2 ZERO HUNGER

EDAI
EDUCATION Ai

Creating a world free of hunger by 2030

Artificial Intelligence for No Hunger

As of 2025, the progress of SDG 2 is unbalanced. While 1 goal out of 8 (2.b Agricultural export subsidies) is advancing, the remaining seven goals are either regressing or not being measured.

This lack of progress means an estimated 600 million people are projected to experience hunger by 2030, with one in three individuals currently facing moderate or severe food insecurity.

Globally, rising food prices, attributed to supply chain distribution and conflict, are exacerbating the challenge for communities to meet their nutritional requirements.

AI offers numerous use cases to advance SDG 2, such as precision farming to optimize the use of resources (fertilizer or pesticides), monitoring environmental conditions such as air, soil and water quality to enhance crop resilience and tracking animals for their well-being. These use cases can improve farming practices, reducing environmental impact while maximizing productivity.

In 2022, 10.5 billion tons of food waste were generated.

AI can address food waste by helping individuals monitor consumption and re-purpose leftovers, as well as optimize the supply chains to reduce waste and ensure food reaches those in need. The significance of AI for SDG 2 is evident in the substantial number of relevant use cases across different UN repositories:
8 use cases out of 40 in AI for Good: Innovate for Impact, and approximately 60 use cases out of 408 in the UN Activities on AI.

However, the use of robots and other AI technology can be costly, potentially limiting access to a minority of farmers and exacerbating inequalities. This could place additional pressure on farmers with limited resources across various regions to compete against these new technologies. Additionally, more efficient crops do not necessarily guarantee environmental or social improvements. Focusing only on improved crop quality might disregard the environmental impact of increased yields and production. The impact of this could be better assessed due to improved monitoring capabilities. Increased crop yields should not be at the expense of reduced nutritional value for the end consumers.

Key Considerations for Stakeholders

- **Impact assessment:** The development of AI use cases and incentives should be aligned with OECD AI principles to maximize sustainable value creation. The objective is to prioritize governmental tools for AI use cases related to the SDGs.

- **Ownership sharing:** To reduce the risk of monopoly on technologies, new business models should be considered, where value is shared differently to minimize the increase in inequalities and reward all contributors.

Impact

According to a study on the impact of AI on SDG 2 could act as an (positive) enabler for 75% of the targets and act as an inhibitor (negative) for 25% of the targets.

Use case 1

Using AI to drive new farming practices, such as precision farming, to reduce the quantity of pesticides used and to drive food production.

Use case 2

Improving AI instruments to improve the efficiency of farming practices and increase the quantity of food produced.

Use case 3

Optimizing supply chain and food transport to minimize waste creation and maximize access to nutritional products for various regions.

GOALS

2025

SDG 2:
ZERO HUNGER

End hunger, achieve food security and improved nutrition and promote sustainable agriculture

2 ZERO HUNGER

FACTS AND FIGURES

- **Between 691 million and 783 million** people faced hunger in 2022. Considering the midrange (735 million), **122 million more** people faced hunger in 2022 than in 2019.

- Globally in 2022, an estimated **148 million (22.3%) children** were affected by stunting, **37 million (5.6%)** were overweight, while **45 million (6.8%)** experienced wasting.

- **Record-high food prices** in 2022 worsened **purchasing power and access to food**, negatively impacting food security and nutritional outcomes.

- Globally, the proportion of countries facing moderately to abnormally high food prices rose sharply in 2022, reaching a **new record high of 58.1%.** This represented a **nearly fourfold** increase from the 2015-2019 average level of 15.2%.

- In 95% of countries with available data, the average annual income of **small-scale producers** is **less than half** that of larger-scale producers. Small-scale food producers **headed by men** typically generate higher incomes than those headed by women.

- Between 2015 and 2022, global **government spending on agriculture** increased steadily, reaching a **record high of $749 billion** in 2022. However, government expenditure on agriculture **relative to the sector's GDP contribution declined** from 0.5 in 2015 to 0.43 in 2021 **before rebounding** to 0.48 in 2022.

- From 2015 to 2022, the **volume of aid** for agriculture provided to developing countries increased **by 47.2%**, from $12.3 billion **to $18.1 billion** (in constant 2022 prices).

- Data from 2021 showed that the world was **at a moderate distance** from achieving productive and sustainable agriculture (**with a score of 3.4 out of 5**), with the highest score of 4.1 in Europe and Northern American compared to the lowest score of 2.6 in the LDCs.

WHERE WE STAND

- Nearly **1 in 10 people** globally face hunger. In 2022, **2.4 billion** people experienced **moderate to severe food insecurity**.

- Despite progress, **148 million children under age 5** suffered from stunting in 2022. If current trends persist, **1 in 5 children under age 5** will be affected by stunting in 2030.

- In 2022, almost **60% of countries** worldwide faced **moderately to abnormally high food prices** due to the spillover effects of conflicts.

- Achieving zero hunger requires intensified efforts to **transform food systems** so they are sustainable, resilient and equitable. Moreover, accelerating improvements in **diets, nutrition, health and hygiene** is crucial to meeting the SDG target of halving the number of children suffering from chronic undernutrition.

Global Youth AI Advisory Body