# The Good Growth Plan Progress Data - Biodiversity 2019

**Help biodiversity flourish**

# 1. Summary

Syngenta has made a public commitment, The Good Growth Plan, to address the huge challenges of feeding a growing world population sustainably. One of the key pillars of this commitment is to help biodiversity flourish. This is both for the sake of biodiversity itself as well as sustainable intensive agriculture, since the latter depends on intensifying the contribution of ecosystems services from biodiversity. Biodiversity helps build the resilience needed to make agriculture sustainable in many ways. It helps to regulate nutrient-cycling and control pests, and provides pollination services, diverse crops and genetic stocks for plant breeding.

We are helping growers to create rich habitats in field margins and riparian zones alongside rivers. We're promoting managed forests and agro-forestry, which also help protect water bodies. And to preserve crop diversity, we're working with groups that conserve wild crop relatives to integrate them into farming practice.

The Biodiversity dataset shows aggregated hectares of farmland reported since 2014 that benefited from biodiversity conservation practices which were established or managed in collaboration with Syngenta. The dataset also includes a description of the project's geography, scope, and objectives. The number of hectares of benefitted farmland is locally tracked through in-field assessments, and is documented and reported by project managers.

# 2. Structure of the data

| Variable name | Definition | Unit | Type of data |
|---|---|---|---|
| **Country** | Country | | String |
| **Project Category** | Project focus in terms of sustainable agricultural practice | | String |
| **Project Objectives** | Description of the project objectives and activities | | String |
| **Agro-forestry** | Agro-forestry is an activity that combines the production of crops or pastures, and trees on the same area of land and thereby ensures food, feed, fiber, and wood supply. This is obtained either by planting trees on agricultural land or by cropping (for example coffee and cashew) on forested land, given complementarity (harmony) between the trees and crops. Agro-forestry supports the conservation of natural resources, ensures a better use of environmental resources and | | String |

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| | diversifies activities for arable farmers. The total wood and arable production from an agroforestry plot is generally greater than the separate production of crop and wood pattern on the same area of land, thereby reducing pressure on non-farmed lands. For instance, weeds, which are spontaneously present in young forestry plantations, are replaced by harvested crops or pasture | |
| **In-situ Conservation** | Plant genetic resources can be conserved ex situ, for example in gene banks (facilities that store samples, accessions of crop genetic diversity, usually as seed and vegetative material) or in-situ, either on-farm for farmers varieties, or in natural reserves or protected areas for wild plants. Thereby, supporting plant breeding that relies on crop diversity for improving and adapting crops to meet current and future edapho-climatic challenges. The objective for this project practice within the Biodiversity Commitment is to enhance in-situ conservation of crop wild relatives that are threatened to become extinct | String |
| **Landscape Connectivity** | Landscape connectivity improves the degree to which the landscape facilitates or impedes movement among resource patches via complex and non-linear spatial distributions. It enables species mobility and key ecological, ecosystemic and evolutionary processes | String |
| **Managed Forests** | Biodiversity enhancement also applies to the restoration and maintenance of managed forests, particularly restoring and/or managing riparian lands or field borders. A managed forest is a forest where the total tree count is either kept constant or is increasing, meaning fallen trees are replaced with seedlings that eventually grow into mature trees, continuously renewing the forest. Great care is taken to ensure the safety of wildlife and to preserve the natural environment. The forest in that case is a working environment, producing timber and other ecosystem services for agriculture and societies | String |
| **Managed Wetlands** | Managed wetlands are able to support various wildlife and enhance biodiversity (e.g. richness, abundance, and diversity of birds, fish and aquatic | String |

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| | macro invertebrates) and help improve water quality | | |
| **Multi-functional FieldMargins** | "Farmland used for biodiversity enhancement and habitat restoration is often focused on less productive and marginal areas. This includes land to buffer natural features such as watercourses, forest and hedges as well as low productive lands that are not good for farming. The introduction of field margins in managed marginal land in off crop areas of the field, will provide multiple benefits to farmlands around these margins:<br><br>Improve farm productivity by providing food and habitat to pollinating insects and to other fauna such as earthworms and arthropods<br><br>Reduce chemical and nutrient runoff into adjacent surface water bodies by preventing soil erosion" | | String |
| **Other Biodiversity Enhancement Practices** | Biodiversity enhancement practices include the implementation of farming practices that support ecosystem resilience and ecological interactions between farmed and unfarmed areas. This would include integrated farm management practices, agriculture inputs (e.g. seeds, fertilizers, and crop protection) and farm diagnostic and management tools that support the enhancement of biodiversity or preventing the destruction of natural habitat in agriculture landscapes | | String |
| **ImplementedHectares** | Hectares of land on which biodiversity conservation practices were implemented | Hectares | Numeric |
| **Benefited Hectares** | Hectares of farmland that benefit from the positive change brought in by implemented biodiversity conservation practices | Hectares | Numeric |
| **Reporting Year** | Syngenta definition of reporting year for non-financial indicators | | Categorical |

# 3. Background and methods

## 3.1.    Description of project activities

The aim of our Biodiversity commitment is to promote and implement "healthy, functional, and resilient ecosystems" in a way that is compatible with our commercial operations.

