Financial Statements and country reports.

## 2 Sustainability

### 2.1 The Good Growth Plan

The [Good Growth Plan](#) puts sustainability at the center of our business and innovation. It is key to ensure our success and it helps us meet our commitment to the [United Nations Sustainable Development Goals](#).

Building on the progress we made and the lessons we learned from the first Good Growth Plan (2013-2019), Syngenta Group launched a new Good Growth Plan in June 2020. This plan puts the urgent fight against climate change and biodiversity loss at the heart of farming’s productive future and the global economic recovery.

Under the new Good Growth Plan, we make four ambitious commitments and sets targets for 2025. We are accelerating our innovation to provide solutions for farmers to make agriculture more resilient and sustainable. We strive for carbon neutral agriculture, while continuing our work to enhance biodiversity and soil health. We are reinforcing our existing commitment to help people stay safe and healthy in our operations and in the field. Last, we want to achieve these commitments in partnership with others and through open dialogue about the value of agriculture innovation for farmers, nature and society.

We report on progress toward achieving the targets set in the Good Growth Plan in this ESG Report (see links in green below) and in summary form in the [Good Growth Plan Progress Report 2022](#).

The Good Growth Plan			
Accelerate innovation for farmers and nature	Strive for carbon neutral agriculture	Help people stay safe and healthy	Partnering for impact
<ul style="list-style-type: none"> <li>Invest USD 2 billion in sustainable agriculture breakthroughs → See <a href="#">Innovation in agriculture</a></li> <li>Deliver two new sustainable technology breakthroughs per year → See <a href="#">Innovation in agriculture</a></li> <li>Strive for the lowest residues in crops and the environment → See <a href="#">Lowest residues in crops and the environment</a></li> </ul>	<ul style="list-style-type: none"> <li>Measure and enable carbon capture and mitigation in agriculture → See <a href="#">Carbon capture and mitigation in agriculture</a></li> <li>Enhance biodiversity and soil health on 3 million hectares of rural farmland every year → See <a href="#">Soil health</a> and <a href="#">Biodiversity</a></li> <li>Reduce the carbon intensity of our (Syngenta Crop Protection and Seeds) operations by 50% by 2030 → See <a href="#">GHG emissions</a></li> </ul>	<ul style="list-style-type: none"> <li>Goal zero incidents in our operations → See <a href="#">Health and safety</a></li> <li>Train 8 million farm workers on safe use every year → See <a href="#">Safe use of products</a></li> <li>Strive for fair labor across our entire supply chain → See <a href="#">Working with suppliers</a></li> </ul>	<ul style="list-style-type: none"> <li>Build cohesive partnerships and publish their sustainability objectives → See <a href="#">Partnering for impact</a></li> <li>Launch innovation dialogues for inclusive consultation on sustainability → See <a href="#">Partnering for impact</a></li> <li>Board-level governance of sustainability → See <a href="#">Governance</a></li> </ul>
<b>SDG 1, 2 and 12</b>	<b>SDG 6, 13 and 15</b>	<b>SDG 3 and 8</b>	<b>SDG 16 and 17</b>

## 2.2 In focus: Working to reduce greenhouse gas emissions

As a leader in agriculture, we are committed to providing technologies, services and training to help farmers mitigate and adapt to climate change as well as reducing the carbon footprint of our operations. We articulate this ambition in one of our Good Growth Plan commitments: Strive for carbon neutral agriculture.

We believe that reducing the environmental impact of our own operations is integral to our contribution to decreasing the impact agriculture has on climate change. In 2019, we committed through the [Science Based Targets initiative](#) (SBTi) to deliver ambitious targets to reduce our scope 1+2+3 carbon footprint by 2030. Three years into our journey, we learnt a great deal about the most effective approaches, and we deepened our understanding of the complex challenges along the way. We are making good progress in developing ways to reduce our emissions and have delivered an intensity reduction in our scope 1+2 emissions. However, the recent rapid growth of our business has outstripped those reductions, especially with regards to scope 3 emissions.

Nevertheless, we remain committed to our ambition. In 2022, the Board's Sustainability Committee reviewed insights from an internal audit we conducted, and which, along with learnings from pilot projects, prompted adjustments to our carbon emissions reduction plan. To support the execution of our revised plan, the business is increasing internal capacity and resources for 2023. This should accelerate the deployment at scale of our emissions reduction mechanisms, help deliver our site and functional decarbonization roadmaps, and put us on the trajectory to meet our 2030 ambition.

For scope 1+2, the plan focuses on decarbonizing heat energy at our active ingredient manufacturing sites and rolling out a global renewable electricity sourcing strategy. This strategy aims to fully decarbonize electricity within five years through a combination of direct investments and power purchase agreements.

For scope 3, one of the biggest challenges facing the chemicals industry is the absence of globally standardized methodologies and data-sharing platforms for product carbon footprints. Syngenta has been taking a leading role in addressing these hurdles through the Together for Sustainability initiative, and was part of the team that developed the [Product Carbon Footprint Guideline for the Chemical Industry](#) – launched in September 2022 – and a data-sharing platform which will be piloted in 2023. While contributing to these industry-wide foundations for the future, we have also been actively engaging and partnering with our suppliers. In 2022, we held engagement workshops with 17 major suppliers (accounting for approximately 20% of our scope 3 emissions), recognized our suppliers with Sustainability Awards and placed Sustainable Operations at the heart of our discussions during our India Supplier Conference. We also piloted an end-to-end approach with one of our largest supply chains, developing a detailed map of emission sources, enabling us to identify reduction opportunities and agree on action plans together with relevant suppliers. This approach is now being extended across our most important supply chains and we expect it will help reduce our reported emissions in the coming years. (See [GHG emissions](#) and [Energy](#))

While we remain committed to reducing carbon emissions generated in our operations, we also believe our solutions can help farmers mitigate climate change. We have product and service innovations on the market – and in the pipeline – that improve the water productivity of plants, increase yield and feed efficiency, reduce food loss and waste, and help sequester and mitigate loss of carbon in the soil.

Biostimulants, such as those in our Valagro portfolio and new nutrient efficiency traits, optimize nutrient uptake by plants and help reduce carbon emissions from fertilizers. Seed treatment technology, such as



our TYMIRIUM® technology nematicide and fungicide and VIBRANCE™ fungicide, supports stronger, healthier root mass, which helps sequester carbon in the soil and increase yield. Improving yield is important to help ensure food security and lower the impact of land use change associated with the expansion of agriculture. Productivity gains allow leaving existing untouched land in its natural state.

Our innovative Enogen® corn for feed delivers feed efficiency gains over regular corn by improving starch and organic matter digestibility. Greater feed efficiency means that farmers need less feed to achieve the same outcomes. This leads to a reduction in overall greenhouse gas production per unit of milk or beef output relative to a conventional feed alternative. Based on peer reviewed research and external life cycle assessment studies for dairy cows and beef cattle production in the US market, we estimated that Enogen® use in 2022 accounted for about 1.8 million tonnes of avoided CO<sub>2</sub>e emissions.

Service innovations can also help farmers reduce carbon emissions on their farms. Our Interra® Scan soil health service uses new technology to produce high-resolution maps of soil properties. The maps can include up to 27 layers of information, such as soil acidity (pH), organic matter, nutrient availability and cation exchange capacity. Interra® Scan can help growers optimize organic and inorganic fertilizer use and promote long-term soil health and climate change mitigation.

When our products are combined with good management practices, agriculture becomes part of the solution to mitigating climate change. We help growers adopt regenerative agriculture practices such as minimum tillage, crop rotation, and effective nutrient management. Combined with permanent crop cover strategies, these practices turn agricultural fields into carbon sinks, helping to remove carbon dioxide from the atmosphere. For example in Brazil, our flagship project [Reverte](#) aims to restore degraded land to profitable agricultural production through livestock integration and crop rotation, and our collaboration with the [ILPF](#) (Integração Lavoura-Pecuária-Floresta) network aims to accelerate the adoption of integrated crop-livestock-forest systems. In 2022, our soil conservation and biodiversity enhancement projects benefited 6 million hectares of farmland and generated a carbon benefit potential of almost 3 million tonnes of CO<sub>2</sub>e. (See [Soil health](#), [Biodiversity](#) and [Carbon capture and mitigation in agriculture](#))

We are constantly working to find ways to measure the benefits our solutions bring to climate and nature. We are also partnering with scientists, agronomists, and other stakeholders to support accounting efforts in this space. We are committed to continue innovating and delivering solutions and advice to farmers.

<p><b>Related information in this report:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Disclosures</a></li> </ul>	<p><b>Further information:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">The Good Growth Plan</a></li> </ul>
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### 3 Ethics and integrity

Syngenta is committed to operating at the highest standards of ethics and integrity. By fostering a culture of doing the right thing, we aim to earn recognition as a trustworthy and collaborative partner at every level – from farmers, governments and research bodies to our employees, partners, suppliers, and the broader society.

#### How we operate is as important as what we do

The [Syngenta Group Code of Conduct](#) sets out our commitment to the highest standards of fair labor practice, ethics and integrity. It covers the areas of law, business integrity, society, people, science, products, and property rights. Everyone working for Syngenta must adhere to our Code of Conduct and violations will result in appropriate disciplinary action under applicable employment laws and practices.

The Code of Conduct and related corporate policies, codes of practice and standards are available for employees on our internal Syngenta Policies portal. The Code of Conduct is approved by the Syngenta Group Board of Directors. The issuance, storage, accessibility, implementation, and lifecycle management of the policies are governed by the Syngenta Policy Framework owned by the Syngenta Group Compliance team. The validity of all policies is confirmed by the respective policy owners annually through an assurance process, which is audited by our statutory auditors as part of the annual Company Level Controls.

The Syngenta [Principles for Sustainable and Responsible Agriculture](#) describe our approach to empowering farmers and supporting the development of agricultural systems that function within planetary boundaries, and promote the rights, health and wellbeing of all.

High standards of ethics and integrity also guide our procurement activities. We ensure our suppliers – and Syngenta employees engaging with suppliers – meet our expectations in labor practices, business ethics and Health, Safety and Environment. Our [Supplier Code of Conduct](#) outlines our expectations of those supplying products or services either to Syngenta or on our behalf. We monitor supplier conduct through regular risk assessments and audits. (See [Working with suppliers](#))

#### Embedding ethics and integrity at the core of our business

The Syngenta Group Ethics and Compliance Board (ECB) oversees policies and standards and the implementation of our compliance framework, decides on material non-compliance cases, and monitors compliance risk areas. The ECB comprises the Group Chief Financial Officer, the Group General Counsel, the Chief Human Resources Officer, the Head of Group Accounting, Reporting & Internal Audit as well as the Head Group Compliance and Risk Management. A compliance dashboard, issued twice a year, provides leaders with an overview of the state of ethical compliance across Syngenta.

The Head Group Compliance and Risk Management and a team of regional compliance officers are responsible for developing, implementing and monitoring our corporate compliance framework and tools. Together, they ensure a holistic review of ethical compliance at Syngenta. Compliance officers work directly with legal counsels and managers around the world to ensure consistent implementation of the Code of Conduct as well as other policies and guidelines.

Managers play a key role in fostering an ethical culture. They must lead their teams according to the Code of Conduct and create a safe environment for employees to speak up about concerns. Employees are expected to have read and understood the Code of Conduct, and to apply it in their everyday activities. (See [Corporate conduct](#))

**Raising concerns without fear of retaliation**

We encourage our employees to raise any compliance concern to their line manager, our Legal, Compliance or Human Resources teams, or on an anonymous or non-anonymous basis through the [Syngenta Compliance Helpline](#). The helpline, managed by an independent third party, is available online and by phone 24/7 in 24 languages. It can also be used by anyone external to our organization such as our suppliers and contractors.

We take every concern seriously and investigate each one in line with our policies to determine if and what further action is required. Minor violations can be resolved by education or guidance. In that case, further investigation may be delegated by the Compliance Officer to the relevant line manager or a nominated investigation leader. For more serious violations, it is up to the Compliance Officer to set up an Incident Investigation Team (IIT), including an IIT leader. The goal of the IIT is to determine if there is enough factual evidence to substantiate a Code of Conduct or related policy violation.

We follow the guiding principles defined in our Group Code of Practice for Investigating Code of Conduct and Other Policy Violations, when we investigate a compliance concern. These principles are objectivity, independence of investigation, access to Syngenta records and premises, diligence, complying with the law, appropriate treatment of evidence, fair treatment of employees involved in the investigation, protection from retaliation and recommending action if violation is confirmed. If it is determined that a violation has occurred or was intended, and in agreement with the Regional Compliance Officer, the IIT leader, the manager responsible for the area where the reported incident occurred, and the Human Resources business partner recommend corrective and/or disciplinary actions. We do not tolerate any form of retaliation against an employee who has reported a suspected compliance violation in good faith, nor do we tolerate any abusive accusation. (See [Corporate conduct](#))

<p><b>Related information in this report:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Corporate conduct</a></li> <li>• <a href="#">Working with suppliers</a></li> </ul>	<p><b>Further information:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Syngenta Group Code of Conduct</a></li> <li>• <a href="#">FAQ: Corporate conduct</a></li> <li>• <a href="#">Syngenta Compliance Helpline</a></li> </ul>
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## 4 Governance

Syngenta AG and its subsidiaries are together referred to as the 'Syngenta AG group'. Syngenta AG is a company domiciled and incorporated in Switzerland. Syngenta AG is a subsidiary of Syngenta Group Co. Ltd.

Syngenta Group Co. Ltd. is domiciled in Shanghai, China, with its principal management headquarters in Basel, Switzerland. Syngenta Group encompasses four business units: Syngenta Crop Protection, Syngenta Seeds, ADAMA and Syngenta Group China.

Syngenta AG group covers the following operations of Syngenta Group: Syngenta Crop Protection, Syngenta Seeds and operations of Syngenta AG group that now form part of Syngenta Group China.

### 4.1 Syngenta Group Co. Ltd. corporate governance

The general governance framework of Syngenta Group Co. Ltd. consists of the:

- **General meeting of shareholders**, which is the organ of power of Syngenta Group. It has the ultimate discretion on the company's operation, and decides on business operation policies and investment plans, approves Syngenta Group's financial statements and other disclosures, approves the articles of association, decides on the compensation of directors and supervisors, and elects directors and supervisors.
- **Board of Directors**, which defines Syngenta Group's basic management principles, including delegation of authority of the Board of Directors as well as finance, investment, human resources, HSE, corporate sustainability, ethics and compliance policies. It also manages matters regarding information disclosure and decides on the composition, suitability, and effectiveness of its four board committees: Audit, Compensation, Governance, and Sustainability.
- **Board of Supervisors**, which inspects Syngenta Group's financials, reviews working reports drafted by the Board of Directors, supervises the Board of Directors and its members and senior executives in performing their duties, and proposes extraordinary general meetings.
- **Group Leadership Team (GLT)**, which under the governance of the Board of Directors and led by the CEO, operationally manages Syngenta Group Co. Ltd. and Syngenta Group. Alongside the Board of Directors, the GLT establishes overall strategic direction and objectives for Syngenta Group and aligns the strategies and tactics of the four business units with the overall strategic objectives.

The list of members of the governance bodies of Syngenta Group Co. Ltd. can be found on Syngenta Group's website under [Syngenta Group Board of Directors](#), [Group Leadership Team](#) and [Board of Supervisors](#).

### 4.2 Syngenta AG corporate governance

#### 4.2.1 Board of Directors of Syngenta AG

The Board of Directors of Syngenta AG has the duties set forth under articles 716-716b of the Swiss Code of Obligations. It also acts as an advisor to the Syngenta Group Co. Ltd. Board of Directors.

The ultimate strategic direction of the Syngenta Group and therefore also of Syngenta AG group is set by the Syngenta Group Co. Ltd. Board of Directors. The Syngenta Group Co. Ltd. Board of Directors also establishes the basic strategic, accounting, organizational and financial policies for the Syngenta Group as a whole, which are adapted by the Board of Directors of the respective entities part of the Syngenta Group. In this sense, the Board of Directors of Syngenta AG also adapts the guidelines as far as they are relevant for Syngenta AG group.

Board of Directors of Syngenta AG as of December 31, 2022			
Member	Tenure	Responsibilities	Other significant positions and commitments
<p><b>Li Fanrong</b></p> <p>Non-Executive director</p> <p>Male Chinese Born 1963</p>	Since 2022 Chairman since 2022	<p>Syngenta AG responsibilities:</p> <ul style="list-style-type: none"> <li>Chairman of the Board</li> </ul> <p>Other Syngenta Group responsibilities:</p> <ul style="list-style-type: none"> <li>Chairman of the Board of Syngenta Group Co. Ltd.</li> <li>Chairman of the Governance Committee of Syngenta Group Co. Ltd.</li> <li>Member of the Compensation Committee of Syngenta Group Co. Ltd.</li> </ul>	Sinochem Holdings (Chairman); Sinochem International (Chairman); Sinochem Corp. (Executive Director and CEO); China Jinmao Holdings Group Ltd. (Chairman)
<p><b>J. Erik Fyrwald</b></p> <p>Executive director</p> <p>Male American Born 1959</p>	Since 2022	<p>Syngenta AG responsibilities:</p> <ul style="list-style-type: none"> <li>Member of the Board</li> </ul> <p>Other Syngenta Group responsibilities:</p> <ul style="list-style-type: none"> <li>Member of the Board of Syngenta Group Co. Ltd.</li> <li>Member of the Sustainability Committee of Syngenta Group Co. Ltd.</li> <li>CEO</li> <li>Member of the GLT</li> </ul>	Syngenta Group (Executive Director); Bunge (Non-Executive Director); Eli Lilly (Non-Executive Director); Swiss-American Chamber of Commerce (Non-Executive Director); UN World Food Programme Farm to Market initiative (Chairman); Syngenta Foundation for Sustainable Agriculture (Chairman); CropLife International (Chairman)
<p><b>Carl M. Casale</b></p> <p>Non-Executive independent director</p> <p>Male American Born 1961</p>	Since 2018	<p>Syngenta AG responsibilities:</p> <ul style="list-style-type: none"> <li>Member of the Board</li> </ul> <p>Other Syngenta Group responsibilities:</p> <ul style="list-style-type: none"> <li>Advisor to the Board of Syngenta Group Co. Ltd.</li> <li>Non-voting member of the Compensation Committee of Syngenta Group Co. Ltd.</li> </ul>	Ospraie Management, LLC (Senior Agricultural Partner); Casale AG, LLC (Co-Owner)
<p><b>Sophie Kornowski</b></p> <p>Non-Executive independent director</p>	Since 2018	<p>Syngenta AG responsibilities:</p> <ul style="list-style-type: none"> <li>Member of the Board</li> </ul> <p>Other Syngenta Group responsibilities:</p> <ul style="list-style-type: none"> <li>Advisor to the Board of Syngenta Group Co. Ltd.</li> </ul>	Gurnet Point Capital (Senior Partner); Mème Cosmetics (Founder and Non-Executive Director); Teal Bio (Non-Executive Director); Alladapt Therapeutics (Non-Executive Director); Corium Pharmaceuticals (Non-Executive



<p>Female French Born 1963</p>		<ul style="list-style-type: none"> <li>• Non-voting member of the Compensation Committee of Syngenta Group Co. Ltd.</li> <li>• Non-voting member of the Sustainability Committee of Syngenta Group Co. Ltd.</li> </ul>	<p>Director); Naveris (Non-Executive Director); Innocoll pharmaceuticals (Non-Executive Director); Crossover health; Before Brands (Non-Executive Director)</p>
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The biographies of the members of the Board of Directors of Syngenta AG can be found on the Syngenta Group’s [website](#).

The appointment of the members of the Board of Directors of Syngenta AG is driven by Syngenta Group Co. Ltd. Aspects such as diversity and professional experience are considered in the appointment process. There is no fixed term of office for members of the Board of Directors of the group companies, but their composition is reviewed regularly.

The Board of Directors of Syngenta AG meets as often as the business of the company requires. Meetings are called by the Chairperson or, in her/his absence, by another member of the Board of Directors. Each member is entitled to request from the Chairperson the convening of an extraordinary meeting (indicating its purpose) without delay. Meetings may either be held in person or by telephone or video conference.

#### 4.2.2 Executive Team of Syngenta AG

The Group Leadership Team (GLT), the Executive Team of Syngenta Group Co. Ltd., has taken over the operational management of the entire Syngenta Group. Syngenta AG itself no longer has an independent Executive Team.

<p><b>Group Leadership Team of Syngenta Group Co. Ltd. as of December 31, 2022</b></p>
<ul style="list-style-type: none"> <li>• J. Erik Fyrwald, Chief Executive Officer</li> <li>• Ignacio Dominguez, President and Chief Executive Office ADAMA</li> <li>• Steve Landsman, General Counsel</li> <li>• Chen Lichtenstein, Chief Financial Officer</li> <li>• Hongsheng Liu, President of Syngenta Group China</li> <li>• Hengde Qin, Deputy General Manager, Syngenta Group<sup>1</sup></li> <li>• Laure Roberts, Chief Human Resources Officer<sup>1</sup></li> <li>• Jeff Rowe, President Global Crop Protection</li> <li>• Justin Wolfe, President Global Seeds</li> </ul>

<sup>1</sup> Effective January 1, 2023, Hengde Qin became Chief Human Resources Officer on top of his current responsibilities as Deputy General Manager, Syngenta Group. Laure Roberts retired after a 12-year tenure at the company ([Press release: Syngenta Group announces leadership changes](#), October 27, 2022)

### 4.3 Sustainability governance

The sustainability governance is led by the Syngenta Group Co. Ltd. Board of Directors, which provides strategic direction regarding all sustainability matters and exercises oversight over the GLT of Syngenta Group Co. Ltd. in this respect.

The Syngenta Group Co. Ltd. Board of Directors delegates some of its powers and duties regarding sustainability matters to one of its board committees: the Sustainability Committee. The Sustainability Committee consists of at least three directors of the Syngenta Group Co. Ltd. Board of Directors.<sup>1</sup>

#### Sustainability Committee of Syngenta Group Co. Ltd. Board of Directors as of December 31, 2022

- Louise O. Fresco, Chair of the Sustainability Committee
- J. Erik Fyrwald, Chief Executive Officer
- Yang Lin (Andy), Chief Accounting Officer
- Sophie Kornowski, Member of the Board of Directors of Syngenta AG (Advisor to the Syngenta Group Co. Ltd. Board of Directors and non-voting member of the Sustainability Committee)

The Chief Sustainability Officer (CSO) is a permanent company representative on the committee, however, without voting rights. The Sustainability Committee holds at least two regular meetings per year, complemented by some interim meetings.

As outlined in its charter, the Sustainability Committee is mainly responsible for sustainability matters in innovation and operations. It reviews the company's sustainable practices and oversees the company's sustainability framework and standards, including public ESG reporting, the sustainability plan, and strategic sustainability partnerships. The committee also advises on the company's stakeholder engagement processes to better understand trade-offs and dilemmas linked to new technologies and the company's actions in addressing them. Further, the committee reviews the Syngenta Group ESG Report together with the external assurance opinion and submits it to the Syngenta Group Co. Ltd. Board of Directors for approval. If requested, the committee also reviews the ESG Reports of the Syngenta Group Co. Ltd. subsidiaries, which is the case of this Syngenta AG group ESG Report. This report is then approved by the Board of Directors of Syngenta AG. (See [Focus on quality](#))

The GLT oversees business sustainability-related standards, strategy, objectives, and partnerships. It reviews and advises on the effectiveness of implementation of internal policies. Each member is responsible for embedding sustainability in her/his area of responsibility.

The CSO, reporting to the CEO of Syngenta Group, leads the Syngenta Group Sustainability function and oversees sustainability activities in Syngenta Group, including Syngenta Crop Protection and Syngenta Seeds. The CSO meets frequently with the CEO and provides regular updates on sustainability matters to the GLT and the Sustainability Committee of the Syngenta Group Co. Ltd. Board of Directors.

The Group Sustainability function coordinates and channels sustainability initiatives, performance management and policy engagements, and monitors sustainability performance. To enable the

<sup>1</sup> The Syngenta Group Co. Ltd. Board of Directors carries out periodic assessments of the independence and the performance of duties of committee members and may suggest to the Syngenta Group Co. Ltd. Board of Directors to replace unsuitable committee members if necessary. The company organizes trainings for committee members (if needed) to gain professional knowledge of laws and standards required for performing their responsibilities.

development of Group strategy, implementation and coordination, the CSO leads a Sustainability Leadership Committee.

The Sustainability Leadership Committee leads the design and supports adoption of Group-wide sustainability strategy and targets by business units and functional strategies. It also monitors progress, steers internal and external communication, and oversees the function’s talent development plans. Members of the Sustainability Leadership Committee are the heads of sustainability of the four Syngenta Group’s business units, the heads of business sustainability in the regions, and selected functional leaders.

<p><b>Related information in this report:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Ethics and integrity</a></li> </ul>	<p><b>Further information:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Syngenta Group Governance</a></li> </ul>
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## 5 Engagement and collaboration

### 5.1 Engaging with stakeholders

We engage with stakeholders to understand their concerns and expectations, bring our knowledge to relevant discussions and provide our perspective on issues that are important for our business.

#### Interacting with a broad range of stakeholders

As outlined in our business model (See [Our business model](#)), our stakeholders include a wide range of players, and we interact with them in different ways. For example:

- **Growers:** We use satisfaction surveys, and our teams work directly with farmers to ensure they reap the full benefits of our products and use them correctly
- **Industry:** We engage with peers through industry associations
- **Capital markets:** We communicate and hold regular meetings with investors, bondholders and rating agencies
- **Non-governmental organizations (NGOs):** We partner with NGOs at local, regional and global levels on specific issues (See [Partnering for impact](#))
- **Employees:** We communicate regularly with employees and use local workshops and surveys to gauge their views (See [Employment and engagement](#))
- **Governments:** We respond to consultations, put forward our position on relevant issues and engage in dialogue on policies and regulation (See [Responsible lobbying](#))
- **Communities:** We support and partner with communities where we operate (See [Community engagement](#))

To ensure stakeholders have easy access to information about our activities, we also answer their frequently asked questions on our [FAQ](#) website.

#### Gathering stakeholder input

We conduct stakeholder research to understand consumers' perception of topics associated with agriculture and our industry. We also perform regular materiality assessments to evaluate stakeholder concerns and expectations. (See [Materiality analysis](#)). Key examples are outlined below.

The first Good Growth Plan, launched in 2013, was based on a global research study involving more than 7,500 people in 13 countries to assess their perceptions on food security and agricultural challenges. Results showed that producing more food for a growing population in an environmentally sustainable way was one of the most important global challenges. However, there were conflicting opinions about how best to address this challenge and about the impact of increased production on the environment and on the people who grow the food and work on the farms.

In 2018, we undertook three months of [consultation](#), completing more than 150 listening sessions with stakeholders from around the world to build a shared vision for the future of sustainable agriculture. As a result, we committed to [accelerate our innovation](#) to address the increasing challenges faced by farmers and society's changing views on agriculture technology.

In early 2020, preparing for our new Good Growth Plan, we conducted a global [survey](#) of about 600 large-scale farmers in the US, 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. Based on these findings, we have placed the fight against climate change and biodiversity loss at the core of our new Good Growth Plan, including bold new commitments to reduce agriculture’s carbon footprint.

Studies to understand the needs of and concerns from our stakeholders are regularly conducted at all levels of the organization. More recently in 2022, we conducted a sustainability reputation insights study to identify geopolitical trends and emerging topics in sustainability and beyond. We also conducted sustainability foresight studies for specific crops and regions to identify how different market players perceive sustainability challenges. For instance, we did such studies for corn and soybean in Brazil in 2021 and for rice in Asia Pacific in 2022. The results of these studies help us to shape our product portfolio development to meet the future sustainability needs of customers and markets.

Further, we regularly engage with growers to hear about their expertise and concerns. For example, in 2022, Syngenta’s representatives met for the first time with the largest agricultural producers from Argentina, Australia, Brazil, Canada, and Ukraine in Vevey (Switzerland). The objective was to learn from each other, seek growers’ advice and experience on how we can continue to best service them and understand how to support the industry with the best technology as it moves toward regenerative agriculture.

**Membership associations and organizations**

Syngenta engages with different industry associations, membership associations and advocacy organizations, which are relevant to our business activities. The table below lists some key examples of our engagement in such associations and organizations, where Syngenta holds a position in the governance body, participates in projects or committees, or provides funding beyond routine membership duties.

<ul style="list-style-type: none"> <li>• <a href="#">Business at OECD</a></li> <li>• <a href="#">Cool Farm Alliance</a></li> <li>• <a href="#">CropLife International</a></li> <li>• <a href="#">Economiesuisse</a></li> <li>• <a href="#">Global Alliance for Climate-Smart Agriculture</a></li> <li>• <a href="#">Global Business Initiative on Human Rights</a></li> <li>• <a href="#">GlobalG.A.P.</a></li> <li>• <a href="#">IDH - Sustainability Initiative Fruit and Vegetables</a></li> <li>• <a href="#">Inter-American Institute for Cooperation on Agriculture</a></li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">International Seed Federation</a></li> <li>• <a href="#">Life Sciences Cluster Basel</a></li> <li>• <a href="#">Science Based Targets Network</a></li> <li>• <a href="#">Scienceindustries</a></li> <li>• <a href="#">Sustainable Agriculture Initiative (SAI) Platform</a></li> <li>• <a href="#">Sustainable Food Lab</a></li> <li>• <a href="#">Swiss Malaria Group</a></li> <li>• <a href="#">Swiss Society for Phytiatry</a></li> <li>• <a href="#">SwissHoldings</a></li> <li>• <a href="#">Swiss-Seed</a></li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">The Consumer Goods Forum</a></li> <li>• <a href="#">The Food Collective</a></li> <li>• <a href="#">The Sustainability Consortium</a></li> <li>• <a href="#">Together for Sustainability</a></li> <li>• <a href="#">World Business Council for Sustainable Development (WBCSD)</a></li> <li>• <a href="#">World Economic Forum</a></li> </ul>
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Syngenta also engages with local organizations and national industry associations.

We partner and work closely with NGOs and other civil society organizations, such as [Solidaridad](#) and [The Nature Conservancy](#) (See [Partnering for impact](#)). In addition, Syngenta supports a wide range of external



initiatives, including the [Agriculture Innovation Mission for Climate](#), [Coalition of Action 4 Soil Health](#), [United Nations Global Compact](#), [Task force on Climate-related Financial Disclosures](#), [World Economic Forum's Alliance of CEO Climate Leaders](#), and many others. More details on these initiatives can be found throughout the report.

## 5.2 Partnering for impact

Our [Good Growth Plan](#) exemplifies our engagement with stakeholders. Our belief that no single business or organization can do enough by itself is encapsulated in our [partnering for impact](#) goal. To advance sustainability in agriculture, we join forces and collaborate with a wide range of academic institutions, non-governmental and network organizations, food value chain stakeholders, agricultural businesses and farmers around the world. Our partners value us for our open and collaborative culture.

In 2022, we kept strengthening our partnership with [Solidaridad](#) to develop and implement sustainable solutions for smallholders. We commissioned Solidaridad to assess Syngenta Seeds' Fair Labor Program to identify improvement opportunities. In Guatemala and Honduras, we are working to address gaps in labor standards. In China, we are helping vegetable seed farmers to improve their livelihood by supporting the adoption of sustainable, climate-resilient practices.

This year, we also continued our strategic collaboration with [The Nature Conservancy](#) (TNC). Following a pilot, we expanded our joint Reverte program in Brazil's Cerrado to include new partners such as financial service providers. Reverte aims to convert 1 million hectares of degraded pastureland into productive cropland while maintaining and restoring native vegetation in rural properties. In South Africa, TNC is advising Syngenta's Sustainable Agriculture South Africa regenerative agriculture project. With climate change on the rise, we aim to bring better yield stability and higher seed quality to local brassica seed producers by assessing conservation agriculture practices. In 2022, we continued to collect soil and yield data and further improved the program.

Syngenta and the [Syngenta Foundation for Sustainable Agriculture](#) (SFSA) have partnered over the years in many ways. In 2022, this again included thought leadership. Together, we participated in debates on farming and climate change at COP27 and on agricultural development at the Africa Green Revolution Forum. Building on our joint 2021 pilot volunteering program, SFSA again provided Syngenta employees with the opportunity to participate in skills-based *pro bono* work to support work in developing countries. (See [Community engagement](#))

We keep engaging with food value chain companies and other organizations to contribute to food supply security. Under our partnership with Kellogg's, we supported [InGrained™](#), a program to reduce methane emissions from rice production in North America. Syngenta is working with Kennedy Rice Mill, one of Kellogg's key rice suppliers, on a 1,000 hectare pilot to reduce carbon emissions. Activities include farmer outreach on climate-smart rice production practices such as irrigation management, nutrient management and soil health practices, as well as data collection to document and quantify outcomes.

Syngenta is also increasingly supporting food value chain companies in their quest for healthy food sourced from a nature-positive and regenerative farming system. In Costa Rica for instance, we are partnering with Walmart to help tomato farmers implement [Operation Pollinator](#) and [LIVINGRO™](#) principles to increase their yields and protect the environment. In 2022, Syngenta also started implementing agronomic methods from its science-driven soil health and biodiversity initiative LIVINGRO™ for Fresh Del Monte on melon fields in Costa Rica.

In 2022, Syngenta’s LIVINGRO™ brought together academic and research organizations to generate, capture and assess data on more than 50 different parameters to develop protocols that support regenerative farming practices. Multi-year pilots are underway in seven countries, where independent local centers of expertise are collecting samples in the field and assessing the data gathered. Results will be published in peer-reviewed scientific journals and shared with researchers and academics.

Similarly, Syngenta Group partnered with the Danish agricultural research institute [SEGES Innovation](#), Danish universities and farmer associations in our joint [GRObund](#) project. The five-year project will investigate the performance of three farming systems under varying soil and climate conditions. Further, it will examine how the different systems impact soil health, greenhouse gas emissions, root development, and biodiversity.

Syngenta, alongside several universities, is part of the EU Horizon 2020 project called [CHRONIC](#) (CHronic exposure scenarios driving enviRONmental risks of Chemicals). The project aims to train future research leaders in understanding long-term, low-dose chemical exposure and its interactions with other environmental stressors.

We often partner with others in our industry to bring innovation to growers, empowering them to increase crop yield while reducing agriculture’s environmental footprint. In 2022, we entered a long-term commercial partnership with [Argentina’s Bioceres Crop Solutions](#), including joint R&D for biological seed treatment solutions. Bioceres – a key provider of biological inoculants, which improve crop nutrition and support plant growth – provides solutions that help crops such as soybean capture nitrogen from the atmosphere and significantly reduce the need for nitrogen fertilizers, supporting regenerative agriculture.

Our leaders also work closely with organizations committed to promoting sustainability and engage in various initiatives across the globe. For example, our Chief Sustainability Officer is a champion for the World Business Council for Sustainable Development’s Regen10 project, which seeks to scale regenerative agriculture practices across 500 million farmers by 2030. Our Chief Executive Officer is actively engaged in the World Economic Forum’s Alliance of CEO Climate Leaders, which shares best climate practices across industries.

In 2022, the war in Ukraine exacerbated food insecurity and affordability, hitting the poorest and hungriest nations the hardest. We supported farmers in Ukraine and maintained our business operations in Russia to help farmers produce food. During the Ukraine Recovery Conference in Lugano (Switzerland) in July 2022, the Ministry of Agrarian Policy and Food of Ukraine, as well as Syngenta and ADAMA Ukraine signed a [Memorandum of Understanding on cooperation in agriculture](#) for USD 400 million. As part of this cooperation, Syngenta and ADAMA Ukraine will support innovation, research and educational projects with relevant institutions, placing a focus on soil health, carbon footprint monitoring, biodiversity conservation and enhancement, and other areas related to agricultural innovations and sustainability.

<p><b>Related information in this report:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Responsible lobbying</a></li> <li>• <a href="#">Community engagement</a></li> <li>• <a href="#">Materiality analysis</a></li> <li>• <a href="#">Governance</a></li> </ul>	<p><b>Further information:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Stakeholder engagement</a></li> <li>• <a href="#">Materiality assessment</a></li> <li>• <a href="#">FAQ: Engagement activities</a></li> <li>• <a href="#">Collaborating for sustainable agriculture</a></li> <li>• <a href="#">The Good Growth Plan: Partnering for impact</a></li> </ul>
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## 6 Non-financial reporting practice

Corporate non-financial information enhances the understanding of a company's activities, challenges and opportunities. At Syngenta, non-financial information refers to quantitative and qualitative information on strategies, policies or activities pursued toward our business, environmental and social goals.

Every year, we publish an ESG Report outlining our non-financial performance. Our most recent reports can be found in the [Reporting on sustainability](#) section of our website.

This report is complemented by material information available on our website, news center and media channels. We also disclose our ESG activities and progress through initiatives such as the [CDP](#) and the World Benchmarking Alliance's [Access to Seeds Index](#) and [Food and Agriculture Benchmark](#), and by engaging directly with ESG rating agencies, investors and other stakeholders.

This year, for the first time, we publish a document entitled [Basis of Preparation: ESG Report 2022](#) to provide more detailed information on definitions, scope and reporting processes relating to the performance indicators outlined in the [Disclosures](#) section of this report.

### 6.1 Focus on quality

External stakeholders and internal managers use non-financial information to measure performance and make decisions about the business – and they should have complete confidence in it.

#### Internal control environment over non-financial reporting

To this end, Syngenta has established internal controls for reporting non-financial information in our ESG Report. The Board of Directors and management are responsible for establishing and maintaining adequate internal controls over non-financial reporting. Syngenta's internal controls are designed to provide assurance to our Board of Directors and management on the reliability of non-financial reporting and the fair presentation of the information published in the ESG Report's Non-financial performance summary. The Syngenta AG group ESG Report, including the [Non-financial performance summary](#), is reviewed by the Sustainability Committee of the Syngenta Group Co. Ltd. Board of Directors and approved by the Board of Directors of Syngenta AG before publication. (See [Sustainability governance](#))

All internal controls, no matter how well designed, have inherent limitations and therefore may not prevent or detect misstatements. In designing internal controls for non-financial reporting, we used the criteria established in COSO's Internal Control – Integrated Framework (2013). We implemented an internal control environment supported by sound reporting processes and systems, clearly defined accountabilities, and detailed documented procedures. We also developed a Sustainability Reporting Guideline to direct our non-financial reporting activities and trained the individuals involved in reporting.

#### External assurance

Mandated by the Board of Directors of Syngenta AG and management, Syngenta seeks external assurance for the selected non-financial information published in our Syngenta AG group ESG Report every year. External assurance provides external and internal stakeholders with the additional confidence that the data disclosed by Syngenta is reliable, accurate and relevant.

This year, PricewaterhouseCoopers AG (PwC), Switzerland, an independent assurance provider, issued a limited assurance opinion on Syngenta's Non-financial performance summary provided on page [106](#). PwC's independent assurance report is included on page [117](#).

### Reporting period

Data presented in this report relates to the period October 1 to September 30 unless otherwise specified. This reporting period is different from the one in Syngenta AG's [Financial Report 2022](#), which relates to the period January 1 to December 31.

This is due to the time needed for collection, consolidation and review of certain ESG data. We constantly work to improve reporting processes and aim to align the period of all our non-financial reporting to January 1 to December 31 in the coming years. KPIs related to Corporate conduct and Economic value shared are already reported on a calendar year basis.

## 6.2 Materiality analysis

Our materiality analysis guides our strategy and helps us identify where we can create the most value and where we should focus our efforts, allocate resources, and direct our external reporting and communication.

The last analysis was updated in early 2021. We are currently performing a double materiality assessment for the Syngenta Group, whose results will be disclosed in due course.

The following three criteria are used for the analysis:

- **Importance to Syngenta:** Matters that present the greatest risks and opportunities for Syngenta's ability to create long-term value and achieve our ambition
- **Importance to stakeholders:** Concerns and expectations frequently raised by stakeholders about our company, our industry, agriculture, and food systems
- **Relevance to sustainable development:** Level of significant impact on global sustainable growth based on the following publications:
  - World Economic Forum, [The Global Risks Report 2021](#), 16th Edition, p. 12
  - Earth Security Group, [The Earth Security Report 2017](#), p. 6
  - The Lancet Commissions, [Food in the Anthropocene: the EAT-Lancet Commission on healthy diets from sustainable food systems](#), 2019, p. 6, p. 27 and p. 33-39



A detailed description of our materiality assessment can be found at: [www.materiality.syngenta.com](http://www.materiality.syngenta.com)

Our analysis has identified 17 topics important to Syngenta and our stakeholders, and relevant to sustainable development. We divide these topics into:

- Material topics:** Six topics have been classified as “high” in all three categories (column on the far right). For these topics, Syngenta has set goals in our [Good Growth Plan](#), and we actively measure and evaluate our performance. These are also our material topics according to the requirements outlined in the [GRI Standards](#).
- Monitored topics:** The remaining 11 topics are important to maintain the trust and confidence of our stakeholders, and for us to be a responsible business.

Each of these topics is described in detail in the [Disclosures](#) and other sections of this report as outlined below.

Topic		Disclosure or report section
<b>Material</b>  <b>Good Growth Plan &amp; GRI</b>	Biodiversity	<a href="#">7.1.5 Biodiversity</a>
	Climate change mitigation and adaptation	<a href="#">7.1.3 Carbon capture and mitigation in agriculture</a> <a href="#">7.2.1 GHG emissions</a>
	Health, safety and fair labor	<a href="#">7.2.6 Working with suppliers</a> <a href="#">7.3.4 Health and safety</a>
	Innovation in agriculture	<a href="#">7.1.1 Innovation in agriculture</a> <a href="#">7.1.2 Lowest residues in crops and the environment</a>
	Product responsibility	<a href="#">7.1.6 Safe use of products</a>
	Soil health	<a href="#">7.1.4 Soil health</a>
<b>Monitored</b>	Access to technology	<a href="#">7.1.7 Access to technology</a>
	Air pollution	<a href="#">7.2.3 Other air emissions</a>
	Business integrity	<a href="#">7.4.1 Corporate conduct</a> <a href="#">7.4.2 Security management</a> <a href="#">7.4.3 Animal welfare</a> <a href="#">7.4.4 Biotechnology and regulatory compliance</a> <a href="#">7.4.5 Economic value shared</a> <a href="#">7.4.6 Community engagement</a> <a href="#">7.4.7 Responsible lobbying</a> <a href="#">7.4.8 Enterprise risk management</a> <a href="#">7.4.9 Tax governance</a>
	Dialogue, transparency and partnerships	<a href="#">5 Engagement and collaboration</a> <a href="#">6 Non-financial reporting practice</a>
	Employee engagement	<a href="#">7.3.1 Employment and engagement</a> <a href="#">7.3.2 Diversity and inclusion</a>
	Human rights	<a href="#">7.3.5 Human rights</a>
	Land use changes and deforestation	<a href="#">7.1.8 Responsible agricultural land use</a>
	Nutritious food	<a href="#">7.1.10 Nutritious food and feed</a>
	Resource efficiency	<a href="#">7.2.2 Energy</a> <a href="#">7.2.5 Waste</a>
	Rural development and poverty alleviation	<a href="#">7.4.5 Economic value shared</a> <a href="#">7.4.7 Community engagement</a>
	Water conservation	<a href="#">7.1.9 Water conservation</a> <a href="#">7.2.4 Water and wastewater</a>

**Subsequent events**

No events occurred between December 31, 2022 and the date on which this ESG Report was approved by the Board of Directors of Syngenta AG that would require adjustments to our Non-financial performance summary or other disclosures in this ESG Report.

