Researchers for Ceres2030 meet in the King Faisal Room, FAO, Rome, Wednesday, June 6, 2019

What works to end hunger and how much will it cost?

As governments and donors mobilize to meet the targets set by Sustainable Development Goal 2—"Zero Hunger" by 2030—one of the most pervasive challenges they will face involves information: They need to know how much it will cost to fix the problem, what interventions are most effective in solving it, and how they affect the rest of the economy.

Ceres2030 combines economic modelling, machine learning, and evidence -based synthesis into one initiative, helping fill a major knowledge gap in the field of agricultural and food policy. Ceres2030 connects this knowledge back to the donor community, making sure decision makers have the cost figures and evidence they need when deciding where and how to make their investments.

Ceres2030 is also determining how much international donors will need to contribute to end hunger. This builds from the earlier work in a joint IISD-IFPRI report, *Ending Hunger: What would it cost?*[1] which estimated that international donors would need to invest an additional USD 4 billion dollars annually to end hunger (SDG 2.1) by the year 2030. Ceres2030 has now updated that cost model to also incorporate the SDG targets devoted to doubling small-scale producer productivity (SDG 2.3) and creating more sustainable and resilient food systems (SDG 2.4)[2].

The Ceres2030 cost model is a dynamic computable general equilibrium (CGE) model incorporating data ranging from the household level to that of the macroeconomy. It covers over 100 countries and a host of economic sectors. The model simulates how public spending on a portfolio of SDG 2-focused interventions can change progress toward these SDG 2 targets at national to global levels, while accounting for complex economic interactions and indirect effects.

Ceres2030 is designed so that its components feed on each other: while the cost model sets out the level of the funding challenge, the evidence synthesis described below sets out which policy interventions have proven effective in targeting particular challenges. The lessons derived from the evidence synthesis can then be used to simulate more effective SDG 2 funding allocation.

For its evidence syntheses, Ceres2030 brings together development and environmental economists, geographers, crop breeders from NGOs, research organizations and academia to explore the evidence around eight priority questions.

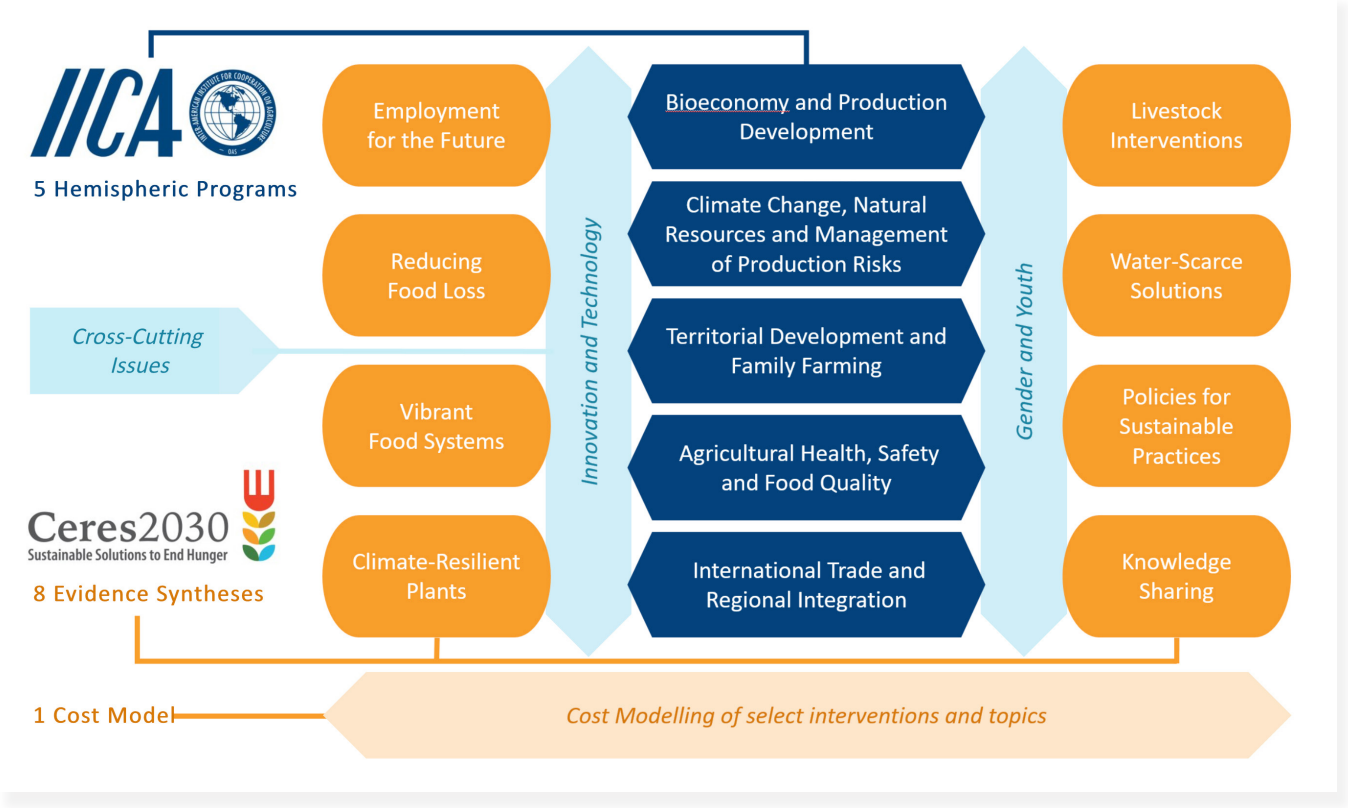
Through the use of sophisticated tools and power, we are equipping researchers to make sense of hundreds of thousands of published papers, to synthesize this knowledge, identify gaps, and ensure decision-makers are working with the best possible analysis and information when they make decisions on investments in agriculture to end hunger.