Biodiversity helps build the resilience needed to make agriculture sustainable in many ways. It helps to regulate nutrient-cycling and control pests, and provides pollination services, diverse crops and genetic stocks for plant breeding. So we're helping growers to create rich habitats in field margins and riparian zones alongside rivers.

Biodiversity enhancement within agriculture landscapes has many different meanings as well as ways of implementation in the different geographical regions. For this reason we came up with project types that could be included within the Biodiversity commitment. The different project types that we have selected are based on the approach of how land is shared and spared within a landscape.

Biodiversity enhancing practices within the scope of our activities include:

- Multi-Functional Field Margins (MFFM) – Farmland used for biodiversity enhancement and habitat restoration is often focused on less productive and marginal areas. This includes land to buffer natural features such as watercourses, forests and hedges as well as other ecological infrastructures on low productive lands that is not suitable for farming. The introduction of field margins in managed marginal land in off crop areas of the field supports the development of multifunctional landscapes that offer multiple ecosystem services (migrating corridors, wind breakers for crops, water regulation).

- Managed forests/riparian lands – Biodiversity enhancement also applies to the restoration and maintenance of managed forests, particularly restoring and/or managing riparian lands or field borders.

- Agro-Forestry – Producing crops and trees on the same area of land supports the conservation of natural resources, ensures a better use of environmental resources and diversifies activities for arable farmers.

- Artificial or managed wetlands – Managing wetlands to protect and restore a habitat to support wildlife and enhance biodiversity.

- Biodiversity-friendly farming – Implementing farming practices that support ecosystem resilience and ecological interactions between farmed and unfarmed areas.

- In-situ genetic diversity conservation – Managing on-site conservation of species and ecosystem diversity, including crop wild relatives and their evolutionary adaptations. Support of crop diversity seed banks.

## 3.2.     Sources of data

In-field assessments of the hectares implemented with biodiversity conservation practices are conducted and documented by local project managers and external stakeholders. The respective data is measured once, either at the time of implementation or at the time of Syngenta's involvement to manage already implemented practice.

## 3.3.     Data collection tools and process

The number of hectares of benefited farmland established by each initiative is locally tracked and reported by using project record-keeping systems and quality assurance processes. The data and respective evidence is documented, reported and consolidated at a country, territory, regional, and global level, using data collection templates with in build drop-down menus. A risk assessment has been conducted to identify reporting risks. Identified risks are mitigated by the implementation of internal controls.

After consulting with scientists and conservation experts, we have taken the initial view that implementing biodiversity enhancement practices on 3 percent of an area has a significant impact on its biodiversity. For example, 3 hectares of implemented margins benefit 100 hectares of land. This may vary from location to location, depending on local biodiversity and environmental goals, cropping patterns and climatic conditions. We will continue to consult with experts and other stakeholders in order to refine our practices and reporting approach.

## 3.4.     Progress measurement

To measure progress over time, we will keep track of:

- Implemented hectares - Hectares of farmland where at least one of the aforementioned biodiversity conservation practices are introduced and implemented.
- Benefited hectares - Hectares of farmland that benefit from the positive change brought in by implemented hectares.

The data are reported annually and cumulatively by adding the hectares that have been newly established or managed in the respective reporting year. The target is to reach 5 million hectares of farmland that have been benefited by biodiversity enhancing practices listed above.

# 4. Changes versus previous release

March 2020

- Data for Reporting Year October 2018 – September 2019 were added.

## 5. Approval of non-financial performance data

The Good Growth Plan data is published as a global aggregate in the Non-financial performance summary of the Sustainable Business Report 2019. This summary was approved by the Board of Directors on February 20, 2020. Syngenta's internal controls over non-financial reporting are designed to provide assurance to Syngenta's Board of Directors and management regarding the reliability of non-financial reporting and the preparation and fair presentation of the information published in the Non-financial performance summary. All internal controls, no matter how well designed, have inherent limitations and therefore may not prevent or detect misstatements. In designing internal controls over non-financial reporting, Syngenta used the criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). PricewaterhouseCoopers AG, Switzerland, an independent registered public accounting firm, has issued an opinion on Syngenta's Non-financial performance summary, which is included in the Sustainable Business Report 2019.

## 6. Contact information

For questions and inquiries regarding this dataset and documentation, please contact goodgrowthplan.data@syngenta.com.