## 6.3 Transparency and open data

Since we launched the first Good Growth Plan in 2013, Syngenta has publicly shared Good Growth Plan Open Data – we have been doing so annually for the past nine years. With our new Good Growth Plan launched in 2020, we are continuing with this practice and adding data sets. We currently publish open data for the following disclosures: soil health, biodiversity, carbon benefit potential on farmland, and safe use of products. Open data and definitions can be found at: [www.data.syngenta.com](http://www.data.syngenta.com)

We are also a corporate member of the [Open Data Institute](#) (ODI), applying best practices, standards and ODI certificates to make our open data findable, accessible, interoperable and reusable by all. We do this to be transparent, accountable, and to engage with our stakeholders to make agriculture more sustainable.

Micro-level farm data from our first Good Growth Plan covering the reporting year 2014 to 2019 has been shared with the [Food and Agriculture Organization](#) (FAO) to support the monitoring of development trends such as the SDGs and is available in the [Food and Agriculture Microdata Catalogue](#). Ever since, we continued sharing farm data with the FAO. Our current focus is on the Africa Middle East region, where we are engaging with seven countries to collect data on 11 key crops – each grown in 100 farms. We plan to scale up data collection to reach 400 farms in 2023 to be able to create statistically relevant national datasets.



## 6.4 ESG ratings and rankings

ESG rating agencies, NGOs or other organizations publish a variety of ratings and rankings evaluating Syngenta’s ESG performance. These are based on direct engagement with these groups, questionnaires or these organizations’ own research based on publicly available information.

Below is a summary of our most recent performance in public ratings and rankings.

Rating or ranking	Current <sup>1</sup>	Current context	Previous <sup>1</sup>
<a href="#">Sustainalytics</a> ESG risk rating	▶ Medium (28.4)	153 out of 533 companies in the chemical industry	Medium (27.2)
<a href="#">CDP</a> Climate change Water security	▶ A- ▶ A-	vs. B- in chemical industry vs. B in chemical industry	A- A-
<a href="#">Access to Seeds Index</a> Global Western and Central Africa Eastern and Southern Africa South and South-East Asia	n/a <sup>2</sup> ▼ 8 ▼ 5 ▼ 8	n/a out of 32 companies out of 32 companies out of 31 companies	2 4 5 3
<a href="#">Food and Agriculture Benchmark</a> Overall Agricultural input companies	- 28 - 5	out of 350 companies out of 54 companies	n/a n/a

<sup>1</sup> ‘Current’ refers to results as per December 31, 2022, and ‘previous’ refers to previously available results, usually published in 2021 except for the Access to Seeds Index (which is released every two years and refers to 2021 for the ‘current’ period and to 2019 for the ‘previous’ period) and the Food and Agriculture Benchmark (which was launched in 2021 and refers to 2021 for the ‘current’ period)

<sup>2</sup> Not conducted

<p><b>Related information in this report:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Non-financial performance summary</a></li> <li>• <a href="#">Independent assurance report</a></li> <li>• <a href="#">Disclosures</a></li> </ul>	<p><b>Further information:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Reporting on sustainability</a></li> <li>• <a href="#">Materiality assessment</a></li> <li>• <a href="#">Transparency</a></li> <li>• <a href="#">The Good Growth Plan Open Data</a></li> </ul>
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## 7 Disclosures

The following disclosures provide information about topics identified in our materiality analysis. For each disclosure, we describe why the topic is important, how we manage it, how we track performance and the progress we made in 2022. We also explain how disclosures align with our materiality matrix (under the "Materiality matrix classification" heading), selected frameworks (GRI, SASB, UNGC and SDGs) and our [Good Growth Plan](#), and we indicate the performance indicators that have undergone external assurance.

The disclosures are organized in four focus areas aligned with Syngenta's internal functions and practices:

- **Sustainable agriculture:** Help shape the future sustainability of agriculture and deliver solutions that make farmers more resilient to climate change and help rural communities prosper
- **Sustainable operations:** Manage our environmental footprint and maintain the highest standards in our operations
- **People:** Attract and retain talent while creating a safe environment that stimulates innovation and personal performance and development
- **Business integrity:** Maintain the highest standards across our entire business and go beyond regulatory compliance, while benefiting the communities and economies wherever we operate

As outlined in [About this report](#), the data provided in this section is for Syngenta AG group – referred to as 'Syngenta' in this report. The non-financial reporting period is from October 1 to September 30, unless otherwise specified.

In 2022, we introduced new key performance indicators (KPIs) and disclosures in our Sustainable operations, People, and Business integrity focus areas. Our aim is to provide increased transparency on our performance and further align to new reporting requirements. Relevant information about new KPIs, changes in KPI definitions, reporting periods and data collection processes or restatements is included in the footnotes.

We are also in the midst of a digital transformation of our Health, Safety and Environment (HSE) processes and systems. In 2022, we launched a new Syngenta Environmental Reporting and Management (SERAM) reporting tool, which has allowed us to collect more granular environmental performance data from our sites. We completed the transition of the incident management and learning reporting system for health and safety data in the Europe, Africa and Middle East region, and plan to finalize the transition process in other regions by 2024.

A summary of the basis of preparation for the reported KPIs can be found in the respective disclosures. A more detailed description can be found in the document entitled [Basis of Preparation: ESG Report 2022](#).

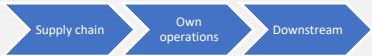
Due to rounding, numbers presented in this report may not add up precisely to the totals provided and percentages may not precisely reflect the absolute figures.

PricewaterhouseCoopers AG (PwC), Switzerland, an independent assurance provider, issued a limited assurance opinion on Syngenta's Non-financial performance summary provided on page [106](#). The Non-financial performance summary brings together the performance data presented in the following pages. PwC's independent assurance report is included on page [117](#).

## 7.1 Sustainable agriculture

### 7.1.1 Innovation in agriculture

<p><b>Topic description</b>  Farmers large and small face increasing problems caused by climate change, soil erosion and biodiversity loss. They must also manage changing consumer expectations and views on agricultural technology as well as increasing restrictions on tools and techniques. There is a clear need for innovation to address these challenges in ways that benefit growers, consumers, and the environment.</p> <p>Agricultural innovation enables growers to use resources, such as water, soil and agricultural inputs, more efficiently and reach higher crop productivity and output quality, while reducing the impact of agriculture on natural ecosystems and improving food availability. Innovations such as digital technologies also improve efficiencies along the food value chain reducing food loss and waste.</p> <p>Syngenta is well positioned to bring growers the agricultural innovations they need to tackle their many challenges, bringing great business opportunities for the company. However, the introduction of new technologies could also bring uncertainties, including the risk of certain stakeholder groups rejecting them.</p>	<p>Materiality matrix classification:  → Material (Innovation in agriculture)</p> <p>Frameworks:  → GRI: ✓ (own disclosure)  → SASB: RT-CH-410a.1  → UNGC: 7, 8, 9  → SDG: 2, 12</p>
<p><b>Management approach</b>  As part of the <a href="#">Good Growth Plan</a>, we have committed to <a href="#">accelerating our innovation</a> for farmers and nature. We aim to further improve the way crops are grown and protected, and to work with partners to find solutions that address interconnected environmental, societal, and economic challenges.</p> <p>We are investing to deliver benefits to farmers, society and nature today and in the future. We use our <a href="#">Sustainability Investment Criteria</a>, a five-step assessment process, to decide on our investments. Only investments that provide breakthrough technologies or have clear benefits enabling a step change in sustainability (e.g., increased quality and nutritional value of crops, improved water-use efficiency, carbon sequestration or reduction of our company’s carbon footprint) count toward our target.</p> <p>Our Sustainability Functional Guidance Document helps systematically embed sustainability in our core Crop Protection research and development (R&amp;D) processes. The document describes the key functional activities that must be undertaken by all parts of the organization involved in new active ingredient R&amp;D programs. Our Sustainable Agriculture Excellence Academy, in collaboration with educational institutions such as Wageningen University &amp; Research, helps us enhance the capabilities of our people and better integrate sustainability practices into product development, marketing, regulatory and other functions.</p> <p>To accelerate the way we innovate, we worked with <a href="#">The Nature Conservancy</a> (TNC) bringing together Syngenta’s R&amp;D capabilities and</p>	<p>GGP targets: ✓  → Invest USD 2 billion in sustainable agriculture breakthroughs  → Deliver 2 sustainable technology breakthroughs each year</p> <p>Policies:  → <a href="#">Principles for Sustainable and Responsible Agriculture</a></p>

<p>TNC’s environmental science and conservation expertise to scale up sustainable agricultural practices. Through our partnership with <a href="#">Solidaridad</a>, we are working to develop and implement sustainable technologies and business models for smallholders.</p> <p>We continuously engage with and seek input from diverse external stakeholders to address sustainability trade-offs and dilemmas linked to new technologies. Through this engagement, we want to strengthen our company’s value proposition, increase our alignment with new societal and market needs, and build stronger collaboration with partners along the value chain. (See <a href="#">Partnering for impact</a>)</p>			
<p><b>Key performance indicators</b> We measure progress toward our commitments through the following KPIs:</p> <ul style="list-style-type: none"> <li>• <b>Investment in sustainable agriculture breakthroughs:</b> Amount of investment, which directs resources to breakthrough outcomes as defined in our <a href="#">Sustainability Investment Criteria</a>. The total reported is the cumulative investment in five categories: Crop Protection R&amp;D, Seeds R&amp;D, operations, in-country projects (i.e., soil health, biodiversity and residues projects), and ‘other’ investments (e.g., mergers and acquisitions, digital initiatives).</li> <li>• <b>Sustainable technology breakthroughs:</b> Number of breakthroughs or clear differentiation brought to market enabling a step change in sustainability.</li> </ul> <p>KPIs measuring progress toward our Good Growth Plan targets are labeled as <b>GGP</b>.</p>	<p>Reporting boundaries:</p>  <p>External assurance: ✓ ➔ <a href="#">Independent assurance report</a></p> <p><a href="#">Basis of Preparation</a></p>		
<p>Reporting period October 1 – September 30 (unless stated otherwise)</p>	<b>2022</b>	2021	2020
<b>Sustainable innovation</b>			
<p>Investment in sustainable agriculture breakthroughs (\$m)<sup>1</sup> <b>GGP</b></p>	<b>289</b>	546	490
<p>Sustainable technology breakthroughs <b>GGP</b></p>	<b>3</b>	2	3
<p><sup>1</sup> Investments in CP R&amp;D, Seeds R&amp;D and ‘other’ activities (e.g., M&amp;A) included in this figure are for the period January to December. Investments in operations and in-country projects are for the period October to September</p>			
<p><b>Performance in 2022</b> In 2022, we invested USD 289 million in sustainable agriculture breakthroughs. This was mainly driven by investments in Crop Protection and Seeds R&amp;D. The perceived decrease compared to previous years was due to 2021 and 2020 investments in the strategic acquisition of Valagro, a leading biological company. The cumulative investment since 2020 reached USD 1,325 million, which accounts for 66% of the USD 2 billion we aim to invest in sustainable agriculture breakthroughs by 2025.</p> <p>We also report three sustainable technology breakthroughs brought to market this year. First, Syngenta launched <a href="#">TYMIRIUM® technology</a>, an easy-to-use solution for seed treatment and soil applications, that provides powerful activity against plant-parasitic nematodes and soil-borne diseases. These challenges significantly impact yield and food quality globally. Nematodes alone can lead to yield losses of up to 12% globally per year – equating to an estimated loss of USD 150 billion a year. Safeguarding roots and translocating to above-ground parts of the plant, TYMIRIUM® technology protects against threats below the surface and early-season diseases. Highly-targeted, TYMIRIUM® technology boosts productivity while helping preserve soil biodiversity. By protecting the root biomass and preserving a vibrant range of life forms in the soil, farmers will improve crop nutrient use efficiency and crop resilience to stress conditions, as well as enhance agroecosystem conservation.</p>			

Our second breakthrough this year is the [CROPWISE™ Sustainability](#) app, which provides a simple way for growers to capture data and deliver continuous improvements from regenerative agriculture practices. After completing a self-assessment through the app, growers receive a sustainability leadership score and actionable insights on how to improve the sustainability of their farm operations. The self-assessment is conducted against Syngenta’s Sustainable Outcomes in Agriculture (SOA) standard, which has achieved gold level equivalence with the [Farm Sustainability Assessment 3.0](#), the highest level of benchmark equivalency.

Finally, our third breakthrough, a new digital solution to detect stresses from harmful nematodes using satellite imagery, was launched in Brazil for soybean farmers. It is the world’s first commercial digital tool combining satellite imagery, artificial intelligence and agronomic expertise to help increase growers’ awareness about these devastating pests. This solution results from a multi-year collaboration between Syngenta Seedcare and Swiss-based AgTech startup Gamaya SA. Like the CROPWISE™ Sustainability app, this solution is part of the [CROPWISE™](#) platform – a leading digital farming platform that brings together the best solutions for growers to connect their agronomic data and make well-informed end-to-end decisions.

**Related information in this report:**


- [Carbon capture and mitigation in agriculture](#)
- [Lowest residues in crops and the environment](#)
- [Soil health](#)
- [Biodiversity](#)
- [Access to technology](#)

**Further information:**

- [Innovating sustainable agriculture solutions](#)
- [The Good Growth Plan: Accelerate innovation for farmers and nature](#)
- [The Nature Conservancy: Collaborating for sustainable agriculture](#)

7.1.2 Lowest residues in crops and the environment

<p><b>Topic description</b> Crop protection (CP) products play a significant role in food production. However, traces of product could remain in crops destined for food or feed and/or in the environment (e.g., water streams, soil, animals), especially if not applied correctly.</p> <p>The safe levels of residues of CP products in food suitable for consumption are set below toxicological safety limits by regulators (e.g., Maximum Residue Limits, MRL). The food value chain and international markets often have additional requirements. As a producer of CP products, we are concerned about the potential impact crop protection residues could have on natural ecosystems and human health if products are not applied properly. By advising farmers on good agriculture practices, Syngenta is helping them improve compliance with residue requirements and protect people and the environment.</p>	<p>Materiality matrix classification: ➔ Material (Innovation in agriculture)</p> <p>Frameworks: ➔ GRI: ✓ (own disclosure) ➔ SASB: - ➔ UNGC: 8 ➔ SDG: 2</p>
<p><b>Management approach</b> As part of the <a href="#">Good Growth Plan</a>, we have committed to <a href="#">accelerating our innovation</a> for farmers and nature. We aim to further improve the way crops are grown and protected.</p> <p>Our focus on safety and the environment starts at the beginning of the product lifecycle. In research and development (R&amp;D), our human safety assessments address potential risks to users and consumers,</p>	<p>GGP targets: ✓ ➔ Strive for the lowest residues in crops and the environment</p> <p>Policies: ➔ <a href="#">Principles for Sustainable and Responsible Agriculture</a></p>

<p>while our environmental safety programs seek assurance that the product will not adversely affect the soil, water, air, flora, or fauna. For a product to receive regulatory approval for registration, we must demonstrate that it is safe for workers, the environment, the crops being protected and the people or animals eating the food created from those crops.</p> <p>We work with partners to further reduce residues in crops without impacting farmer productivity, while continuing to improve soil health and prevent soil erosion. To drive progress against our commitment to innovation, we are accelerating the R&amp;D of CP products with preferable residue characteristics, offering protocols, services and tools that optimize the amount of pesticides used.</p> <p>At the farm, good management practices and the responsible use of pesticides are essential to provide high-quality food and prevent environmental contamination. Product labels inform about correct product use and practices. We promote stewardship and training activities that focus on farming practices, farm infrastructure and application equipment, and landscape management practices.</p>			
<p><b>Key performance indicators</b>                  We track progress toward our commitment to lower residues in crops and the environment by measuring the tonnes of crop produced in fields enrolled in a lowest residue CP program.</p> <p>Lowest residue CP programs are projects or commercial offers to customer farmers, who receive ongoing in-season advice, tools and support from Syngenta and its partners to meet lowest residue targets.</p> <p>KPIs measuring progress toward our Good Growth Plan targets are labeled as <b>GGP</b>.</p>	<p>Reporting boundaries:</p>  <p>External assurance: ✓                  → <a href="#">Independent assurance report</a></p> <p><a href="#">Basis of Preparation</a></p>		
<p>Reporting period October 1 – September 30 (unless stated otherwise)</p>	<b>2022</b>	2021	2020
<b>Sustainable innovation</b>			
<p>Crop produced with programs for lowest residues in crops (000s tonnes) <b>GGP</b></p>	<b>2,093</b>	1,632	1,035
<p><b>Performance in 2022</b>                  In 2022, we accounted for just over 2 million tonnes of crop produced in lowest residue CP programs, which equals the recommended daily intake of fruits and vegetables for more than 5.2 million people<sup>1</sup>. The programs covered 16 crops: apple, avocado, cabbage, cherry, grape, kiwi, lettuce, maize, melon, onion, soybean, spinach, squash, tomato, watermelon, and wheat. The volumes produced in grapes and maize were the most representative, accounting respectively for 46% and 18% of the total tonnes.</p> <p>This year’s increase in the total volume of crop produced in lowest residue programs was mainly driven by the introduction of a new project in Argentina, which accounted for about 30% of the total. This program aims to minimize crop protection residues in crops, including maize, wheat, and soybean, through calibration and certification of spraying machines and training of growers on lowest residue targets.</p> <p>In Italy, our Grape Quality Agreement (GQA), which is a comprehensive and customized CP program, continues to support Italian winemakers to operate successfully in the international wine market. An innovative element of the program is Syngenta’s eMAT application. This software maps all the international MRL regulations for the use of CP products and predicts potential residue levels at harvest, enabling wine producers to know in which countries and through which distribution channels (i.e., large-scale retailers)</p>			



they can export their wine production. Currently, there are more than 190 wineries, including 10 cooperative wineries, supported by eMAT that adhere to the GQA for a total of about 28,700 hectares of total cultivated area.


<sup>1</sup> Calculated based on 400 g/day as recommended by the World Health Organization and the Food and Agriculture Organization: <https://www.fao.org/3/cb2395en/online/src/html/fruit-and-vegetables.html>

<p><b>Related information in this report:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Innovation in agriculture</a></li> <li>• <a href="#">Safe use of products</a></li> <li>• <a href="#">Water conservation</a></li> </ul>	<p><b>Further information:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">The Good Growth Plan: Accelerate innovation for farmers and nature</a></li> <li>• <a href="#">CropLife: Codex Maximum Residues Limits</a> (external)</li> <li>• <a href="#">Syngenta Italy: eMAT</a> (in Italian)</li> </ul>
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### 7.1.3 Carbon capture and mitigation in agriculture

<p><b>Topic description</b></p> <p>Climate change is one of the biggest challenges facing today’s food systems. A changing climate affects growing seasons, water availability, pests, and crop productivity – hindering farmers’ ability to produce better and more abundant food for a growing population. This creates both risks and opportunities for Syngenta.</p> <p>On the one hand, extreme weather events, such as floods and droughts, could negatively influence the demand for certain products over the course of the season in a particular area. On the other hand, our products, services and solutions can help farmers around the world reduce greenhouse gas (GHG) emissions and adapt to climate change.</p>	<p>Materiality matrix classification:</p> <ul style="list-style-type: none"> <li>➔ Material (Climate change mitigation and adaptation)</li> </ul> <p>Frameworks:</p> <ul style="list-style-type: none"> <li>➔ GRI: ✓ (own disclosure)</li> <li>➔ SASB: -</li> <li>➔ UNGC: 8</li> <li>➔ SDG: 13</li> </ul>
<p><b>Management approach</b></p> <p>As outlined in our <a href="#">Principles for Sustainable and Responsible Agriculture</a>, we help farmers adapt and build resilience and capacity to the impacts of climate change. In our <a href="#">Good Growth Plan</a>, we also commit to strive for carbon neutral agriculture.</p> <p>We invest in the research and development of products, disseminate good agricultural practices, and provide technologies that strengthen agriculture against both the causes and the effects of climate change. Syngenta has products on the market – and in the pipeline – that improve the water productivity of plants, increase tolerance to drought and heat, help sequester carbon in the soil and increase yield and feed efficiency.</p> <p>At the farm, we encourage farmers to implement climate-smart practices such as minimum tillage, crop rotation and effective nutrient management. Combined with permanent crop cover strategies, these practices turn agricultural fields into carbon sinks, helping remove carbon dioxide from the atmosphere. We also engage with growers in discussions around climate-smart farming to identify appropriate</p>	<p>GGP targets: ✓</p> <ul style="list-style-type: none"> <li>➔ Measure and enable carbon capture and mitigation in agriculture</li> </ul> <p>Policies:</p> <ul style="list-style-type: none"> <li>➔ <a href="#">Principles for Sustainable and Responsible Agriculture</a></li> </ul>



<p>solutions that support regenerative agriculture. (See <a href="#">Engaging with stakeholders</a>)</p> <p>More information about how we manage climate-related issues, including governance, strategy, risks and opportunities, and detailed performance information, can be found in our <a href="#">CDP Climate Change submission 2022</a> for which Syngenta was scored A-. We address the disclosure recommendations of the <a href="#">Task force on Climate-related Financial Disclosures</a> (TCFD) on page <a href="#">106</a>.</p>				
<p><b>Key performance indicators</b>                  We report on the estimated carbon benefit potential driven by the adoption of our soil conservation and biodiversity enhancement projects. (See <a href="#">Soil health</a> and <a href="#">Biodiversity</a>)</p> <p>This is characterized by the net change in soil carbon pools, reflecting the accumulated difference between carbon inputs to the soil after CO<sub>2</sub> uptake by plants, and release of CO<sub>2</sub> by decomposition in the soil. The carbon benefit potential is calculated based on the number of hectares on which the specific soil- and biodiversity-related practices are applied, multiplied by the annual mitigation potential of the corresponding practice and climatic zone outlined in the <a href="#">IPCC Fourth Assessment Report</a>, Table 8.4.</p> <p>KPIs measuring progress toward our Good Growth Plan targets are labeled as <b>GGP</b>.</p>	<p>Reporting boundaries:</p>  <p>External assurance: ✓                  → <a href="#">Independent assurance report</a></p> <p><a href="#">Basis of Preparation</a></p> <p><a href="#">The Good Growth Plan Open Data</a></p>			
<p>Reporting period October 1 – September 30 (unless stated otherwise)</p>	<table border="1"> <tr> <td><b>2022</b></td> <td>2021</td> <td>2020</td> </tr> </table>	<b>2022</b>	2021	2020
<b>2022</b>	2021	2020		
<p><b>Sustainable agriculture practices</b></p>				
<p>Carbon benefit potential on farmland (000s tonnes CO<sub>2</sub>e)<sup>1</sup> <b>GGP</b></p>	<table border="1"> <tr> <td><b>2,931</b></td> <td>3,038</td> <td>1,955</td> </tr> </table>	<b>2,931</b>	3,038	1,955
<b>2,931</b>	3,038	1,955		
<p><sup>1</sup> Value calculated based on annual mitigation potentials outlined in the IPCC Fourth Assessment Report, Table 8.4 for implemented hectares with soil conservation and biodiversity enhancement measures</p>				
<p><b>Performance in 2022</b>                  In 2022, the carbon benefit potential on farmland was 2,931k tonnes CO<sub>2</sub>e, which is slightly lower (-3.5%) than last year. Over 60% of this benefit potential comes from agronomic practices such as crop rotation and soil cover supporting increased soil carbon storage.</p> <p>Over half of the carbon benefit potential originated from two projects. Our established project with the <a href="#">ILPF</a> (Integração Lavoura-Pecuária-Floresta) network in Brazil aims to accelerate the adoption of integrated crop-livestock-forest systems. The <a href="#">Sustainable Solutions</a> program in the United States helps growers and partners in the US food value chain assess their farms' environmental results and improve the environmental efficiency and sustainability of their operations.</p> <p>We keep working with partners to reduce GHG emissions at the farm. For example, the <a href="#">GRObund</a> project launched by the Syngenta Group in collaboration with <a href="#">SEGES Innovation</a> explores the effects of different farming systems on soil health, biodiversity and GHG emissions. Three different cultivation systems, namely traditional plowing, reduced tillage, and conservation agriculture are being tested on three farms across Denmark.</p> <p>In the United States, Syngenta supports Kellogg's <a href="#">InGrained™</a> project launched in 2022 to help farmers reduce methane emissions from rice cultivation by testing two practices: alternating wetting and drying (AWD) and row rice, where poly-pipe irrigation is practiced rather than levee utilization. Five rice farms from the Mississippi Delta with a total of 2,500 acres participated in this pilot in 2022. Syngenta provides farmers with ongoing technical assistance, agronomic advice and help using our <a href="#">CROPWISE™</a> platform, which</p>				


collects and analyzes the data retrieved. While the pilot results are still being compiled, participating farmers have reported that the practices were easier to implement than expected and that crop quality was high.

We also work closely with large farms around the world to develop programs to sequester and mitigate loss of carbon in the soil. For example, in 2021, Syngenta started to support one of the largest agribusinesses in Ukraine to transition to climate-smart agricultural practices, while preserving the efficiency of the business. Together, our teams were able to reduce CO<sub>2</sub> emissions on about 30,000 hectares of farmland in 2022.

<p><b>Related information in this report:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">GHG emissions</a></li> <li>• <a href="#">Soil health</a></li> <li>• <a href="#">Biodiversity</a></li> <li>• <a href="#">Innovation in agriculture</a></li> <li>• <a href="#">Implementing TCFD's recommendations</a></li> </ul>	<p><b>Further information:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">CDP Climate Change submission 2022</a></li> <li>• <a href="#">The Good Growth Plan: Strive for carbon neutral agriculture</a></li> <li>• <a href="#">Agriculture and climate change</a></li> <li>• <a href="#">Multifunctional Field Margins – Assessing the benefits for nature, society and business (2018)</a></li> </ul>
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#### 7.1.4 Soil health


<p><b>Topic description</b></p> <p>Food production has increased many folds with the advent of sophisticated farm inputs, better farm management practices and technologies. Modern farming systems produce many benefits but can also degrade land in the long term. For example, excessive or incorrect use of crop protection and fertilizer products could negatively impact soil health. Similarly, intensive soil tillage using moldboard plows turns over topsoil to bury weeds, pests and decaying crop residues. This practice could result in the loss of organic matter, a decrease in earthworm populations, a weaker soil structure and compaction, leading to its degradation. In turn, degraded soil is more vulnerable to erosion. Today, over 50% of farmland worldwide is affected by soil degradation.</p> <p>Healthy soils produce more nutritious food and make plants more resilient to pests and diseases. Healthy soils also hold more water, making it available to plants when rainfall is unreliable, or absorbing it more during heavy rains, preventing floods and the run-off of vital nutrients from fields. By sequestering carbon, healthy soils limit the rise in greenhouse gases, and help mitigate today's climate crisis.</p>	<p>Materiality matrix classification:</p> <ul style="list-style-type: none"> <li>➔ Material (Soil health)</li> </ul> <p>Frameworks:</p> <ul style="list-style-type: none"> <li>➔ GRI: ✓ (own disclosure)</li> <li>➔ SASB: -</li> <li>➔ UNGC: 8</li> <li>➔ SDG: 13, 15</li> </ul>
<p><b>Management approach</b></p> <p>In our <a href="#">Principles for Sustainable and Responsible Agriculture</a>, we outline our commitment to improve soil health for climate change-resilient agriculture. In our <a href="#">Good Growth Plan</a>, we commit to enhance biodiversity and soil health on 3 million hectares of farmland every year.</p> <p>As well as providing products and services to tackle soil health challenges, we contribute to raising awareness about the challenges facing modern agriculture and to promoting the adoption of sustainable soil management practices with our customers, growers large and</p>	<p>GGP targets: ✓</p> <ul style="list-style-type: none"> <li>➔ Enhance biodiversity and soil health on 3 million hectares of rural land every year</li> </ul> <p>Policies:</p> <ul style="list-style-type: none"> <li>➔ <a href="#">Principles for Sustainable and Responsible Agriculture</a></li> </ul>

<p>small, as well as other stakeholders in the food chain, and policymakers.</p> <p>Supported by our R&amp;D programs, our portfolio of products and services helps farmers implement sustainable soil management practices. Herbicides help growers adopt conservation tillage, leaving the plants' roots in the soil for better compaction and enhanced organic matter. Improving the efficiency and productivity of food production systems through better soil management and crop technologies may also reduce greenhouse gas emissions. Biological seed treatment solutions also offer growers additional means to enhance soil health while managing pesticide resistance and reducing residues.</p> <p>Our Soil Health Research Center in Stein (Switzerland) enhances our research capabilities, focusing on how new innovative technologies can promote healthy soil systems and productive crops. The center brings together knowledge across many areas such as agronomy, crop protection-related disciplines, crop physiology, environmental chemistry, chemical ecology, and microbial ecology.</p> <p>In 2022, we created a new role to drive the company's soil health strategy. The Chief Soil Scientist is responsible for leveraging our soil science activities and R&amp;D capabilities, strengthening the efforts of Syngenta Group business units, and establishing a scalable soil health platform across Syngenta Group. We also work with industry partners, downstream companies, ag tech startups, NGOs and government agencies on soil health matters.</p> <p>For our seed supplier network, requirements on the use of good agricultural practices are part of our regular engagement with them. We aim to increase the production area utilizing erosion prevention practices (e.g., cover crops, margins/grass strips, no/minimum till, and contour farming based on local conditions) and to take additional steps to improve pollinator habitat.</p>	
<p><b>Key performance indicators</b></p> <p>We report on the number of hectares of farmland benefited by soil conservation measures. This is defined as the land area positively impacted by sustainable soil management using practices such as minimum or no tillage, crop rotation, permanent ground cover, soil nutrient management, controlled farm machinery traffic, water management, and weed control.</p> <p>Soil health projects are generally part of the local strategic agenda. They are integrated into our commercial operations and implemented following assessments with external stakeholders such as academia or NGOs.</p> <p>KPIs measuring progress toward our Good Growth Plan targets are labeled as <b>GGP</b>.</p>	<p>Reporting boundaries:</p>  <p>External assurance: ✓          → <a href="#">Independent assurance report</a></p> <p><a href="#">Basis of Preparation</a></p> <p><a href="#">The Good Growth Plan Open Data</a></p>

Reporting period October 1 – September 30 (unless stated otherwise)	2022	2021	2020
<b>Sustainable agriculture practices</b>			
Hectares of farmland benefited by soil conservation measures (m) <sup>1</sup> <b>GGP</b>	4.7	5.1	2.2
<p><sup>1</sup> 2021 value was restated due to a reporting error caused by the incorrect inclusion of soil conservation projects from Syngenta Group China entities that fall outside Syngenta AG group boundaries</p> <p><b>Performance in 2022</b></p> <p>In 2022, 111 soil health projects in 19 countries benefited a total of 4.7 million hectares of farmland. Latin America accounted for about 53% of the total hectares that benefited from soil conservation measures.</p> <p>In Brazil, we continued implementing our flagship soil project <a href="#">Reverte</a> with <a href="#">The Nature Conservancy</a> to restore 1 million hectares of degraded land to profitable agricultural production and avoid conversion of local vegetation to agriculture. We also continued to collaborate with the <a href="#">ILPF</a> (Integração Lavoura-Pecuária-Floresta) network, which aims to accelerate the adoption of integrated crop-livestock-forest systems, benefiting approximately 1.2 million hectares of farmland in 2022. As part of our partnership with the <a href="#">International Maize and Wheat Improvement Center</a> in Mexico, we supported growers with the adoption of sustainable agriculture practices that improve soil structure and reduce erosion on over 1.2 million hectares.</p> <p>We also continued our efforts across other regions. For example, in our Europe, Africa and Middle East region, soil health projects benefited a total of 1.5 million hectares. Our soil health training program in Russia contributed around 60% of the total benefited hectares in the region. The program supports our agricultural partners in improving soil health and preventing potential risks associated with soil degradation and decreased soil biodiversity and fertility.</p> <p>In 2022, we launched <a href="#">Interra® Scan</a>, our soil health service that uses new technology to produce high-resolution maps of soil properties. The maps can include up to 27 layers of information, such as soil acidity (pH), organic matter, available nutrients and cation exchange capacity. The technology enables scalable, precision mapping. Interra® Scan can be used by growers to optimize pH correction inputs, fertilizers, organic manures and seed rates according to the soil parameters. In turn, this can help growers improve their farming systems and promote long-term soil health, leading to improved food production and climate change mitigation.</p> <p>Syngenta Group is testing several devices and digital technologies on four commercial farms in the US, one being Syngenta’s <a href="#">Farm of the Future</a>, to understand which technology or combination of technologies can provide growers with the best in-season recommendations. The objective of the project, called <a href="#">Bin Buster</a>, is to establish a soil health baseline that growers can use to make decisions on seed selection, crop protection and nutrient use, while improving yield and profitability. It also provides visibility on the relative health of the land from season to season. In 2022, the project’s first preliminary results showed that soil in regenerative agriculture fields holds more water and higher levels of organic matter.</p> <p>This year, we started a cooperation with <a href="#">Biome Makers</a> to determine how farmers can produce crops more sustainably while revitalizing soil functionality and improving soil health. In our <a href="#">LIVINGRO™</a> program, we use Biome Makers’ BeCrop® technology to make decisions that support the production of safe, healthy food while preserving and improving biodiversity and soil quality in agricultural ecosystems.</p>			
<p><b>Related information in this report:</b></p> <ul style="list-style-type: none"> <li><a href="#">Innovation in agriculture</a></li> <li><a href="#">Carbon capture and mitigation in agriculture</a></li> <li><a href="#">Safe use of products</a></li> </ul>	<p><b>Further information:</b></p> <ul style="list-style-type: none"> <li><a href="#">The Good Growth Plan: Strive for carbon neutral agriculture</a></li> </ul>		

7.1.5 Biodiversity

<p><b>Topic description</b>                  Farming relies on biodiversity, which is crucial for plant pollination, healthy soils, and water purification. Agricultural biodiversity allows farmers to grow the food needed to sustain the increasing global population and adapt to climate change.</p> <p>Agricultural biodiversity is increasingly under threat as habitats are lost due to climate change, urban sprawl and agricultural expansion. We recognize that improper use of crop protection products can also compromise agricultural biodiversity. Conservation efforts, both on- and off-farm, are needed.</p>	<p>Materiality matrix classification:                  → Material (Biodiversity)</p> <p>Frameworks:                  → GRI: ✓ (304-3)                  → SASB: -                  → UNGC: 8                  → SDG: 15</p>
<p><b>Management approach</b>                  In our <a href="#">Principles for Sustainable and Responsible Agriculture</a>, we outline our commitment to support the development of agricultural practices and provide products and services that help farmers enhance biodiversity and ensure connectivity in agricultural landscapes. In our <a href="#">Good Growth Plan</a>, we commit to enhance biodiversity and soil health on 3 million hectares of farmland every year.</p> <p>We provide solutions to farmers to enhance biodiversity and soil health. A key strategy involves managing less productive farmland alongside fields and waterways to provide corridors connecting wildlife habitats. These multifunctional field margins support sustainable intensification on more productive land and help reintroduce local species while providing buffers for soil and water. Through our <a href="#">Operation Pollinator</a> program, we have been helping farmers promote pollinating insects on commercial farms for over 15 years. The program uses specially selected wildflowers to attract pollinators and increase biodiversity.</p> <p>We are working with research partners and technology startups to gain a more precise and comprehensive understanding of life forms in agricultural landscapes. We use traditional sampling methods in combination with modern digital tools and technologies to assess the presence and abundance of species in and beyond the field, above and below ground.</p> <p>Biodiversity parameters measured by our <a href="#">LIVINGRO™</a> program, a research initiative that promotes regenerative agriculture practices by focusing on biodiversity improvement and soil health enhancement, are more comprehensive than in typical agricultural trials. For example, they assess the impact of the use of specific agronomic protocols on all types of above and below ground insects, with a focus on beneficial insects, such as pollinators and natural enemies of insect pests. Together with our science partners, we are collecting extensive data to support the development of protocols that will help farmers enhance biodiversity and profitability.</p> <p>We also invest heavily in product stewardship and safety initiatives to train farmers on the safe and responsible use of crop protection products, and we work with seed banks to share and protect the genetic diversity of food crops. Similarly, we are investing in and</p>	<p>GGP targets: ✓                  → Enhance biodiversity and soil health on 3 million hectares of rural land every year</p> <p>Policies:                  → <a href="#">Syngenta Group Code of Conduct, principle 15</a>                  → <a href="#">Principles for Sustainable and Responsible Agriculture</a></p>

<p>exploring opportunities for precision application technology, remote sensing, and biologicals to help farmers sustainably optimize the use of our products.</p> <p>For our seed supplier network, requirements on the use of good agricultural practices are part of our regular engagement with them. We aim to increase the production area utilizing erosion prevention practices and pollinator enhancements.</p>			
<p><b>Key performance indicators</b>                  We report on the number of hectares of farmland benefited by biodiversity enhancement measures. This is defined as the land area positively impacted by the re-introduction of local species and buffers for soil and water protection through practices such as multifunctional field margins, managed forests and riparian lands, agro-forestry, managed wetlands, and in-situ genetic diversity conservation.</p> <p>Biodiversity enhancement projects are generally part of the local strategic agenda and implemented following assessments conducted with external stakeholders such as universities, government bodies, farmer organizations, NGOs or food chain partners.</p> <p>KPIs measuring progress toward our Good Growth Plan targets are labeled as <b>GGP</b>.</p>	<p>Reporting boundaries:</p>  <p>External assurance: ✓                  → <a href="#">Independent assurance report</a></p> <p><a href="#">Basis of Preparation</a></p> <p><a href="#">The Good Growth Plan Open Data</a></p>		
<p>Reporting period October 1 – September 30 (unless stated otherwise)</p>	<b>2022</b>	2021	2020
<p><b>Sustainable agriculture practices</b></p>			
<p>Hectares of farmland benefited by biodiversity enhancement measures (m) <b>GGP</b></p>	<b>1.3</b>	1.4	1.7
<p><b>Performance in 2022</b>                  In 2022, 70 projects in 32 countries benefited 1.3 million hectares of farmland. The Europe, Africa and Middle East and North America regions accounted for 95% of the total hectares benefited by biodiversity enhancement measures. About 90% of the global hectares of benefited farmland were linked to the establishment of multifunctional field margins through our Operation Pollinator program, Sustainable Solutions projects and other initiatives.</p> <p>Our global <a href="#">Operation Pollinator</a> program continues to create essential habitats in field margins and on fallow land in agricultural, golf course or other landscapes. In 2022, we published a <a href="#">research paper</a><sup>1</sup>, which provides important insights on how the management of flower margins influences species diversity. The study demonstrates a great increase in pollinator abundance on Operation Pollinator margins compared to natural margins.</p> <p>Through our <a href="#">Sustainable Solutions</a> projects, we continued to support farmers in North America to implement multifunctional field margins benefiting about 560,000 hectares of farmland in 2022.</p> <p><a href="#">LIVINGRO™</a> started in 2020 and 2021 with three-year pilots in Argentina, Chile, Germany, Mexico and Spain, with farmers applying specific protocols on various crops. In 2022, the program expanded to include two new biodiversity monitoring initiatives. The first, called Save the right bees, focuses on pollinating insects and their specific ecosystem services within agricultural landscapes. It studies the impact of beehives on the wild insect community – in the agriculture landscape, managed bees and wild bees compete for floral resources such as nectar and pollen. The second initiative focuses on rare, threatened, endangered (RTE) species and aims to develop an index of RTE species relevant within specific agroecological systems. The monitoring and assessment of RTE species is an important biodiversity enhancement and species conservation parameter.</p>			



In 2022, to encourage farmers to join a wider biodiversity community, Syngenta initiated the [European Farmland Biodiversity Challenge](#). Farmers were asked to use the [iNaturalist](#) online app to collect biodiversity data on their land by sharing photos and species IDs of insects, birds, mammals and plants. In each country, a winner was selected based on the largest number of observations.

A Syngenta Group initiative, the [Biodiversity sensor project](#) is a low-cost, solar-powered, state-of-the-art motion-capturing system that draws on artificial intelligence and machine-learning algorithms to identify and quantify most moving species – representing the first step on the road to gather a continuous stream of global biodiversity data. The project is in early R&D stage. In 2022, prototypes and use cases were co-developed with multiple partners.

In 2022, Syngenta engaged with organizations and governments at the UN Biodiversity Conference ([COP15](#)), which aimed to agree on new goals and 2030 targets for nature outlined in the post-2020 global biodiversity framework. Companies such as Syngenta have a critical role to play in delivering the innovation and investment needed to achieve these ambitious and vital goals and targets.

As a sponsor of the 2022 edition of the [World Biodiversity Forum](#) in Davos, Switzerland, Syngenta Group invited the science community to discuss our industry's role in biodiversity protection and to comment on early-stage innovation projects. We also brought together international scientists for a joint presentation on Biodiversity in Agroecosystems, hosted by [The Nature Conservancy](#).