Our research teams are examining critical dimensions of food security. More than 75 researchers and information specialists from 23 countries are contributing their expertise to this effort on a voluntary basis. The evidence synthesis will be published, subject to peer review, in *Nature Research Journals* in 2020, and will be used to inform the cost model for SDG2.

1. https://www.iisd.org/library/ending-hunger-what-would-it-cost
2. https://ceres2030.org/estimating-the-cost/

IICA Ceres2030 Sustainable Solutions to End Hunger

There is a clear synergy between Ceres2030 and IICA's objectives of Improving the productivity and competitiveness of the agricultural sector, strengthening agriculture's contribution to the development of rural areas and the well-being of the rural population, improving agriculture's capacity to mitigate and adapt to climate change, and to make better use of natural resources and improving agriculture's contribution to food security. As seen in the diagram (below), the five programs in which IICA organizes its work can benefit from the global knowledge and analysis that is being coordinated by Ceres2030.



This partnership between Ceres2030 and IICA can work in three different directions:

1. To use the results as an input to strengthen IICA's technical cooperation agenda.
2. For IICA to play the role of a bridge between Ceres2030 and LAC countries for the dissemination of its results.
3. To use the evidence and estimates generated by Ceres2030 to influence the design of more effective and efficient public policies for rural and agricultural development in Latin American countries.

Ceres2030's eight intervention questions

Employment for the future: Can more young people in Africa, Asia, and Latin America enter the agricultural workforce through better skills training?

Reducing food loss: What interventions can reduce crop losses at, and after, harvesting and how can they be implemented?

Vibrant food systems: How can the various elements of a modern food economy improve conditions for small-scale food producers?

Climate-resilient plants: What leads farmers in climate-vulnerable countries to adopt climate-resilient crops?

Livestock feed solutions: How can we improve livestock nutrition to benefit small-scale farmers in Africa and Asia?

Water-scarce solutions: What interventions improve farm income and productivity while tackling water scarcity?

Policies for sustainable practices: What incentives will lead farmers to adopt environmentally sustainable practices?

Farmers' organizations: What strategies do farmers' organizations use to help farmers achieve higher incomes and sustainable environments?

Visit Ceres2030.org for more information
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