

# Sustainable Solutions to End Hunger:

## AN OVERVIEW OF CERES2030

Ceres2030 aims to support international donors as they determine where to direct their investments so that these help end hunger and lead to more sustainable food systems. To achieve this objective, Ceres2030 has brought together economic cost modelling and syntheses of published research on agricultural interventions to examine the cost of ending hunger and which agricultural interventions are effective in doing so. The project is a partnership between Cornell University, the International Food Policy Research Institute (IFPRI) and the International Institute for Sustainable Development (IISD).

### THE SCALE OF THE HUNGER CHALLENGE

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Ceres2030 is devoted to United Nations' Sustainable Development Goal (SDG) 2, which commits the world's governments by 2030 to "end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious, and sufficient food all year round."<sup>1</sup> The causes of this food insecurity are varied, and specific to each region, country and district. Ending hunger requires significant improvements in agricultural productivity for all farmers, with special consideration for the incomes of small-scale producers, as set out in SDG Target 2.3. The environmental challenges and the opportunities to support a just and sustainable transition are significant, as captured in SDG Target 2.4: agriculture is a major source of greenhouse gas emissions, while already suffering its consequences.

### HOW DOES CERES2030 WORK?

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There is a great deal of research available on agriculture interventions, spread out across various sources. Assessing the core lessons from this research is an immense task, which Ceres2030 is undertaking with the help of over 70 researchers from 23 countries. These researchers are grouped in eight teams, each focused on exploring one question involving agricultural interventions. Their results will be published in early 2020 as a collection with *Nature Research* journals. This involves a review of over 90,000 articles and reports published in academic journals<sup>2</sup> and research and development organizations.<sup>3</sup> Ceres2030 is leveraging machine learning to help the researchers accelerate this process without sacrificing quality.<sup>4</sup> The methods will be publicly accessible so others can replicate and adapt our approach.

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<sup>1</sup> <https://sustainabledevelopment.un.org/sdg2>

<sup>2</sup> <https://airtable.com/shriLl1Ulg1EmaJwG>

<sup>3</sup> <https://airtable.com/shr8cPCMD7HVdQy2T>

<sup>4</sup> <https://ceres2030.org/searching-for-evidence-step-by-step/>

## CERES2030 INTERVENTION QUESTIONS (ABRIDGED)

1. What leads farmers in climate-vulnerable countries to adopt climate-resilient crops?
2. What interventions improve farm income and productivity while tackling water scarcity?
3. How can we improve livestock nutrition to benefit small-scale farmers in Africa and Asia?
4. How can the various elements of a modern food economy improve conditions for small-scale food producers?
5. What interventions can reduce crop losses at, and after, harvesting and how can they be implemented?
6. Can more young people in Africa, Asia, and Latin America enter the agricultural workforce through better skills training?
7. What incentives will lead farmers to adopt environmentally sustainable practices?
8. What strategies do farmers' organizations use to help farmers achieve higher incomes and sustainable environments?

Ceres2030 is also determining how much international donors will need to contribute to end hunger. The cost model accounts not just for SDG Target 2.1, but also SDG targets 2.3 and 2.4 mentioned above.<sup>5</sup> Ceres2030 uses a dynamic, multi-country and multi-sector computable general equilibrium (CGE) model, which incorporates household-level survey data and optimizes public spending across dozens of agricultural interventions, assessing their interactions. It also incorporates lessons from the evidence synthesis and the work across the UN system on measures and indicators.



<sup>5</sup> <https://ceres2030.org/estimating-the-cost/>



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