<sup>1</sup> Brittain, C.; Benke, S.; Pecze, R.; Potts, S.G.; Peris-Felipo, F.J.; Vasileiadis, V.P. (2022). Flower Margins: Attractiveness over Time for Different Pollinator Groups. *Land*, 11, 1933. <https://doi.org/10.3390/land11111933>


<p><b>Related information in this report:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Innovation in agriculture</a></li> <li>• <a href="#">Carbon capture and mitigation in agriculture</a></li> <li>• <a href="#">Safe use of products</a></li> </ul>	<p><b>Further information:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">The Good Growth Plan: Strive for carbon neutral agriculture</a></li> <li>• <a href="#">FAQ: Resource efficiency and biodiversity</a></li> <li>• <a href="#">Landscape Connectivity – A call to action (2017)</a></li> <li>• <a href="#">Multifunctional Field Margins – Assessing the benefits for nature, society and business (2018)</a></li> </ul>
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### 7.1.6 Safe use of products

<p><b>Topic description</b></p> <p>Farming is one of the world's largest and most important sources of employment, and each year farm workers suffer from work-related accidents, including some caused by exposure to chemicals as a result of improper handling, either accidentally or due to a lack of knowledge on the safe use, storage and disposal of crop protection products.</p> <p>Our products are vital to allow farmers to grow the world's food, and they must be made, transported, and used in a safe way. For this reason, we are committed to the responsible and ethical management of our products throughout their life cycle.</p>	<p>Materiality matrix classification:</p> <ul style="list-style-type: none"> <li>➔ Material (Product responsibility)</li> </ul> <p>Frameworks:</p> <ul style="list-style-type: none"> <li>➔ GRI: (416-1 &amp; own disclosure)</li> <li>➔ SASB: RT-CH-410b.2</li> <li>➔ UNGC: 7</li> <li>➔ SDG: 3</li> </ul>
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<p><b>Management approach</b>          Ensuring that our products are used correctly is a priority and integral to our business model to protect not only the health and safety of farm workers and the public, but also the environment. We work with customers, contractors, users, and other stakeholders to achieve this.</p> <p>Our focus on safety starts at the beginning of our product lifecycle before products reach the market. We undertake comprehensive assessments of both human and environmental risks throughout the research and development (R&amp;D) process. This covers risks associated with all stages of development – from concept through to final use and consumption. Our human safety assessments address potential risks to product users and food and feed consumers, while our environmental safety programs seek assurance that the product will not adversely affect 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 workers, the environment, the crops being protected, and the people or animals eating the food created from those crops.</p> <p>We not only offer farmers technology, but we also provide them with training and easy-to-understand guidance on the safe and environmentally sound use, handling and disposal of products and personal protection. We support the Food and Agriculture Organization’s <a href="#">International Code of Conduct on Pesticide Management</a>.</p> <p>In developed markets, industry authorities often provide training and guidance to users. In countries where this guidance does not exist, we train growers on the safe handling of products. In some areas, low levels of literacy can make it difficult to read product labels or understand directions for use. Face-to-face training is complemented by safety messages on crop protection products through a variety of media including picture-based training, actor-led dramas, and TV and radio programs. We also provide specialist information to growers through our online platform <a href="#">Pesticidewise</a>.</p> <p>We monitor growers’ responses to different safety messages, including the effectiveness of our training programs, to ensure these important messages are understood.</p> <p>Syngenta has established product toxicovigilance programs, which include agreements with poison centers or hospitals to provide attending physicians with 24/7 medical advice on the treatment of health effects following the misuse of pesticides, whether accidental or intentional. The information collected from reported incidents serves to improve our proactive stewardship programs and provides information for our regulatory submission dossiers. In addition, we frequently train physicians on the treatment of pesticide-related incidents.</p> <p>As an R&amp;D company, Syngenta also develops application technologies such as special nozzles and closed application systems that ensure the correct application of products as well as the safety of operators and the environment.</p>	<p>GGP targets: ✓          → Train 8 million farm workers on safe use every year</p> <p>Policies:          → <a href="#">Syngenta Group Code of Conduct, principle 19</a>          → <a href="#">Principles for Sustainable and Responsible Agriculture</a></p>
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<p><b>Key performance indicators</b></p> <p>We report on the number of people (i.e., farm workers, farm owners, smallholders, product distributors, employees) trained on the responsible handling and use of crop protection products. Training sessions focus on the 5 golden rules on the safe use of crop protection products.</p> <p>We report on the number of countries that have Syngenta product toxicovigilance programs in place, meaning that an agreement with a local poison center or a hospital helpline is established. To show the relative significance of these programs to our business, we also indicate the proportion of Crop Protection sales linked to these countries.</p> <p>KPIs measuring progress toward our Good Growth Plan targets are labeled as <b>GGP</b>.</p>	<p>Reporting boundaries:</p>  <p>External assurance: ✓ ➔ <a href="#">Independent assurance report</a></p> <p><a href="#">Basis of Preparation</a></p> <p><a href="#">The Good Growth Plan Open Data</a></p>		
<p>Reporting period October 1 – September 30 (unless stated otherwise)</p>	<p><b>2022</b></p>	<p>2021</p>	<p>2020</p>
<p><b>Safe use of products</b></p>			
<p>People trained on safe use (m) <b>GGP</b></p>	<p><b>12.9</b></p>	<p>11.0</p>	<p>8.0</p>
<p>of which: Smallholders (m)</p>	<p><b>10.1</b></p>	<p>6.6</p>	<p>4.7</p>
<p>Countries with established Syngenta product toxicovigilance programs</p>	<p><b>120</b></p>	<p>116</p>	<p>100</p>
<p>Crop Protection sales represented<sup>1</sup></p>	<p><b>97%</b></p>	<p>96%</p>	<p>93%</p>
<p><sup>1</sup> 2021 was restated due to a reporting error caused by the incorrect exclusion of a sales destination entry that should have been allocated to a country with a Syngenta product toxicovigilance program</p>			
<p><b>Performance in 2022</b></p>			
<p>In 2022, we trained 12.9 million people on the responsible handling and use of crop protection products, including 10.1 million smallholder farmers, representing a 17% and 52% respective increase compared to 2021. The number of training programs in Asia Pacific grew exponentially resulting in a 51% increase for both the number of people and smallholders trained. Asia Pacific and China accounted for 98% of people and 99% of smallholders trained. Loosening of COVID-19 restrictions in some countries facilitated face-to-face training enabling us to reach more smallholder farmers.</p>			
<p>India experienced the highest absolute increase in people trained in 2022 thanks to a significantly higher outreach to growers compared to 2021. This enabled us to train nearly two million additional people in 2022. Besides India, Indonesia, Kenya, Vietnam, and Argentina also experienced significant increases in absolute terms.</p>			
<p>We have increased our impact by reaching a greater number of people through more engagement on the ground and local partnerships. For example, in India, our commercial teams used their farmer interactions as an opportunity to train growers and farmworkers on the safe use of crop protection products, and through our collaboration with <a href="#">CropLife</a>, we made personal protective equipment more widely available.</p>			
<p>The focus of our stewardship activities is on keeping people and the environment safe and preventing incidents. Still, incidents may take place – and we want to learn from them. To this end, in 2022, we implemented a new internal incident reporting system called AIDA (Adverse Incident Database). Reporting, tracking, and analyzing incidents in a systematic way helps to further improve our products and continuously enhance the safety of people and the environment.</p>			
<p>In 2022, 120 countries (compared to 116 countries in 2021) had Syngenta toxicovigilance programs in place. Six additional countries with programs in place were identified while two countries, in which no sales took place, were removed. The 120 countries represent 97% of our global Crop Protection sales.</p>			

Syngenta actively supports the industry’s efforts to make Closed Transfer Systems (CTS) available more broadly and provide farmers with systems that make on-farm operations safer, easier, and more environmentally friendly. One such example is EVOPAC™, an innovative liquid packaging range designed in close collaboration with growers. Launched in 2022, this new packaging is now being piloted in various European countries. It is fully compatible with the [easyconnect](#) CTS that was developed by leading ag industry players. In 2022, Syngenta also initiated a cross-industry collaboration for the development of an easy-to-implement CTS for knapsack spraying devices that must be safe, cost-effective, and scalable.

In 2022, [Anipla](#), the Portuguese crop protection association of which Syngenta is a member, launched [Smart Farm Virtual](#), complementing an existing physical farm. This innovative, interactive digital platform creates awareness and provides training on best practices in the safe use of crop protection products and biodiversity protection. Syngenta substantially contributed to setting up the virtual offering, also providing equipment and information supporting farmers’ learning journey. One of the modules promotes Syngenta’s [Heliosecc](#)® system for the safe management of effluents. Together, the modules cover all aspects of the safe and responsible use of crop protection products.

**Related information in this report:**

- [Soil health](#)
- [Biodiversity](#)
- [Lowest residues in crops and the environment](#)

**Further information:**

- [The Good Growth Plan: Help people stay safe and healthy](#)
- [FAQ: Product safe use and stewardship](#)

7.1.7 Access to technology

<p><b>Topic description</b> Improving farmers’ access to technologies – and knowledge on how to use them correctly – is key to improving their livelihoods and meeting the food demands of a growing world population. Smallholders in remote rural areas often lack the high-quality seeds and inputs needed for a healthy harvest. Most of the world’s farmers are smallholders with less than two hectares of land and they produce over 80% of the food consumed in the developing world.</p>	<p>Materiality matrix classification: ➔ Monitored (Access to technology)</p> <p>Frameworks: ➔ GRI: - ➔ SASB: - ➔ UNGC: - ➔ SDG: 1, 2</p>
<p><b>Management approach</b> Syngenta aims to provide leading innovations in seeds, crop protection, digital solutions, and application technology to enhance the prosperity of farmers and communities, wherever they are. This is reflected in our <a href="#">Good Growth Plan</a> and in our <a href="#">Principles for Sustainable and Responsible Agriculture</a>.</p> <p>We invest in the research and development of high-quality seeds, crop protection products and agriculture-related solutions. We provide farmers with tools and training that make agriculture more productive, efficient, profitable, and resilient. Through our reach and collaborations, we aim to support vibrant rural communities and improve food security.</p> <p>Enabling access to our innovations for smallholder farmers is of particular importance and we offer solutions that are specifically designed for their needs. These range from producing smaller, more</p>	<p>GGP targets: ✖</p> <p>Policies: ➔ <a href="#">Principles for Sustainable and Responsible Agriculture</a></p>

<p>affordable packs of products, to establishing demonstration farms, centers of excellence and learning centers.</p> <p>To be effective, access to technologies needs to be complemented by access to knowledge on how to use them. With this in mind, in our Good Growth Plan, we committed to train 8 million people annually. We train them in labor safety as well as residues, environmental and crop management and related activities. Beneficiaries include a significant proportion of smallholder farmers, mainly located in Asia.</p> <p>We also partner with Syngenta Group China's <a href="#">Modern Agriculture Platform</a> (MAP) centers to provide smallholders in China with access to Syngenta CP and Seeds innovation. MAP centers supply and guide farmers on their journey to modernize their farms sustainably and connect them to premium buyers – increasing the quality of their crops and their profitability.</p> <p>The <a href="#">Syngenta Foundation for Sustainable Agriculture</a> (SFSA) plays an essential role in working with smallholder farmers in developing countries to help increase their productivity, income and resilience. For instance, SFSA's <a href="#">Seeds2B</a> program helps farmers access quality, affordable seeds of improved varieties through plant breeding and technology transfer.</p> <p>Syngenta, in collaboration with SFSA's Seeds2B program, has been part of the <a href="#">Access to Seeds Index</a> since its inception. The index benchmarks seed companies according to their efforts to improve access to quality seeds for smallholder farmers. In the <a href="#">2016</a> and <a href="#">2019</a> editions, we ranked second on the global index and among the top 5 in the regional indexes. In <a href="#">2021</a>, we ranked among the top 8 in the three regional indexes (no global index was issued).</p>	
<p><b>Performance in 2022</b></p> <p>In 2022, we continued to support farmers with our innovations. Syngenta Philippines worked with the <a href="#">Asia Society for Social Improvement and Sustainable Transformation</a> on <a href="#">SIBOL</a>, an initiative to improve farmer livelihoods and yields through healthy soil. This initiative aims to educate over 20,000 corn farmers on proper soil management and regenerative farming practices by promoting climate-smart agricultural practices and suitable technologies to increase corn yields within three years. In 2022, two model farms were established in strategic corn-producing locations, and results from these pilots will help further scale up the project.</p> <p>Also this year, Syngenta launched CENTRIGO™ Farming Ecosystem in Bangladesh, Indonesia, and Pakistan. Focusing on farmers' needs, this holistic solution includes physical centers and digital services, helping them overcome barriers to higher productivity and profitability. To provide farmers with easy access to agronomic advice, quality inputs, financial solutions, and markets, Syngenta partners with banks, fertilizer companies, service providers, and crop buyers. CENTRIGO™ allows smallholders to become more entrepreneurial, helping them adopt sustainable farming practices and modernize local agriculture. Syngenta plans to establish CENTRIGO™ Farming Ecosystem in additional countries across Asia.</p> <p>Through local businesses, SFSA's <a href="#">Seeds2B</a> program develops delivery channels for seeds of non-commercial crops that are relevant to smallholder farmers. In cooperation with the International Maize and Wheat Improvement Center and Syngenta, SFSA brings <a href="#">drought-tolerant, low-cost hybrid maize varieties</a> to farmers in low-rainfall areas of South Asia. Between 2018 and 2022, in India alone, the number of farmers adopting this maize variety grew to over 14,000. The program contributed about USD 75 to farmers' total household annual income, bringing it close to USD 1,000 per year.</p>	

<p>Syngenta’s <a href="#">SoilCare</a> program, launched in India in 2019 with the <a href="#">Indian Society of Agribusiness Professionals</a>, promotes healthier soil management practices and provides farmers with comprehensive soil testing support. By reducing tillage, weed growth and erosion, farmers can increase yields while lowering costs. Until the end of 2022, the program has benefited over 5,400 farmers in more than 100 villages.</p> <p>Syngenta strives to drive continuous improvement in the safety of our products. In 2022, we initiated a cross-industry collaboration to develop a closed transfer system for knapsack spraying devices. The objective is to design a solution that is easy to implement, scalable and, most importantly, safe and cost-effective for farmers.</p>	
<p><b>Related information in this report:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Innovation in agriculture</a></li> <li>• <a href="#">Safe use of products</a></li> <li>• <a href="#">Syngenta Foundation for Sustainable Agriculture</a></li> </ul>	<p><b>Further information:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">FAQ: Improving smallholders’ access to technology</a></li> </ul>

7.1.8 Responsible agricultural land use

<p><b>Topic description</b></p> <p>For centuries, expansion of agricultural activities for animal grazing and crop production has caused changes in land use all over the world. Conversion of natural ecosystems such as forest, grassland and wetland to farmland significantly alters the composition of species, and the structure and/or function of ecosystems.</p> <p>Natural ecosystems provide important services. The degradation of these lands, or rapid conversion to other usages, could negatively impact the environment through the release of stored carbon contributing to climate change, biodiversity loss and soil erosion. Land conversion could also lead to the displacement of people due to changes in landscape surrounding communities or reduced access to resources.</p>	
<p><b>Management approach</b></p> <p>Syngenta provides technologies and knowledge that help farmers optimize land productivity while protecting their land – also enabling an economic alternative to land conversion for meeting the growing food and feed demand. Reducing the amount of arable land needed per unit of crop is key to feeding a growing population. Productivity gains allow leaving existing untouched land in its natural state.</p> <p>We also develop appropriate agricultural technologies and practices essential to conserve and restore existing farmland. Innovative, economically viable solutions to increase productivity on degraded land and improving soil health create significant social and environmental value.</p> <p>This is why we are involved in several advocacy initiatives. For example, we are members of the <a href="#">World Business Council for Sustainable Development’s Nature Action</a> agenda to drive collective business action toward net zero nature loss. Since 2022, Syngenta is a</p>	<p>Materiality matrix classification:</p> <ul style="list-style-type: none"> <li>➔ Monitored (Land use changes and deforestation)</li> </ul> <p>Frameworks:</p> <ul style="list-style-type: none"> <li>➔ GRI: -</li> <li>➔ SASB: RT-CH-410a.1</li> <li>➔ UNGC: 8</li> <li>➔ SDG: 2, 15</li> </ul> <p>GGP targets: ✖</p> <p>Policies:</p> <ul style="list-style-type: none"> <li>➔ <a href="#">Principles for Sustainable and Responsible Agriculture</a></li> </ul>

<p><a href="#">Science Based Targets Network</a> (SBTN) Corporate Engagement Program participant, pledging alignment with SBTN’s goals and vision, and contributing advice and end-user insights to the development of SBTN methods and tools.</p>	
<p><b>Performance in 2022</b></p> <p>In Vietnam, one of the largest world producers and exporters of Robusta coffee beans, Syngenta partnered with Louis Dreyfus Company, IDH The Sustainable Trade Initiative, and Jacobs Douwe Egberts in the Sustainable Coffee Landscape Project to develop and introduce demo plots for plantations and provide capacity-building for farmers. Two initiatives within the project focus on sustainable land management to improve climate resilience, prevent deforestation and soil degradation, and use inputs responsibly. Between 2016 and 2022, the two initiatives covered more than 10,500 hectares of coffee and reached over 7,200 farmers. Depending on the agricultural practice taught, the practice adoption rate ranged from 75% to close to 100%.</p> <p>Preventing deforestation and restoring degraded soil are also guiding principles behind the <a href="#">Reverte</a> program in Brazil’s Cerrado. In 2022, Syngenta and <a href="#">The Nature Conservancy (TNC)</a> expanded work conducted during the pilot phase. The focus was on improving carbon sequestration, water retention, and overall biodiversity through regenerative land management practices and on reducing emissions through maintaining native vegetation. By the end of 2022, regenerative farming practices were implemented on 80,000 hectares across 60 farms. We aim to further scale the program in the coming years.</p> <p>In China, our Run Tian project encourages wheat farmers to avoid straw burning and to incorporate straw and crop leftovers into the soil. We run this program in partnership with Syngenta Group China’s Modern Agriculture Platform (MAP) and TNC. Results from the 2021-2022 growing season showed that, compared to rotary tillage (conventional tillage-straw incorporation), conservation tillage increased soil organic carbon content from four to over six percent in the first 40 centimeters. Additionally, conservation tillage considerably increased the levels of nitrogen (+13%) and phosphorus (+10%) compared to rotary tillage. Conservation tillage directly benefits growers: in 2021-2022, wheat yields were 5.4% higher than on fields prepared with rotary tillage and 8.5% higher than with conventional tillage.</p> <p>Project <a href="#">TomAC</a> in Portugal implements conservation agriculture principles to optimize the agronomic, economic and environmental performance of tomato cultivation. To improve soil health, TomAC promotes minimum soil disturbance, permanent soil cover, and the rotation between tomato, sunflower and cover crops. On World Soil Day 2022, the consortium reported encouraging preliminary results from the first growing season. The consortium comprises Syngenta, the Sugal Group’s Ag Innov-Center of Excellence, the Mediterranean Institute for Agriculture, Environment and Development of the University of Évora, and the Portuguese Association for Soil Conservation Mobilization.</p>	
<p><b>Related information in this report:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Innovation in agriculture</a></li> <li>• <a href="#">Soil health</a></li> <li>• <a href="#">Biodiversity</a></li> </ul>	<p><b>Further information:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Restoring Degraded Landscapes in the Cerrado</a> (external)</li> </ul>

7.1.9 Water conservation

<p><b>Topic description</b></p> <p>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</p>	<p>Materiality matrix classification:                  → Monitored (Water conservation)</p>



<p>population. Through our products, services and solutions, Syngenta can help them to better manage some of the resulting agronomic challenges.</p>	<p>Frameworks:</p> <ul style="list-style-type: none"> <li>➔ GRI: -</li> <li>➔ SASB: RT-CH-140a.3</li> <li>➔ UNGC: 8</li> <li>➔ SDG: 6</li> </ul>
<p><b>Management approach</b>                  In our <a href="#">Principles for Sustainable and Responsible Agriculture</a>, we outline our commitment to helping farmers optimize water use and protect water quality. The urgency to conserve water is reinforced by the intensifying effects of climate change. (See <a href="#">Carbon capture and mitigation in agriculture</a>)</p> <p>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.</p> <p>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 also support farmers to ensure the safe handling of our products to minimize environmental impact. We do this through our interactions with customers, training, detailed risk analysis and provision of use recommendations, including sales restrictions in vulnerable areas.</p> <p>We also provide solutions to farmers to keep unwanted products out of the environment, such as farm-scale remnant pesticide treatment solutions, container take-back schemes and obsolete stock removal.</p> <p>For our seed supplier network, requirements on the use of good agricultural practices are part of our regular engagement with them. We work together with our upstream supply chain farmers to improve current water management practices and expand the implementation of water management technologies.</p> <p>More information about how we manage water conservation, including governance, strategy, risks and opportunities, and detailed performance information can be found in our <a href="#">CDP Water Security submission 2022</a> for which Syngenta was scored A-.</p>	<p>GGP targets: *</p> <p>Policies:</p> <ul style="list-style-type: none"> <li>➔ <a href="#">Principles for Sustainable and Responsible Agriculture</a></li> </ul>
<p><b>Performance in 2022</b>                  In 2022, we continued efforts to help farmers protect and more carefully use water resources through regenerative practices. Our project <a href="#">Bin Buster</a>, which currently involves four commercial farms in the US, including Syngenta’s <a href="#">Farm of the Future</a>, aims to compare traditional soil management with minimum or no-till management in combination with cover crops. To date, preliminary results (2022 growing season) show that fields managed with regenerative agricultural practices tend to have improved soil health properties and numerically higher available water capacity, compared to conventionally tilled fields.</p> <p>In Vietnam, the Sustainability Coffee Landscape Project, a partnership between Syngenta, Louis Dreyfus Company, Jacobs Douwe Egberts and IDH The Sustainable Trade Initiative, helped farmers adopt sustainable water management practices. Between 2016 and 2022, the implementation of methods such as intercropping favored soil moisture, reduced the need for irrigation and prevented erosion. Taking better</p>	



care of soil to prevent erosion and degradation is also in scope of [SIBOL](#), a project Syngenta and the [Asia Society for Social Improvement and Sustainable Transformation](#) launched in 2022 in the Philippines.

In the United States, Syngenta supports Kellogg’s [InGrained™](#) project. Launched in 2022, the five-year project helps farmers reduce methane emissions from cultivating rice – one of the most water-intensive crops. To achieve this, two practices are being tested: alternating wetting and drying, and row rice using poly-pipe irrigation rather than levee. Syngenta provides farmers with technical assistance and agronomic advice. Data is collected and analyzed via Syngenta’s [CROPWISE™](#) platform. Preliminary results indicate that crop quality did not get impacted by the adjusted irrigation practices.

In 2022, we commissioned a [life cycle assessment](#) (LCA) for the dairy industry that shows that switching to Syngenta’s Enogen® corn in feed rations for dairy cows has the potential to generate significant environmental benefits. Per 1,000 dairy cows fed with Enogen® silage, there is the potential to save 13 million gallons of water per year, enough to fill 21 Olympic-size swimming pools. These savings in water use come from improved feed efficiency or output per unit of feed consumed. This could also result in substantial reductions in greenhouse gas emissions, land and energy use, as shown in the dairy LCA and in a similar assessment performed in 2021 for the beef industry.

Syngenta also continues its efforts in water protection. In 2022, [Anipla](#), the Portuguese crop protection association of which Syngenta is a member, launched [Smart Farm Virtual](#), a digital service sharing best practices and training on the safe use of crop protection products. One of the training modules promotes the safe management of effluents using Syngenta’s [Heliosec®](#) fix tank system. Heliosec® collects and stores on-farm wastewater containing crop protection products in an environmentally safe way, allowing water to evaporate and remnants to be disposed of responsibly. Similarly, Syngenta continues to further roll out and promote another system for the sustainable management of wastewater called [RemDry®](#). This flexible solution consists of mobile membranes and a tank to safely collect and manage remnant waste liquids containing crop protection products. Since its launch in 2019 and until the end of 2022, more than 300 units have been implemented in 19 countries across Europe, and the system is currently being tested in South America.

**Related information in this report:**

- [Innovation in agriculture](#)
- [Soil health](#)
- [Lowest residues in crops and the environment](#)
- [Water and wastewater](#)

**Further information:**

- [CDP Water Security submission 2022](#)
- [Water conservation](#)

7.1.10 Nutritious food and feed

<p><b>Topic description</b>                  Food security remains one of the most critical challenges of our time. There are almost one billion undernourished people globally and the world population is projected to reach 9.8 billion by 2050. Overall food demand is expected to increase by more than 50%, with demand for animal-based foods rising by nearly 70%. According to the <a href="#">World Resources Institute</a>, the world will have to produce 56% more crop calories than in 2010 to ensure there is adequate food for everyone in 2050.</p> <p>At Syngenta, we believe it is possible to provide enough nutritious food for future generations, while respecting planetary boundaries.</p>	<p>Materiality matrix classification:                  → Monitored (Nutritious food)</p> <p>Frameworks:                  → GRI: -                  → SASB: -                  → UNGC: -                  → SDG: 2</p>

<p><b>Management approach</b></p> <p>Our <a href="#">Principles for Sustainable and Responsible Agriculture</a> state our support to the development of healthy, nutritious foods and feeds. We invest in agricultural research, technologies and extension services, which increase productivity and the quality and nutritional value of crops, in particular in our Seeds business. We are convinced that innovation is key to achieving a more sustainable food production system.</p> <p>Syngenta produces seeds that improve crop quality and yield. We offer a broad portfolio of crops with leading products in corn, soybean, sunflower, cereals and vegetables. Seeds have the potential to deliver a wide range of benefits, including nutrition for people and livestock.</p> <p>With 30 crop species and more than 2,500 varieties of vegetables, our offer of vegetable seeds provides increased yield and quality, improved resistance and adaptability, while bringing longer shelf-life, nutrition and flavor.</p> <p>Our Crop Protection products also enable farmers to deliver food that is abundant, nutritious, and affordable – without using more land or other inputs.</p> <p>Syngenta has also been involved in non-commercial initiatives around nutrition. For example, we provided financial support to the inventors of the <a href="#">Golden Rice</a> technology in the early stages of the project.</p>	<p>GGP targets: ✖</p> <p>Policies:</p> <p>➔ <a href="#">Principles for Sustainable and Responsible Agriculture</a></p>
<p><b>Performance in 2022</b></p> <p>We continued to support the development of healthy, nutritious foods and feeds with our innovation pipeline of seeds. Syngenta’s <a href="#">cauliflower iStem</a> won the Bronze Innovation Award 2022 at Fruit Logistica in Berlin. iStem is the first and only stem cauliflower in the world: an ‘eat-it-all’ cauliflower variety that is tasty and nutritious. It is edible from tip to toe, thus reducing food waste.</p> <p>Profitability and sustainability are two of the key challenges facing dairy producers and the dairy industry today. Increasing feed efficiency is one of the best approaches to address both challenges. In 2022, to learn more about the benefits of Enogen® corn for feed, Syngenta conducted a <a href="#">financial value assessment</a> with model developers at the University of Wisconsin-Madison’s <a href="#">Animal and Dairy Sciences</a> and <a href="#">Agronomy</a> Departments and <a href="#">Rock River Laboratory</a>. The assessment showed that US dairy operations using Enogen® corn for feed instead of conventional corn had an annual savings potential between USD 132 and 208 per milking cow. Additionally, a dairy-specific life cycle assessment commissioned by Syngenta highlighted potential reductions of 4-6% in environmental impact, including lower greenhouse gas emissions and lower use of land, energy, and water.</p> <p>In 2021, the <a href="#">Syngenta Foundation for Sustainable Agriculture</a> (SFSA), together with the <a href="#">Swiss Tropical and Public Health Institute</a>, <a href="#">Sight and Life</a> (a nutrition think tank), and <a href="#">ETH Zürich</a> launched the <a href="#">Nutrition in City Ecosystems (NICE) project</a>. Funded by the <a href="#">Swiss Agency for Development and Cooperation</a> under the <a href="#">Global Food Security Program</a>, this initiative aims to improve health and nutrition and contribute to poverty reduction for urban populations in Bangladesh, Kenya, and Rwanda. The NICE project targets in particular women, youth and vulnerable populations living in cities, and places a strong emphasis on public-private engagement and income generation. Syngenta co-funded activities to improve on-farm production in Kenya. To mark World Food Day 2022, SFSA produced the <a href="#">Nutrition in City Ecosystems in Kenya</a> video showcasing the project’s progress and impacts in Kenya.</p>	
<p><b>Related information in this report:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Innovation in agriculture</a></li> </ul>	<p><b>Further information:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Vegetable Seeds</a></li> <li>• <a href="#">Syngenta’s Fields of Innovation</a></li> </ul>

## 7.2 Sustainable operations

### 7.2.1 GHG emissions

<p><b>Topic description</b></p> <p>Climate change is one of the biggest challenges facing humanity. Its effects are already evident with more erratic weather patterns, more severe weather events and greater environmental degradation. Today the agricultural sector is responsible for about 20% of global greenhouse gas (GHG) emissions and the entire food chain accounts for about a third.</p> <p>As a manufacturer of agricultural inputs, our activities generate GHG emissions. Our supply chain accounts for about 90% of our total corporate carbon footprint, while 10% of emissions come from our own operations – about 70% from our Crop Protection business, 20% from our Seeds business and the remaining 10% mainly relates to corporate functions and shared activities.</p>	<p>Materiality matrix classification:</p> <ul style="list-style-type: none"> <li>➔ Material (Climate change mitigation and adaptation)</li> </ul> <p>Frameworks:</p> <ul style="list-style-type: none"> <li>➔ GRI: ✓ (305-1,2,3,4,5)</li> <li>➔ SASB: RT-CH-110a.1-.2</li> <li>➔ UNGC: 8</li> <li>➔ SDG: 13</li> </ul>
<p><b>Management approach</b></p> <p>In our <a href="#">Good Growth Plan</a>, we commit to strive for carbon neutral agriculture. This includes a bold commitment to reduce the carbon intensity of our entire operations by at least 50% by 2030 compared to our 2016 baseline.</p> <p>At the same time and validated by the <a href="#">Science Based Targets initiative</a> (SBTi), we have a target to reduce the carbon intensity of our entire operations by 68% based on value added by 2030 compared to our 2016 baseline. This target is consistent with reductions required to limit global warming to well below 2°C compared to pre-industrial levels.</p> <p>To achieve our 2030 carbon intensity reduction target, we are focusing on improving the efficiency of our manufacturing processes, designing and implementing site-based energy-saving programs, increasing the share of renewable sources of energy, and partnering with our crop protection and seed suppliers to reduce their carbon footprint. Our sourcing teams developed tools to visualize our footprint at a supplier and product level, enabling us to prioritize where to focus. We regularly issue questionnaires and conduct reviews with key suppliers to set expectations and understand their current ambition and maturity level.</p> <p>We also collaborate with suppliers and peers in the chemical industry to address the challenge of tracking and reducing carbon emissions. Syngenta has been contributing to the development of global standards for the chemical industry as part of the work undertaken by the <a href="#">Together for Sustainability</a> (TfS) initiative. In addition, we are working to further optimize our business travel and logistics network.</p> <p>More information about how we manage climate-related issues, including governance, strategy, risks and opportunities, and detailed performance information, can be found in our <a href="#">CDP Climate Change submission 2022</a> in which Syngenta was scored A-. We address the disclosure recommendations of the <a href="#">Task force on Climate-related Financial Disclosures</a> (TCFD) on page <a href="#">106</a>.</p>	<p>GGP targets: ✓</p> <ul style="list-style-type: none"> <li>➔ Reduce the carbon intensity of our operations by at least 50% by 2030</li> </ul> <p>Policies:</p> <ul style="list-style-type: none"> <li>➔ <a href="#">HSE Policy and Standards</a></li> <li>➔ HSE CoP 05 ENS Environmental Sustainability</li> </ul>

**Key performance indicators**

To measure progress toward our SBTi and Good Growth Plan commitments, we report carbon intensity based on value added (defined as gross profit) as well as performance indicators for scope 1 (i.e., direct emissions from owned or controlled sources), scope 2 (i.e., indirect emissions from the generation of purchased energy), and scope 3 (i.e., indirect emissions that occur in the value chain).

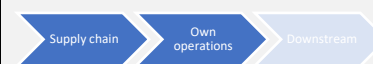
We also report carbon intensity based on sales for comparison purposes and in alignment with the environmental performance indicators presented in other Sustainable Operations disclosures in this report.

We use the [GHG Protocol Corporate Accounting and Reporting Standard](#) to prepare our corporate-level emissions inventory. We report our GHG emissions using the operational control approach. Scope 1 emissions are calculated in our Syngenta Environmental Reporting and Management (SERAM) reporting tool from data collected from our sites. Scope 2 emissions are reported in line with the market-based hierarchy of emission factors as set out in the [GHG Protocol Scope 2 Guidance](#).

Scope 3 emissions are estimated using a hybrid approach of spend-based and average data methods, depending on the type of process or material described. We continuously look for ways to increase the accuracy of our scope 3 emissions reporting. We aim to make it more representative of actual changes in our processes. Improvements in methodology sometimes lead to year-on-year values in specific scope 3 categories not being fully comparable. In 2022, we made improvements in specific categories as outlined in the footnotes below – these methodology changes are estimated to have a cumulative impact of approximately -6% on the overall scope 3 emissions reported in 2021. We also continued our efforts to collect supplier data to further improve our calculation method. Additional new supplier emission factors were used in the calculation, replacing database emission factors.

KPIs measuring progress toward our Good Growth Plan targets are labeled as **GGP**. KPIs measuring progress toward our SBTi-approved carbon reduction target are labeled as **SBTi**.

Reporting boundaries:



External assurance: ✓  
 → [Independent assurance report](#)

[Basis of Preparation](#)

Reporting period October 1 – September 30 (unless stated otherwise)	2022	2021	2020
<b>Greenhouse gas emissions<sup>1</sup></b>			
<b>Intensity-based CO<sub>2</sub>e emissions from scope 1+2+3 sources:</b>			
Emissions intensity (g/\$sales) <sup>2,3</sup>	584	585	681
Emissions intensity (g/\$value added) <sup>2,3</sup>	1,401	1,377	1,575
Change since 2016 baseline (based on value added) <sup>4</sup> <b>GGP/SBTi</b>	12%	10%	25%
<b>Intensity-based CO<sub>2</sub>e emissions from scope 1+2 sources:</b>			
Emissions intensity (g/\$sales) <sup>2,3</sup>	40	43	53
Emissions intensity (g/\$value added) <sup>2,3</sup>	96	101	124
Change since 2016 baseline (based on value added) <sup>3,4</sup> <b>SBTi</b>	-33%	-29%	-13%
<b>Intensity-based CO<sub>2</sub>e emissions from scope 3 sources:</b>			
Emissions intensity (g/\$sales) <sup>2</sup>	544	542	627
Emissions intensity (g/\$value added) <sup>2</sup>	1,304	1,276	1,451
Change since 2016 baseline (based on value added) <sup>4</sup> <b>SBTi</b>	17%	15%	30%
<b>Absolute CO<sub>2</sub>e emissions from scope 1+2+3 sources:</b>			
Emissions (000s tonnes) <sup>3</sup>	11,658	9,790	9,723
Change since 2016 baseline <sup>4</sup>	48%	24%	23%

<b>Absolute CO<sub>2</sub>e emissions from scope 1+2 sources:</b>			
Emissions (000s tonnes) <sup>3</sup>	<b>801</b>	720	764
Change since 2016 baseline <sup>3,4</sup>	<b>-11%</b>	-20%	-15%
<b>Absolute CO<sub>2</sub>e emissions from scope 3 sources:</b>			
Emissions (000s tonnes)	<b>10,857</b>	9,070	8,960
Change since 2016 baseline <sup>4</sup>	<b>55%</b>	30%	28%
<b>Scope 1 CO<sub>2</sub>e emissions:</b>			
Own operations (000s tonnes) <sup>3</sup>	<b>394</b>	362	388
Company vehicles (000s tonnes) <sup>5</sup>	<b>79</b>	57	52
<b>Scope 2 CO<sub>2</sub>e emissions:<sup>6</sup></b>			
Purchased energy (000s tonnes)	<b>328</b>	301	324
<b>Scope 3 CO<sub>2</sub>e emissions:<sup>7</sup></b>			
Purchased goods and services (000s tonnes) <sup>8,9</sup>	<b>8,695</b>	6,975	7,305
Capital goods (000s tonnes) <sup>8</sup>	<b>230</b>	198	191
Fuel and energy-related activities (000s tonnes) <sup>8</sup>	<b>152</b>	182	268
Upstream transportation and distribution (000s tonnes) <sup>10</sup>	<b>548</b>	583	590
Waste generated in operations (000s tonnes) <sup>8,9</sup>	<b>127</b>	169	162
Business travel (000s tonnes) <sup>8</sup>	<b>60</b>	15	25
Employee commuting (000s tonnes)	<b>14</b>	11	11
Upstream leased assets (000s tonnes) <sup>11</sup>	<b>70</b>	316	127
Downstream transportation and distribution (000s tonnes) <sup>10</sup>	<b>48</b>	51	51
Processing of sold products (000s tonnes) <sup>8,9,12</sup>	<b>469</b>	431	66
Use of sold products (000s tonnes) <sup>13</sup>	<b>n/a</b>	n/a	n/a
End-of-life treatment of sold products (000s tonnes)	<b>0.0</b>	0.2	0.2
Downstream leased assets (000s tonnes)	<b>0.2</b>	0.5	0.6
Franchises (000s tonnes) <sup>14</sup>	<b>n/a</b>	n/a	n/a
Investments (000s tonnes) <sup>9</sup>	<b>444</b>	138	162

<sup>1</sup> We report greenhouse gas KPIs to measure progress toward targets set in our Good Growth Plan and our SBTi-approved carbon reduction target. We report the percentage change vs. our 2016 baseline based on value added in alignment with our SBTi commitment. Total CO<sub>2</sub>e emissions from scope 1+2+3 sources for 2016 were 7,891,000 tonnes. Scope 1+2 emissions are for the period October to September. For 2020 and 2021, scope 3 emissions are for the period July to June due to the extensive time required to collect data and calculate results. Starting in 2022 and thanks to improved efficiency in the calculation process, scope 3 emissions are for the period October to September

<sup>2</sup> The intensity value is calculated based on January to December sales and gross profit (i.e., value added) to align with the company's audited full year results. Sales increased 19% and 56% since 2021 and 2016 respectively. Gross profit increased 17% and 32% since 2021 and 2016 respectively

<sup>3</sup> 2021 values were restated due to a reporting error in the consumption of fuel (biomass) found at one of our sites

<sup>4</sup> A positive value indicates an increase of our environmental footprint, while a negative value indicates a reduction

<sup>5</sup> Since 2022, this KPI is calculated using data collected through the new SERAM reporting tool, which led to an increase in data coverage and a higher reported value. The 2022 value is therefore not fully comparable with previous years

<sup>6</sup> We report scope 2 emissions using a market-based approach

<sup>7</sup> Following the acquisition of Valagro by Syngenta AG in 2020, the integration of Valagro's data systems is still ongoing. As such, the integration of Valagro in the scope 3 calculation was not yet possible in 2022. Valagro's scope 3 emissions are estimated to add around 0.5% to the Syngenta corporate carbon footprint

<sup>8</sup> Since 2022, we use the US Environmentally-Extended Input-Output (USEEIO) 2013 model instead of the USEEIO 2002 model for the spend-based method used to calculate this KPI

<sup>9</sup> In 2022, an upgrade in the internal purchasing data platform allowed for a more accurate allocation of materials to individual scope 3 categories. This led to some materials moving from 'Purchase goods and services' to 'Waste generated in operations', 'Processing of sold products', 'Investments' and some other categories. This made these categories not fully comparable with previous years

<sup>10</sup> Since 2022, this KPI is calculated using data provided by our logistic partner instead of the previously used finance-based model. This new method makes the value more sensitive to changes in logistic activities. The 2022 value is therefore not fully comparable with previous years

<sup>11</sup> 2021 value was overestimated due to an incorrect identification of reported property types, making it not fully comparable with other years

<sup>12</sup> In 2022, following analyses of the contribution of Syngenta's own formulation, fill and pack operations to the carbon emissions of our products, the calculation method of the category 'Processing of sold products' was amended. The new method assumes a lower quantity of carbon emissions per quantity of material in the category. The reduction caused by this method change was offset by the increase in volume in the category

<sup>13</sup> This category is not applicable in alignment with our SBTi commitment, reflecting the absence of externally validated methodologies that consider both benefits and emissions from the use of agricultural inputs

<sup>14</sup> This category is not applicable as Syngenta does not have franchises



## Performance in 2022

**Compared to 2021**, intensity-based CO<sub>2</sub>e emissions from **scope 1+2** sources decreased by 7% based on sales and by 5% based on value added. Absolute scope 1+2 emissions increased by 11% in the same period. The increase in scope 1+2 emissions in 2022 was due to increased production. Scope 1 emissions have also increased due to a greater number of sites reporting in 2022 (+26 sites), which is now 114 sites. This change was primarily due to requests from the business to add smaller sites that would not otherwise be in scope of the reporting criteria. This is part of Syngenta's overall effort to drive further improvements in HSE and sustainability. The increase in scope 2 emissions was also due to the update and standardization of emission factors used as part of the implementation of a new reporting tool in 2022.

All our sites are constantly seeking ways to contribute to Syngenta's carbon reduction target. For instance, in 2022, the [Ecotube](#) project was completed in our active ingredient (AI) site in Monthey (Switzerland). Ecotube built pipes of about three kilometers long between the thermal recycling company Satom SA and our chemical site of Monthey. Demineralized water is sent to Satom SA, which transforms it into steam, using energy from the incineration of waste. This steam is necessary for chemical production at the site. The site expects to reduce CO<sub>2</sub> emissions from the use of natural gas by 50%, thus lowering its annual CO<sub>2</sub> emissions by approximately 45,000 tonnes. We also strive to reduce carbon emissions from the use of company cars. In Europe, Africa and Middle East, we are transitioning toward a more sustainable car fleet and continue ordering and adding hybrid, plug in hybrid (PHEV) and full electric (BEV) vehicles to our fleet.

Compared to 2021, intensity-based CO<sub>2</sub>e emissions from **scope 3** sources increased by 0.4% based on sales and by 2% based on value added. Absolute scope 3 emissions increased by 20% in the same period. Emissions from purchased goods and services represented 80% of this year's total absolute scope 3 emissions. They increased by 25% compared to 2021, in line with a higher spend driven by increased production over the same period. Despite this increase, we recorded a reduction in the carbon footprint of a key chemical intermediate. The product supplier made significant production efficiency improvements and increased the amount of renewable electricity used. As a result, the carbon footprint per kilogram of purchased product was reduced by around 25%, preventing the release of around 22,000 tonnes of carbon emissions.

This year, emissions associated with the Investments category increased by 222% compared to last year due to a higher spend and change in the calculation method. The absolute emissions from Upstream leased assets decreased by 78% compared to 2021. This was due to a general decrease in leased assets and to the incorrect identification of reported property types in 2021, which led to reporting an overestimated emissions value last year. Although immaterial, this year we also observed a fourfold increase in business trip-related emissions due to the lifting of travel restrictions, which brought the reported emissions value back to the pre-COVID-19 pandemic level.

Over the last two years, we used our experience from initial engagements with suppliers to establish a four-step process to engage with our key chemical suppliers and develop shared roadmaps that aim to improve both transparency of data and carbon footprint. In 2022, we engaged with key suppliers representing around 70% of our chemical carbon footprint. These engagements included obtaining information on carbon reduction commitments, product carbon footprints and consumption, and energy sources at their manufacturing sites. Working with experts from the energy sector, we are now exploring ways in which we could accelerate their decarbonization. In 2022, we launched a new supplier award program that recognizes the exceptional performance of suppliers in the areas of waste, water and carbon. In addition, our partner TfS has established a global standard for calculating the chemical product carbon footprint and is working on developing a common platform for exchanging product carbon data.

To improve operational sustainability, our Product and Supply team conducted a carbon pricing viability study, which will be implemented as a pilot for airfreight in 2023. The proceeds will be used to invest in reducing our overall carbon footprint. Contributing to a slight decrease in emissions from transportation and distribution, our logistics function continued to explore carbon footprint reduction opportunities. For example, our teams in China and Pakistan worked on optimizing product storage by relocating selected products, which enabled travel distance to be minimized and resulted in CO<sub>2</sub> reductions of 7% and 4% respectively. In



Thailand, with the support of our logistics partner, we switched to biodiesel when transporting Syngenta products, which led to a 10% reduction in carbon emissions.

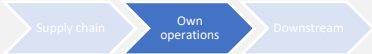
**Compared to our 2016 baseline** and our Good Growth Plan and SBTi commitments, intensity-based CO<sub>2</sub>e emissions from scope 1+2+3 sources increased by 12% based on value added. Absolute scope 1+2 emissions decreased by 11% since 2016, while absolute scope 3 emissions increased by 55% in the same period. Representing about 93% of our total absolute emissions, scope 3 emissions increased to 10,857k tonnes in 2022 from 6,994k tonnes in 2016.

Syngenta believes that reducing the environmental impact of our own operations is integral to our contribution to reducing the impact of agriculture on climate change. We are making good progress in developing emissions reduction mechanisms and are pleased to have achieved an intensity reduction in our scope 1+2 emissions. However, our recent rapid business growth has significantly outstripped those reductions, especially with regards to scope 3 emissions. Reducing our scope 3 emissions is a key priority and significant work is ongoing across the organization to do so. We recognize that we must adopt a different approach in how we achieve our carbon reduction target, and we are committed to addressing this issue. This demands focused efforts from Syngenta and our supply chain partners. At the same time, we continue to provide innovative solutions and encourage the use of agricultural practices that help farmers mitigate climate change.

<p><b>Related information in this report:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">In focus: Working to reduce greenhouse gas emissions</a></li> <li>• <a href="#">Carbon capture and mitigation in agriculture</a></li> <li>• <a href="#">Innovation in agriculture</a></li> <li>• <a href="#">Working with suppliers</a></li> <li>• <a href="#">Implementing TCFD's recommendations</a></li> </ul>	<p><b>Further information:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">CDP Climate Change submission 2022</a></li> <li>• <a href="#">The Good Growth Plan: Strive for carbon neutral agriculture</a></li> </ul>
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### 7.2.2 Energy

<p><b>Topic description</b> To limit global warming, the world needs to use energy efficiently while embracing clean energy sources. In our <a href="#">Good Growth Plan</a>, we committed to reduce carbon emissions in our operations. Energy management plays an important role in achieving this goal.</p>	<p>Materiality matrix classification: → Monitored (Resource efficiency)</p> <p>Frameworks: → GRI: - → SASB: RT-CH-130a.1 → UNGC: 8 → SDG: 12</p>
<p><b>Management approach</b> To reduce our energy consumption, we are improving the efficiency of our manufacturing processes, designing and implementing site-based energy saving programs, and increasing the share of renewable sources of energy.</p> <p>As stated in our <a href="#">HSE Policy and Standards</a>, we actively promote environmental protection, including reducing energy consumption and making our sites more efficient. Through our tailored HSE management system, we monitor and improve performance on our sites. More</p>	<p>GGP targets: ✖</p> <p>Policies: → <a href="#">HSE Policy and Standards</a> → HSE CoP 08 REP Reporting → HSE CoP 05 ENS Environmental Sustainability</p>

<p>information can be found in the <a href="#">FAQ: Environment</a> section of our website.</p> <p>More information about how we manage climate- and energy-related issues can be found in our <a href="#">CDP Climate Change submission 2022</a> for which Syngenta was scored A-.</p>			
<p><b>Key performance indicators</b></p> <p>We report annually on energy consumption. We collect information from our sites through internal reporting processes, as defined in our internal SERAM reporting guide.</p> <p>In 2022, we introduced new KPIs to align our reporting on energy with the CDP Climate Change questionnaire and our new SERAM reporting tool.</p>	<p>Reporting boundaries:</p>  <p>External assurance: ✓ → <a href="#">Independent assurance report</a></p> <p><a href="#">Basis of Preparation</a></p>		
<p>Reporting period October 1 – September 30 (unless stated otherwise)</p>	<b>2022</b>	2021	2020
<b>Energy</b>			
<b>Energy intensity (MJ/\$sales)<sup>1</sup></b>	<b>0.44</b>	0.50	0.56
Total energy (TJ) <sup>2,3</sup>	<b>8,787</b>	8,332	7,967
of which: renewable energy consumed <sup>3,6</sup>	<b>8%</b>	12%	11%
Consumption of fuel (TJ) <sup>4,5</sup>	<b>4,812</b>	4,651	4,560
Biomass (TJ) <sup>3,5</sup>	<b>183</b>	180	183
Oil (TJ)	<b>334</b>	475	299
Gas (TJ)	<b>3,382</b>	3,356	3,423
Other non-renewable fuel (TJ) <sup>4,5</sup>	<b>913</b>	640	655
Consumption of purchased or acquired energy (TJ) <sup>4,5</sup>	<b>3,949</b>	3,718	3,440
Electricity (TJ)	<b>2,485</b>	2,294	2,138
of which: renewable electricity <sup>6</sup>	<b>17%</b>	37%	33%
Steam (TJ)	<b>1,456</b>	1,344	1,226
of which: renewable steam <sup>4</sup>	<b>2%</b>	-	-
Other (TJ) <sup>4,5</sup>	<b>8</b>	43	43
of which: other renewable energy <sup>4</sup>	<b>0%</b>	-	-
Consumption of self-generated non-fuel renewable energy (TJ) <sup>4</sup>	<b>54</b>	-	-
Geothermal (TJ) <sup>4</sup>	<b>46</b>	-	-
Solar (TJ) <sup>4</sup>	<b>8</b>	-	-
<p><sup>1</sup> The intensity value is calculated based on January to December sales to align with the company's audited full year results. Sales increased 19% and 56% since 2021 and 2016 respectively</p> <p><sup>2</sup> Since 2022, the total energy is calculated as a sum of consumption of fuel, consumption of purchased or acquired energy and consumption of self-generated non-fuel renewable energy, minus energy sold or used by third parties. In previous years, energy sold or used by third parties was not subtracted</p> <p><sup>3</sup> 2021 value was restated due to a reporting error in consumption of fuel (biomass) found at one of our sites</p> <p><sup>4</sup> KPI introduced in 2022 to align our reporting on energy with the CDP Climate Change questionnaire and our new SERAM reporting tool</p> <p><sup>5</sup> 2020 and 2021 values are added retroactively in 2022 to allow for comparison</p> <p><sup>6</sup> Since 2022, only renewable electricity purchased via a specific renewable electricity supply contract or certificate scheme is accounted. In previous years, all renewable electricity purchased was considered</p>			
<p><b>Performance in 2022</b></p> <p>In 2022, intensity-based energy consumption decreased by 12%, while absolute energy consumption increased by 5% due to a greater number of sites reporting in 2022 (+26 sites), which is now 114 sites.</p> <p>The small increase in gas consumption (+1%, +26 TJ) was due to a doubling of our liquid gas consumption (+99%, +86 TJ), which was partially offset by a decrease in natural gas consumption (-2%, -60 TJ). The</p>			


increase in liquid gas consumption was largely due to power outages at our Nantong (China) facility as well as facilities in Florida (US), which were affected by hurricanes. Consumption of purchased or acquired energy grew by 6% (+231 TJ), which was driven by a larger number of reporting sites. This year, we started reporting on consumption of self-generated non-fuel renewable energy, which accounts for less than 1% of our total energy consumption.

The percentage of both renewable energy and renewable electricity were 8% and 17% respectively. These percentages have significantly changed compared to last year due to a material change in the definition. Since 2022, sites are required to have a specific renewable electricity supply contract or certificate scheme to be able to report on the amount of renewable electricity purchased. In previous years, renewable electricity from national grids was also considered.

Decarbonizing our electricity is vital to meeting our carbon reduction targets. In 2022, we developed a low-carbon electricity strategy. We plan to source power purchase agreements (PPA) in all our key regions and launch on-site photovoltaic programs at all our sites where feasible. Implementing PPAs will however take a few years, so in the short term we aim to decarbonize electricity supply at key locations through premium green tariffs.

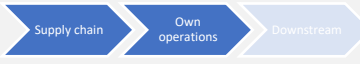
<p><b>Related information in this report:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">GHG emissions</a></li> </ul>	<p><b>Further information</b></p> <ul style="list-style-type: none"> <li>• <a href="#">CDP Climate Change submission 2022</a></li> <li>• <a href="#">Sustainable operations</a></li> </ul>
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7.2.3 Other air emissions

<p><b>Topic description</b> Air emissions from chemical manufacturing can contain a wide range of harmful substances with negative impact on human health and the environment. Syngenta aims to ensure the health and safety of our employees and others potentially affected by our activities.</p>	<p>Materiality matrix classification: ➔ Monitored (Air pollution)</p> <p>Frameworks: ➔ GRI: - ➔ SASB: RT-CH-120a.1 ➔ UNGC: 8 ➔ SDG: 3, 12</p>
<p><b>Management approach</b> As stated in our <a href="#">HSE Policy and Standards</a>, we actively promote environmental protection, including controlling air pollution. Through our tailored HSE management system, we monitor and improve performance on our sites. More information can be found in the <a href="#">FAQ: Environment</a> section of our website.</p> <p>All Syngenta sites must ensure that air emissions from static equipment or processes, or use of refrigerant gases, are known and managed.</p>	<p>GGP target: *</p> <p>Policies: ➔ <a href="#">HSE Policy and Standards</a> ➔ HSE CoP 08 REP Reporting ➔ HSE CoP 05 ENS Environmental Sustainability ➔ HSE CoP 05 AIR Air Emissions</p>
<p><b>Key performance indicators</b> In our own operations, we monitor emissions from process sources as well as emissions from freon and other global warming gases. We collect information on these emissions from our sites through internal reporting processes, as defined in our internal SERAM reporting guide.</p>	<p>Reporting boundaries:</p> 

<p>In 2022, we introduced new KPIs and discontinued others to align with our new SERAM reporting tool.</p>	<p>External assurance: ✓                  → <a href="#">Independent assurance report</a>   <a href="#">Basis of Preparation</a></p>		
Reporting period October 1 – September 30 (unless stated otherwise)	<b>2022</b>	2021	2020
<b>Other air emissions</b>			
<b>Other air emissions intensity (g/\$sales)<sup>1,2</sup></b>	<b>0.047</b>	0.048	0.056
Other air emissions (tonnes) <sup>2</sup>	<b>942</b>	798	799
NO <sub>x</sub> (tonnes) <sup>2</sup>	<b>331</b>	359	322
SO <sub>x</sub> (tonnes) <sup>3</sup>	<b>16</b>	-	-
SO <sub>2</sub> (tonnes) <sup>2,3</sup>	-	44	34
Non-methane VOCs (tonnes) <sup>3</sup>	<b>304</b>	-	-
Non-halogenated and halogenated VOCs (tonnes) <sup>3</sup>	-	262	326
Particulates (tonnes) <sup>2</sup>	<b>282</b>	127	104
NH <sub>3</sub> (tonnes)	<b>5</b>	2	4
HCl (tonnes)	<b>4</b>	5	9
<p><sup>1</sup> The intensity value is calculated based on January to December sales to align with the company's audited full year results. Sales increased 19% and 56% since 2021 and 2016 respectively</p> <p><sup>2</sup> 2021 value was restated due to a reporting error in consumption of fuel (biomass) found at one of our sites</p> <p><sup>3</sup> KPI introduced/removed in 2022 to align our reporting on other air emissions with our new SERAM reporting tool</p>			
<p><b>Performance in 2022</b></p> <p>In 2022, the intensity-based value of other air emissions remained relatively stable at 0.047, but their absolute value increased by 18%. This was driven by revised reporting guidelines following the implementation of our new SERAM reporting tool and the addition of new sites into the SERAM reporting scope, as well as by increased production. The significant increase in particulates was also due to the increased use of biomass (corn cobs and wood) at several of our sites in Brazil.</p> <p>We have initiatives in place to reduce non-GHG air emissions, particularly in our active ingredient sites. For example, in Switzerland, the Ordinance on Air Pollution Control is expected to be updated in 2024. In anticipation, our Monthey site has invested in a centralized Regenerative Thermal Oxidizer (RTO). The system is equipped with a selective catalytic oxidizer for the abatement of NO<sub>x</sub> and with a two-stage scrubber column for the abatement of HCl and SO<sub>x</sub>. The objective is to minimize consumption of fossil fuels (e.g., natural gas) by collecting and incinerating VOCs emitted by up to 12 manufacturing buildings while recuperating the energy generated by the incineration process. Commissioned in July 2021, Phase 1 of the project was successfully implemented, and Phase 2 is planned for execution in 2023-2024.</p> <p>Also, our active ingredient sites in Grangemouth (UK) and Huddersfield (UK) are working on projects to meet new air emissions standards for the chemical industry expected to be published in 2023, as part of new UK industrial emissions legislation. In particular, the Grangemouth site is replacing older VOC abatement units with new more efficient systems, and is evaluating technologies such as cryogenic condensation and a centralized RTO, similar to Monthey.</p>			
<p><b>Related information in this report:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">GHG emissions</a></li> </ul>	<p><b>Further information:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">FAQ: Environment</a></li> <li>• <a href="#">Sustainable operations</a></li> </ul>		

7.2.4 Water and wastewater

<p><b>Topic description</b>                  Water is critical for development, healthy ecosystems and human survival. Our manufacturing sites continuously look for ways to further optimize water use, especially those located in water-stressed areas. We are also working to improve water efficiency in our supply chain, where most of our water consumption takes place.</p>	<p>Materiality matrix classification:                  → Monitored (Water conservation)</p> <p>Frameworks:                  → GRI: -                  → SASB: RT-CH-140a.1 &amp; .3                  → UNGC: 8                  → SDG: 6</p>
<p><b>Management approach</b>                  We aim to reduce the water intensity of our operations and supply chain by 20% by 2030 compared to our 2016 baseline. We therefore focus on water usage and water stress, and we form partnerships to develop more effective processes and supply chains.</p> <p>As stated in our <a href="#">HSE Policy and Standards</a>, we also actively promote environmental protection, including the appropriate management of water and wastewater. Through our tailored HSE management system, we monitor and improve performance on our sites. More information can be found in the <a href="#">FAQ: Environment</a> section of our website.</p> <p>All Syngenta sites must ensure water supplies, including those from groundwater and surface water, are managed appropriately, and water quality is suitable for the intended use. They must also ensure that wastewater is managed appropriately from generation until final discharge. This includes process effluents, sanitary wastewater, and stormwater discharges.</p> <p>Through our Supplier Sustainability Program, we assess our chemical suppliers on their environmental performance, which includes water and wastewater management practices. For our seed supplier network, requirements on the use of good agricultural practices are part of our regular engagement with them. We provide water management training to growers using irrigation, and prioritize good practices when selecting growing areas and advising on implementation of water management technologies.</p> <p>More information about how we manage water conservation, including governance, strategy, risks and opportunities, and detailed performance information can be found in our <a href="#">CDP Water Security submission 2022</a> for which Syngenta was scored A-.</p>	<p>GGP targets: ✓                  → Reduce the water intensity of our operations by 20% by 2030</p> <p>Policies:                  → <a href="#">HSE Policy and Standards</a>                  → HSE CoP 08 REP Reporting                  → HSE CoP 05 ENS Environmental Sustainability                  → HSE CoP 05 WRS Water Resources and Supply                  → HSE CoP 05 WWR Wastewater                  → HSE CoP CON Containment</p>
<p><b>Key performance indicators</b>                  In our own operations, we report annually on water usage and wastewater effluents. We also measure the water footprint in our supply chain in alignment with our water intensity reduction target, which covers both our own operations and the supply chain.</p> <p>For our sites, water and wastewater data is collected through internal reporting processes, as described in our internal SERAM reporting guide.</p>	<p>Reporting boundaries:</p>  <p>External assurance: ✓                  → <a href="#">Independent assurance report</a></p> <p><a href="#">Basis of Preparation</a></p>

<p>The water performance of our supply chain is estimated using the same hybrid approach of spend-based and average data methods used to calculate our scope 3 emissions. We continuously look for ways to increase reporting accuracy and make the reported value more representative of actual changes in our processes. Improvements in the methodology sometimes lead to year-on-year values not being fully comparable. In 2022, we calculated the water usage from our supply chain activities using the same improved calculation methods used to calculate scope 3 emissions. (See <a href="#">GHG emissions</a>)</p> <p>In 2022, we introduced new KPIs to align our reporting on water with the CDP Water Security questionnaire and our new SERAM reporting tool.</p>			
Reporting period October 1 – September 30 (unless stated otherwise)	<b>2022</b>	2021	2020
<b>Water<sup>1</sup></b>			
<b>Total water usage intensity (liters/\$sales)<sup>2</sup></b>	<b>1,068</b>	1,010	1,413
Change in total water usage intensity since 2016 baseline (based on sales) <sup>3</sup>	<b>24%</b>	17%	64%
Total water usage (million cubic meters)	<b>21,325</b>	16,900	20,184
<b>Water usage intensity from own operations (liters/\$sales)<sup>2</sup></b>	<b>1.9</b>	2.0	2.2
Water usage from own operations (million cubic meters)	<b>37.0</b>	33.2	31.1
Origin of water withdrawn			
Surface fresh water (million cubic meters) <sup>4</sup>	<b>4.1</b>	21.8	20.5
Groundwater (million cubic meters)	<b>10.8</b>	9.0	8.2
Water obtained from a third party (million cubic meters) <sup>4</sup>	<b>22.2</b>	2.2	2.2
Recovered rainwater (million cubic meters) <sup>5</sup>	-	0.2	0.2
<b>Water usage intensity from supply chain activities (liters/\$sales)<sup>2</sup></b>	<b>1,066</b>	1,008	1,411
Water usage from supply chain activities (million cubic meters) <sup>6</sup>	<b>21,288</b>	16,867	20,153
<b>Wastewater effluents</b>			
<b>Industrial wastewater discharge intensity (liters/\$sales)<sup>2</sup></b>	<b>0.52</b>	0.53	0.62
Industrial wastewater discharge (million cubic meters)	<b>10.3</b>	8.9	8.8
Direct discharge of uncontaminated cooling water (million cubic meters)	<b>21.2</b>	21.3	18.6
Total on-site treated wastewater (million cubic meters) <sup>7</sup>	<b>5.5</b>	-	-
Primary treatment (million cubic meters) <sup>7</sup>	<b>2.3</b>	-	-
Secondary treatment (million cubic meters) <sup>7</sup>	<b>0.1</b>	-	-
Tertiary treatment (million cubic meters) <sup>7</sup>	<b>3.1</b>	-	-
Discharge to the environment without treatment (million cubic meters) <sup>7</sup>	<b>4.0</b>	-	-
Discharge to a third party without treatment (million cubic meters) <sup>7</sup>	<b>20.7</b>	-	-
Other routes or treatment types (million cubic meters) <sup>7</sup>	<b>0.1</b>	-	-
<p><sup>1</sup> We report water performance indicators in alignment with our commitment to reduce the water intensity of our operations by 20% by 2030 compared to our 2016 baseline. Water usage refers to water withdrawal. Water usage from our own operations is for the period October to September. For 2020 and 2021, water usage from supply chain activities is for the period July to June due to the extensive time required to collect data and calculate results. Starting in 2022 and thanks to improved efficiency in the calculation process, water usage from supply chain activities is for the period October to September</p> <p><sup>2</sup> The intensity value is calculated based on January to December sales to align with the company's audited full year results. Sales increased 19% and 56% since 2021 and 2016 respectively</p> <p><sup>3</sup> A positive value indicates an increase of our environmental footprint, while a negative value indicates a reduction</p> <p><sup>4</sup> The decrease in withdrawal of surface fresh water and the increase in withdrawal of water obtained from a third party in 2022 was due to revised reporting guidelines driven by the implementation of our new SERAM tool. The water usage from our site in Monthey (Switzerland) representing approximately 17 million m<sup>3</sup> is now categorized as water obtained from a third party, instead of surface fresh water as in previous years</p> <p><sup>5</sup> In 2022, sites were not required to report on water withdrawn from this source</p> <p><sup>6</sup> Since 2022, we use the US Environmentally-Extended Input-Output (USEEIO) 2013 model instead of the USEEIO 2002 model for the spend-based method used to calculate this KPI. Improvements in the calculation method in 2022 made the 2022 value not fully comparable with previous years</p> <p><sup>7</sup> KPI introduced in 2022 to align our reporting on water with the CDP Water Security questionnaire and our new SERAM reporting tool</p>			



**Performance in 2022**

**Water usage**

**Compared to 2021**, both total water usage intensity and absolute water usage increased by 6% and 26% respectively. Despite site-specific improvements, our overall water usage was driven by growth and weather conditions.

Water usage from supply chain activities increased in absolute terms by 26% (+4,421 million m<sup>3</sup>) compared to 2021 in line with spend. Water usage from our own operations increased by 11% (+3.8 million m<sup>3</sup>) in the same period due to increased production, increased cooling demands due to hotter weather primarily in our Swiss operations, and intensified irrigation due to drier weather at many seeds sites, especially in the US.

The perceived decrease in surface fresh water withdrawal (-17.7 million m<sup>3</sup>) and the increase in withdrawal of water obtained from a third party (+20 million m<sup>3</sup>) in 2022 was due to revised reporting guidelines driven by the implementation of our new SERAM reporting tool. The water usage from our site in Monthey (Switzerland) representing approximately 17 million m<sup>3</sup> is now categorized as water obtained from a third party, instead of surface fresh water as in previous years. The first full year reporting of our relatively new manufacturing site in Muttenz (Switzerland) also contributed to the increase in withdrawal of water obtained from a third party.

**Compared to our 2016 baseline** and our water reduction target, total water usage intensity (supply chain and own operations) increased by 24% based on sales. Absolute total water usage increased to 21,325 million m<sup>3</sup> from 11,047 million m<sup>3</sup> in 2016.

Representing about 99.8% of our total water usage and with an increase of 93% (+10,278 million m<sup>3</sup>) since 2016, water usage from supply chain activities was the main driver of the overall increase. Water usage in our supply chain is strongly linked to the amount and level of water-intensive materials purchased. In our own operations, we observed a 13% increase (+4.4 million m<sup>3</sup>) of absolute water usage since 2016.

We have observed a rapid increase of water usage in supply chain activities in the last few years. We recognize that we must adopt a different approach in how we achieve our water reduction target, and we are committed to addressing this issue.

**Wastewater effluents**

In 2022, intensity-based industrial wastewater discharges decreased by 2%, while the absolute industrial wastewater discharges increased by 16%. The increase in absolute discharge is related to changes in indicators and definitions in the new SERAM reporting tool. Additionally, this is driven largely by the first full year reporting of our Muttenz (Switzerland) site and increased production globally.

In 2022, our active ingredient site in Nantong (China) made process improvements at the wastewater treatment plant. The aim was to further reduce operating costs and confirm that the treated wastewater complied with national laws and regulations and was discharged in compliance with requirements. Our formulation, fill and pack sites in Aigues-Vives (France) and Porrino (Spain) embarked on a joint initiative to achieve a zero wastewater objective by 2030, by developing a zero liquid discharge water treatment process, which will reduce wastewater and produce clean water that is suitable for reuse (e.g., irrigation or process water).

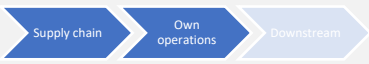
**Related information in this report:**

- [Water conservation](#)
- [Working with suppliers](#)

**Further information:**

- [CDP Water Security submission 2022](#)
- [Water conservation](#)
- [Sustainable operations](#)

7.2.5 Waste

<p><b>Topic description</b>                  Despite the chemical industry’s efforts to reduce, recycle and reuse waste, the manufacturing, formulation and packaging of its products generate non-recoverable waste. To a lesser extent so does the production of seeds. At Syngenta, we are committed to maximizing the efficient use of resources while reducing waste and minimizing the impact on the environment.</p>	<p>Materiality matrix classification:                  → Monitored (Resource efficiency)</p> <p>Frameworks:                  → GRI: -                  → SASB: RT-CH-150a.1                  → UNGC: 8                  → SDG: 12</p>
<p><b>Management approach</b>                  As stated in our <a href="#">HSE Policy and Standards</a>, we actively promote environmental protection, including waste management. Through our tailored HSE management system, we monitor and improve performance on our sites. More information can be found in the <a href="#">FAQ: Environment</a> section of our website. We aim to reduce the waste intensity of our operations and supply chain by 20% by 2030 compared to our 2016 baseline.</p> <p>All Syngenta sites must ensure that waste is managed appropriately from generation until final treatment or disposal. To reduce our waste footprint, we focus our efforts on improving process efficiency. This is particularly important when introducing new products and designing the manufacturing processes at the product development stage, before large-scale production starts.</p> <p>We also seek opportunities to significantly reduce the volume of packaging waste, with a focus on reducing plastics and increasing collection schemes.</p> <p>Through our Supplier Sustainability Program, we assess our chemical suppliers on their environmental performance, which includes reviewing waste management practices. (See <a href="#">Working with suppliers</a>)</p>	<p>GGP targets: ✓                  → Reduce waste intensity of our operations by 20% by 2030</p> <p>Policies:                  → <a href="#">HSE Policy and Standards</a>                  → HSE CoP 08 REP Reporting                  → HSE CoP 05 ENS Environmental Sustainability                  → HSE CoP 05 WST Waste</p>
<p><b>Key performance indicators</b>                  In our own operations, we report annually on hazardous and non-hazardous waste generation. We also measure waste generation in our supply chain in alignment with our waste intensity reduction target, which covers both our own operations and the supply chain.</p> <p>For our sites, waste data is collected through internal reporting processes, as described in our internal SERAM reporting guide.</p> <p>The waste performance of our supply chain is estimated using a hybrid approach of spend-based and average data methods. We continuously look for ways to increase reporting accuracy and make the reported value more representative of actual changes in our processes. Improvements in the methodology sometimes lead to year-on-year values not being fully comparable. In 2022, we calculated the waste from our supply chain activities using the same improved calculation methods used to calculate scope 3 emissions. (See <a href="#">GHG emissions</a>)</p>	<p>Reporting boundaries:</p>  <p>External assurance: ✓                  → <a href="#">Independent assurance report</a></p> <p><a href="#">Basis of Preparation</a></p>

In 2022, we discontinued the breakdowns of waste by type, which we reported in our previous ESG report, to align with our new SERAM reporting tool.			
Reporting period October 1 – September 30 (unless stated otherwise)	<b>2022</b>	2021	2020
<b>Waste<sup>1</sup></b>			
<b>Total waste intensity (g/\$sales)<sup>2</sup></b>	<b>376</b>	346	524
Change in total waste intensity since 2016 baseline (based on sales) <sup>3</sup>	<b>14%</b>	5%	59%
Total waste (000s tonnes)	<b>7,511</b>	5,788	7,484
<b>Hazardous waste intensity from own operations (g/\$sales)<sup>2</sup></b>	<b>10.4</b>	12.6	15.0
Hazardous waste from own operations (000s tonnes)	<b>208</b>	210	215
Recycled and re-used (000s tonnes)	<b>85</b>	85	96
Incinerated (000s tonnes)	<b>101</b>	114	102
Landfill (000s tonnes)	<b>7</b>	1	5
Other (000s tonnes)	<b>15</b>	10	12
<b>Non-hazardous waste intensity from own operations (g/\$sales)<sup>2</sup></b>	<b>8.7</b>	8.2	8.1
Non-hazardous waste from own operations (000s tonnes)	<b>174</b>	137	116
Recycled and re-used (000s tonnes)	<b>93</b>	94	76
Incinerated (000s tonnes)	<b>21</b>	7	6
Landfill (000s tonnes)	<b>54</b>	28	24
Other (000s tonnes)	<b>6</b>	8	10
<b>Waste intensity from supply chain activities (g/\$sales)<sup>2</sup></b>	<b>357</b>	325	501
Waste from supply chain activities (000s tonnes) <sup>4</sup>	<b>7,129</b>	5,441	7,153
<p><sup>1</sup> We report waste performance indicators in alignment with our commitment to reduce the waste intensity of our operations by 20% by 2030 compared to our 2016 baseline. Waste from our own operations is for the period October to September. For 2020 and 2021, waste from supply chain activities is for the period July to June due to the extensive time required to collect data and calculate results. Starting in 2022 and thanks to improved efficiency in the calculation process, waste from supply chain activities is for the period October to September</p> <p><sup>2</sup> The intensity value is calculated based on January to December sales to align with the company's audited full year results. Sales increased 19% and 56% since 2021 and 2016 respectively</p> <p><sup>3</sup> A positive value indicates an increase of our environmental footprint, while a negative value indicates a reduction</p> <p><sup>4</sup> Since 2022, we use the US Environmentally-Extended Input-Output (USEEIO) 2013 model instead of the USEEIO 2002 model for the spend-based method used to calculate this KPI. Improvements in the calculation method in 2022 made the 2022 value not fully comparable with previous years</p>			
<b>Performance in 2022</b>			
<p><b>Compared to 2021</b>, intensity-based and absolute waste increased by 9% and 30% respectively. Year-on-year changes are driven by waste generation from supply chain activities, which increased in absolute terms by 31% (+1,688k tonnes) compared to 2021 in line with spend.</p> <p>In 2022, despite reporting an overall increase, we continued working to reduce waste generated in our own operations. Absolute hazardous waste remained relatively stable in 2022, decreasing by about 1%. Some of our sites are implementing measures for waste reduction. For example, our site in Monthey (Switzerland) has reported 4% less total hazardous waste generated compared to last year (a reduction of more than 3k tonnes) thanks to waste reduction measures implemented in the manufacturing of active ingredients. Absolute non-hazardous waste increased by 27% (+37k tonnes) in 2022, driven by significant packaging waste associated with increased production and an increased quantity of write-off seeds.</p> <p><b>Compared to our 2016 baseline</b> and our waste reduction target, total waste intensity (supply chain and own operations) increased by 14% based on sales. Absolute total waste increased to 7,511k tonnes from 4,218k tonnes in 2016.</p> <p>Representing about 95% of our total waste and with an increase of about 83% (+3,223k tonnes) since 2016, waste from supply chain activities was the main driver of the overall increase. The amount of waste</p>			

generated in our supply chain is strongly linked to the amount and level of waste-intensive materials purchased. In our own operations, we observed a 7% increase (+13k tonnes) in hazardous waste and a 49% increase (+57k tonnes) in non-hazardous waste since 2016.

We recognize that we need a different approach to achieve our waste reduction target. Although we keep making progress in the waste intensity from our own operations, we still have a lot of work to do to reduce the waste intensity from our supply chain activities.

**Related information in this report:**

- [Working with suppliers](#)


**Further information:**

- [Sustainable operations](#)

7.2.6 Working with suppliers

<p><b>Topic description</b>                  Syngenta operates in complex supply chain networks across the globe. Our key direct procurement activities are in the seed, crop protection and flower supply chains:</p> <ul style="list-style-type: none"> <li>• <b>Seed supply chain:</b> We work with over 65,000 small, medium and large farms in about 35 countries to multiply the high-quality seeds we sell to our customers.</li> <li>• <b>Crop protection supply chain:</b> From producers of basic commoditized chemistries to advanced custom manufacturers of fine chemistries, we work with more than 600 suppliers in more than 30 countries around the world to procure the chemicals required to manufacture our crop protection products. We also work with suppliers of packaging and other direct materials as well as with formulation, fill and pack tollers.</li> <li>• <b>Flower supply chain:</b> Our network of about 40 owned and third-party commercial flower farms in over 15 countries produce flower seeds, cuttings and young plants.</li> </ul> <p>These supply chains have their own diverse challenges. In our seed supply chain, agriculture work is heavy and often involves long working hours in conditions that carry many risks, including exposure to hazardous chemicals, machinery and the climate. In our chemical supply chain, despite advanced health and safety prevention practices in chemical production, improper handling of chemicals could still have adverse consequences for humans and the environment.</p> <p>These supply chains also represent the most significant portion of our carbon footprint. This is why working with our suppliers to identify and deliver improvements is critical to achieving our carbon reduction goal.</p> <p>At Syngenta, we are committed to ensuring fair labor, safe working conditions and high environmental standards across our supply chain.</p>	<p>Materiality matrix classification:                  → Material (Health, safety and fair labor)</p> <p>Frameworks:                  → GRI: ✓ (414-2)                  → SASB: -                  → UNGC: 2, 3, 4, 5, 6                  → SDG: 3, 8</p>

<p><b>Management approach</b>                  Syngenta expects suppliers to uphold the standards set out in our <a href="#">Syngenta Group Code of Conduct</a> and <a href="#">Supplier Code of Conduct</a>.</p> <p>Our supplier relationship management approach enables us to manage suppliers effectively, while focusing on our most critical suppliers to maximize value and reduce risks in our supply chain. We engage in regular, open dialogue with suppliers to develop strong positive relationships in the marketplace. Syngenta employees engaging with suppliers undergo training on ethical procurement practices, risks associated with purchasing in certain categories, and requirements for conducting due diligence and driving improvements.</p> <p>To assess and improve the standards of our suppliers, we monitor their performance through audits and assessments. These are either conducted by our own teams or in collaboration with partners. When gaps are identified, we support suppliers in making the required improvements.</p> <p>When engaging with a new supplier, and before entering or renewing contracts, we evaluate the different sustainability-related risks to which the supplier might be exposed. To do so, we request and collect information about suppliers' policies, management processes and practices on topics such as Health, Safety and Environment, and fair labor.</p> <p>To ensure our <b>seed suppliers</b> meet our fair labor standards, the Syngenta Fair Labor Program monitors labor practices on our farm network to ensure high health and safety standards, no forced and child labor, fair compensation and working hours, freedom of association and collective bargaining as well as no discrimination, harassment and abuse. In case of non-compliance, a multifunctional steering team, including specialists from HSE, HR, legal and procurement, suggests corrective actions. External stakeholders (e.g., farmers, subcontractors, labor agencies or NGOs) are also involved in the process when relevant. Syngenta uses the five-why methodology for root-cause analysis to ensure the action plan addresses the fundamental source of the issue. The action plan should then establish a long-term, sustainable change to remediate the non-compliance.</p> <p>We engage with our <b>chemical suppliers</b> through our Supplier Sustainability Program, which includes on-site audits by our own teams, and audits or online EcoVadis-supported assessments conducted through the chemical industry's <a href="#">Together for Sustainability</a> (TfS) initiative, which follow the principles of the <a href="#">United Nations Global Compact</a>, <a href="#">Responsible Care</a>® and the <a href="#">International Labor Organization</a>. We work with our suppliers to address any areas for improvement highlighted during the audits and assessments. We also engage with chemical suppliers to increase transparency and to drive actions to improve their carbon footprint.</p> <p>Our <b>flower business</b> is working to obtain <a href="#">GlobalG.A.P.</a> and <a href="#">GlobalG.A.P. Risk Assessment on Social Practice</a> (G.R.A.S.P.) certification for our commercial flower farms. GlobalG.A.P. is the worldwide standard for good agricultural practices and G.R.A.S.P.</p>	<p>GGP targets: ✓                  → Strive for fair labor across our entire supply chain</p> <p>Policies:                  → <a href="#">Syngenta Group Code of Conduct, principles 22-24</a>                  → <a href="#">Supplier Code of Conduct</a>                  → <a href="#">Syngenta Labor Standards</a>                  → <a href="#">Principles for Sustainable and Responsible Agriculture</a></p>
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<p>assesses social practices on the farm, addressing specific aspects of workers' health, safety and welfare.</p>			
<p><b>Key performance indicators</b>                  We report on the coverage of sustainability and fair labor programs in our key direct procurement supply chains: seeds, crop protection and flowers.</p> <p>KPIs measuring progress toward our Good Growth Plan targets are labeled as <b>GGP</b>.</p>	<p>Reporting boundaries:</p>  <p>External assurance: ✓                  → <a href="#">Independent assurance report</a></p> <p><a href="#">Basis of Preparation</a></p>		
<p>Reporting period October 1 – September 30 (unless stated otherwise)</p>	<p><b>2022</b></p>	<p>2021</p>	<p>2020</p>
<p><b>Supplier sustainability and fair labor programs</b></p>			
<p>Suppliers included in sustainability and fair labor programs <b>GGP</b></p>	<p><b>99.5%</b></p>	<p>99.5%</p>	<p>99.4%</p>
<p>Coverage of Syngenta Fair Labor Program:</p>			
<p>Syngenta seed producing countries</p>	<p><b>91%</b></p>	<p>91%</p>	<p>92%</p>
<p>Seed supply farms</p>	<p><b>99.7%</b></p>	<p>99.7%</p>	<p>99.6%</p>
<p>Of which: farms monitored</p>	<p><b>20%</b></p>	<p>23%</p>	<p>22%</p>
<p>Coverage of Supplier Sustainability Program:</p>			
<p>Chemical suppliers<sup>1</sup></p>	<p><b>94%</b></p>	<p>95%</p>	<p>95%</p>
<p>Formulation, fill and pack tollers<sup>1</sup></p>	<p><b>71%</b></p>	<p>74%</p>	<p>86%</p>
<p>Packaging manufacturers<sup>2</sup></p>	<p><b>71%</b></p>	<p>71%</p>	<p>67%</p>
<p>Commercial flower farms with valid GlobalG.A.P. certification</p>	<p><b>95%</b></p>	<p>97%</p>	<p>91%</p>
<p>Commercial flower farms with valid G.R.A.S.P. assessment</p>	<p><b>100%</b></p>	<p>85%</p>	<p>100%</p>
<p><sup>1</sup> Includes only chemical suppliers or formulation, fill and pack tollers categorized as posing a high or medium sustainability risk</p>			
<p><sup>2</sup> Includes all packaging manufacturers independently of their level of sustainability risk</p>			
<p><b>Performance in 2022</b></p>			
<p>In 2022, the percentage of our suppliers covered by our sustainability and fair labor programs remained at 99.5%. We know we cannot reach 100% due to fluctuations in our supply chains and exceptional delays in audits and assessments that are beyond our control.</p>			
<p><b>Seed supply</b></p>			
<p>Same as last year, in 2022, 99.7% of our seed supply farms were part of the Syngenta Fair Labor Program (FLP). Driven by the shift to areas with smaller farms, the total number of seed supply farms increased by 16% to reach 77,222 farms in 2022. These new supplier farms are mainly located in Indonesia, Thailand and Canada. The seed supply chain represents 99% of all suppliers targeted by our sustainability and fair labor programs.</p>			
<p>The Syngenta FLP is in place in 91% of our seed producing countries (32 out of a total of 35), with only Guatemala, Honduras, and Peru still not part of the program. We aim to cover all seed production countries with the FLP by end of 2023.</p>			
<p>The percentage of farms undergoing internal monitoring slightly decreased to 20% due to the increase in the total number of seed farms (+16%) vs. the number of farms monitored, which has not increased at the same rate (+1%).</p>			
<p>In 2022, Syngenta and BASF joined forces with the NGO <a href="#">Arisa</a> in a multistakeholder collaboration called <a href="#">Wage Improvements in Seed Hybrids</a> (WISH) to improve labor standards, in particular with regards to child labor issues and minimum wage compliance in the vegetable seeds sector in India. The four-year project consists of two phases. In the first phase, completed in 2022, WISH conducted research on the current</p>			



occurrence of minimum wages and child labor issues. In the second phase, WISH will implement strategies that address the root causes of gaps in minimum wage and child labor regulations in the vegetable seeds sector.

In 2022, we continued working with [Solidaridad](#) to improve the sustainability of our seed supply chains with a focus on primary seed production in Guatemala, Honduras and China. In Guatemala and Honduras, following an assessment of the compliance of Syngenta’s vendors with labor standards, we are developing strategies to close identified gaps. In China, Solidaridad is developing a business case for Syngenta vegetable seed farmers to improve their livelihood by supporting the adoption of sustainable, climate-resilient and socially responsible practices in Gansu province.

**Chemical suppliers, formulation fill and pack tollers and packaging manufacturers**

Despite a slight increase in the number of chemical suppliers in 2022, the percentage of chemical suppliers included in the Supplier Sustainability Program slightly decreased and is now at 94% (at the same level for the last five years).

The percentage of high- and medium-risk formulation, fill and pack tollers included in the program decreased slightly from the previous year. There was no change to the overall number of tollers, despite some natural fluctuations in the companies we work with. Although COVID-19 restrictions significantly reduced the number of audits we could execute at these tollers, we conducted online follow-ups to address gaps in corrective action plans and TfS Sustainability assessments via the [EcoVadis](#) platform. We also made progress in the first half of 2022 in ramping up the execution of audits where restrictions were lifted.

The total number of packaging suppliers we are working with grew in 2022. Through our continued roll-out of the TfS assessment, we were able to include more packaging suppliers in the program, keeping our coverage at 71%.

In 2022, we increased the resources dedicated to supplier sustainability activities, which enabled us to continue improving both the coverage of our programs and the performance of our suppliers. We also developed and implemented new software solutions to track and monitor coverage and progress across our supplier base, and create a direct link between sustainability and procurement spend data.

**Commercial flower farms**

In 2022, despite a decline in the percentage of farms with valid GlobalG.A.P. certification, which is now at 95% compared to 97% in 2021, one additional supplier was certified (36 in 2022 vs. 35 in 2021) and two additional third-party farms were added to the GlobalG.A.P. scope. 100% of Syngenta commercial flower farms had valid G.R.A.S.P. social practice assessment this year. The decrease in 2021 was due to two of our sites in Kenya not being considered as G.R.A.S.P.-certified because GlobalG.A.P. stopped recognizing the Kenya Flower Council Silver certificate as equivalent to G.R.A.S.P. This has been resolved in 2022.

We also identified 12 third-party farms, which are not in scope for our reporting, having a valid G.R.A.S.P. certification in place.

**Related information in this report:**

- [Human rights](#)
- [GHG emissions](#)
- [Waste](#)
- [Water and wastewater](#)
- [Soil health](#)
- [Biodiversity](#)
- [Water conservation](#)

**Further information:**

- [The Good Growth Plan: Help people stay safe and healthy](#)
- [FAQ: Supply chain management](#)
- [Sustainable operations](#)

## 7.3 People

### 7.3.1 Employment and engagement

<p><b>Topic description</b>                  Attracting the right talent and engaging our employees is critical to our aspiration to help solve the world’s increasingly complex food security and climate change challenges. Providing a proper and conducive work environment is essential to foster employee satisfaction, health and performance, hence contributing to the overall performance of the business.</p> <p>We actively seek ways to engage our employees so they can be at their best every day, are committed to our values and goals, and feel inspired to contribute to Syngenta’s success. We also recognize employees’ rights to freedom of association and collective bargaining as a basis for sound labor relations and working conditions.</p>	<p>Materiality matrix classification:                  → Monitored (Employee engagement)</p> <p>Frameworks:                  → GRI: -                  → SASB: -                  → UNGC: 3, 6                  → SDG: 8</p>
<p><b>Management approach</b>                  At Syngenta, we aspire to attract and retain the best talent by sharing our goal of making agriculture more sustainable. We do this by being open and proactive in our recruitment. Positions are advertised globally, and through local internet sites, and we use social media to promote opportunities as widely as possible. To support employees’ development, all jobs are first posted internally for five days before inviting external applications. We engage graduates through job fairs and career days, and offer graduate programs across our business. We employ professional headhunters and in-house recruiters, who map the market for critical capabilities and keep a healthy pipeline of potential candidates.</p> <p>Syngenta offers a combination of monetary and non-monetary rewards. Our compensation principles provide a transparent, performance-oriented and market-competitive compensation framework for all employees. Non-monetary elements, such as individual development plans, programs for young professionals or global mobility opportunities, allow Syngenta to differentiate itself from competitors and play a key role in retaining current employees and attracting new ones.</p> <p>We also offer career development programs to allow our people to grow personally and professionally (See <a href="#">Employee development</a>) and a stimulating and collaborative work environment where diverse backgrounds are valued, and talents are nurtured. Syngenta’s culture is shaped every day through our behaviors and how we work together. By regularly adjusting our operating model to bring decision making as close as possible to the market and our customers, we strive to empower our employees and teams to take initiative and be accountable.</p> <p>We regularly organize townhalls, leader-led sessions and focus groups for employees to learn more about the company’s strategy, culture and values, provide insights into current matters or gather feedback. We also share employee stories and connect employees across the</p>	<p>GGP targets: ✖</p> <p>Policies:                  → <a href="#">Syngenta Group Code of Conduct, principles 22-24</a>                  → Global Recruitment Policy                  → Global Employee Relations Policy                  → <a href="#">Syngenta Labor Standards</a></p>

organization through our internal communication and social media channels.

Our global employee recognition program Val-You enables employees to recognize colleagues for contributing to our business performance, while bringing our values to life. Employee satisfaction and the work environment are regularly measured through online pulse surveys.

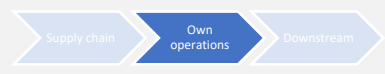
**Collective bargaining**  
As stated in the Syngenta Group Code of Conduct and the Syngenta Labor Standards, we recognize employees' rights to become members of relevant labor unions and/or other employee organizations and bargain collectively. No employee or employee representative will be subject to discharge, discrimination, harassment, intimidation or retaliation for exercising her or his right to associate or bargain collectively. And, where the right to freedom of association and collective bargaining is restricted under law, the company allows the development of parallel means for independent and free association and bargaining.

**Key performance indicators**  
We report on employment performance using the following KPIs:

- **Permanent employees:** Sum of all active full-time equivalents (FTEs) with a regular and regular fixed-term contract
- **Temporary employees:** Sum of all active FTEs with a temporary contract or part of an apprenticeship program
- **Part-time employees:** Number of active permanent employees (headcount) who work part-time (>0% and <100%)
- **Senior managers:** Number of active permanent employees (headcount) in positions at the top four levels of accountability within the organization
- **Turnover rate:** Percentage of permanent employees who left the company voluntarily, for retirement or due to restructuring
- **Attrition rate:** Percentage of permanent employees who left the company voluntarily

All figures are as of September 30.

Reporting boundaries:



External assurance: ✓  
→ [Independent assurance report](#)

[Basis of Preparation](#)

Reporting period October 1 – September 30 (unless stated otherwise)	2022	2021	2020
<b>Employment<sup>1</sup></b>			
Permanent employees <sup>2,3</sup>	32,761	30,892	29,262
Europe, Africa and Middle East	13,222	12,797	12,419
North America	4,585	4,217	4,040
Latin America	7,158	6,698	5,971
Asia Pacific	7,796	7,180	6,832
Temporary employees <sup>2,3,4</sup>	3,717	-	-
Europe, Africa and Middle East <sup>4</sup>	880	-	-
North America <sup>4</sup>	59	-	-
Latin America <sup>4</sup>	2,519	-	-
Asia Pacific <sup>4</sup>	261	-	-
Part-time employees <sup>5</sup>	963	939	942
Europe, Africa and Middle East <sup>4</sup>	930	-	-
North America <sup>4</sup>	9	-	-

Latin America <sup>4</sup>	0	-	-
Asia Pacific <sup>4</sup>	24	-	-
Senior managers <sup>5,6</sup>	328	303	299
Europe, Africa and Middle East	51%	54%	55%
North America	25%	24%	23%
Latin America	13%	11%	11%
Asia Pacific	12%	11%	11%
Turnover rate <sup>5,7</sup>	11.3%	9.6%	10.0%
Attrition rate <sup>5,8</sup>	8.1%	6.3%	6.3%

<sup>1</sup> The employment figures do not include Valagro. Depending on the contract agreement, new acquisitions have a grace period to integrate the data into the system. As of September 30, 2022, Valagro reported 1,036 FTEs

<sup>2</sup> Full-time equivalents (FTEs)

<sup>3</sup> Permanent employees have a regular or regular fixed-term contract. Temporary employees have a temporary contract or are part of an apprenticeship program

<sup>4</sup> KPIs introduced in 2022 to provide more information about employment and diversity and inclusion to address GRI 2021 requirements

<sup>5</sup> Only permanent employees are in scope of these KPIs

<sup>6</sup> Leaders in positions at the top four levels of accountability/scope within the organization

<sup>7</sup> Includes voluntary leavers, retirement and restructuring

<sup>8</sup> Includes only voluntary leavers

**Performance in 2022**

In 2022, the number of permanent FTEs increased by 6% mainly due to business growth in all regions. The part-time employees are located mainly in Europe. As our flexible working arrangements are applicable across all Syngenta sites globally, the regional differences in part-time contracts can be explained by market labor practices, which are driven by local regulations.

The percentage of senior managers in the Europe, Africa and Middle East region is lower compared to last year due to the strengthening of our operations in other regions and related shifts in senior management – for instance the headquarters for Syngenta Seeds are now in North America and our stronger presence in China accounts for an increasing number of senior managers in APAC (including China).

The overall turnover rate increased to 11.3% from 9.6% in 2021, and the voluntary attrition rate increased to 8.1% from 6.3% in 2021. Both increases reflect the overall higher activity in the labor market.

Collective bargaining agreements (CBAs) are usually managed at a local level and participation in them varies. The percentage of employees covered by a CBA in each country varies depending on the local conditions. In Switzerland, for example, about half of our work contracts in our Monthey site are covered by the Collective Labor Agreement Monthey, while in Northwestern Switzerland only a small number of employees are covered by a CBA given the nature and seniority level of roles in that geography. About 20% of our employees in Switzerland are covered by a CBA. We also have a regional workers council called Syngenta European Employee Consultation Council, which deals with topics relevant to Syngenta operations across the EU27 countries, the UK and Switzerland.

**Future of work**

In 2022, many employees came back from home office work after two years marked by the COVID-19 pandemic. As part of our Future of Work (FoW) program, initiatives were taken at Syngenta sites around the world to look at how and where we work together. In Basel (Switzerland), we launched a pilot for a new office floor layout, which fosters a culture of engagement, collaboration and innovation among employees. Following successful pilot results, we rolled out the project, creating an inspiring workplace for employees from both Syngenta Crop Protection and Group Corporate functions. The new space caters to individual needs while embracing changes to our ways of working, such as hybrid working. The feedback we gathered showed that employees find their new workspace enables them to perform efficiently in their daily work.

**Pulse surveys and employee engagement**

In 2022, we continued to evolve our surveying solutions to further understand employee sentiment – critical to nurture employee engagement and commitment. Activities included conducting surveys (i.e.,

onboarding/offboarding) and launching an Inclusion Index across Syngenta Group functions. The Inclusion Index covers topics such as belonging, psychological safety and fair treatment, and is designed to assess the organization’s inclusiveness at different levels across functions, leadership and teams. We will continue to evolve the Index and are planning a broader employee pulse survey in 2023.

**Digitalization of HR services**

In 2022, a new onboarding app was made available to new employees in Basel. New joiners now have one single point of access to key information about the company – from learning about the strategy, structure, functions, benefits to getting to know the Basel site. The implementation in Basel is part of a global program that was first tested at our site in Jealott's Hill (UK) in 2021. Since, several sites and countries, as well as languages, have been added, and more Syngenta sites will use the app in the coming months.

We now offer a new internal job portal – using a market-leading digital recruitment platform – where employees can search and apply for jobs online. By optimizing the way we hire, we hope the new portal will promote internal job applications and employee referrals.

**Awards**

As part of the Syngenta Group, Syngenta has been recognized as one of the world’s top five leading employers – and the top agriculture employer – in the [2022 Science Careers Top Employers Survey](#). The company ranked fifth on the annual list of top employers in biotechnology, biopharmaceutical, pharmaceutical and related industries. This marks the 12<sup>th</sup> time in 13 years we are recognized by the prestigious *Science* publication.

**Related information in this report:**

- [Employee development](#)
- [Diversity and inclusion](#)

**Further information:**

- [Syngenta careers](#)
- [Working at Syngenta](#)
- [FAQ: Talent attraction and retention](#)

7.3.2 Employee development

<p><b>Topic description</b>                  Our people are our most important asset as they enable us to achieve our business goals and ambition. As a science-based company, ensuring our workforce has the necessary skills and knowledge to deliver on our strategy is vital.</p> <p>Rapid advances in technology impacts the roles and skills required. In particular, the demand for science, technology, engineering, and math (STEM) talent is increasing and so is the competition for qualified candidates.</p>	<p>Materiality matrix classification:                  → Monitored (Employee engagement)</p> <p>Frameworks:                  → GRI: -                  → SASB: -                  → UNGC: 6                  → SDG: 8</p>
<p><b>Management approach</b>                  We place a great emphasis on developing and nurturing the skills of our people by offering them a range of talent development programs. Our programs help employees determine their development needs and career planning requirements. We focus on the individual, ensuring that each person develops both personally and professionally in line with her/his needs and aspirations, and those of the organization.</p>	<p>GGP targets: *</p> <p>Policies:                  → <a href="#">Syngenta Group Code of Conduct, principles 22-24</a>                  → Learning and Development Group Policy</p>

<p>We practice job rotation to develop deeper skills and capabilities on the job. Internally, our functional academies (e.g., R&amp;D academy, Marketing and Sales Excellence academy, Sustainable Agriculture academy) help develop technical and STEM-related skills and expertise. Our employees also have access to Learning Edge – a global platform that brings together high-quality learning resources such as skill insights, courses, videos and articles to learn and apply the skills they need in their work. Thanks to this platform, employees can benefit from custom learning experiences that fit their unique skills, roles and goals.</p> <p>We maintain a formal people performance management system, which aligns individual, team and organizational goals, and supports individual development. We encourage ongoing dialogue between team members and line managers to reinforce a culture of continuous feedback. Employees set and maintain individual development plans in partnership with their line managers. These plans address both current development needs to support performance in their current position as well as longer-term development actions to enable their future career aspirations.</p> <p>Developing leadership and people management skills is essential for building a successful organization. Based on level and role, we offer leadership development pathways and experiences with a focus on soon-to-be people leaders, front-line managers, senior managers (managers of managers), and senior leaders and executives. These consist of interactive and experiential workshop style learning, both in person and virtual, leadership assessment tools, self-directed curated virtual learning pathways together with individual and peer-based coaching experiences.</p> <p>We have mentoring programs in place that allow mentoring, reverse mentoring and mentoring for skills development. Various resources, including a toolkit and frameworks, are provided to increase the impact of the programs. We also offer coaching for our employees to grow through understanding themselves and their potential, and to align their individual performance with organizational objectives.</p>	<ul style="list-style-type: none"> <li>➔ Performance and Development Policy</li> <li>➔ Mentoring and Coaching Policy</li> <li>➔ External Education Policy</li> </ul>
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<p><b>Key performance indicators</b> We report on our corporate learning and development investment, which includes investments in both leadership and talent development (e.g., delivery of programs, coaching, mentoring and development of platforms) and in learning enabling technologies.</p>	<p>Reporting boundaries:</p>  <p>External assurance: ✓ ➔ <a href="#">Independent assurance report</a></p> <p><a href="#">Basis of Preparation</a></p>
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Reporting period October 1 – September 30	<b>2022</b>	2021	2020
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<b>Employee development</b>			
Corporate learning and development investment (\$m) <sup>1</sup>	<b>7.6</b>	-	-
Leadership and talent development investment (\$m)	<b>6.4</b>	6.4	6.3
Learning enabling technologies investment (\$m) <sup>1</sup>	<b>1.2</b>	-	-

<sup>1</sup> KPI introduced in 2022 to provide more information about corporate learning and development activities



**Performance in 2022**

We continue to attract top talent while further strengthening the capabilities of our leaders and accelerating the development of our people. In 2022, we invested USD 6.4 million in leadership and talent development and USD 1.2 million in learning enabling technologies.

**Leadership and employee development**

In 2022, we piloted the Leadership Academy initiative with leaders from across the organization. In collaboration with external partners, the Academy provides access to a range of learning and development assets – including expert-curated learning pathways for varying expertise levels via the Learning Edge platform, expert-facilitated workshops, self-assessment tools, and individual and peer-based coaching. All these resources can be adjusted and updated based on business needs. The Academy will be available to the entire organization in multiple languages starting in Q1 2023.

This year we took a sprint design approach to review the development needs of three leadership and talent segments: First Time Managers, Business Unit/Group functions, and Regional Leaders successors and General Managers. Development prototypes for these segments will be piloted in Q1 2023.

**Learning in the digital era**

Learning Edge brings together internal and external resources for self-paced learning. It puts learners center stage by empowering them to drive their own development. In 2022, more than 37,000 users across Syngenta Group logged into Learning Edge with a return rate of 91%.

Further, in 2022, through our functional academies, we offered learning programs from Learning Edge – covering topics such as leadership, agronomy, biologicals and vegetables.

We also built learning networks with functional leaders to upskill their teams and foster a learning culture in Syngenta. We empower learning networks by providing them with governance frameworks, tools, techniques and best practices to embrace a growth mindset and lifelong learning. This year, we introduced the online CoachHub platform to enable more people to access coaching.

Also, we are in the process of launching Development Edge – a talent marketplace that allows employees to access developmental opportunities that suit their needs including part-time projects, full-time roles, career plans, networking and learning suggestions. We should launch the pilot in early 2023 and if successful, we will roll out the platform in 2024.

**Related information in this report:**

- [Employment and engagement](#)
- [Diversity and inclusion](#)
- [Ethics and integrity](#)

**Further information:**

- [FAQ: Learning and development](#)

7.3.3 Diversity and inclusion

<p><b>Topic description</b></p> <p>A diverse workforce and an inclusive work environment are enablers of Syngenta’s ambition to be the most collaborative and trusted partner in agriculture. Representing 120 nationalities and working in 90 countries, our employees reflect the diversity of our customers, the markets where we operate and the communities we serve. We value diversity and inclusion as reflected in our <a href="#">Syngenta Group Code of Conduct</a>, our Diversity and Inclusion Policy, and our corporate Values.</p>	<p>Materiality matrix classification:</p> <p>➔ Monitored (Employee engagement)</p> <p>Frameworks:</p> <p>➔ GRI: -</p> <p>➔ SASB: -</p> <p>➔ UNGC: 6</p> <p>➔ SDG: 8</p>

<p><b>Management approach</b>                  We actively recruit employees who reflect the broad range of cultures, beliefs and backgrounds of the communities where we operate and the customers we serve.</p> <p>Diversity and Inclusion (D&amp;I) is sponsored at the highest level of the organization by the Syngenta Group Leadership Team (GLT) and the Syngenta Group Board of Directors. The Syngenta Group D&amp;I Council is responsible for defining strategic priorities, facilitating the development of D&amp;I practices, triggering the implementation of initiatives and monitoring progress. The council is chaired by the Chief Human Resources Officer and is composed of senior leaders representing Syngenta Group’s four businesses, including Syngenta Crop Protection and Syngenta Seeds.</p> <p>Accountability for D&amp;I sits with leadership teams in Group functions and business units. They set priorities, and activate and sponsor specific D&amp;I initiatives within their areas of responsibility.</p> <p>Our D&amp;I framework focuses on five strategic levers: diverse workforce, inclusive workplace, equity of treatment, leadership accountability, and industry impact.</p> <p>As expressed in our D&amp;I ambition statement, we are convinced that “embracing diversity and inclusion makes Syngenta Group a better workplace where people feel they belong and can be the best version of themselves, building a lasting organization for generations to come. Together, we unlock our collaboration and innovation potential to shape the future of agriculture and build a more equitable and sustainable world for all.”</p> <p>Some examples of measures we are taking to support our vision include:</p> <ul style="list-style-type: none"> <li>• We offer flexible working arrangements.</li> <li>• We signed and promote the values embedded in the <a href="#">UN LGBTI Standards of Conduct for Business</a>, and we host regular Pride campaigns and webinars.</li> <li>• We adopted the <a href="#">UN Women’s Empowerment Principles</a> to promote gender equality and women’s empowerment in the workplace, marketplace and community.</li> <li>• We train our leaders and employees on unconscious bias, cultural, gender, generational diversity, inclusive leadership and how to identify and address behavior that undermines inclusion.</li> <li>• We have over 50 global and regional voluntary Employee Resource Groups to support and connect communities with common interests such as gender equity, racial equity, mental health, young professionals and LGBTQIA+ colleagues.</li> <li>• We have certified Mental Health First Aiders on our sites and equip line managers with tools to recognize when a team member is experiencing mental distress.</li> <li>• We were the first agriculture company to join the Valuable 500 in 2019, a group of leading companies committed to improving inclusion for employees, customers, and partners with disabilities.</li> <li>• We strive for a more systematic use of diverse slate in our hiring approach and support our internal recruiters and hiring managers to further embed the practice.</li> </ul>	<p>GGP targets: ✖</p> <p>Policies:</p> <ul style="list-style-type: none"> <li>➔ <a href="#">Syngenta Group Code of Conduct, principles 22-24</a></li> <li>➔ Diversity and Inclusion Group Policy</li> </ul>
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- Through our annual D&I campaigns and webinars, we develop further knowledge and raise awareness on the importance of allyship in the workplace.
- Our D&I internal webpage has about 50,000 visits annually.
- We measure our progress using KPIs and employee pulse surveys.

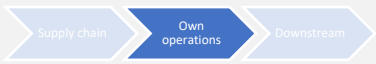
Equal pay is also part of our larger D&I agenda to help ensure equal pay for work of equal value. In 2021, we developed a framework and plan consisting of quantitative and qualitative tools and practices to drive equitable pay. This framework was implemented successfully across Syngenta Crop Protection, Syngenta Seeds and Syngenta Group functions – showing positive results. We use an online dashboard providing consistent gender pay data and enabling multiple analyses, such as raw gender gap data based on tenure, work levels, job functions, performance, or female/male headcount ratio. Analytical tools within our HR Workday system help line managers before, during and after the cycle analyze their team’s compensation data and drive more equal and fair pay decisions. In addition, we have developed specific training material and guidance for recruiters and hiring managers to avoid generating pay gaps at the time of hiring or promotion/job changes.

**Key performance indicators**  
 We report on our D&I progress using the following KPIs:

- **Permanent employees:** Sum of all active full-time equivalents (FTEs) with a regular and regular fixed-term contract
- **Temporary employees:** Sum of all active FTEs with a temporary contract or part of an apprenticeship program
- **Part-time employees:** Number of active permanent employees (headcount) who work part-time (>0% and <100%)
- **Percentage of female permanent employees:** Percentage of active permanent female employees among all employees, management roles and senior management roles
- **Turnover rate:** Percentage of permanent employees who left the company voluntarily, for retirement or due to restructuring
- **Attrition rate:** Percentage of permanent employees who left the company voluntarily
- **Number of nationalities:** Number of nationalities among active permanent employees among all employees, management roles and senior management roles

All figures are as of September 30.

Reporting boundaries:



External assurance: ✓  
 → [Independent assurance report](#)

[Basis of Preparation](#)

Reporting period October 1 – September 30	2022	2021	2020
<b>Diversity and inclusion<sup>1</sup></b>			
Permanent employees <sup>2,3</sup>	32,761	30,892	29,262
Female <sup>4</sup>	10,291	-	-
Male <sup>4</sup>	22,378	-	-
Other or undeclared <sup>4,5</sup>	92	-	-
Temporary employees <sup>2,3,4</sup>	3,717	-	-
Female <sup>4</sup>	821	-	-
Male <sup>4</sup>	1,001	-	-
Other or undeclared <sup>4,5</sup>	1,895	-	-

Part-time employees <sup>3,6</sup>	<b>963</b>	939	942
Female <sup>4</sup>	<b>745</b>	-	-
Male <sup>4</sup>	<b>217</b>	-	-
Other or undeclared <sup>4,5</sup>	<b>1</b>	-	-
Turnover rate <sup>6,7</sup>	<b>11.3%</b>	9.6%	10.0%
Female	<b>10.8%</b>	9.0%	-
Male	<b>11.6%</b>	9.9%	-
Other or undeclared <sup>5</sup>	<b>10.9%</b>	9.1%	-
Attrition rate <sup>6,8</sup>	<b>8.1%</b>	6.3%	6.3%
Female	<b>8.1%</b>	6.1%	-
Male	<b>8.1%</b>	6.5%	-
Other or undeclared <sup>5</sup>	<b>7.6%</b>	6.8%	-
Percentage of female employees: <sup>6</sup>			
All employees	<b>32%</b>	31%	31%
Management roles	<b>27%</b>	26%	25%
Senior management <sup>9</sup>	<b>22%</b>	22%	20%
Number of nationalities: <sup>6</sup>			
All employees	<b>125</b>	122	-
Management roles	<b>69</b>	67	-
Senior management <sup>9</sup>	<b>37</b>	37	38

<sup>1</sup> The diversity and inclusion figures do not include Valagro. Depending on the contract agreement, new acquisitions have a grace period to integrate the data into the system. As of September 30, 2022, Valagro reported 1,036 FTEs

<sup>2</sup> Full-time equivalents (FTEs)

<sup>3</sup> Permanent employees have a regular or regular fixed-term contract. Temporary employees have a temporary contract or are part of an apprenticeship program

<sup>4</sup> KPIs introduced in 2022 to provide more information about employment and diversity and inclusion to address GRI 2021 requirements

<sup>5</sup> Employees who chose not to disclose their gender

<sup>6</sup> Only permanent employees are in scope of these KPIs

<sup>7</sup> Includes voluntary leavers, retirement and restructuring

<sup>8</sup> Includes only voluntary leavers

<sup>9</sup> Leaders in positions at the top four levels of accountability/scope within the organization

## Performance in 2022

### D&I indicators

In 2022, both the overall percentage of female employees and the percentage of female employees in management roles increased by one percentage point to 32% and 27% respectively. The latter reflects measures taken to foster a stronger representation of women in management, which was achieved mainly through internal promotions. The number of part-time employees increased by 2.6% and the increase was higher for female employees. The turnover rate is slightly lower for female than for male employees: 10.8% vs. 11.6%. There were some minor changes in the number of nationalities and their geographical distribution, including managerial roles.

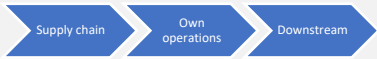
### Gender pay equity

Over the past two years, as part of our commitment to D&I, we have actively analyzed salary information to understand and manage gender pay differences. Our global raw mean gender pay gap has improved from -3.90% in 2021 to -2.86% in 2022, meaning that women on average earn about 2.86% less than men. Our quantitative target was to bring all business units and areas down to below 5% raw pay gap by 2024, which is considered as a tolerable gap by various certification providers and countries. While overall we are already below the 5% level, we still want to focus on certain areas that are above 5%. We are working closely with country teams to also get local certification where relevant. Many countries have already embedded equal pay requirements in their legal frameworks (e.g., Spain, Switzerland, France) and additional countries are following suite (e.g., Israel, Portugal).

<p><b>Engaging and equipping our workforce</b></p> <p>In 2022, we continued to conduct D&amp;I campaigns across the globe and engage employees, with 2,000 to 10,000 people participating in each campaign. The focus of this year’s initiatives was on building an inclusive workplace, underpinned by allyship, to enable everyone to thrive. Over the course of our engagement events, we introduced Ask Me to Learn Panels, which provide employees with an opportunity to ask questions regarding campaign topics to subject-matter experts, Syngenta Group leaders and colleagues from underrepresented groups. These panels allow us to raise awareness of D&amp;I resources available in Syngenta.</p> <p>As part of our annual campaigns, we commemorated important days and months including International Women’s Day, Black History month (through regional events in the UK and US for instance), Mental Health Day, International Day of Persons with Disabilities, and LGBTQIA+ Pride Month. In addition, for the first time, we organized an Inclusion Week to discuss topics such as cultural and generational diversity and racial equity. This was also the occasion to host a dialogue between our CEO, Chief Human Resources Officer, employee resource group members, leaders and sponsors.</p>	
<p><b>Related information in this report:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Employee development and engagement</a></li> <li>• <a href="#">Employee development</a></li> </ul>	<p><b>Further information:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Working at Syngenta: Diversity and Inclusion</a></li> <li>• <a href="#">FAQ: Diversity and inclusion</a></li> </ul>

7.3.4 Health and safety

<p><b>Topic description</b></p> <p>As a leading global company, Syngenta has a responsibility to protect the environment, and to ensure the health and safety of our employees, customers and the communities in which we operate. Through the effective management of health and safety not only do we prevent harm to people, but we also enhance our freedom to operate, innovate and grow.</p> <p>We always prioritize employee and contractor safety in our activities, providing a safer and healthier workplace.</p>	
<p><b>Management approach</b></p> <p>Our <a href="#">HSE Policy and Standards</a> provide the basis for the effective management of Health, Safety and Environment (HSE) at Syngenta. They set out HSE accountabilities for all employees, managers, leaders and the HSE function, and outline what needs to be done to achieve the expected HSE behaviors and practices.</p> <p>The HSE Policy and Standards are underpinned by a tailored HSE management system, which ensures a structured and consistent approach to managing HSE risks. An effective HSE management system is beneficial to employee health, wellbeing and productivity. Compliance with this system is actively monitored through local assessments and audits to improve performance. More information can be found in the <a href="#">FAQ: Environment</a> section of our website.</p>	<p>Materiality matrix classification:</p> <ul style="list-style-type: none"> <li>➔ Material (Health, safety and fair labor)</li> </ul> <p>Frameworks:</p> <ul style="list-style-type: none"> <li>➔ GRI: ✓ (403-1, 2, 3, 4, 5, 6, 7, 9, 10)</li> <li>➔ SASB: RT-CH-320a.1-.2 &amp; RT-CH-540a.1-.2</li> <li>➔ UNGC: 6</li> <li>➔ SDG: 3, 8</li> </ul> <p>GGP targets: ✓</p> <ul style="list-style-type: none"> <li>➔ Goal zero incidents in our operations</li> <li>➔ IIR below 0.25</li> </ul> <p>Policies:</p> <ul style="list-style-type: none"> <li>➔ <a href="#">HSE Policy and Standards</a></li> <li>➔ <a href="#">HSE CoP 08 REP Reporting</a></li> <li>➔ <a href="#">Supplier Code of Conduct</a></li> </ul>

<p>We are committed to strengthening our HSE culture by enabling employees and contractors to take personal responsibility for delivering HSE and to feel empowered to speak up and stop unsafe work. We raise awareness around safety issues in regular Safety Shares in team meetings or townhalls and hold a Safety Pause every year.</p> <p>We proactively address risks in our operations through the integration of HSE into our business processes. Learning from events, we drive continuous improvement in our HSE standards and performance, and we aim for zero HSE incidents.</p> <p>All employees are required to complete a mandatory online training on our HSE Policy and Standards. We also actively develop HSE competency to ensure that our employees and contractors have the necessary skills to undertake their work safely and without harm to their health or the environment.</p> <p>Our HSE management system requires all our facilities to assess the need for wellbeing programs. We offer a range of wellbeing programs tailored to local needs such as sports centers, healthy nutrition options at staff restaurants, health checks, family counselling services and access to legal advice. The provision of breastfeeding rooms is also increasing across our sites. To keep employees safe, healthy, comfortable and productive while carrying out their jobs, we provide ergonomics risk assessments, advice and training to our employees at all facility types.</p> <p>Anyone working for or on behalf of Syngenta is expected to uphold the same health and safety standards as our employees. Expectations for contractors managed directly by Syngenta, such as security services or contracted employees, are outlined in our HSE Policy and Standards. Expectations for third parties are outlined in our <a href="#">Supplier Code of Conduct</a>. We provide them with relevant information and ensure that adequate management control systems are in place.</p> <p>We monitor the health and safety performance of our suppliers. Through our Supplier Sustainability Program, we assess our chemical suppliers on health and safety. Through our Fair Labor Program, we monitor our seed suppliers. Commercial flower farms are required to have a valid GlobalG.A.P. certification. (See <a href="#">Working with suppliers</a>)</p>	
<p><b>Key performance indicators</b>                  We monitor health and safety performance monthly through our Health and Safety Reporting System. Externally, we report on our health and safety performance annually.</p> <p>This year, we introduced new KPIs, such as high-consequence injuries and critical events covering motor vehicular incidents, process safety events and distribution safety incidents. We also started reporting our recordable injury rate, recordable illness rate and fatality rate by contractual relationship, i.e., own employees vs. directly supervised contractors.</p> <p>We align our KPI definitions with those of the <a href="#">US Occupational Safety and Health Administration</a> (OSHA), the Center for <a href="#">Chemical Process Safety</a> (CCPS) of the <a href="#">American Institute of Chemical Engineers</a></p>	<p>Reporting boundaries:</p>  <p>External assurance: ✓                  → <a href="#">Independent assurance report</a></p> <p><a href="#">Basis of Preparation</a></p>



(AICHe), the <a href="#">American National Standards Institute (ANSI)</a> , <a href="#">American Petroleum Institute (API)</a> , and the <a href="#">International Council of Chemical Associations (ICCA)</a> .			
KPIs measuring progress toward our Good Growth Plan targets are labeled as <b>GGP</b> .			
Reporting period October 1 – September 30 (unless stated otherwise)	<b>2022</b>	2021	2020
<b>Health and safety</b>			
<b>Recordable injury and illness rate (IIR) per 200,000 hours<sup>1,2</sup> GGP</b>	<b>0.30</b>	0.29	0.23
<b>Recordable injury rate per 200,000 hours<sup>1,2</sup></b>	<b>0.29</b>	0.28	0.22
by region:			
Europe, Africa and Middle East	<b>0.36</b>	0.35	0.30
North America	<b>0.29</b>	0.32	0.28
Latin America	<b>0.27</b>	0.14	0.17
Asia Pacific	<b>0.25</b>	0.30	0.14
by contractual relationship:			
Own employees <sup>3</sup>	<b>0.28</b>	-	-
Directly supervised contractors <sup>3</sup>	<b>0.34</b>	-	-
Recordable high-consequence injury rate per 200,000 hours <sup>1,2</sup>	<b>0.01</b>	-	-
Cases of recordable injuries <sup>1,2</sup>	<b>156</b>	132	100
by injury type:			
Bruise, strain, sprain and dislocation	<b>25%</b>	29%	34%
Cut and abrasion	<b>26%</b>	27%	30%
Bone fracture	<b>22%</b>	17%	13%
Concussion and internal injury	<b>3%</b>	7%	4%
Multiple injuries	<b>4%</b>	4%	1%
Other	<b>20%</b>	16%	18%
by contractual relationship:			
Own employees <sup>3</sup>	<b>109</b>	-	-
Directly supervised contractors <sup>3</sup>	<b>47</b>	-	-
High-consequence injuries <sup>1,2,3</sup>	<b>7</b>	-	-
<b>Recordable occupational illness rate per 200,000 hours<sup>1,2</sup></b>	<b>0.01</b>	0.01	0.01
by region:			
Europe, Africa and Middle East	<b>0.01</b>	0.02	0.02
North America	<b>0.04</b>	0.02	0.02
Latin America	<b>0.00</b>	0.01	0.01
Asia Pacific	<b>0.01</b>	0.00	0.00
by contractual relationship:			
Own employees <sup>3</sup>	<b>0.01</b>	-	-
Directly supervised contractors <sup>3</sup>	<b>0.01</b>	-	-
Cases of recordable occupational illness <sup>1,2</sup>	<b>4</b>	6	5
Own employees <sup>3</sup>	<b>3</b>	-	-
Directly supervised contractors <sup>3</sup>	<b>1</b>	-	-
First aid cases <sup>1,2</sup>	<b>421</b>	348	355
<b>Recordable fatality rate due to injuries per 200,000 hours<sup>1,2,3</sup></b>	<b>0.004</b>	-	-
<b>Recordable fatality rate due to occupational illness per 200,000 hours<sup>1,2,3</sup></b>	<b>0.000</b>	-	-
Recordable fatalities <sup>1,2</sup>	<b>2</b>	3	1
Fatalities due to injuries <sup>3</sup>	<b>2</b>	-	-
Own employees <sup>3</sup>	<b>0</b>	-	-
Directly supervised contractors <sup>3</sup>	<b>2</b>	-	-
Fatalities due to occupational illness <sup>3</sup>	<b>0</b>	-	-
Own employees <sup>3</sup>	<b>0</b>	-	-

Directly supervised contractors <sup>3</sup>	0	-	-
Critical events:			
Motor vehicular incident rate per million kilometers <sup>3,4</sup>	1.55	-	-
Motor vehicular incidents <sup>3,4</sup>	620	-	-
Motor vehicle injury rate per million kilometers <sup>3,4</sup>	0.16	-	-
Motor vehicle injuries <sup>3,4</sup>	65	-	-
Process safety events rate per 200,000 hours (medium and high actual) <sup>3,5</sup>	0.13	-	-
Process safety events (medium and high actual) <sup>3,5</sup>	70	-	-
Process safety incident severity rate (PSISR) <sup>3,5</sup>	0.32	-	-
Distribution safety incidents <sup>3</sup>	242	-	-
Significant unplanned or uncontrolled releases to the environment <sup>6</sup>	1	3	3

<sup>1</sup> According to US OSHA definition for injuries and illness

<sup>2</sup> Figure represents performance for both own employees and directly supervised contractors in a consolidated way. Starting in 2022, we also report the breakdown by contractual relationship for selected KPIs

<sup>3</sup> KPI introduced in 2022 to provide more information about our H&S activities and address GRI 2021 and SASB reporting requirements

<sup>4</sup> According to ANSI safety standards for motor vehicular events

<sup>5</sup> According to ICCA Responsible Care® definition for process safety events

<sup>6</sup> Significant unplanned releases are those classified as high as per the ICCA standard for reporting Process Safety Incidents and where the loss leaves secondary containment or is discharged into secondary containment with uncertain integrity. Significant uncontrolled releases are losses to the environment that exceed the normal or intended rate of release at levels aligned with the ICCA standard

**Performance in 2022**

In 2022, our injury and illness rate (IIR) slightly increased compared to the previous year and is now at 0.30. This was driven by an increase in injury cases (+18%; +24 cases) mainly due to motorcycle injuries in the Commercial function in Bangladesh and India, as well as injuries related to the operation of agricultural machines leading to hand injuries in Latin America. In 2020, the number of injuries was significantly lower. We believe this outstanding performance was due to the increased level of risk perception from COVID-19 measures, which led to more cautious employee behavior. Driven by overall business growth, there was also an increase in working hours (+11.5%; +11 million hours), totaling 106.4 million hours in 2022.

We aim to achieve an IIR target of 0.25 by 2025, and we continued implementing HSE programs to reach this target. To address specific areas of risk and performance, this year we started implementing several safety programs, such as hand safety in Latin America, Asia Pacific and North America and people-based safety, including theory and conversation skills, on seeds sites in Latin America. These pilot programs will be complemented by global campaigns during 2023.

Regrettably, we had two recordable fatalities in 2022. Both fatalities happened to supervised contractors working in the India Commercial unit. One of the fatal accidents was caused by a collision with a vehicle while driving a motorcycle. The second fatality was due to a shooting incident during a regular commercial delivery activity. It was related to a personal exposure to a public security risk and had no relation to the business activity. Each fatality is taken very seriously and discussed by the Group Leadership Team to understand the root causes of the event and examine what can be done to avoid such events in the future.

**Other critical events**

In 2022, we recorded 620 motor vehicle incidents. During 2022, we continued to deploy our Road Safety Strategy. It comprises initiatives focusing on the improvement of our driving safety guidance, reinforcement of authorization and training processes, development of detailed vehicle specifications, and implementation of new technologies such as telematics to help drivers improve their driving behavior by using self-coaching solutions. We developed a Driving Safety Awareness campaign to reinforce our driving safety culture, with webinars and regional events featuring drivers sharing their personal stories. Altogether, we had more than 24,000 interactions, and each webinar was attended by more than 2,000 participants on average. This year, we also implemented a reinforced telematics program for our company car fleet in Latin America. We continue rolling this out to other regions to address injuries during driving – one of the main causes of recordable injuries.

In 2022, 70 medium and high actual process safety events took place, related to mechanical integrity, operational discipline and maintenance. All events were escalated and action plans reviewed with the site management and functional leadership. A roadmap for process safety to prevent process chemical releases was developed, with a strong focus on mechanical integrity, inspection and maintenance. In 2022, we introduced a Second Line of Defense audit for process safety, which supports management to help ensure risks and controls are effectively managed, with action plans integrated into operational improvement plans.

One significant unplanned or uncontrolled release to the environment was reported in 2022. The event in Huddersfield (UK) related to a leak from a casting pump (also recorded as a process safety high actual). The event was investigated and the action plan reviewed accordingly.

**HSE management system**

We continue to implement initiatives to strengthen our safety culture and accelerate progress toward our goal of zero injuries. In 2022, we updated our HSE management system (focusing on the specific risks of each business unit), launched a process safety audit to guarantee the integrity of our chemical process, implemented a statistical approach to focus HSE initiatives on performance and risk, developed a high-risk driver framework, surveyed our Seeds leadership to assess their level of safety culture engagement, and implemented initiatives on hand safety with manual tools and agricultural machines.

**Related information in this report:**

- [Working with suppliers](#)
- [Safe use of products](#)

**Further information:**

- [The Good Growth Plan: Help people stay safe and healthy](#)
- [FAQ: Health, safety and wellbeing](#)

7.3.5 Human rights

<p><b>Topic description</b> Companies have a responsibility to ensure that human rights are respected within their operations and across their value chains.</p> <p>No matter where we operate, Syngenta is committed to upholding the principles set out in the <a href="#">Universal Declaration of Human Rights</a> and the <a href="#">International Labor Organization’s core conventions</a>. We seek to further improve our performance in line with the <a href="#">United Nations Guiding Principles on Business and Human Rights</a>. We have been a signatory of the <a href="#">United Nations Global Compact</a> since 2009.</p> <p>We focus our efforts where we believe our activities pose a higher risk to human rights, and where we can engage stakeholders, in particular those who work and live in an agricultural context. We recognize that our impact on human rights goes beyond our direct operations. For instance, by providing products and services that sustain and improve farming, we help meet more people’s right to adequate food.</p>	<p>Materiality matrix classification: ➔ Monitored (Human rights)</p> <p>Frameworks: ➔ GRI: - ➔ SASB: - ➔ UNGC: 1 ➔ SDG: 8</p>
<p><b>Management approach</b> Our commitment to human rights and to fair labor is expressed in the <a href="#">Syngenta Group Code of Conduct</a> (principles 22-24), our <a href="#">Principles for Sustainable and Responsible Agriculture</a> and the <a href="#">Syngenta Labor Standards</a>. All employees are expected to live up to this commitment.</p>	<p>GGP targets: ✖</p> <p>Policies: ➔ <a href="#">Syngenta Group Code of Conduct, principles 22-24</a></p>

<p>Implementation is supported by functional teams, including Procurement, Human Resources, Compliance, Health, Safety and Environment, and Sustainable and Responsible Business.</p> <p>Syngenta expects third parties to conduct business in a legal and ethical manner. Our <a href="#">Supplier Code of Conduct</a> clearly outline these expectations.</p> <p>We promote human rights principles among customers and local communities, and we engage with organizations such as the <a href="#">Global Business Initiative on Human Rights</a> and the <a href="#">Institute for Human Rights and Business</a> to advance respect for human rights. We understand that working in isolation does not address labor rights challenges. This is why we work in partnership with organizations such as <a href="#">Solidaridad</a> to improve conditions on the ground.</p> <p>As outlined in various sections of this report, we have policies, procedures and programs in place to prevent potential violations or non-compliance. We monitor our practices through risk-based due diligence processes and/or targeted interventions. We take actions where issues arise in our operations and, where issues are linked to third-party operations, we use our influence to encourage third-party actors to prevent, mitigate and address them. Any suspected human rights violation or non-compliance is appropriately investigated, and corrective actions are implemented.</p> <p><b>Syngenta Fair Labor Program</b>          People working in agriculture production are particularly exposed to potential exploitation and unfair labor practices. For this reason, our Syngenta Fair Labor Program (FLP) aims to ensure fair labor standards throughout our seed supply farm network, including no child labor, harassment, or abuse. The program, which began in India in 2004 and was developed together with the Fair Labor Association, has now expanded to most of our seed producing countries (See <a href="#">Working with suppliers</a>).</p> <p>Central to the program is our Internal Monitoring System (IMS) through which we assess workplace compliance with our labor standards on a sample basis. Syngenta representatives visit a random selection of farms, aiming to cover at least 20% of the contracted seed supply farms in developing countries per year. The use of standardized checklists ensures consistency and one-to-one interactions give farm workers the opportunity to speak up.</p> <p>If violations or non-compliances are discovered, appropriate mitigation measures are put in place and, based on the severity of non-compliance and the likelihood of reoccurrence, remediation plans are developed. We work with internal and external stakeholders to determine root causes of non-compliance and remediate them in a timely and preventative manner. Syngenta representatives check if actions have been completed – to ensure that non-compliance has been corrected and systemic change implemented to prevent reoccurrence.</p> <p>The IMS includes a confidential grievance procedure for farm workers to report harassment or abusive behavior. This is done through hotline</p>	<ul style="list-style-type: none"> <li>→ <a href="#">Principles for Sustainable and Responsible Agriculture</a></li> <li>→ <a href="#">HSE Policy and Standards</a></li> <li>→ <a href="#">Syngenta Labor Standards</a></li> <li>→ <a href="#">Supplier Code of Conduct</a></li> </ul>
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<p>numbers and post office box addresses, among other means. All allegations are documented and immediately investigated by a qualified individual.</p>	
<p><b>Performance in 2022</b>                  Human rights-related activities are embedded across the organization and we continue working on improving our processes and practices. (See <a href="#">Working with suppliers</a>, <a href="#">Health and safety</a>, <a href="#">Corporate conduct</a>, <a href="#">Security management</a>, and <a href="#">Safe use of products</a>)</p> <p>In 2022, we ran a year-long Mental Health program – with about 16,000 participants – to highlight the importance of mental health and why it matters. Mental health affects our capacity to learn, communicate and form, sustain and end relationships. It also influences our ability to cope with change and life events. We provided our employees with educational webinars and toolkits on various mental health aspects such as nutrition, good sleeping habits, depression, anxiety, and others. We also educated our managers on how to hold conversations about mental health. In addition, we introduced Ask Me to Learn Panels for employees to ask experts and company leaders questions on maintaining mental wellness, becoming a mental health ally and internal mental health resources. Further, panelists shared their personal experiences regarding the topic.</p> <p>In September 2020, the <a href="#">Swiss National Contact Point</a> (NCP) received a submission to consider a specific instance under the Organization for Economic Co-operation and Development <a href="#">Guidelines for Multinational Enterprises</a> regarding Syngenta AG and its subsidiary Syngenta India Ltd. The submission was raised by five organizations and relates to the sale and use of Syngenta’s product POLO® (containing the active ingredient Diafenthiuron) in India. According to the submitting parties, POLO® was responsible for tragic cases of poisoning in India in 2017. Syngenta has repeatedly rejected these allegations as false. In fact, a report from the Maharashtra State Government’s Special Investigation Team shows that these cases were unrelated to Syngenta. The mediation process at the NCP was concluded in April 2022 without reaching an agreement (See <a href="#">NCP’s Final Statement</a> under Concluded cases: Syngenta – Coalition of NGOs (2020)). The NCP provided recommendations to both parties and asked to report on progress within nine months after the publication of the Final Statement. In July 2022, the civil court of Basel-Stadt (Switzerland) requested legal aid for the petitioners, who had filed the case in June 2021. Granting free legal aid is a standard procedure in the Swiss judiciary system when a party to the dispute lacks the necessary financial resources and it does not infer that claims are valid. In India, Syngenta continues to train farmers on the safe use of crop protection products in order to professionalize spraying services and improve local conditions (See <a href="#">Safe use of products</a>).</p>	
<p><b>Related information in this report:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Ethics and integrity</a></li> <li>• <a href="#">Safe use of products</a></li> <li>• <a href="#">Working with suppliers</a></li> <li>• <a href="#">Health and safety</a></li> <li>• <a href="#">Corporate conduct</a></li> <li>• <a href="#">Security management</a></li> </ul>	<p><b>Further information:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Human rights</a></li> <li>• <a href="#">FAQ: Human rights</a></li> <li>• <a href="#">Syngenta Statement on UK Modern Slavery Act</a> (See footer on webpage)</li> <li>• <a href="#">Press release: Public Eye vs. Syngenta: No interest in a purposeful dialogue</a> (June 2022, in German)</li> </ul>

## 7.4 Business integrity

### 7.4.1 Corporate conduct

<p><b>Topic description</b>                  A Code of Conduct articulates the values and behaviors a company expects leaders and employees to exhibit. It serves as a valuable reference to employees and partners to support the day-to-day decision making.</p> <p>At Syngenta, we believe that building and maintaining a culture of ethics and integrity is key to being a successful business. The <a href="#">Syngenta Group Code of Conduct</a> demonstrates our commitment to building and maintaining trust in Syngenta and to integrating social and environmental responsibilities and ethical behavior in everything we do.</p>	<p>Materiality matrix classification:                  → Monitored (Business integrity)</p> <p>Frameworks:                  → GRI: -                  → SASB: -                  → UNGC: 2, 10                  → SDG: 16</p>
<p><b>Management approach</b>                  The Syngenta Group Ethics and Compliance Board oversees policies and standards and the implementation of our compliance framework. The Head Group Compliance and Risk Management, and Compliance and/or Legal team members within each business unit are responsible for developing, implementing and monitoring this framework.</p> <p>All Syngenta employees are required to confirm their commitment to the Code of Conduct every year. This is done online by answering a series of questions related to the Code of Conduct and relevant policies. Also, all new joiners are required to complete an e-learning on the Code of Conduct. Depending on their function, some employees and all new joiners are also required to take specific compliance-related trainings, such as anti-bribery and corruption, competition law and conflict of interest.</p> <p>All Syngenta employees must avoid conflicts of interest when conducting business as stipulated in the guidelines provided by our Conflicts of Interest Policy. Conflicts of interest may arise when an employee, or someone who has a close relationship with an employee, receives a direct or indirect personal or improper benefit thanks to the employee's role with Syngenta. Employees are obliged to disclose any actual, potential or perceived conflict of interest to Syngenta via a self-disclosure tool. Once reported, the employee's line manager evaluates the situation and takes the necessary actions to ensure compliance. In case of doubt whether a situation constitutes a conflict of interest or how to handle it appropriately, the employee's line manager is expected to consult with the HR or Legal team.</p> <p>Syngenta managers and employees regularly participate in Ethics Shares. In these sessions, managers discuss relevant compliance topics with their teams and encourage people to speak up if they have concerns. A library with anonymized, real-life cases that happened at Syngenta helps facilitate these discussions and embed the learnings in the organization.</p> <p>The Compliance Resource Center on our intranet offers materials and tools to help employees identify and manage the most common</p>	<p>GGP targets: ✖</p> <p>Policies:                  → <a href="#">Syngenta Group Code of Conduct</a>                  → Anti-Bribery Policy                  → Anti-Fraud Policy                  → Securities Trading Policy                  → Gifts &amp; Entertainment Policy                  → Competition Law Policy                  → Conflicts of Interest Policy                  → Syngenta Code of Ethics for Senior Executive Officers                  → Business Ethics Guide                  → <a href="#">Supplier Code of Conduct</a></p>



compliance risks and ethical dilemmas. For instance, the How Matters Guides, available in all Syngenta commonly used languages, translate our key ethical policies into simple lists of Do’s and Don’ts.

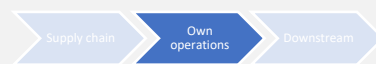
Employees are encouraged to ask questions or report any breach or suspected breach of the Code of Conduct to their line manager, Legal, Compliance or Human Resources teams, or by contacting the [Compliance Helpline](#). Through the helpline, employees can report concerns on an anonymous basis if permitted by local law.

**Key performance indicators**  
 We report on the number and rate of employees who confirm their commitment to uphold our Code of Conduct and key compliance policies. Completing the annual Code of Conduct commitment process is mandatory for all employees who have a dedicated computer assigned.

Since 2022, we report on the number and rate of new hires (permanent employees) completing the compliance onboarding training. These KPIs are tracked through the global Syngenta learning management system called Learning Hub.

We report on concerns about possible wrongdoing received through various channels, including the Compliance Helpline, also managed by Group Compliance. In 2022, we also started reporting on the number of substantiated cases of bribery and corruption.

Reporting boundaries:



External assurance: ✓  
 → [Independent assurance report](#)

[Basis of Preparation](#)

Reporting period October 1 – September 30 (unless stated otherwise)	2022	2021	2020
<b>Corporate conduct<sup>1</sup></b>			
Employees submitting Code of Conduct commitment	<b>25,283</b>	26,334	24,137
Completion rate <sup>2</sup>	<b>99.9%</b>	99.9%	99.7%
New hires completing compliance onboarding training <sup>3,4</sup>	<b>3,218</b>	-	-
Completion rate <sup>3</sup>	<b>93.3%</b>	-	-
Compliance cases reported <sup>5</sup>	<b>417</b>	332	264
of which: substantiated cases of bribery and corruption <sup>3</sup>	<b>0</b>	-	-

<sup>1</sup> Corporate conduct KPIs are for the period January to December, with the exception of the 2020 and 2021 Compliance cases reported which are for the period October 1 to September 30. We moved all KPIs to calendar year to better align with compliance campaigns

<sup>2</sup> Percentage is calculated based on employees for whom completion of the Code of Conduct commitment is mandatory. In 2022, the submission of the Code of Conduct commitment was not mandatory for employees in Ukraine and they were therefore excluded from the scope

<sup>3</sup> KPI introduced in 2022 to provide more information about Syngenta’s corporate conduct activities

<sup>4</sup> Includes permanent employees

<sup>5</sup> Includes all cases managed by the Group Compliance team (i.e., cases reported through the Compliance Helpline, line management, directly to Group Compliance or other channels)

**Performance in 2022**  
 In 2022, 25,283 employees (-4%) submitted their Code of Conduct commitment with a completion rate for employees in scope of 99.9%.

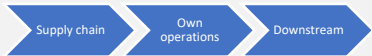
This year we also started reporting on the number (3,218) and rate (93.3%) of new hires who completed our compliance onboarding training. The training comprises four ethical compliance topics: Code of Conduct, anti-bribery and corruption, competition law, and as of 2023 conflict of interest.

The 26% increase (+85) in the number of compliance-related cases reported was driven by the targeted sexual harassment prevention campaign in Brazil and an outreach on ethical compliance topics to remote

<p>locations primarily in Europe, Africa and Middle East, and Latin America, which was launched to address specific systemic issues. As part of the latter campaign, Syngenta developed a network of Ethics Champions who will act as persons of trust, in addition to the line manager, Compliance or Human Resources representative, for employees seeking advice on ethical compliance or wishing to report a compliance case. Compliance cases in which leaders played a role as wrongdoers are separately flagged to the Syngenta Ethics Board. There were no substantiated cases of bribery and corruption reported in 2022.</p>	
<p><b>Related information in this report:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Ethics and integrity</a></li> <li>• <a href="#">Human rights</a></li> </ul>	<p><b>Further information:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">FAQ: Corporate conduct</a></li> </ul>

7.4.2 Security management

<p><b>Topic description</b></p> <p>As a global organization, we could be exposed to significant and complex risks – from cybercrime to conflicts arising from political instability. We aim to proactively assess, identify, and address emerging security risks before they materialize. Our security efforts focus on protecting our people as well as tangible and intangible assets, especially in countries with high security risks.</p>	
<p><b>Management approach</b></p> <p>The Corporate Security Policy defines the principles of our corporate security approach and outlines how we protect:</p> <ul style="list-style-type: none"> <li>• People: We alert Syngenta employees to significant risks, such as workplace violence, travel security incidents, and street crime, wherever they are working or traveling</li> <li>• Tangible assets: We provide security advice to Syngenta’s site managers and critical third-party locations against internal and external threats such as burglary, robbery, theft, and sabotage</li> <li>• Intangible assets: We protect assets such as sensitive information, our online presence, and our reputation against cyber-enabled criminal activities, including theft, fraud, the online sale of fake products and violent activism</li> </ul> <p>Security Code of Practice documents provide further detail on specific security requirements.</p> <p>The Corporate Security team takes a risk-based, intelligence-led approach to the delivery of security services designed to deter, detect, and respond to criminal activity against our people and assets, such as products and sites. We investigate all security risks and respond to security threats based on local risks and business need. We comply with laws and regulations, and consider security in all activities through effective risk management. Our aim is to create a security-conscious culture in which all employees take personal responsibility for preventing security incidents. We educate employees on appropriate behavior to reduce their security risk exposure by conducting a</p>	<p>Materiality matrix classification:</p> <ul style="list-style-type: none"> <li>➔ Monitored (Business integrity)</li> </ul> <p>Frameworks:</p> <ul style="list-style-type: none"> <li>➔ GRI: -</li> <li>➔ SASB: -</li> <li>➔ UNGC: 2</li> <li>➔ SDG: -</li> </ul> <p>GGP targets: ✕</p> <p>Policies:</p> <ul style="list-style-type: none"> <li>➔ <a href="#">Syngenta Group Code of Conduct, principle 20</a></li> <li>➔ Corporate Security Policy</li> </ul>

<p>mandatory online corporate security awareness training for new joiners as well as an annual online cybersecurity awareness training.</p> <p>Under our Security 360° Program, we undertake security risk assessments across strategically important sites. The goal is to protect Syngenta and selected third-party operations from various asset risks, such as burglary, robbery, sabotage, theft, and workplace violence. Sites in the program undergo an initial security risk assessment, followed by the development and implementation of a Security Improvement Action Plan, which is regularly monitored and retested. The frequency of reassessment and type of engagement vary depending on the security profile of the site and location.</p> <p>Our Anti-Illicit Trade Program aims to disrupt the trade of illicit crop protection and seed products worldwide. We rely on three strategic pillars to combat illicit products:</p> <ul style="list-style-type: none"> <li>• Detect: We identify activities that could cause vulnerability, loss and liability through training of our employees and law enforcement officers, and actively monitor e-commerce platforms</li> <li>• Deter: We reinforce the physical security of our products from conception to sale and engage with trade associations and international law enforcement agencies to strengthen local law enforcement and legal frameworks</li> <li>• Respond: We investigate IP infringements and counterfeiting, bringing cases to court, disrupting the counterfeiting business</li> </ul> <p>We employ third-party security service providers at around 160 sites. Our security arrangements adhere to national laws and professional standards as well as international human rights codes, including the <a href="#">International Code of Conduct for Private Security Service Providers</a> and the <a href="#">Voluntary Principles on Security and Human Rights</a>. Our Corporate Security team is trained on human rights best practices and potential violations and ensures that local staff is trained on appropriate de-escalation measures in case of conflict. The team also investigates all incidents involving the use of force by public or private security services acting on behalf of Syngenta.</p>	
<p><b>Key performance indicators</b></p> <p>We report on the total number of sites, which have undergone at least one security risk assessment as part of our Security 360° Program.</p> <p>Counterfeit products can be hazardous to users, the public and the environment. We report on the number of product security cases and the tonnes of suspect crop protection and seed products seized by authorities.</p> <p>Introduced in 2022, we also report on the number of new hires (permanent and temporary employees with dedicated access to a Syngenta computer) who have completed the Corporate Security Awareness online training.</p>	<p>Reporting boundaries:</p>  <p>External assurance: ✓ → <a href="#">Independent assurance report</a></p> <p><a href="#">Basis of Preparation</a></p>

Reporting period October 1 – September 30 (unless stated otherwise)	2022	2021	2020
<b>Security management</b>			
Sites included in Syngenta Security 360° Program	183	170	162
Product security cases	4,537	3,998	4,075
Number of offline anti-illicit trade cases <sup>1</sup>	603	-	-
Number of online anti-illicit trade cases <sup>1</sup>	3,934	-	-
Suspect counterfeit crop protection products seized by authorities (tonnes)	6,993	8,670	3,933
Suspect counterfeit seed products seized by authorities (tonnes)	3,427	5,289	3,326
New hires completing Corporate Security Awareness training <sup>1,2</sup>	5,679	-	-

<sup>1</sup> KPI introduced in 2022 to disclose more information about Syngenta’s corporate security activities

<sup>2</sup> Includes permanent and temporary employees and selected contractors under direct Syngenta’s supervision

**Performance in 2022**

The Syngenta Security 360° Program now covers 183 sites (+13 sites), including 38 newly assessed or re-assessed sites during the reporting period. The program is driven by business needs to review high-risk sites, some of which should have been visited in 2020/21, but visits were postponed due to COVID-19 travel restrictions. During the reporting period, most sites were assessed as planned, except sites in countries that maintained strict COVID-19 restrictions or whose business needs changed during the year.

In 2022, the number of product security cases increased by 13% (+539 cases) and continues to grow thanks to various anti-illicit online and offline trade programs. About 87% of product security cases originate in online marketplaces and non-authorized distributor websites, which sell counterfeit Syngenta Crop Protection and Seeds products, or products that infringe Syngenta’s IP, trademark rights or distribution contracts. The remaining 13% (603 offline cases) are cases of counterfeiting, smuggling, or any other illicit trade activity in key Syngenta markets across the globe. Offline cases often result from close cooperation between the security team and local sales and marketing teams who report suspicious products.

The quantity of both counterfeit crop protection and seed products seized by authorities declined by 19% (-1,677 tonnes) and 35% (-1,862 tonnes) respectively – driven by fewer seizures in Ukraine due to the Russian-Ukrainian crisis. Further, the COVID-19 policy in China limited our ability to conduct local and transnational investigations in the region. Despite a decrease in the overall quantity of seized crop protection products in these countries, there was an increase in tonnes of products seized in other markets. For example, a successful 18-month long investigation led to the dismantling of a counterfeit production facility and to the arrest of the criminal head and associates of an organized crime group producing and distributing counterfeit crop protection products. In another instance, an investigation resulted in taking down a counterfeit crop protection distribution network in India. Despite the overall decrease in seizures of seed products, for this reporting period, we witnessed an increase in smaller but important markets, such as Indonesia and Bangladesh, where the local security team together with marketing teams successfully dismantled counterfeit product distributors selling directly to end customers.

In 2022, we started reporting on the number of people completing the Corporate Security Awareness online training. This year, 5,679 new joiners completed the training, reaching a completion rate of 79%.

Earlier this year, Syngenta again contributed to the [Silver Axe VII campaign](#), in both Europe and Latin America, by sharing intelligence and verifying Syngenta product authenticity. The campaign targets the movement and sale of illicit and illegal crop protection products online and offline. The operation seized about 1,150 tonnes of illegal pesticides.

**Related information in this report:**


- [Human rights](#)

**Further information:**

- [FAQ: Security management](#)
- [FAQ: Human rights](#)

7.4.3 Animal welfare

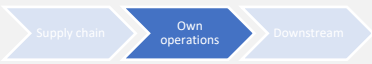
<p><b>Topic description</b>                  Animal studies relate to the scientific research on animals, including experiments. In certain markets, regulators require animal studies before granting authorization to Syngenta to introduce new products to ensure they are safe to humans and the environment.</p>	<p>Materiality matrix classification:                  → Monitored (Business integrity)</p> <p>Frameworks:                  → GRI: -                  → SASB: -                  → UNGC: 8                  → SDG: -</p>
<p><b>Management approach</b>                  As stated in our <a href="#">Syngenta Group Code of Conduct</a>, we use animal studies only when appropriate and aim to develop alternative techniques that replace and reduce the use of animals.</p> <p>The Syngenta Animal Welfare Policy sets standards that apply to animal studies carried out by third-party contractors on behalf of Syngenta. Syngenta is guided by the 3R principles (Replace-Reduce-Refine) as follows:</p> <ul style="list-style-type: none"> <li>• We use animals only when appropriate</li> <li>• We use non-animal alternatives if possible</li> <li>• We use the minimum number of animals</li> <li>• We use species of the lowest sentience</li> <li>• We minimize pain, suffering and distress</li> <li>• We generate valid scientific endpoints to inform the risk assessment</li> </ul> <p>While in some countries we are required by law to generate in-vivo data for the risk assessment of our products, we advocate and work toward replacing in-vivo data with other methods. We work with contract research organizations, academic institutions, and national government institutions throughout the world for that purpose. Many governments, including in the EU, UK, and US, have a long-standing objective to undertake animal studies only when necessary and to invest in initiatives that refine testing, reduce animal testing and help remove animal testing as soon as possible. Syngenta supports and engages with organizations working toward these objectives.</p> <p>The Animal Welfare Guidance outlines procedures to comply with the requirements of the policy regarding types of animal work placement, approval of facilities and study protocols, and compliance reporting.</p> <p>The Syngenta Animal Ethical Review Committee (SAERC) oversees compliance with the Animal Welfare Policy. The committee assesses facilities and approves for use those that demonstrate procedures for training and assessing the competence of staff responsible for the care of and procedures conducted on animals. All animal studies are documented and reported to the SAERC.</p> <p>Every Syngenta employee involved with conducting or commissioning work using vertebrate animals is accountable to follow the principles</p>	<p>GGP targets: ✖</p> <p>Policies:                  → <a href="#">Syngenta Group Code of Conduct, principle 11</a>                  → Syngenta Animal Welfare Policy                  → Syngenta Animal Welfare Guidance</p>

<p>outlined in the policy. Line management is responsible for ensuring that employees are trained accordingly.</p> <p>We expect our contract laboratories to have management systems in place that are consistent with our policy and standards regarding the care and use of animals in research and development as well as with national legislation. We also expect contract laboratories to have a national certification if such programs are in place in the respective countries.</p> <p>We audit contract laboratories to monitor compliance and ensure they consistently apply these standards. The SAERC is responsible for assessing audit findings, recommending remediation measures, monitoring implementation, and reporting on progress.</p>			
<p><b>Key performance indicators</b> We report on the number of contract laboratories, which underwent a management system audit, and the non-compliances found. Audits are performed based on an agreed audit plan and last up to three days.</p>	<p>Reporting boundaries:</p>  <p>External assurance: ✓ → <a href="#">Independent assurance report</a></p> <p><a href="#">Basis of Preparation</a></p>		
<p>Reporting period October 1 – September 30 (unless stated otherwise)</p>	<b>2022</b>	2021	2020
<p><b>Animal testing compliance</b></p>			
<p>Management system audits performed in contract laboratories</p>	<b>5</b>	6	8
<p>Management system non-compliances found</p>	<b>0</b>	0	0
<p><b>Performance in 2022</b> In 2022, we performed 5 management system audits compared to 6 last year. Year-on-year fluctuations in the number of audits are normal. This year we returned to our standard onsite audits.</p> <p>Due to the Russian-Ukrainian conflict, we had to delay an audit planned for a contract research organization facility located in Russia. This visit was planned as part of our regular inspection program. We have no reasons to have concerns about this facility’s animal use standards, but we will visit and inspect it as soon as it is possible.</p>			
<p><b>Related information in this report:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Ethics and integrity</a></li> </ul>	<p><b>Further information:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">FAQ: Animal research</a></li> </ul>		

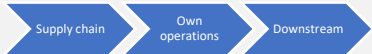


7.4.4 Biotechnology and regulatory compliance

<p><b>Topic description</b>                  Biotechnology is the use of living organisms to develop products with enhanced features. It includes the use of genetic modification, also known as gene technology or genetic engineering. In agriculture, biotechnology allows farmers to produce food and feed crops with enhanced characteristics such as higher yield, improved nutritional qualities or resistance against insects and diseases, while minimizing the environmental impact of their production.</p> <p>We believe the benefits of genetic modification and other biotechnologies should be available to farmers to help them grow more from less.</p>	<p>Materiality matrix classification:                  → Monitored (Business integrity)</p> <p>Frameworks:                  → GRI: -                  → SASB: RT-CH-410c.1                  → UNGC: 7                  → SDG: -</p>
<p><b>Management approach</b>                  Our focus on safety and the environment starts at the beginning of the product lifecycle. We are committed to complying with plant biotechnology and all other applicable regulations. We maintain a management system for handling our genetically modified (GM) crops that is modeled on ISO 9001, the international quality standard.</p> <p>Environmental and health aspects are considered throughout our research and development processes. Our human safety assessments address potential risks to users and consumers, while our environmental safety programs seek assurance that the product will not adversely affect the soil, water, air, flora, or fauna.</p> <p>For a product to receive regulatory approval for registration, we must demonstrate that it is safe for workers, the environment, the crops being protected, and the people or animals eating the food created from those crops. For GM crops, rigorous laboratory and field studies are conducted to identify and assess potential toxic, allergenic or other unintended effects that may raise safety concerns. Our regulatory compliance team works globally to ensure compliance with regulatory standards and to share best practices. It implements comprehensive compliance programs where needed.</p> <p>We have established internal quality management systems to promote responsible management of plant biotechnology, including:</p> <ul style="list-style-type: none"> <li>• Insect and Weed Resistance Management</li> <li>• Field Trial Compliance Manual, Workshops and Training</li> <li>• Containment Analysis and Critical Control Point Plan</li> <li>• Product Launch Stewardship Policy</li> <li>• <a href="#">Excellence Through Stewardship</a> initiative to audit our processes</li> </ul> <p>We provide information on GM technology and the benefits it brings through open dialogue. We work with industry partners such as <a href="#">CropLife International</a> to provide accurate and impartial information on the safety and benefits of GM technology.</p>	<p>GGP targets:*</p> <p>Policies:                  → <a href="#">Syngenta Group Code of Conduct, principle 19</a></p>

<p><b>Key performance indicators</b>                  We report on the number of individuals attending training on field trial regulatory and stewarded compliance. Participation is tracked through training attendance lists.</p> <p>We also report on the number of specific field trial locations planted under country regulatory and stewarded compliance programs. This includes trials requiring a permit (i.e., regulated trials) and trials not requiring a permit but managed in accordance with country-specific compliance programs (i.e., stewarded trials).</p>	<p>Reporting boundaries:</p>  <p>External assurance: ✓                  → <a href="#">Independent assurance report</a></p> <p><a href="#">Basis of Preparation</a></p>		
<p>Reporting period October 1 – September 30 (unless stated otherwise)</p>	<p><b>2022</b></p>	<p>2021</p>	<p>2020</p>
<p><b>Biotechnology and regulatory compliance</b></p>			
<p>Employees completing field trial regulatory and stewarded compliance training</p>	<p><b>3,451</b></p>	<p>2,756</p>	<p>2,089</p>
<p>Field trial locations planted under country regulatory and stewarded compliance programs<sup>1,2</sup></p>	<p><b>169</b></p>	<p>181</p>	<p>297</p>
<p><sup>1</sup> Represents all trial locations covered by country-specific regulatory compliance programs whether they require a permit or not  <sup>2</sup> 2021 value was restated due to a reporting error caused by the misinterpretation of the performance indicator definition in one country</p>			
<p><b>Performance in 2022</b>                  In 2022, the number of employees completing field trial regulatory and stewarded compliance training increased by 25% to 3,451 compared to last year. This increase resulted from a significant increase in regulated and stewarded activities in Chile where additional temporary staff were employed and had to receive training to comply with the country’s legal regulations. An increase in regulated activities was also observed in China where a large number of field trial permits were approved, which allowed for the planting of more field trial sites, resulting in more personnel being trained in regulatory and stewarded compliance.</p> <p>The number of specific field trial locations planted under country regulatory and stewarded compliance programs decreased by 7% to 169. This was due to a reduction in regulated soybean activities in Argentina. Further, it was also due to the commercial cultivation approval for traits in South Africa that were previously regulated.</p> <p>During 2022, a Global Compliance Dashboard was developed, together with the Syngenta Knowledge Management team, using 2018-2022 global compliance statistics. This dashboard aims to enable users from the regulatory compliance function to view and compare data from eight compliance KPIs from different years, quarters, and countries per region. This information can serve to detect trends, gain insights and make correlations between KPIs (e.g., to assess if the number of permits received is aligned with the number of field trial locations planted), and provide a user-friendly and interactive platform to enable access to and use of compliance statistics.</p>			
<p><b>Related information in this report:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Ethics and integrity</a></li> </ul>	<p><b>Further information:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Research and development</a></li> <li>• <a href="#">FAQ: Research and development</a></li> <li>• <a href="#">FAQ: Biotechnology</a></li> <li>• <a href="#">FAQ: Regulation and registration</a></li> </ul>		

7.4.5 Economic value shared

<p><b>Topic description</b>                  Syngenta contributes to the creation and distribution of economic value through the wages and benefits we offer employees, the products and services we purchase from suppliers, the taxes we pay to governments, and the payments we make to providers of capital. Our economic contribution is enhanced by delivering agricultural innovation, our investments in communities and our promotion of sustainable development.</p>	<p>Materiality matrix classification:                  → Monitored (Business integrity)</p> <p>Frameworks:                  → GRI: -                  → SASB: -                  → UNGC: -                  → SDG: 1</p>
<p><b>Management approach</b>                  As stated in our <a href="#">Syngenta Group Code of Conduct</a>, wherever we operate, we seek to make a positive contribution, creating economic, health and social benefits for the community, respecting local customs and traditions.</p> <p>We use our core capabilities to add value to the economies of the countries and communities in which we operate. By delivering innovative agricultural products and technologies, we build sustainable and productive agricultural systems and strong rural economies – key to meeting the world’s growing demand for food.</p> <p>We invest in the communities where we operate by providing training and support for growers in developing markets. In particular, the <a href="#">Syngenta Foundation for Sustainable Agriculture</a> works with small-scale farmers in Asia and Africa to help them increase their productivity, income and resilience. (See <a href="#">Community engagement</a>)</p>	<p>GGP targets: ✖</p> <p>Policies:                  → <a href="#">Syngenta Group Code of Conduct, principle 16</a></p>
<p><b>Key performance indicators</b>                  We measure the economic value we share through the following six performance indicators:</p> <ul style="list-style-type: none"> <li>• <b>Payment to suppliers:</b> Cost of Goods Sold (COGS) and function costs (including restructuring) excluding employee costs, and adjusting for non-cash items such as depreciation and amortization, and movement in inventory</li> <li>• <b>Employee wages and benefits:</b> Salaries, bonuses, social security costs, pensions, share-based compensation, and other benefit costs</li> <li>• <b>Payments to governments (taxes):</b> Income and other taxes paid, excluding VAT (included in payments to suppliers) and employment-related taxes (included in employee wages and benefits)</li> <li>• <b>Payments to providers of capital:</b> Payment of dividends and interest on debt</li> <li>• <b>Capital expenditure:</b> Cash investment in tangible, intangible and financial assets (excludes business acquisitions and all disposals)</li> <li>• <b>Corporate community investment:</b> See <a href="#">Community engagement</a></li> </ul>	<p>Reporting boundaries:</p>  <p>External assurance: ✓                  → <a href="#">Independent assurance report</a> (only for Corporate Community Investment)</p> <p><a href="#">Basis of Preparation</a></p>

Reporting period October 1 – September 30 (unless stated otherwise)	2022	2021	2020
<b>Economic value shared<sup>1</sup></b>			
Economic value shared (\$m)	20,012	15,205	13,461
Payments to suppliers (\$m)	13,164	9,372	7,994
Employee wages and benefits (\$m)	3,914	3,446	3,114
Payments to governments (taxes) (\$m)	530	440	217
Payments to providers of capital (\$m)	831	729	1,055
Capital expenditure (\$m)	1,548	1,195	1,056
Corporate community investment (\$m) <sup>2</sup>	25	23	25

<sup>1</sup> Economic value shared KPIs are for the period January to December to align with our annual financial reporting

<sup>2</sup> The PwC Independent Assurance Report includes in its scope only the Corporate community investment figure used in the calculation of Economic value shared

**Performance in 2022**

In 2022, we shared USD 20,012 million in total economic value. Changes compared to last year for each performance indicator were as follows:

- The increase in payments to suppliers (+40%, +USD 3,792 million) was considerably higher than sales due to the buildup of inventories in the Crop Protection business in order to manage strong demand against supply and logistics constraints.
- The increase in employee wages and benefits (+14%, +USD 468 million) was due to business growth and inflationary pressures. Also, incentives were higher in 2022 due to strong business performance.
- The effective tax rate remained largely flat, but timing of tax payments in Brazil resulted in higher cash outflows (+20%, +USD 90 million).
- The increase in payments to providers of capital (+14%, USD 102 million) was driven by higher interest paid as funding levels rose due to increased working capital demands from business growth.
- The increase in capital expenditure (+30%, +USD 353 million) was due to the addition of tangible assets, mainly in Brazil and the US, and increases in capitalized development costs, mainly in the Seeds business.
- Community investment increased to USD 25 million. (See [Community engagement](#))

**Related information in this report:**

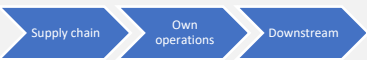
- [Community engagement](#)
- [Tax governance](#)

**Further information:**

- [Financial Report 2022](#)

7.4.6 Community engagement

<p><b>Topic description</b>                  Companies have a part to play in community life. Syngenta supports and partners with communities around the world with the aim to contribute to local needs, build mutual understanding and trust, and gain support for our business objectives.</p> <p>We engage with communities worldwide in many ways. Common activities include contributing to livelihoods through employment and education, sharing our know-how and expertise in improving farming practices, supporting communities and schools in controlling disease-spreading insects, and managing waste. We also support employees'</p>	<p>Materiality matrix classification:                  → Monitored (Business integrity)</p> <p>Frameworks:                  → GRI: -                  → SASB: RT-CH-210a.1                  → UNGC: -                  → SDG: 1</p>
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<p>own humanitarian fundraising through matching programs and donations.</p>			
<p><b>Management approach</b>                  Engaging with communities is integral to how we operate. Our commitment is described in our <a href="#">Syngenta Group Code of Conduct</a> and <a href="#">HSE Policy and Standards</a>. As outlined in our HSE management system, sites are required to have a process in place to manage engagement with local communities. Our HSE Management System Guide on Community Engagement provides a consistent approach to proactive involvement with all our local communities – to align interests, increase mutual understanding, build relationships, and take joint action for mutual benefit.</p> <p>Our Charitable Contributions Policy outlines the minimum standards for philanthropic donations and non-commercial sponsorships, focus areas and governance. Our Humanitarian Donation Policy guides our response to humanitarian crises impacting the health of communities. Both policies provide a framework to bring consistency and transparency to our corporate community investments.</p>	<p>GGP targets: ✖</p> <p>Policies:</p> <ul style="list-style-type: none"> <li>➔ <a href="#">Syngenta Group Code of Conduct, principle 16</a></li> <li>➔ <a href="#">HSE Policy and Standards</a></li> <li>➔ HSE MS requirement COM.08</li> <li>➔ HSE MS Guide on Community Engagement</li> <li>➔ Charitable Contributions Policy</li> <li>➔ Humanitarian Donation Policy</li> </ul>		
<p><b>Key performance indicators</b>                  Corporate community investment comprises charitable contributions and humanitarian relief in the form of money, goods, know-how and/or employee time. Included is also our monetary contribution to the <a href="#">Syngenta Foundation for Sustainable Agriculture</a>.</p>	<p>Reporting boundaries:</p>  <p>External assurance: ✓</p> <ul style="list-style-type: none"> <li>➔ <a href="#">Independent assurance report</a></li> </ul> <p><a href="#">Basis of Preparation</a></p>		
<p>Reporting period October 1 – September 30 (unless stated otherwise)</p>	<b>2022</b>	2021	2020
<p><b>Economic value shared</b></p>			
<p>Corporate community investment (\$m)<sup>1</sup></p>	<b>25</b>	23	25
<p><sup>1</sup> Corporate community investment KPI is for the period January to December to align with our annual financial reporting and the Economic value shared KPIs</p>			
<p><b>Performance in 2022</b>                  Community investment increased to USD 25 million, of which USD 19.5 million were invested via the Syngenta Foundation for Sustainable Agriculture (SFSA). The remaining was invested across all regions with Asia Pacific representing 45%, followed by North America at 43%, Europe, Africa and Middle East at 10%, and Latin America at 2%.</p> <p>In 2022, as the war in Ukraine sent shockwaves around the world, Syngenta provided humanitarian support to Ukraine and its citizens through donations to aid partners and humanitarian agencies, such as the <a href="#">International Committee of the Red Cross</a>, <a href="#">UN Refugee Agency</a> and <a href="#">UNICEF</a>. Following another catastrophic event in Pakistan, Syngenta APAC partnered with <a href="#">Rizq Pakistan</a> in a relief donation campaign to help people affected by the floods.</p> <p>Syngenta is sponsoring USD 375,000 over five years to cover scholarship fees for five students at the Asian University for Women (AUW) from January 2022 to December 2026. They were selected for their academic excellence and for demonstrating leadership in smallholder communities of Bangladesh and India. The AUW-Syngenta Scholarship empowers rural women to unlock their full potential and provides them with better opportunities to enhance their livelihoods and take charge of their lives.</p>			

For the past five years, Syngenta has also sponsored 4-H Canada’s Sustainable Agriculture & Food Security Pillar. Together, we launched important projects to engage youth in addressing global challenges, such as [Proud to Bee a 4-H'er](#) (one of the longest-running initiatives on teaching pollinator-friendly gardening activities) and [Dig into Soil](#) (a program helping youth discover the basics of soil health, learn about composting, and address the impacts of climate change).

Our approach to community investment is highly localized – shaped by each community’s setting, demographics and needs. This year, we continued investing in our communities through activities such as volunteering weeks, donation campaigns and support to community organizations on specific environmental and social causes.

We also continued our long-time, strong partnership with SFSA. Since opening SFSA’s Seeds for Impact program to skills-based volunteering in 2021, Syngenta employees from around the world have contributed *pro bono* to capacity-building at small African seed companies, gaining at the same time experience outside their usual work environment. In 2022, more employees joined other volunteering opportunities in the fields of development impact measurement and improved urban nutrition.

<p><b>Related information in this report:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Economic value shared</a></li> <li>• <a href="#">Syngenta Foundation for Sustainable Agriculture</a></li> </ul>	<p><b>Further information:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Syngenta Foundation for Sustainable Agriculture</a></li> <li>• <a href="#">Stakeholder engagement</a></li> </ul>
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7.4.7 Responsible lobbying

<p><b>Topic description</b></p> <p>Syngenta actively contributes to discussions on social, regulatory, and political topics that are relevant to the company. We engage on issues that advance the company’s goals, support our customers, partners and industry, and improve agricultural systems and the communities where we work and live.</p> <p>Syngenta participates responsibly in dialogue concerning the challenges around global food security, climate change, biodiversity and other issues, sharing our expertise, experiences and explaining our contribution and perspective.</p>	<p>Materiality matrix classification:</p> <ul style="list-style-type: none"> <li>➔ Monitored (Business integrity)</li> </ul> <p>Frameworks:</p> <ul style="list-style-type: none"> <li>➔ GRI: -</li> <li>➔ SASB: RT-CH-530a.1</li> <li>➔ UNGC: -</li> <li>➔ SDG: 16</li> </ul>
<p><b>Management approach</b></p> <p>We are guided by the <a href="#">Syngenta Group Code of Conduct</a> in our lobbying activities. Our Responsible Lobbying Policy builds on the Code’s commitments and provides the global framework for outreach by our teams, bringing consistency and transparency across the organization. As an organization committed to collaboration, we aim to build trust among external stakeholders in the way we do business. The policy outlines expected behavior related to lobbying and political contributions.</p> <p>We conduct lobbying activities in full compliance with the law and are guided by honesty, respect, and transparency. We expect appointed external agencies or industry associations conducting such activities on behalf of Syngenta to be guided by the same principles.</p>	<p>GGP targets: ✖</p> <p>Policies:</p> <ul style="list-style-type: none"> <li>➔ <a href="#">Syngenta Group Code of Conduct, principles 8 and 9</a></li> <li>➔ Responsible Lobbying Policy</li> <li>➔ Anti-Bribery Policy</li> <li>➔ Gifts and Entertainment Policy</li> <li>➔ Competition Law Policy</li> <li>➔ Conflicts of Interest</li> <li>➔ Foreign Agents Registration Act (FARA) Policy</li> <li>➔ Charitable Contributions Policy</li> </ul>



<p>We actively seek to participate in discussions and to have an open dialogue with other parties that operate in or are close to the agricultural sector. We do this mainly through industry associations such as <a href="#">CropLife International</a> (CLI) and the <a href="#">International Seed Federation</a>. Since October 2021, our CEO Erik Fyrwald has been the Chairman of CLI’s Board of Directors. We also engage directly, for example through our participation in events, involvement in working groups and response to consultations to share our expertise. (See <a href="#">Engagement and collaboration</a>). We focus on topics important to society, farming, and our business. Through our <a href="#">Policy positions</a>, we share our views on new developments and invite others to join the discussion.</p> <p>Syngenta Group does not make any corporate political contributions to political parties, politicians, or candidates for a political office, with the exception of political contributions in the US. Political contributions in the US are made in line with federal, state, and local laws and regulations and in compliance with our US Lobbying Policy.</p> <p>We report lobbying expenditures and political contributions as required by law. In the US, for instance, all political contributions and lobbying expenditures and activities are reported to the applicable federal or state government. These reports are available online. In the EU, we disclose our political activities and contributions through the <a href="#">EU Transparency Register</a> website.</p>	
<p><b>Performance in 2022</b></p> <p>We continued engagement with stakeholders around the world to discuss and find shared solutions to the challenges faced by farmers and those working in agriculture. Below are a few examples of our 2022 activities.</p> <p>As an active member of CLI, Syngenta works to ensure a safe and responsible regulatory framework, appropriate implementation of voluntary secondary standards, training and communication with a focus on safety and sustainable environmental and agronomic practices. We are actively involved in global discussions and initiatives to help address food security, climate, and biodiversity protection at global level. For example, this year, we participated in the task force workstream delivering CLI’s <a href="#">Sustainable Pesticide Management Framework</a>. We also participated in the <a href="#">UNFCCC COP27</a> and the <a href="#">COP15</a> on Biodiversity.</p> <p>Syngenta is also active at regional and sub-regional/country level to express our point of view on a range of issues relevant to our business, with an emphasis on policy approaches that support farmers to deliver more sustainable agriculture. For example, Syngenta has been a founding partner of the annual <a href="#">Forum for the Future of Agriculture</a> (FFA) based in Brussels since 2008. The FFA is a meeting place where participants (i.e., European commissioners, national government ministers, industry leaders, academics, NGOs, international organizations) debate actions needed to deliver sustainable agriculture and address environmental challenges. In 2022, the headline event focused on food systems transformation and was complemented by regional events in the <a href="#">Czech Republic</a> and <a href="#">Sweden</a>.</p> <p>In the LATAM region, we collaborated with the <a href="#">Inter-American Institute for Cooperation on Agriculture</a>, the <a href="#">International Maize and Wheat Improvement Center</a>, <a href="#">Food Innovation Hubs</a> (WEF Colombia), and <a href="#">Mexico’s National Agriculture Council</a>. In Brazil, we supported training events with the <a href="#">Brazilian Agricultural Research Corporation</a>. In APAC and North America, our efforts focused on safe and responsible use of products, access to technology and training farmers.</p> <p>As a company headquartered in Switzerland, we continued to connect with consumers and communities in the country to highlight the role of crop protection and new breeding technologies in sustainable agriculture.</p>	

We did this for instance through the joint industry platform [swiss-food.ch](http://swiss-food.ch), which promotes a holistic approach to sustainability in the food value chain, and [Green Sofa Live](#), a live panel to discuss burning issues and the future of farming, in addition to the online interview series [Green Sofa](#). Being part of the solution and showcasing the role of data were also a focus of keynote speeches, including at [Brennpunkt Nahrung](#) (Hotspot Food), the annual gathering of the Swiss food sector.

<p><b>Related information in this report:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Ethics and integrity</a></li> <li>• <a href="#">Engagement and collaboration</a></li> </ul>	<p><b>Further information:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Clerk US House of Representatives</a></li> <li>• <a href="#">US Senate Lobbying Disclosure</a></li> <li>• <a href="#">US Senate Office of Public Records</a></li> <li>• <a href="#">EU Transparency Register</a></li> </ul>
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7.4.8 Enterprise risk management

<p><b>Topic description</b></p> <p>The nature of Syngenta’s business and its global presence expose it to risks and opportunities. Risks and opportunities – whether economic, legal, political, environmental or social – are central to our business and investment strategies.</p> <p>An effective Enterprise Risk Management (ERM) program helps companies identify and measure risks. Companies can then manage their risk exposure in the context of their risk profiles, long-term business objectives and stakeholder expectations.</p>	<p>Materiality matrix classification:</p> <ul style="list-style-type: none"> <li>➔ Monitored (Business integrity)</li> </ul> <p>Frameworks:</p> <ul style="list-style-type: none"> <li>➔ GRI: -</li> <li>➔ SASB: -</li> <li>➔ UNGC: 10</li> <li>➔ SDG: 16</li> </ul>
<p><b>Management approach</b></p> <p>Our Syngenta Group Risk Management Policy outlines the minimum requirements that all companies wholly owned and controlled by Syngenta Group, including Syngenta AG group, should meet to have a common basis for risk activities and visibility at Syngenta Group level, inclusive of roles and responsibilities. The policy is supplemented by a detailed risk management guideline intended for those involved in risk management activities.</p> <p><b>Accountabilities and responsibilities</b></p> <p>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. In particular:</p> <ul style="list-style-type: none"> <li>• The Syngenta Group Board of Directors reviews Syngenta Group’s risk profile and independently reviews the effectiveness of its processes across the Syngenta Group.</li> <li>• The Group Leadership Team (GLT) has overall responsibility for risk management and reports on the Syngenta Group’s risk profile to the Syngenta Group Board of Directors on a regular basis.</li> <li>• Leadership teams have full ownership of and accountability for risk management activities within their relevant entities.</li> <li>• Group Risk Management ensures and maintains the risk management framework. Group Risk Management supports the business in the risk policy implementation.</li> </ul>	<p>GGP targets: ✖</p> <p>Policies:</p> <ul style="list-style-type: none"> <li>➔ <a href="#">Syngenta Group Code of Conduct</a></li> <li>➔ Syngenta Group Risk Management Policy</li> </ul>

<p><b>ERM framework</b></p> <p>The process of identifying, assessing and responding to risks and opportunities – including ESG-related ones – that could have a substantive financial or strategic impact is integrated into our overall multi-disciplinary ERM Framework.</p> <p>Based on the ISO 31000 Risk Management Standard, the framework is governed by the GLT and consists of five steps:</p> <ol style="list-style-type: none"> <li>1. Establishing the context: Understanding the uncertainties surrounding the delivery of the strategy, setting the risk appetite and risk tolerance</li> <li>2. Risk identification: Identifying, recognizing and describing risks and opportunities (by screening current and emerging trends and ecosystem risks)</li> <li>3. Risk assessment: Gaining a deeper understanding of risks and opportunities by analyzing their likelihood and potential impact (on people, the environment, and business) in accordance with the overall ERM framework</li> <li>4. Risk treatment: Actively addressing the risks identified leading to reduce or remove the uncertainty of outcomes</li> <li>5. Monitoring: Regularly reviewing risks to evaluate the effectiveness of treatment measures and changes within the risk landscape</li> </ol> <p>ESG is considered in the ERM Framework both from a strategic long-term business value impact perspective (e.g., opportunities through changes in regulations and regulatory trends, societal trends and preferences) and a short- and medium-term operational perspective at corporate and business unit levels (e.g., socioeconomic trends relevant to our business model).</p> <p>Strategic long-term risks and opportunities are discussed on a regular basis at global level and inform senior leadership decision making on significant trends for the next 10 to 20 years. This exercise is conducted with both internal and external experts.</p> <p>The annual risk identification exercise, which looks at the short- and medium-term risks and opportunities within the next five years, follows the company's strategic planning cycle. Global, regional, business unit and country-specific strategic risk identification always involves multi-disciplinary experts from Sustainability, R&amp;D, Production and Supply, IT, Finance and Commercial teams. Functions and Operations mirror a similar approach to risk identification.</p> <p>Once risks and opportunities have been identified, they are assessed and prioritized, with the aim to focus on the risks that could have a substantive impact on the delivery of the strategy and objectives, as well as on the opportunities to pursue. We consider both the potential likelihood of the downside risks materializing and their impact in environmental, people and financial terms. Risks with a more aggressive and volatile outlook (often based on expert opinion and discussion) undergo a more frequent assessment (based on their profile) in order to inform the potential impact and time to impact.</p> <p>Decisions on risk treatment plans (mitigate, transfer, accept or control) are based on and guided by factors such as risk severity, risk appetite,</p>	
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<p>business case in investment for mitigation, regulations and local conditions affected by such decisions. Once treatment plans have been identified and established, mitigation plans and progress are discussed and continuously monitored, and adjusted to the potential changes in the business as required. Risks and opportunities are managed and reported within business units and functions, and Group Risk Management challenges and consolidates inputs. The risk management process identifies early warnings and resourcing prioritization, spots opportunities and monitors the ongoing mitigation status.</p> <p><b>Risk management disclosure</b> As a privately-owned company, Syngenta AG group is not required to produce corporate reports and filings. We however publish a Financial Report, which includes a description about how we manage financial risks (See <a href="#">Note 24</a>). We also disclose climate- and water-related risks and opportunities in our CDP submissions: <a href="#">CDP Climate Change submission 2022</a> and <a href="#">CDP Water Security submission 2022</a>.</p> <p>At Syngenta Group level, we disclosed Syngenta Group risk factors in the Syngenta Group Prospectus filed with the Shanghai Stock Exchange (SSE) and issued as part of our intention to register an initial public offering (IPO) on SSE's STAR Market.</p> <p>Some risk factors identified through our ERM framework are also reflected in the six topics classified as material in our Syngenta AG group's materiality assessment (See <a href="#">Materiality analysis</a>): Biodiversity; Climate change mitigation and adaptation; Health, safety and fair labor; Innovation in agriculture; Product responsibility; and Soil health.</p> <p><b>TCFD recommendations</b> Further, Syngenta has engaged in in-depth climate scenario analysis as a result of our commitment to implement the <a href="#">Task force on Climate-related Financial Disclosures</a> (TCFD) recommendations, looking into medium- and long-term climate change-related risks and opportunities extending beyond 5 and 10 years and other transitional risks. Our work to implement the TCFD recommendations is described on page <a href="#">106</a>.</p>	
<p><b>Performance in 2022</b> In 2022, we further strengthened assurance through increased collaboration and a coordinated approach to audit, risk and compliance. We provided targeted risk management awareness training to business unit Leadership teams and Group functions. In addition, the Group Risk Management SharePoint was relaunched and extended to the wider risk management network in Syngenta Group.</p> <p>Also, in 2022, Group Risk Management provided a consolidated view of the four Syngenta Group business unit risk profiles to the GLT and Board of Directors' Audit Committee, and kept them informed of potential impacts throughout the year.</p>	
<p><b>Related information in this report:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Materiality analysis</a></li> <li>• <a href="#">Implementing TCFD's recommendations</a></li> </ul>	<p><b>Further information:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">FAQ: Risk management</a></li> <li>• <a href="#">Press release: Syngenta Group files Pre-listing Tutoring Report for a possible IPO and listing of A-shares on Shanghai's STAR Market</a> (June 21, 2021)</li> <li>• <a href="#">Financial Report 2022</a></li> </ul>

7.4.9 Tax governance

<p><b>Topic description</b>                  Taxes are important sources of government revenue, and they foster economic growth and development in countries. Public disclosure of company tax practices promotes trust and credibility.</p> <p>At Syngenta, we believe that tax is a matter of business integrity and responsibility toward regulatory bodies, shareholders, customers, and society at large. We also believe that tax compliance and tax performance go hand-in-hand, as the first ensures the sustainability of the second.</p>	<p>Materiality matrix classification:                  → Monitored (Business integrity)</p> <p>Frameworks:                  → GRI: -                  → SASB: -                  → UNGC: 10                  → SDG: 16</p>
<p><b>Management approach</b>                  In line with the <a href="#">Syngenta Group Code of Conduct</a>, Syngenta is a responsible taxpayer. We are committed to complying with tax laws and regulations applicable to our business, and to ensuring we pay taxes in the right place at the right time. We claim reliefs and incentives where available. We maintain an open and transparent relationship with tax authorities, disclosing relevant facts and circumstances.</p> <p>Group Tax, led by the Head Group Tax with the support of the Group Tax Leadership Team that he chairs, represents the tax organization before the Group Leadership Team and Board of Directors. It is responsible for designing and driving the Tax Governance Framework.</p> <p>In this Framework, the <a href="#">Global Tax Strategy</a> is the most important document of tax governance, setting our management approach to tax. It is supplemented by the Global Tax Policy, which outlines key commitments and governance principles, as described below.</p> <div> </div> <p>Both the Tax Strategy and the Tax Policy are reviewed and approved by the Group Tax Leadership Team and the Board of Directors' Audit Committee. The same approval process applies in case of changes to these documents.</p> <p>Key commitments:</p> <ol style="list-style-type: none"> <li>1. Complying with tax laws and regulations everywhere Syngenta operates, compliance meaning paying the right amount of tax, in the right place at the right time, disclosing relevant facts and circumstance to tax authorities, and claiming reliefs and incentives where available</li> <li>2. Undertaking transactions aligned with Syngenta's business activities and objectives, which implies not to engage in any artificial transactions</li> <li>3. Striving for best practice approaches and driving for excellence when dealing with taxes</li> </ol>	<p>GGP targets: *</p> <p>Policies:                  → <a href="#">Syngenta Group Code of Conduct</a>                  → <a href="#">Global Tax Strategy</a>                  → Tax Governance Framework                  → Transfer Pricing Guidelines                  → Indirect Tax Guidelines                  → Syngenta Process Document for Tax Audit Management                  → Syngenta Process Document for Corporate Income Tax Filing and Payments                  → Syngenta Process Document for Tax Reporting</p>

<p>4. Developing and maintaining constructive, open relationships with tax authorities, based on integrity, mutual trust, and respect</p> <p>Key governance principles across the tax cycle:</p> <p>5. <u>Strategy</u>: Group Tax is accountable and responsible for setting the Tax Strategy, Tax Policy, and related guidelines, processes, and controls</p> <p>6. <u>Operations &amp; Compliance</u>: Finance leads of Syngenta companies are accountable for maintaining compliance of their local markets with local tax laws and the Syngenta Tax Governance Framework; they certify such compliance through an annual Letter of Assurance</p> <p>7. <u>Controversy &amp; Risk Management</u>: Finance leads of Syngenta companies ensure compliance with the processes and controls designed by Group Tax in their local markets, such as the Tax Audit Management Process Documents. Risks impacting the Syngenta value chain or reputation as well as international tax assurance programs (e.g., Advance Pricing Agreements) are directly managed by Group Tax. Any tax litigation proceedings or audit settlement require Group Tax review and approval. Where there is significant uncertainty or complexity in relation to a risk, or the level of tax at stake is significant, advice will be sought from reputable external advisors</p> <p>Proper execution of these key commitments and principles is supported by a mix of international and specialized staff from reputable tax advisory firms and from the company. It is subject to regular internal audits (in addition to statutory audit procedures).</p> <p>Group Tax also proactively addresses and anticipates key regulatory changes such as the OECD initiatives for the avoidance of base erosion and profit shifting (BEPS) and tax reforms (notably from the US, Brazil, EU, and Switzerland). The team also contributes to national business groups to ensure an aligned engagement with industry peers. Proactive and open discussions with tax authorities are at the core of the Syngenta Tax Governance.</p>	
<p><b>Performance in 2022</b></p> <p>As in 2021, in 2022 we continued to monitor the future implications for Syngenta of the draft two-pillar model rules developed under the <a href="#">OECD BEPS</a> initiatives and to keep the Group Leadership Team and Board of Directors' Audit Committee informed of potential impacts. We continued to share our key observations about the draft two-pillar model rules with business groups.</p> <p>This year, while pursuing our extended network of international tax assurance and incentive programs, notably Advance Pricing Agreements, we focused on supporting Syngenta's supply chain simplification and synergy projects.</p>	
<p><b>Related information in this report:</b></p> <ul style="list-style-type: none"> <li><a href="#">Economic value shared</a></li> </ul>	<p><b>Further information:</b></p> <ul style="list-style-type: none"> <li><a href="#">Financial Report 2022</a></li> </ul>



## 8 Implementing TCFD’s recommendations

The [Task force on Climate-related Financial Disclosures](#) (TCFD) established recommendations for voluntary climate-related financial disclosures to help financial markets better understand the material climate-related risks and opportunities to which companies are exposed, and how companies oversee and manage them.

Syngenta supports the TCFD’s recommendations ([Press release](#), December 11, 2017) and has been working to implement them since 2018. In the following table, we provide a summary of Syngenta’s practices with links to further information in this ESG Report, our CDP Climate Change submission 2022 (CDP 2022) and other resources.

Recommended disclosure	Summary of practices	Further information
<b>Governance</b>		
a) Describe the board’s oversight of climate-related risks and opportunities	The Syngenta Group Board of Directors provides strategic direction regarding all sustainability matters, including climate-related issues. It also reviews Syngenta Group’s risk profile, discusses critical business risks, and independently reviews the overall effectiveness of the risk process.	<ul style="list-style-type: none"> <li>• CDP 2022: <a href="#">C1.1</a>,</li> <li>• <a href="#">Governance</a></li> <li>• <a href="#">Enterprise risk management</a></li> </ul>
b) Describe management’s role in assessing and managing climate-related risks and opportunities	<p>The Chief Sustainability Officer (CSO) leads the Sustainability function and drives sustainability initiatives – including those related to climate change. The CSO provides regular updates to the Group Leadership Team and the Syngenta Group Board of Directors’ Sustainability Committee on the progress made regarding the company’s sustainability commitments and advises them on required actions.</p> <p>The Enterprise Risk Management Framework is governed by the Group Leadership Team and Group Risk Management reports on the Syngenta Group’s risk profile to the Syngenta Group Board of Directors on a regular basis.</p>	<ul style="list-style-type: none"> <li>• CDP 2022: <a href="#">C1.2</a>, <a href="#">C1.3</a></li> <li>• <a href="#">Governance</a></li> <li>• <a href="#">Enterprise risk management</a></li> </ul>
<b>Strategy</b>		
a) Describe the climate-related risks and opportunities the organization has identified over the short, medium and long term	A changing climate affects agriculture in terms of growing seasons, water availability, pests, and crop productivity, as a result altering demand for our products. This could impact positively or negatively the company’s results in different geographic areas depending on whether growing certain crops is more or less viable in that area.	<ul style="list-style-type: none"> <li>• CDP 2022: <a href="#">C2.3</a>, <a href="#">C2.4</a>, <a href="#">C3.1</a>, <a href="#">C3.4</a></li> <li>• <a href="#">Financial Report 2022</a>, page 2</li> <li>• <a href="#">Carbon capture and mitigation in agriculture</a></li> <li>• <a href="#">GHG emissions</a></li> </ul>
b) Describe the impacts of climate-related risks and opportunities on the organization’s business, strategy and financial planning	Our strategy continues to evolve based on the trends in the agricultural sector. We are committed to invest in sustainable agriculture innovations to develop a portfolio of technologies and products that continue to reduce climate-related risks. Weather events that are unfavorable to agriculture tend to affect us negatively. At the same time,	

	<p>future weather patterns constitute a valuable input into our product development process – providing Syngenta with opportunities to develop solutions that help farmers mitigate and adapt to climate change.</p>	
<p>c) Describe the resilience of the organization’s strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario</p>	<p>In 2020, we performed a climate scenario analysis to further understand the impact climate change could have on our business in the future by 2030. Two climate scenarios were considered: low-carbon transition and physical climate impact scenario.</p> <p>Our analysis showed that the two scenarios present 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 and to address the shifts in consumer preferences. Our findings confirm climate-related aspects that are already considered in our business objectives and strategy development processes.</p>	<ul style="list-style-type: none"> <li>• CDP 2022: <a href="#">C3.2</a>, <a href="#">C3.3</a></li> <li>• <a href="#">ESG Report 2020, In focus: climate scenario analysis</a></li> </ul>
<p><b>Risk management</b></p>		
<p>a) Describe the organization’s processes for identifying and assessing climate-related risks</p>	<p>The process of identifying, assessing, and responding to climate-related risks and opportunities is integrated into the overall Enterprise Risk Management Framework.</p>	<ul style="list-style-type: none"> <li>• CDP 2022: <a href="#">C2.1</a>, <a href="#">C2.2</a></li> <li>• <a href="#">Enterprise risk management</a></li> </ul>
<p>b) Describe the organization’s processes for managing climate-related risks</p>	<p>Climate change is considered throughout the process, from the identification of risks and opportunities (by screening current and emerging trends and ecosystem risks) to the assessment of risks and opportunities (by evaluating the impacts on the environment, business, and people). Climate change is viewed both from a strategic long-term, business value impact perspective and a short-term, operational perspective at corporate and business unit levels.</p>	
<p>c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization’s overall risk management</p>		
<p><b>Metrics and targets</b></p>		
<p>a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process</p>	<p>Our Good Growth Plan includes strategic targets and metrics regarding climate-related risks and opportunities across our value chain, in particular:</p> <ul style="list-style-type: none"> <li>• Invest USD 2 billion in sustainable agriculture breakthroughs (See <a href="#">Innovation in agriculture</a>)</li> <li>• Deliver two new sustainable technology breakthroughs per year (See <a href="#">Innovation in agriculture</a>)</li> </ul>	<ul style="list-style-type: none"> <li>• CDP 2022: <a href="#">C4.1</a>, <a href="#">C6</a>, <a href="#">C9.1</a> (2021 data)</li> <li>• Sections in this report (2022 data) – use links provided in the text</li> </ul>
<p>b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks</p>		

<p>c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets</p>	<ul style="list-style-type: none"> <li>• Measure and enable carbon capture and mitigation in agriculture (See <a href="#">Carbon capture and mitigation in agriculture</a>)</li> <li>• Enhance biodiversity and soil health on 3 million hectares of rural farmland every year (See <a href="#">Biodiversity</a> and <a href="#">Soil health</a>)</li> <li>• Reduce the carbon intensity of our operations by 50% by 2030 (See <a href="#">GHG emissions</a>)</li> </ul> <p>We also have metrics to measure water usage and waste generation. We aim to reduce water and waste intensity in our operations by 20% by 2030. (See <a href="#">Water and wastewater</a> and <a href="#">Waste</a>)</p> <p>Since 2020, we report progress on our scope 1, 2 and 3 GHG emissions in line with our SBTi commitment and associated 2016 baseline. (See <a href="#">GHG emissions</a>)</p>	
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## 9 Non-financial performance summary

As outlined in [About this report](#), the data provided in this section is for Syngenta AG group. The non-financial reporting period is from October 1 to September 30, unless otherwise specified.

In 2022, we introduced new key performance indicators (KPIs) in our Sustainable Operations, People and Business integrity focus areas. Our aim is to provide increased transparency on our performance and further align to new reporting requirements. Relevant information about new KPIs, changes in KPI definitions, reporting periods and data collection processes or restatements is included in the footnotes.

A summary of the basis of preparation of the reported KPIs can be found in the respective [Disclosures](#). A more detailed description can be found in the document entitled [Basis of Preparation: ESG Report 2022](#).

Due to rounding, numbers presented in this report may not add up precisely to the totals provided and percentages may not precisely reflect the absolute figures.

The Non-financial performance summary brings together the performance data presented in the [Disclosures](#) section of this report. PricewaterhouseCoopers AG (PwC) has issued a limited assurance opinion on Syngenta's selected Non-financial performance summary provided on page [117](#).

The Non-financial performance summary was approved for publication by the Board of Directors of Syngenta AG on May 2, 2023.

Please see next page.

## Non-financial performance summary

### Sustainable agriculture

Reporting period October 1 – September 30 (unless stated otherwise)	2022	2021	2020
<b>Sustainable innovation</b>			
Investment in sustainable agriculture breakthroughs (\$m)	GGP 289	546	490 <sup>1</sup>
Sustainable technology breakthroughs	GGP 3	2	3
Crop produced with programs for lowest residues in crops (000s tonnes)	GGP 2,093	1,632	1,035
<b>Sustainable agriculture practices</b>			
Carbon benefit potential on farmland (000s tonnes CO <sub>2</sub> e)	GGP 2,931	3,038	1,955 <sup>2</sup>
Hectares of farmland benefited by soil conservation and biodiversity enhancement measures (m)	GGP 6.0	6.5	3.9 <sup>3</sup>
of which: Soil conservation measures (m)	4.7	5.1	2.2 <sup>3</sup>
of which: Biodiversity enhancement measures (m)	1.3	1.4	1.7
<b>Safe use of products</b>			
People trained on safe use (m)	GGP 12.9	11.0	8.0
of which: Smallholders (m)	10.1	6.6	4.7
Countries with established Syngenta product toxicovigilance programs	120	116	100
Crop Protection sales represented	97%	96%	93% <sup>4</sup>

<sup>1</sup> Investments in CP R&D, Seeds R&D and 'other' activities (e.g., M&A) included in this figure are for the period January to December. Investments in operations and in-country projects are for the period October to September

<sup>2</sup> Value calculated based on annual mitigation potentials outlined in the IPCC Fourth Assessment Report, Table 8.4 for implemented hectares with soil conservation and biodiversity enhancement measures

<sup>3</sup> 2021 value was restated due to a reporting error caused by the incorrect inclusion of soil conservation projects from Syngenta Group China entities that fall outside Syngenta AG group boundaries

<sup>4</sup> 2021 was restated due to a reporting error caused by the incorrect exclusion of a sales destination entry that should have been allocated to a country with a Syngenta product toxicovigilance program

## Sustainable operations

Reporting period October 1 – September 30 (unless stated otherwise)	2022	2021	2020
<b>Greenhouse gas emissions</b>			
<b>Intensity-based CO<sub>2</sub>e emissions from scope 1+2+3 sources:</b>			
Emissions intensity (g/\$sales)	584	585	681
Emissions intensity (g/\$value added)	1,401	1,377	1,575
Change since 2016 baseline (based on value added)	GGP/SBTi 12%	10%	25%
<b>Intensity-based CO<sub>2</sub>e emissions from scope 1+2 sources:</b>			
Emissions intensity (g/\$sales)	40	43	53
Emissions intensity (g/\$value added)	96	101	124
Change since 2016 baseline (based on value added)	SBTi -33%	-29%	-13%
<b>Intensity-based CO<sub>2</sub>e emissions from scope 3 sources:</b>			
Emissions intensity (g/\$sales)	544	542	627
Emissions intensity (g/\$value added)	1,304	1,276	1,451
Change since 2016 baseline (based on value added)	SBTi 17%	15%	30%
<b>Absolute CO<sub>2</sub>e emissions from scope 1+2+3 sources:</b>			
Emissions (000s tonnes)	11,658	9,790	9,723
Change since 2016 baseline	48%	24%	23%
<b>Absolute CO<sub>2</sub>e emissions from scope 1+2 sources:</b>			
Emissions (000s tonnes)	801	720	764
Change since 2016 baseline	-11%	-20%	-15%
<b>Absolute CO<sub>2</sub>e emissions from scope 3 sources:</b>			
Emissions (000s tonnes)	10,857	9,070	8,960
Change since 2016 baseline	55%	30%	28%
<b>Scope 1 CO<sub>2</sub>e emissions:</b>			
Own operations (000s tonnes)	394	362	388
Company vehicles (000s tonnes)	79	57	52
<b>Scope 2 CO<sub>2</sub>e emissions:</b>			
Purchased energy (000s tonnes)	328	301	324
<b>Scope 3 CO<sub>2</sub>e emissions:</b>			
Purchased goods and services (000s tonnes)	8,695	6,975	7,305
Capital goods (000s tonnes)	230	198	191
Fuel and energy related activities (000s tonnes)	152	182	268
Upstream transportation and distribution (000s tonnes)	548	583	590
Waste generated in operations (000s tonnes)	127	169	162
Business travel (000s tonnes)	60	15	25
Employee commuting (000s tonnes)	14	11	11
Upstream leased assets (000s tonnes)	70	316	127
Downstream transportation and distribution (000s tonnes)	48	51	51
Processing of sold products (000s tonnes)	469	431	66
Use of sold products (000s tonnes)	n/a	n/a	n/a
End-of-life treatment of sold products (000s tonnes)	0.0	0.2	0.2
Downstream leased assets (000s tonnes)	0.2	0.5	0.6
Franchises (000s tonnes)	n/a	n/a	n/a
Investments (000s tonnes)	444	138	162

<sup>1</sup> We report greenhouse gas KPIs to measure progress toward targets set in our Good Growth Plan and our SBTi-approved carbon reduction target. We report the percentage change vs. our 2016 baseline based on value added in alignment with our SBTi commitment. Total CO<sub>2</sub>e emissions from scope 1+2+3 sources for 2016 were 7,891,000 tonnes. Scope 1+2 emissions are for the period October to September. For 2020 and 2021, scope 3 emissions are for the period July to June due to the extensive time required to collect data and calculate results. Starting in 2022 and thanks to improved efficiency in the calculation process, scope 3 emissions are for the period October to September

<sup>2</sup> The intensity value is calculated based on January to December sales and gross profit (i.e., value added) to align with the company's audited full year results. Sales increased 19% and 56% since 2021 and 2016 respectively. Gross profit increased 17% and 32% since 2021 and 2016 respectively

<sup>3</sup> 2021 values were restated due to a reporting error in the consumption of fuel (biomass) found at one of our sites

<sup>4</sup> A positive value indicates an increase of our environmental footprint, while a negative value indicates a reduction

<sup>5</sup> Since 2022, this KPI is calculated using data collected through the new SERAM reporting tool, which led to an increase in data coverage and a higher reported value. The 2022 value is therefore not fully comparable with previous years

<sup>6</sup> We report scope 2 emissions using a market-based approach

<sup>7</sup> Following the acquisition of Valagro by Syngenta AG in 2020, the integration of Valagro's data systems is still ongoing. As such, the integration of Valagro in the scope 3 calculation was not yet possible in 2022. Valagro's scope 3 emissions are estimated to add around 0.5% to the Syngenta corporate carbon footprint

<sup>8</sup> Since 2022, we use the US Environmentally-Extended Input-Output (USEEIO) 2013 model instead of the USEEIO 2002 model for the spend-based method used to calculate this KPI

<sup>9</sup> In 2022, an upgrade in the internal purchasing data platform allowed for a more accurate allocation of materials to individual scope 3 categories. This led to some materials moving from 'Purchase goods and services' to 'Waste generated in operations', 'Processing of sold products', 'Investments' and some other categories. This made these categories not fully comparable with previous years

<sup>10</sup> Since 2022, this KPI is calculated using data provided by our logistic partner instead of the previously used finance-based model. This new method makes the value more sensitive to changes in logistic activities. The 2022 value is therefore not fully comparable with previous years

<sup>11</sup> 2021 value was overestimated due to an incorrect identification of reported property types, making it not fully comparable with other years

<sup>12</sup> In 2022, following analyses of the contribution of Syngenta's own formulation, fill and pack operations to the carbon emissions of our products, the calculation method of the category 'Processing of sold products' was amended. The new method assumes a lower quantity of carbon emissions per quantity of material in the category. The reduction caused by this method change was offset by the increase in volume in the category

<sup>13</sup> This category is not applicable in alignment with our SBTi commitment, reflecting the absence of externally validated methodologies that consider both benefits and emissions from the use of agricultural inputs

<sup>14</sup> This category is not applicable as Syngenta does not have franchises



## Sustainable operations continued

Reporting period October 1 – September 30 (unless stated otherwise)	2022	2021	2020
<b>Energy</b>			
<b>Total energy intensity (MJ/\$sales)</b>	<b>0.44</b>	0.50	0.56
Total energy (TJ)	8,787	8,332	7,967
of which: renewable energy consumed	8%	12%	11%
Consumption of fuel (TJ)	4,812	4,651	4,560
Biomass (TJ)	183	180	183
Oil (TJ)	334	475	299
Gas (TJ)	3,382	3,356	3,423
Other non-renewable fuel (TJ)	913	640	655
Consumption of purchased or acquired energy (TJ)	3,949	3,718	3,440
Electricity (TJ)	2,485	2,294	2,138
of which: renewable electricity	17%	37%	33%
Steam (TJ)	1,456	1,344	1,226
of which: renewable steam	2%	-	-
Other (TJ)	8	43	43
of which: other renewable energy	0%	-	-
Consumption of self-generated non-fuel renewable energy (TJ)	54	-	-
Geothermal (TJ)	46	-	-
Solar (TJ)	8	-	-
<b>Other air emissions</b>			
<b>Other air emissions intensity (g/\$sales)</b>	<b>0.047</b>	0.048	0.056
Other air emissions (tonnes)	942	798	799
NO <sub>x</sub> (tonnes)	331	359	322
SO <sub>x</sub> (tonnes)	16	-	-
SO <sub>2</sub> (tonnes)	-	44	34
Non-methane VOCs (tonnes)	304	-	-
Non-halogenated and halogenated VOCs (tonnes)	-	262	326
Particulates (tonnes)	282	127	104
NH <sub>3</sub> (tonnes)	5	2	4
HCl (tonnes)	4	5	9
<b>Water</b>			
<b>Total water usage intensity (liters/\$sales)</b>	<b>1,068</b>	1,010	1,413
Change in total water usage intensity since 2016 baseline (based on sales)	24%	17%	64%
Total water usage (million cubic meters)	21,325	16,900	20,184
<b>Water usage intensity from own operations (liters/\$sales)</b>	<b>1.9</b>	2.0	2.2
Water usage from own operations (million cubic meters)	37.0	33.2	31.1
Origin of water withdrawn:			
Surface fresh water (million cubic meters)	4.1	21.8	20.5
Groundwater (million cubic meters)	10.8	9.0	8.2
Water obtained from a third party (million cubic meters)	22.2	2.2	2.2
Recovered rainwater (million cubic meters)	-	0.2	0.2
<b>Water usage intensity from supply chain activities (liters/\$sales)</b>	<b>1,066</b>	1,008	1,411
Water usage from supply chain activities (million cubic meters)	21,288	16,867	20,153

<sup>1</sup> The intensity value is calculated based on January to December sales to align with the company's audited full year results. Sales increased 19% and 56% since 2021 and 2016 respectively and 2016 respectively

<sup>2</sup> Since 2022, the total energy is calculated as a sum of consumption of fuel, consumption of purchased or acquired energy and consumption of self-generated non-fuel renewable energy, minus energy sold or used by third parties. In previous years, energy sold or used by third parties was not subtracted

<sup>3</sup> 2021 value was restated due to a reporting error in consumption of fuel (biomass) found at one of our sites

<sup>4</sup> KPI introduced in 2022 to align our reporting on energy with the CDP Climate Change questionnaire and our new SERAM reporting tool

<sup>5</sup> 2020 and 2021 values are added retroactively in 2022 to allow for comparison

<sup>6</sup> Since 2022, only renewable electricity purchased via a specific renewable electricity supply contract or certificate scheme is accounted. In previous years, all renewable electricity purchased was considered

<sup>7</sup> KPI introduced/removed in 2022 to align our reporting on other air emissions with our new SERAM reporting tool

<sup>8</sup> We report water performance indicators in alignment with our commitment to reduce the water intensity of our operations by 20% by 2030 compared to our 2016 baseline. Water usage refers to water withdrawal. Water usage from our own operations is for the period October to September. For 2020 and 2021, water usage from supply chain activities is for the period July to June due to the extensive time required to collect data and calculate results. Starting in 2022 and thanks to improved efficiency in the calculation process, water usage from supply chain activities is for the period October to September

<sup>9</sup> A positive value indicates an increase of our environmental footprint, while a negative value indicates a reduction

<sup>10</sup> The decrease in withdrawal of surface fresh water and the increase in withdrawal of water obtained from a third party in 2022 was due to revised reporting guidelines driven by the implementation of our new SERAM tool. The water usage from our site in Monthey (Switzerland) representing approximately 17 million m<sup>3</sup> is now categorized as water obtained from a third party, instead of surface fresh water as in previous years

<sup>11</sup> In 2022, sites were not required to report on water withdrawn from this source

<sup>12</sup> Since 2022, we use the US Environmentally-Extended Input-Output (USEEIO) 2013 model instead of the USEEIO 2002 model for the spend-based method used to calculate this KPI. Improvements in the calculation method in 2022 made the 2022 value not fully comparable with previous years

**Sustainable operations** continued

Reporting period October 1 – September 30 (unless stated otherwise)	2022	2021	2020
<b>Wastewater effluents</b>			
<b>Industrial wastewater discharge intensity (liters/\$sales)</b>	<b>0.52</b>	0.53	0.62
Industrial wastewater discharge (million cubic meters)	10.3	8.9	8.8
Direct discharge of uncontaminated cooling water (million cubic meters)	21.2	21.3	18.6
Total on-site treated wastewater (million cubic meters)	5.5	-	-
Primary treatment (million cubic meters)	2.3	-	-
Secondary treatment (million cubic meters)	0.1	-	-
Tertiary treatment (million cubic meters)	3.1	-	-
Discharge to the environment without treatment (million cubic meters)	4.0	-	-
Discharge to a third party without treatment (million cubic meters)	20.7	-	-
Other routes or treatment types (million cubic meters)	0.1	-	-
<b>Waste</b>			
<b>Total waste intensity (g/\$sales)</b>	<b>376</b>	346	524
Change in total waste intensity since 2016 baseline (based on sales)	14%	5%	59%
Total waste (000s tonnes)	7,511	5,788	7,484
<b>Hazardous waste intensity from own operations (g/\$sales)</b>	<b>10.4</b>	12.6	15.0
Hazardous waste from own operations (000s tonnes)	208	210	215
Recycled and re-used (000s tonnes)	85	85	96
Incinerated (000s tonnes)	101	114	102
Landfill (000s tonnes)	7	1	5
Other (000s tonnes)	15	10	12
<b>Non-hazardous waste intensity from own operations (g/\$sales)</b>	<b>8.7</b>	8.2	8.1
Non-hazardous waste from own operations (000s tonnes)	174	137	116
Recycled and re-used (000s tonnes)	93	94	76
Incinerated (000s tonnes)	21	7	6
Landfill (000s tonnes)	54	28	24
Other (000s tonnes)	6	8	10
<b>Waste intensity from supply chain activities (g/\$sales)</b>	<b>357</b>	325	501
Waste from supply chain activities (000s tonnes)	7,129	5,441	7,153
<b>Supplier sustainability and fair labor programs</b>			
Suppliers included in sustainability and fair labor programs	<b>GGP</b>	99.5%	99.5%
Coverage of Syngenta Fair Labor Program:			
Syngenta seed producing countries	91%	91%	92%
Seed supply farms	99.7%	99.7%	99.6%
Of which: farms monitored	20%	23%	22%
Coverage of Supplier Sustainability Program:			
Chemical suppliers	94%	95%	95%
Formulation, fill and pack tollers	71%	74%	86%
Packaging manufacturers	71%	71%	67%
Commercial flower farms with valid GlobalG.A.P. certification	95%	97%	91%
Commercial flower farms with valid G.R.A.S.P. assessment	100%	85%	100%

<sup>1</sup> The intensity value is calculated based on January to December sales to align with the company's audited full year results. Sales increased 19% and 56% since 2021 and 2016 respectively

<sup>2</sup> KPI introduced in 2022 to align our reporting on water with the CDP Water Security questionnaire and our new SERAM reporting tool

<sup>3</sup> We report waste performance indicators in alignment with our commitment to reduce the waste intensity of our operations by 20% by 2030 compared to our 2016 baseline. Waste from our own operations is for the period October to September. For 2020 and 2021, waste from supply chain activities is for the period July to June due to the extensive time required to collect data and calculate results. Starting in 2022 and thanks to improved efficiency in the calculation process, waste from supply chain activities is for the period October to September

<sup>4</sup> A positive value indicates an increase of our environmental footprint, while a negative value indicates a reduction

<sup>5</sup> Since 2022, we use the US Environmentally-Extended Input-Output (USEEIO) 2013 model instead of the USEEIO 2002 model for the spend-based method used to calculate this KPI. Improvements in the calculation method in 2022 made the 2022 value not fully comparable with previous years

<sup>6</sup> Includes only chemical suppliers or formulation, fill and pack tollers categorized as posing a high or medium sustainability risk

<sup>7</sup> Includes all packaging manufacturers independently of their level of sustainability risk

## People

Reporting period October 1 – September 30 (unless stated otherwise)	2022	2021	2020	
<b>Employment, diversity and inclusion</b>				1
<b>Permanent employees</b>	<b>32,761</b>	<b>30,892</b>	<b>29,262</b>	2,3
by region:				
Europe, Africa and Middle East	13,222	12,797	12,419	
North America	4,585	4,217	4,040	
Latin America	7,158	6,698	5,971	
Asia Pacific	7,796	7,180	6,832	
by gender:				
Female	10,291	-	-	4
Male	22,378	-	-	4
Other or undeclared	92	-	-	4,5
<b>Temporary employees</b>	<b>3,717</b>	<b>-</b>	<b>-</b>	2,3,4
by region:				
Europe, Africa and Middle East	880	-	-	4
North America	59	-	-	4
Latin America	2,519	-	-	4
Asia Pacific	261	-	-	4
by gender:				
Female	821	-	-	4
Male	1,001	-	-	4
Other or undeclared	1,895	-	-	4,5
<b>Part-time employees</b>	<b>963</b>	<b>939</b>	<b>942</b>	6
by region:				
Europe, Africa and Middle East	930	-	-	4
North America	9	-	-	4
Latin America	0	-	-	4
Asia Pacific	24	-	-	4
by gender:				
Female	745	-	-	4
Male	217	-	-	4
Other or undeclared	1	-	-	4,5
<b>Turnover rate</b>	<b>11.3%</b>	<b>9.6%</b>	<b>10.0%</b>	6,7
Female	10.8%	9.0%	-	
Male	11.6%	9.9%	-	
Other or undeclared	10.9%	9.1%	-	5
<b>Attrition rate</b>	<b>8.1%</b>	<b>6.3%</b>	<b>6.3%</b>	6,8
Female	8.1%	6.1%	-	
Male	8.1%	6.5%	-	
Other or undeclared	7.6%	6.8%	-	5
<b>Senior managers</b>	<b>328</b>	<b>303</b>	<b>299</b>	6,9
Europe, Africa and Middle East	51%	54%	55%	
North America	25%	24%	23%	
Latin America	13%	11%	11%	
Asia Pacific	12%	11%	11%	
<b>Percentage of female employees:</b>				6
All employees	32%	31%	31%	
Management roles	27%	26%	25%	
Senior management	22%	22%	20%	9
<b>Number of nationalities:</b>				6
All employees	125	122	-	
Management roles	69	67	-	
Senior management	37	37	38	9
<b>Employee development</b>				
<b>Corporate learning and development investment (\$m)</b>	<b>7.6</b>	<b>-</b>	<b>-</b>	10
Leadership and talent development investment (\$m)	6.4	6.4	6.3	
Learning enabling technologies investment (\$m)	1.2	-	-	10

<sup>1</sup> The employment figures do not include Valagro. Depending on the contract agreement, new acquisitions have a grace period to integrate the data into the system. As of September 30, 2022, Valagro reported 1,036 FTEs

<sup>2</sup> Full-time equivalents (FTEs)

<sup>3</sup> Permanent employees have a regular or regular fixed-term contract. Temporary employees have a temporary contract or are part of an apprenticeship program

<sup>4</sup> KPIs introduced in 2022 to provide more information about employment and diversity and inclusion to address GRI 2021 requirements

<sup>5</sup> Employees who chose not to disclose their gender

<sup>6</sup> Only permanent employees are in scope of these KPIs

<sup>7</sup> Includes voluntary leavers, retirement and restructuring

<sup>8</sup> Includes only voluntary leavers

<sup>9</sup> Leaders in positions at the top four levels of accountability/scope within the organization

<sup>10</sup> KPI introduced in 2022 to provide more information about corporate learning and development activities

People continued

Reporting period October 1 – September 30 (unless stated otherwise)	2022	2021	2020
<b>Health and safety</b>			
<b>Recordable injury and illness rate (IIR) per 200,000 hours</b>	<b>GGP 0.30</b>	0.29	0.23
<b>Recordable injury rate per 200,000 hours</b>	<b>0.29</b>	0.28	0.22
by region:			
Europe, Africa and Middle East	0.36	0.35	0.30
North America	0.29	0.32	0.28
Latin America	0.27	0.14	0.17
Asia Pacific	0.25	0.30	0.14
by contractual relationship:			
Own employees	0.28	-	-
Directly supervised contractors	0.34	-	-
<b>Recordable high-consequence injury rate per 200,000 hours</b>	<b>0.01</b>	-	-
<b>Cases of recordable injuries</b>	<b>156</b>	132	100
by injury type:			
Bruise, strain, sprain and dislocation	25%	29%	34%
Cut and abrasion	26%	27%	30%
Bone fracture	22%	17%	13%
Concussion and internal injury	3%	7%	4%
Multiple injuries	4%	4%	1%
Other	20%	16%	18%
by contractual relationship:			
Own employees	109	-	-
Directly supervised contractors	47	-	-
High-consequences injuries	7	-	-
<b>Recordable occupational illness rate per 200,000 hours</b>	<b>0.01</b>	0.01	0.01
by region:			
Europe, Africa and Middle East	0.01	0.02	0.02
North America	0.04	0.02	0.02
Latin America	0.00	0.01	0.01
Asia Pacific	0.01	0.00	0.00
by contractual relationship:			
Own employees	0.01	-	-
Directly supervised contractors	0.01	-	-
<b>Cases of recordable occupational illness</b>	<b>4</b>	6	5
Own employees	3	-	-
Directly supervised contractors	1	-	-
<b>First aid cases</b>	<b>421</b>	348	355
<b>Recordable fatality rate due to injuries per 200,000 hours</b>	<b>0.004</b>	-	-
<b>Recordable fatality rate due to occupational illness per 200,000 hours</b>	<b>0.000</b>	-	-
<b>Recordable fatalities</b>	<b>2</b>	3	1
Fatalities due to injuries	2	-	-
Own employees	0	-	-
Directly supervised contractors	2	-	-
Fatalities due to occupational illness	0	-	-
Own employees	0	-	-
Directly supervised contractors	0	-	-
<b>Critical events:</b>			
Motor vehicular incident rate per million kilometers	1.55	-	-
Motor vehicular incidents	620	-	-
Motor vehicle injury rate per million kilometers	0.16	-	-
Motor vehicle injuries	65	-	-
Process safety events rate per 200,000 hours (medium and high actual)	0.13	-	-
Process safety events (medium and high actual)	70	-	-
Process safety incident severity rate (PSISR)	0.32	-	-
Distribution safety incidents	242	-	-
Significant unplanned or uncontrolled releases to the environment	1	3	3

<sup>1</sup> According to US OSHA definition for injuries and illness

<sup>2</sup> Figure represents performance for both own employees and directly supervised contractors in a consolidated way. Starting in 2022, we also report the breakdown by contractual relationship for selected KPIs

<sup>3</sup> KPI introduced in 2022 to provide more information about our H&S activities and address GRI 2021 and SASB reporting requirements

<sup>4</sup> According to ANSI safety standards for motor vehicular events

<sup>5</sup> According to ICCA Responsible Care<sup>®</sup> definition for process safety events

<sup>6</sup> Significant unplanned releases are those classified as high as per the ICCA standard for reporting Process Safety Incidents and where the loss leaves secondary containment or is discharged into secondary containment with uncertain integrity. Significant uncontrolled releases are losses to the environment that exceed the normal or intended rate of release at levels aligned with the ICCA standard

## Business integrity

Reporting period October 1 – September 30 (unless stated otherwise)	2022	2021	2020
<b>Corporate conduct</b>			
Employees submitting Code of Conduct commitment	25,283	26,334	24,137
Completion rate	99.9%	99.9%	99.7%
New hires completing compliance onboarding training	3,218	-	-
Completion rate	93.3%	-	-
Compliance cases reported	417	332	264
of which: substantiated cases of bribery and corruption	0	-	-
<b>Security management</b>			
Sites included in Syngenta Security 360° Program	183	170	162
Product security cases	4,537	3,998	4,075
Number of offline anti-illicit trade cases	603	-	-
Number of online anti-illicit trade cases	3,934	-	-
Suspect counterfeit crop protection products seized by authorities (tonnes)	6,993	8,670	3,933
Suspect counterfeit seed products seized by authorities (tonnes)	3,427	5,289	3,326
New hires completing Corporate Security Awareness training	5,679	-	-
<b>Animal testing compliance</b>			
Management system audits performed in contract laboratories	5	6	8
Management system non-compliances found	0	0	0
<b>Biotechnology and regulatory compliance</b>			
Employees completing field trial regulatory and stewarded compliance training	3,451	2,756	2,089
Field trial locations planted under country regulatory and stewarded compliance programs	169	181	297
<b>Economic value shared</b>			
Economic value shared (\$m)	20,012	15,205	13,461
Payments to suppliers (\$m)	13,164	9,372	7,994
Employee wages and benefits (\$m)	3,914	3,446	3,114
Payments to governments (taxes) (\$m)	530	440	217
Payments to providers of capital (\$m)	831	729	1,055
Capital expenditure (\$m)	1,548	1,195	1,056
Corporate community investment (\$m)	25	23	25

<sup>1</sup> Corporate conduct KPIs are for the period January to December, with the exception of the 2020 and 2021 Compliance cases reported which are for the period October 1 to September 30. We moved all KPIs to calendar year to better align with compliance campaigns

<sup>2</sup> Percentage is calculated based on employees for whom completion of the Code of Conduct commitment is mandatory. In 2022, the submission of the Code of Conduct commitment was not mandatory for employees in Ukraine and they were therefore excluded from the scope

<sup>3</sup> KPI introduced in 2022 to provide more information about Syngenta's corporate conduct activities

<sup>4</sup> Includes permanent employees

<sup>5</sup> Includes all cases managed by the Group Compliance team (i.e., cases reported through the Compliance Helpline, line management, directly to Group Compliance or other channels)

<sup>6</sup> KPI introduced in 2022 to disclose more information about Syngenta's corporate security activities

<sup>7</sup> Includes permanent and temporary employees and selected directly supervised contractors

<sup>8</sup> Represents all trial locations covered by country-specific regulatory compliance programs whether they require a permit or not

<sup>9</sup> 2021 value was restated due to a reporting error caused by the misinterpretation of the performance indicator definition in one country

<sup>10</sup> Economic value shared KPIs are for the period January to December to align with our annual financial reporting

<sup>11</sup> The PwC Independent Assurance Report includes in its scope only the Corporate community investment figure used in the calculation of Economic value shared

## 10 Independent assurance report

# Independent Practitioner's Limited Assurance report

## on the 2022 non-financial reporting to the Board of Directors of Syngenta AG, Basel

We have been engaged to perform assurance procedures to provide limited assurance on the 2022 Non-financial Performance Indicators of Syngenta AG, Basel, and its consolidated subsidiaries ('Syngenta') included in the Environmental, Social and Governance Report 2022 ('ESG Report').

### Scope and subject matter

Our engagement focused on the 2022 non-financial performance indicators aggregated as of and for the twelve months ended September 30, 2022 (except Corporate conduct and Corporate community investment indicators aggregated for the twelve months ended December 31, 2022) and linked to and disclosed in the non-financial performance summary in the ESG Report from page 109 to page 116.

Our assurance procedures do not cover the non-financial performance indicators on payments to suppliers, employee wages and benefits, payments to governments and providers of capital, and capital expenditure presented in the non-financial performance summary on page 116 in the ESG Report nor did we perform any assurance procedures regarding the [Good Growth Plan Open Data website](#). We therefore express a conclusion only on the subject matters in scope above (hereinafter "the 2022 Non-financial Performance Indicators").

### Criteria

The reporting criteria used by Syngenta are described and disclosed in the "Basis of Preparation: ESG Report 2022" of Syngenta published on the website [www.esg-reporting.syngenta.com](http://www.esg-reporting.syngenta.com) on May 11, 2023 and as part of the Good Growth Plan commitments on the [Good Growth Plan Open Data website](#). The procedures applied by Syngenta are based on the Standards of the Global Reporting Initiative (GRI standard): Universal Standards 2021, by which the 2022 Non-financial Performance Indicators are internally gathered, collated and aggregated.

### Inherent limitations

The accuracy and completeness of the 2022 Non-financial Performance Indicators are subject to inherent limitations

given their nature and methods for determining, calculating and estimating such data. Our assurance report should therefore be read in connection with Syngenta's guidelines, definitions and procedures on non-financial performance reporting. Further, the greenhouse gas quantification is subject to inherent uncertainty because of incomplete scientific knowledge used to determine emission factors and the values needed to combine emissions of different gases.

### Board of Directors' responsibility

The Board of Directors of Syngenta AG is responsible for both the subject matter and the criteria as well as for selection, preparation and presentation of the 2022 Non-financial Performance Indicators in accordance with the criteria in each section of "Basis of preparation: ESG Report 2022". This responsibility includes the design, implementation, and maintenance of related internal controls relevant to this reporting process that is free from material misstatement, whether due to fraud or error.

### Our independence and quality controls

We are independent of Syngenta in accordance with the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants (IESBA Code). We have fulfilled our other ethical responsibilities in accordance with the IESBA Code, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality, and professional behavior.

PricewaterhouseCoopers AG applies the International Standard on Quality Management 1, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

### Our responsibility

Our responsibility is to express a limited assurance conclusion on the 2022 Non-financial Performance Indicators of Syngenta included in the ESG Report from page 109 to page 116. We conducted our limited assurance

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engagement in accordance with the International Standard on Assurance Engagements 3000 (revised), “Assurance Engagements other than Audits or Reviews of Historical Financial Information”, and, with regards to greenhouse gas emissions, with the International Standard on Assurance Engagements 3410, “Assurance Engagements on Greenhouse Gas Statements”, issued by the International Auditing and Assurance Standards Board. These standards require that we plan and perform this engagement to obtain limited assurance about whether the 2022 Non-financial Performance Indicators are free from material misstatement.

A limited assurance engagement undertaken in accordance with ISAE 3000 (revised) and ISAE 3410 involves assessing the suitability in the circumstances of Syngenta’s use of applicable criteria as the basis for the preparation of the 2022 Non-financial Performance Indicators, assessing the risks of material misstatement of the Non-financial Performance Indicators whether due to fraud or error, responding to the assessed risks as necessary in the circumstances, and evaluating the overall presentation of the Non-financial Performance Indicators. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal controls, and the procedures performed in response to the assessed risks. The procedures selected depend on the assurance practitioner’s judgement.

### Summary of the work performed

Our assurance procedures included, amongst others, the following work:

- Evaluation of the application of global guidelines and the basis of preparation sections;
- Virtual and onsite visits in Switzerland, USA and Mexico for areas such as Health, Safety and Environmental reporting selected based on quantitative and qualitative criteria;
- Testing the underlying data of Non-financial Performance Indicators on a sample basis for evidence supporting the non-financial performance summary relative to completeness, accuracy, adequacy, existence, validity and consistency;
- Reviewing the documentation supporting relevant data on a sample basis, including management reports and third-party documents; and
- Assessing the reporting and consolidation processes and obtaining the understanding of the related internal control system.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our assurance conclusions.

### Conclusion

Based on the procedures we performed, nothing has come to our attention that causes us to believe that the 2022 Non-financial Performance Indicators of Syngenta as linked to and disclosed in the non-financial performance summary in the ESG Report from page 109 to page 116 are not prepared and disclosed, in all material respects, in accordance with the reporting criteria described in the “Basis of Preparation: ESG Report 2022” and in the Good Growth Plan Open Data website.

### Intended users and purpose of the report

Our report has been prepared for, and only for, the Board of Directors of Syngenta AG, and solely for the purpose of reporting to them on the 2022 Non-financial Performance Indicators in the ESG Report and no other purpose. We will not, in giving our conclusion, accept or assume responsibility (legal or otherwise) or accept liability for, or in connection with, any other purpose for which our report including the conclusion might be used, or to any other person to whom our report will be shown or into whose hands it might come, and no other persons shall be entitled to rely on our conclusion.

We permit the disclosure of our report, in full only and in combination with the ESG Report and the criteria, to enable the Board of Directors to demonstrate that they have discharged their governance responsibilities by commissioning an independent assurance report over the 2022 non-financial performance reporting, without assuming or accepting any responsibility or liability to any third parties on our part. To the fullest extent permitted by law, we will not accept or assume responsibility to anyone other than the Board of Directors of Syngenta AG for our work or this report.

PricewaterhouseCoopers AG

Christophe Bourgoin

Raphael Rutishauser

Zurich, May 11, 2023



*The maintenance and integrity of the Syngenta AG website is the responsibility of the Syngenta’s management; the work carried out by the assurance providers does not involve consideration of the maintenance and integrity of the Syngenta AG website and, accordingly, the assurance providers accept no responsibility for any changes that may have occurred to the reported sustainability information or criteria since they were initially presented on the website.*

## 11 Content indexes

This Syngenta AG group ESG Report has been structured to address non-financial reporting requirements from selected reporting standards and frameworks. We have chosen to report against these frameworks as we believe they lay the foundation to effectively communicate our progress and performance on our sustainability activities and address the information needs from our key stakeholders.

In the next pages, we outline how the information provided in this report and on our website aligns with the following frameworks:

- [Global Reporting Initiative](#) (GRI)
- [Sustainability Accounting Standards Board](#) (SASB)
- [United Nations Global Compact](#) (UNGC)
- [United Nations Sustainable Development Goals](#) (SDGs)

We report against the [Task force on Climate-related Financial Disclosures](#) (TCFD) on page 106.

## 11.1 GRI content index

Statement of use	Syngenta AG group has reported in accordance with the GRI Standards for the period October 1, 2021 to September 30, 2022.
GRI 1 used	GRI 1: Foundation 2021
Applicable GRI Sector Standard(s)	Not applicable

GRI Standard / Other source	Disclosure	Location	URLs to other sources	Omission
<b>General disclosures</b>				
GRI 2: General Disclosures 2021	The organization and its reporting practices			
	2-1 Organizational details	<a href="#">About this report</a> <a href="#">1 Organizational profile</a>	<a href="#">About Syngenta Group Company</a>	
	2-2 Entities included in the organization’s sustainability reporting	<a href="#">About this report</a>	<a href="#">Financial Report 2022</a>	
	2-3 Reporting period, frequency and contact point	<a href="#">About this report</a> <a href="#">6.1 Focus on quality</a>	<a href="#">Financial Report 2022</a>	
	2-4 Restatements of information	<a href="#">9 Non-financial performance summary</a>	-	
	2-5 External assurance	<a href="#">6.1 Focus on quality</a> <a href="#">10 Independent assurance report</a>	<a href="#">Reporting on sustainability</a>	
	Activities and workers			
	2-6 Activities, value chain and other business relationships	<a href="#">1 Organizational profile</a> <a href="#">7.2.6 Working with suppliers</a>	<a href="#">Financial Report 2022</a> <a href="#">Protecting Crops Seeds</a> <a href="#">Syngenta at a glance factsheet</a>	-
2-7 Employees	<a href="#">1 Organizational profile</a>	<a href="#">Company</a> <a href="#">Financial Report 2022</a>	-	

		<a href="#">7.3.1 Employment and engagement</a> <a href="#">7.3.3 Diversity and inclusion</a> <a href="#">9 Non-financial performance summary</a>	<a href="#">Syngenta at a glance factsheet</a>	
2-8 Workers who are not employees		<a href="#">7.3.1 Employment and engagement</a> <a href="#">7.3.3 Diversity and inclusion</a> <a href="#">9 Non-financial performance summary</a>	-	Information unavailable/incomplete  We currently report on temporary employees, which include those with a temporary contract or are part of an apprenticeship program. We do not report on workers who are not employees.
Governance				
2-9 Governance structure and composition		<a href="#">4 Governance</a>	<a href="#">Corporate governance</a>	-
2-10 Nomination and selection of the highest governance body		<a href="#">4.2 Syngenta AG corporate governance</a>	-	-
2-11 Chair of the highest governance body		<a href="#">4.2 Syngenta AG corporate governance</a>	<a href="#">Corporate governance</a>	-
2-12 Role of the highest governance body in overseeing the management of impacts		<a href="#">4.3 Sustainability governance</a>	<a href="#">FAQ: Corporate governance</a>	-
2-13 Delegation of responsibility for managing impacts		<a href="#">4.3 Sustainability governance</a>	-	-
2-14 Role of the highest governance body in sustainability reporting		<a href="#">4.3 Sustainability governance</a>	-	-
2-15 Conflicts of interest		<a href="#">4.2 Syngenta AG corporate governance</a>	-	-

	2-16 Communication of critical concerns	<a href="#">3 Ethics and integrity</a>	<a href="#">FAQ: Corporate conduct</a>	-
	2-17 Collective knowledge of the highest governance body	<a href="#">4.3 Sustainability governance</a>	-	-
	2-18 Evaluation of the performance of the highest governance body	-	-	Information unavailable/incomplete  This information is unavailable while we transition to Syngenta Group reporting.
	2-19 Remuneration policies	-	<a href="#">FAQ: Corporate governance</a>	Information unavailable/incomplete  This information is unavailable while we transition to Syngenta Group reporting.
	2-20 Process to determine remuneration	-	<a href="#">FAQ: Corporate governance</a>	Information unavailable/incomplete  This information is unavailable while we transition to Syngenta Group reporting.
	2-21 Annual total compensation ratio	-	-	Confidentiality constraints  Not disclosed due to the confidential nature of this information.
	Strategy, policies and practices			
	2-22 Statement on sustainable development strategy	<a href="#">Statement of the Sustainability Committee Chair</a>	-	-

		<a href="#">Statement of the Chief Sustainability Officer</a>		
2-23 Policy commitments	<a href="#">3 Ethics and integrity</a> <a href="#">7.2.6 Working with suppliers</a> <a href="#">7.3.5 Human rights</a> <a href="#">7.4.1 Corporate conduct</a>	<a href="#">Syngenta Group Code of Conduct</a>  <a href="#">Principles for Sustainable and Responsible Agriculture</a> <a href="#">FAQ: Corporate conduct</a>	-	
2-24 Embedding policy commitments	<a href="#">3 Ethics and integrity</a>	-	-	
2-25 Processes to remediate negative impacts	<a href="#">3 Ethics and integrity</a> <a href="#">6.2 Materiality analysis</a> <a href="#">7.3.5 Human rights</a>	-	-	
2-26 Mechanisms for seeking advice and raising concerns	<a href="#">3 Ethics and integrity</a> <a href="#">6.2 Materiality analysis</a>	-	-	
2-27 Compliance with laws and regulations	<a href="#">3 Ethics and integrity</a>	<a href="#">Financial Report 2022</a>	Information unavailable/incomplete	Material actual and contingent legal actions, if any, are disclosed in the Financial Report.
2-28 Membership associations	<a href="#">5.1 Engaging with stakeholders</a>	<a href="#">FAQ: Engagement activities</a>	-	
Stakeholder engagement				
2-29 Approach to stakeholder engagement	<a href="#">5 Engagement and collaboration</a>	<a href="#">The Good Growth Plan: Partnering for impact</a> <a href="#">Stakeholder engagement</a> <a href="#">FAQ: Engagement activities</a>	-	



	2-30 Collective bargaining agreements	<a href="#">7.3.1 Employment and engagement</a>	<a href="#">Syngenta Labor Standards</a>	Information unavailable/incomplete  This information is currently only available locally and partially collected centrally. Work is ongoing to assess whether and how to collect this information centrally.
<b>Material topics (in alphabetical order)</b>				
GRI 3: Material Topics 2021	3-1 Process to determine material topics	<a href="#">6.2 Materiality analysis</a>	<a href="#">Materiality assessment</a>	-
	3-2 List of material topics	<a href="#">6.2 Materiality analysis</a>	<a href="#">Materiality assessment</a>	-
<b>Biodiversity</b>				
GRI 3: Material Topics 2021	3-3 Management of material topics	<a href="#">5.1 Engaging with stakeholders</a> <a href="#">7.1.5 Biodiversity</a>	<a href="#">The Good Growth Plan: Strive for carbon neutral agriculture</a>	-
GRI 304: Biodiversity 2016	304-3 Habitats protected or restored	<a href="#">7.1.5 Biodiversity</a>	<a href="#">Basis of preparation</a> <a href="#">The Good Growth Plan Open Data</a> <a href="#">Operation Pollinator</a>	Information unavailable/incomplete  We report farmland benefited by biodiversity enhancement measures on a consolidated (in this report) and country (in Open Data) basis. For confidentiality reasons, we are not able to report specific farm locations.
<b>Climate change mitigation and adaptation</b>				
GRI 3: Material Topics 2021	3-3 Management of material topics	<a href="#">5.1 Engaging with stakeholders</a> <a href="#">7.1.3 Carbon capture and mitigation in agriculture</a> <a href="#">7.2.1 GHG emissions</a>	<a href="#">The Good Growth Plan: Strive for carbon neutral agriculture</a> <a href="#">CDP Climate Change submission 2022</a>	-

			<a href="#">Agriculture and climate change</a> <a href="#">Sustainable operations</a>	
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	<a href="#">7.2.1 GHG emissions</a>	<a href="#">Basis of preparation</a> <a href="#">CDP Climate Change submission 2022</a> (C5.2, C6.7a)	-
	305-2 Energy indirect (Scope 2) GHG emissions	<a href="#">7.2.1 GHG emissions</a>	<a href="#">Basis of preparation</a> <a href="#">CDP Climate Change submission 2022</a> (C5.2)	-
	305-3 Other indirect (Scope 3) GHG emissions	<a href="#">7.2.1 GHG emissions</a>	<a href="#">Basis of preparation</a> <a href="#">CDP Climate Change submission 2022</a> (C5.2)	-
	305-4 GHG emissions intensity	<a href="#">7.2.1 GHG emissions</a>	<a href="#">Basis of preparation</a> <a href="#">CDP Climate Change submission 2022</a> (C4.1b)	-
	305-5 Reduction of GHG emissions	<a href="#">7.2.1 GHG emissions</a>	<a href="#">CDP Climate Change submission 2022</a> (C4.3a, 4.3b)	-
Own disclosure	Carbon benefit potential in farms	<a href="#">7.1.3 Carbon capture and mitigation in agriculture</a>	<a href="#">Basis of preparation</a> <a href="#">The Good Growth Plan Open Data</a>	-
Health, safety and fair labor				
GRI 3: Material Topics 2021	3-3 Management of material topics	<a href="#">5.1 Engaging with stakeholders</a> <a href="#">7.2.6 Working with suppliers</a> <a href="#">7.3.4 Health and safety</a> <a href="#">7.3.5 Human rights</a>	<a href="#">The Good Growth Plan: Help people stay safe and healthy</a> <a href="#">HSE Policy and Standards</a> <a href="#">Supplier Code of Conduct</a> <a href="#">Sustainable operations</a> <a href="#">Human rights</a> <a href="#">FAQ: Health, safety and wellbeing</a>	-

			<a href="#">FAQ: Supply chain management</a>	
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	<a href="#">7.3.4 Health and safety</a>	<a href="#">FAQ: Environment</a>	-
	403-2 Hazard identification, risk assessment, and incident investigation	<a href="#">7.3.4 Health and safety</a>	<a href="#">HSE Policy and Standards</a>	-
	403-3 Occupational health services	<a href="#">7.3.4 Health and safety</a>	-	-
	403-4 Worker participation, consultation, and communication on occupational health and safety	<a href="#">7.3.4 Health and safety</a>	-	Information incomplete/unavailable  Formal joint management-worker health and safety committees are required by our HSE management system in all our sites, but no description is included in this year's report. We will include it in next year's report.
	403-5 Worker training on occupational health and safety	<a href="#">7.3.4 Health and safety</a>	-	-
	403-6 Promotion of worker health	<a href="#">7.3.4 Health and safety</a>	-	-
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	<a href="#">7.3.4 Health and safety</a>	-	-
	403-9 Work-related injuries	<a href="#">7.3.4 Health and safety</a>	<a href="#">Basis of preparation</a>	-
	403-10 Work-related ill health	<a href="#">7.3.4 Health and safety</a>	<a href="#">Basis of preparation</a>	-

GRI 414: Supplier Social Assessment 2016	414-2 Negative social impacts in the supply chain and actions taken	<a href="#">7.2.6 Working with suppliers</a>	-	Information unavailable/incomplete  We report the % of program coverage and share information on relevant negative impacts. For confidentiality and data availability reasons, we are not able to report further details.
Innovation in agriculture				
GRI 3: Material Topics 2021	3-3 Management of material topics	<a href="#">5 Engagement and collaboration</a> <a href="#">7.1.1 Innovation in agriculture</a> <a href="#">7.1.2 Lowest residues in crops and the environment</a>	<a href="#">The Good Growth Plan: Accelerate innovation for farmers and nature</a> <a href="#">Innovating sustainable agriculture solutions</a> <a href="#">Human rights</a>	-
Own disclosure	Sustainable agriculture breakthroughs	<a href="#">7.1.1 Innovation in agriculture</a>	<a href="#">Basis of preparation</a>	-
Own disclosure	Programs for lowest residues in crops	<a href="#">7.1.2 Lowest residues in crops and the environment</a>	<a href="#">Basis of preparation</a>	-
Product responsibility				
GRI 3: Material Topics 2021	3-3 Management of material topics	<a href="#">5.1 Engaging with stakeholders</a> <a href="#">7.1.6 Safe use of products</a>	<a href="#">The Good Growth Plan: Help people stay safe and healthy</a> <a href="#">How we develop new products to protect crops</a> <a href="#">Regulation in agriculture</a> <a href="#">Human rights</a> <a href="#">FAQ: Regulation and registration</a>	-

			<a href="#">FAQ: Research and development</a>	
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	<a href="#">7.1.6 Safe use of products</a>	<a href="#">Basis of preparation</a>	-
Own disclosure	Safe use training	<a href="#">7.1.6 Safe use of products</a>	<a href="#">Basis of preparation</a> <a href="#">The Good Growth Plan Open Data</a>	-
Soil health				
GRI 3: Material Topics 2021	3-3 Management of material topics	<a href="#">5 Engagement and collaboration</a> <a href="#">7.1.4 Soil health</a>	<a href="#">The Good Growth Plan: Strive for carbon neutral agriculture</a> <a href="#">Soil Health: Feeding the planet should not cost the earth</a>	-
Own disclosure	Farmland benefited by soil conservation measures	<a href="#">7.1.4 Soil health</a>	<a href="#">Basis of preparation</a> <a href="#">The Good Growth Plan Open Data</a>	-

## 11.2 SASB content index

We report against the Sustainability Accounting Standards Board (SASB)'s Chemicals Sustainability Accounting Standards (version 2018-10).

Standard code	Accounting metric	Section in this report	URLs to other sources	Omission and notes
<b>Sustainability Disclosure Topics and Accounting Metrics</b>				
<b>Greenhouse gas emissions</b>				
RT-CH-110a.1	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	<a href="#">7.2.1 GHG emissions</a>	<a href="#">The Good Growth Plan: Strive for carbon neutral agriculture</a> <a href="#">CDP Climate Change submission 2022 (C3, C4.1, C6.1, C11.1)</a> <a href="#">Sustainable operations</a> <a href="#">Agriculture and climate change</a>	-
RT-CH-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets			
<b>Air quality</b>				
RT-CH-120a.1	Air emissions of the following pollutants: (1) NO <sub>x</sub> (excluding N <sub>2</sub> O), (2) SO <sub>x</sub> , (3) volatile organic compounds (VOCs), and (4) hazardous air pollutants (HAPs)	<a href="#">7.2.3 Other air emissions</a>	-	We track air emissions from sites for a range of specific pollutants, where their emission is anticipated based on site processes and activities, and/or where monitoring is needed to meet regulatory requirements.
<b>Energy management</b>				
RT-CH-130a.1	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable, (4) total self-generated energy - The entity shall discuss its efforts to reduce energy consumption and/or improve energy efficiency throughout the production processes	<a href="#">7.2.2 Energy</a>	<a href="#">CDP Climate Change submission 2022 (C4.3c, C8)</a>	-

Standard code	Accounting metric	Section in this report	URLs to other sources	Omission and notes
<b>Water management</b>				
RT-CH-140a.1	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with high or extremely high baseline water stress	<a href="#">7.2.4 Water and wastewater</a>	<a href="#">CDP Water Security submission 2022 (W1.2)</a>	-
RT-CH-140a.2	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	-	<a href="#">CDP Water Security submission 2022 (W2.2)</a>	-
RT-CH-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks	<a href="#">7.2.4 Water and wastewater</a> <a href="#">7.1.9 Water conservation</a>	<a href="#">CDP Water Security submission 2022 (W4)</a> <a href="#">Sustainable operations</a> <a href="#">Water conservation</a>	-
<b>Hazardous waste management</b>				
RT-CH-150a.1	Amount of hazardous waste generated, percentage recycled - The entity shall disclose the legal or regulatory framework(s) used to define hazardous waste and recycled hazardous waste, and the amounts of waste defined in accordance with each applicable framework	<a href="#">7.2.5 Waste</a>	<a href="#">Sustainable operations</a>	Hazardous waste is defined according to local legislation. If a definition is not available, sites are encouraged to follow EU or US EPA legislation.
<b>Community relations</b>				
RT-CH-210a.1	Discussion of engagement processes to manage risks and opportunities associated with community interests	<a href="#">5 Engagement and collaboration</a> <a href="#">7.4.6 Community engagement</a>	<a href="#">Stakeholder engagement</a> <a href="#">FAQ: Environment</a>	-



Standard code	Accounting metric	Section in this report	URLs to other sources	Omission and notes
<b>Workforce health and safety</b>				
RT-CH-320a.1	(1) Total recordable incident rate (TRIR) and (2) fatality rate for (a) direct employees and (b) contract employees	<a href="#">7.3.4 Health and safety</a>	-	
RT-CH-320a.2	Description of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks	<a href="#">7.3.4 Health and safety</a>	<a href="#">Sustainable operations</a> <a href="#">FAQ: Health, safety and wellbeing</a>	
<b>Product design for use-phase efficiency</b>				
RT-CH-410a.1	Revenue from products designed for use-phase resource efficiency	<a href="#">7.1.1 Innovation in agriculture</a> <a href="#">7.1.8 Responsible agricultural land use</a>	<a href="#">Financial Report 2022</a> <a href="#">The Good Growth Plan: Accelerate innovation for farmers and nature</a> <a href="#">Innovating sustainable agriculture solutions</a>	Syngenta provides crop protection products and improved seeds that help farmers optimize land productivity and yield – enabling an economic alternative to land conversion for meeting the growing food and feed demand. Productivity gains allow to leave existing untouched land in its natural state.
<b>Safety and environmental stewardship of chemicals</b>				
RT-CH-410b.1	(1) Percentage of products that contain Globally Harmonized System of Classification and Labeling of Chemicals (GHS) Category 1 and 2 Health and Environmental Hazardous Substances, (2) percentage of such products that have undergone a hazard assessment			Syngenta Crop Protection undertakes hazard assessments on all the products it sells. Crop protection products are intrinsically hazardous and transported all over the world, requiring us to conduct hazard assessments and prepare Safety Data Sheets, which need to be shipped with the goods. These hazard assessments are reviewed and updated periodically or when new relevant scientific data is available. Crop protection products are typically designed to control weeds, insects or fungal pathogens.

Standard code	Accounting metric	Section in this report	URLs to other sources	Omission and notes
				<p>In the majority of cases, this triggers products to be classified as Category 1 or 2 health hazardous substance or environmental hazardous substance under the Globally Harmonized System of Classification and Labeling of Chemicals.</p>
RT-CH-410b.2	Discussion of strategy to (1) manage chemicals of concern and (2) develop alternatives with reduced human and/or environmental impact	<a href="#">7.1.6 Safe use of products</a>	<p><a href="#">How we develop new products to protect crops</a>  <a href="#">Regulation in agriculture</a>  <a href="#">FAQ: Research and development</a>  <a href="#">FAQ: Regulation and registration</a></p>	<p>Although the identification of hazard is extremely important, crop protection products undergo additional stringent assessments. We undertake both human and environmental safety risk assessments for all uses of our products. For a product to receive regulatory approval and be sold in a given country, Syngenta ensures that it can be used in a way that minimizes the risk to the people and the environment. The exact nature of the study process depends on the planned use of the product – but generally more than a hundred studies covering toxicology, metabolism, residues, ecotoxicology, physical-chemical properties and environmental impact are performed. We always strive to develop products of a lower hazard and more importantly of a lower risk. The R&amp;D development cycle is long – from discovery of a new crop protection active ingredient to commercialization, it typically takes ten years. We continuously look at the formulations of our products to identify if changes can be made to</p>

Standard code	Accounting metric	Section in this report	URLs to other sources	Omission and notes
				reduce their hazard level and the associated risk to humans and the environment.
<b>Genetically modified organisms</b>				
RT-CH-410c.1	Percentage of products by revenue that contain genetically modified organisms (GMOs)	<a href="#">7.4.4 Biotechnology and regulatory compliance</a>	<a href="#">FAQ: Biotechnology</a>	-
<b>Management of the legal and regulatory environment</b>				
RT-CH-530a.1	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	<a href="#">5 Engagement and collaboration</a> <a href="#">7.4.7 Responsible lobbying</a> <a href="#">8 Implementing TCFD's recommendations</a>	<a href="#">CDP Climate Change submission 2022 (C4, C12.3)</a> <a href="#">CDP Water Security submission 2022 (W4)</a>	-
<b>Operational safety, emergency preparedness and response</b>				
RT-CH-540a.1	Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), and Process Safety Incident Severity Rate (PSISR) - The entity shall describe incidents with a severity rating of 1 or 2, including their root cause, outcomes, and corrective actions implemented in response	<a href="#">7.3.4 Health and safety</a>		-
RT-CH-540a.2	Number of transport incidents - The entity shall describe significant transport incidents, including their root causes, outcomes, and corrective actions implemented in response	<a href="#">7.3.4 Health and safety</a>		Syngenta considers all events involving chemical transportation and storage as distribution safety events, regardless of the severity, including all transportation modes and logistics operations.

### 11.3 UNGC content index

Syngenta supports the 10 principles of the [United Nations Global Compact](#) (UNGC) through a commitment to sustainability and ongoing implementation of policies on human rights, fair labor, environmental protection and anti-corruption. We have been a UNGC signatory since January 15, 2009. Our [Communication on Progress](#) submissions are available on the UNGC website. We also support the implementation of the UNGC's 10 principles as well as the UNGC's CEO Water mandate. Our commitment and information on our actions and progress in 2022 can be found in this ESG Report and on our website using the following content index.

UNGC Principles	Sections in this report	URLs to other sources
<b>Human rights</b>		
<b>Principle 1:</b> Business should support and respect the protection of internationally proclaimed human rights	<a href="#">7.3.5 Human rights</a>	<a href="#">Syngenta Group Code of Conduct, page 30</a> <a href="#">Human rights</a> <a href="#">FAQ: Human rights</a>
<b>Principle 2:</b> make sure that they are not complicit in human rights abuses	<a href="#">3 Ethics and integrity</a> <a href="#">7.2.6 Working with suppliers</a> <a href="#">7.4.1 Corporate conduct</a> <a href="#">7.4.2 Security management</a>	<a href="#">Sustainable operations</a> <a href="#">FAQ: Corporate conduct</a> <a href="#">FAQ: Supply chain management</a>
<b>Labour principles</b>		
<b>Principle 3:</b> Business should uphold the freedom of association and the effective recognition of the right to collective bargaining	<a href="#">7.3.1 Employment and engagement</a> <a href="#">7.2.6 Working with suppliers</a>	<a href="#">Syngenta Group Code of Conduct, page 30</a> <a href="#">The Good Growth Plan: Help people stay safe and healthy</a> <a href="#">Sustainable operations</a> <a href="#">Syngenta Labor Standards</a> <a href="#">Supplier Code of Conduct</a>
<b>Principle 4:</b> the elimination of all forms of forced and compulsory labor	<a href="#">7.2.6 Working with suppliers</a>	
<b>Principle 5:</b> the effective abolition of child labor	<a href="#">7.2.6 Working with suppliers</a>	
<b>Principle 6:</b> the elimination of discrimination in respect of employment and occupation	<a href="#">7.2.6 Working with suppliers</a> <a href="#">7.3.1 Employment and engagement</a> <a href="#">7.3.2 Employee development</a> <a href="#">7.3.3 Diversity and inclusion</a> <a href="#">7.3.4 Health and safety</a>	

<b>Environmental principles</b>		
<p><b>Principle 7:</b> Business should support a precautionary approach to environmental challenges</p>	<p><a href="#">2 Sustainability</a> <a href="#">7.1.1 Innovation in agriculture</a> <a href="#">7.1.6 Safe use of products</a> <a href="#">7.4.4 Biotechnology and regulatory compliance</a></p>	<p><a href="#">The Good Growth Plan</a> <a href="#">HSE Policy and Standards</a> <a href="#">How we develop new products to protect crops</a> <a href="#">Regulation in agriculture</a> <a href="#">FAQ: Research and development</a> <a href="#">FAQ: Regulation and registration</a> <a href="#">Challenges for modern agriculture</a></p>
<p><b>Principle 8:</b> undertake initiatives to promote greater environmental responsibility</p>	<p><a href="#">7.1.1 Innovation in agriculture</a> <a href="#">7.1.2 Lowest residues in crops and the environment</a> <a href="#">7.1.3 Carbon capture and mitigation in agriculture</a> <a href="#">7.1.4 Soil health</a> <a href="#">7.1.5 Biodiversity</a> <a href="#">7.1.8 Responsible agricultural land use</a> <a href="#">7.1.9 Water conservation</a> <a href="#">7.2.1 GHG emissions</a> <a href="#">7.2.2 Energy</a> <a href="#">7.2.3 Other air emissions</a> <a href="#">7.2.4 Water and wastewater</a> <a href="#">7.2.5 Waste</a> <a href="#">7.4.3 Animal welfare</a></p>	<p><a href="#">The Good Growth Plan: Accelerate innovation for farmers and nature</a> <a href="#">The Good Growth Plan: Strive for carbon neutral agriculture</a> <a href="#">Soil Health: Feeding the planet should not cost the earth</a> <a href="#">Agriculture and climate change</a> <a href="#">Water conservation</a> <a href="#">Sustainable operations</a> <a href="#">CDP Climate Change submission 2022</a> <a href="#">CDP Water Security submission 2022</a></p>
<p><b>Principle 9:</b> encourage the development and diffusion of environmentally friendly technologies</p>	<p><a href="#">7.1.1 Innovation in agriculture</a></p>	<p><a href="#">The Good Growth Plan: Accelerate innovation for farmers and nature</a> <a href="#">Innovation in agriculture solutions</a></p>
<b>Anti-corruption principles</b>		
<p><b>Principle 10:</b> Business should work against corruption in all its forms, including extortion and bribery</p>	<p><a href="#">3 Ethics and integrity</a> <a href="#">7.4.1 Corporate conduct</a> <a href="#">7.4.8 Enterprise risk management</a> <a href="#">7.4.9 Tax governance</a></p>	<p><a href="#">Syngenta Group Code of Conduct, page 9</a> <a href="#">FAQ: Corporate conduct</a> <a href="#">FAQ: Risk management</a></p>

## 11.4 SDG content index



Through the Good Growth Plan, Syngenta supports the United Nations Sustainable Development Goals (SDGs). Collectively, the Plan’s commitments contribute toward delivering the SDGs: all commitments contribute directly to Goal 2 (zero hunger) and Goal 17 (partnerships for sustainability), as well as individually toward several other goals.

SDG Goal	Sections in this report	URLs to other sources
<b>Goal 1: No poverty</b> End poverty in all its forms everywhere	<a href="#">7.1.7 Access to technology</a> <a href="#">7.4.5 Economic value shared</a> <a href="#">7.4.6 Community engagement</a>	<a href="#">The Good Growth Plan: Accelerate innovation for farmers and nature</a> <a href="#">FAQ: Smallholder farmers and their livelihoods</a> <a href="#">FAQ: Improving smallholders' access to technology</a> <a href="#">Syngenta Foundation for Sustainable Agriculture</a>
<b>Goal 2: Zero hunger</b> End hunger, achieve food security and improved nutrition and promote sustainable agriculture	<a href="#">2 Sustainability</a> <a href="#">7.1.1 Innovation in agriculture</a> <a href="#">7.1.2 Lowest residues in crops and the environment</a> <a href="#">7.1.7 Access to technology</a> <a href="#">7.1.8 Responsible agricultural land use</a> <a href="#">7.1.10 Nutritious food and feed</a>	<a href="#">Our purpose and contribution</a> <a href="#">The Good Growth Plan</a> <a href="#">The Good Growth Plan: Accelerate innovation for farmers and nature</a> <a href="#">Principles for Sustainable and Responsible Agriculture, page 2</a> <a href="#">Syngenta Foundation for Sustainable Agriculture</a>
<b>Goal 3: Good health and well-being</b> Ensure healthy lives and promote well-being for all at all ages	<a href="#">7.1.6 Safe use of products</a> <a href="#">7.2.3 Other air emissions</a> <a href="#">7.2.6 Working with suppliers</a> <a href="#">7.3.4 Health and safety</a>	<a href="#">The Good Growth Plan: Help people stay safe and healthy</a> <a href="#">Principles for Sustainable and Responsible Agriculture, page 4</a> <a href="#">Sustainable operations</a>

<p><b>Goal 6: Clean water and sanitation</b> Ensure availability and sustainable management of water and sanitation for all</p>	<p><a href="#">7.1.9 Water conservation</a> <a href="#">7.2.4 Water and wastewater</a></p>	<p><a href="#">The Good Growth Plan: Strive for carbon neutral agriculture</a> <a href="#">Water conservation</a> <a href="#">Sustainable operations</a> <a href="#">Syngenta Foundation for Sustainable Agriculture</a></p>
<p><b>Goal 8: Decent work and economic growth</b> Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</p>	<p><a href="#">7.2.6 Working with suppliers</a> <a href="#">7.3.1 Employment and engagement</a> <a href="#">7.3.2 Employee development</a> <a href="#">7.3.3 Diversity and inclusion</a> <a href="#">7.3.4 Health and safety</a> <a href="#">7.3.5 Human rights</a></p>	<p><a href="#">The Good Growth Plan: Help people stay safe and healthy</a> <a href="#">Sustainable operations</a> <a href="#">Human rights</a> <a href="#">We embrace and encourage diversity</a> <a href="#">Syngenta Foundation for Sustainable Agriculture</a></p>
<p><b>Goal 12: Responsible consumption and production</b> Ensure sustainable consumption and production patterns</p>	<p><a href="#">7.1.1 Innovation in agriculture</a> <a href="#">7.2.2 Energy</a> <a href="#">7.2.3 Other air emissions</a> <a href="#">7.2.5 Waste</a></p>	<p><a href="#">The Good Growth Plan: Accelerate innovation for farmers and nature</a> <a href="#">Principles for Sustainable and Responsible Agriculture, page 5</a> <a href="#">Sustainable operations</a> <a href="#">Reporting on sustainability</a></p>
<p><b>Goal 13: Climate action</b> Take urgent action to combat climate change and its impacts</p>	<p><a href="#">7.1.3 Carbon capture and mitigation in agriculture</a> <a href="#">7.1.4 Soil health</a> <a href="#">7.2.1 GHG emissions</a></p>	<p><a href="#">The Good Growth Plan: Strive for carbon neutral agriculture</a> <a href="#">Principles for Sustainable and Responsible Agriculture, page 3</a> <a href="#">Agriculture and climate change</a> <a href="#">Soil Health: Feeding the planet should not cost the earth</a> <a href="#">Sustainable operations</a> <a href="#">Syngenta Foundation for Sustainable Agriculture</a></p>
<p><b>Goal 15: Life on land</b> Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification,</p>	<p><a href="#">7.1.4 Soil health</a> <a href="#">7.1.5 Biodiversity</a> <a href="#">7.1.8 Responsible agricultural land use</a></p>	<p><a href="#">The Good Growth Plan: Strive for carbon neutral agriculture</a> <a href="#">Principles for Sustainable and Responsible Agriculture, page 3 and 5</a></p>



<p>and halt and reverse land degradation and halt biodiversity loss</p>		<p><a href="#">Soil Health: Feeding the planet should not cost the earth</a>  <a href="#">Operation Pollinator</a>  <a href="#">Syngenta Foundation for Sustainable Agriculture</a></p>
<p><b>Goal 16: Peace, justice and strong institutions</b>                  Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels</p>	<p><a href="#">7.4.1 Corporate conduct</a>  <a href="#">7.4.7 Responsible lobbying</a>  <a href="#">7.4.8 Enterprise risk management</a>  <a href="#">7.4.9 Tax governance</a></p>	<p><a href="#">The Good Growth Plan: Partnering for impact</a>  <a href="#">Syngenta Group Code of Conduct</a>  <a href="#">FAQ: Corporate conduct</a>  <a href="#">FAQ: Risk management</a></p>
<p><b>Goal 17: Partnerships for the goals</b>                  Strengthen the means of implementation and revitalize the global partnership for sustainable development</p>	<p><a href="#">5 Engagement and collaboration</a></p>	<p><a href="#">The Good Growth Plan: Partnering for impact</a>  <a href="#">Principles for Sustainable and Responsible Agriculture, page 6</a>  <a href="#">Stakeholder engagement</a>  <a href="#">Syngenta Foundation for Sustainable Agriculture</a></p>

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