



Insight to Impact: A decision-maker's guide to navigating food system science **FLAGSHIP REPORT**

Decision-makers face urgent, unprecedented, and often competing global development challenges. To effectively prioritize actions and navigate complex trade-offs, they increasingly need access to evidence-based recommendations.

Insight to Impact, CGIAR's first Flagship Report, showcases cutting-edge research from CGIAR and its partners that addresses key questions from decision-makers at local, national, and global levels, and offers new insights to untangle complex issues.

This report will deliver:

**practical
insights for
decision-
making**

**translation of
complex
science into
practical
use cases**

**identification
of emerging
trends and
innovations**

What challenges do we address?

- Urgent problems facing decision-makers tasked with delivering sustainable development outcomes in agrifood systems
- Interconnected challenges in low- and middle-income countries, drawing on lessons from successes and failures
- Emerging challenges and how to equitably deploy the emerging technologies needed to prepare for them

Climate Adaptation & Mitigation

- ~3.6 billion people live in regions acutely vulnerable to climate impacts, while agriculture, forestry, and land use contribute ~22% of GHG emissions – as climate change reduces food system productivity.
- Science shows agrifood systems can become climate-smart, addressing the climate crisis with evidence, innovation, and tailored finance.
- Solutions for smallholders must build capacity, strengthen adaptation, and reduce emission, e.g. virtual extension services can deliver advice and collect real-time data.



Environmental Health & Biodiversity

- With a narrowing of food systems' genetic base, increasing land degradation, biodiversity loss, and increasing populations, agricultural and environmental goals seem to be on a collision course.
- Science shows decision-makers can balance food production with biodiversity and environmental health by leveraging ripple effects of decisions along supply chains.
- Integrating traditional knowledge with science and ensuring inclusive decision-making (e.g. with smallholders) can ensure agrifood policies are effective and affordable.



Poverty Reduction, Livelihoods, & Jobs

- ~700 million people live in poverty, most in sub-Saharan Africa or South Asia. Despite progress, conflict, climate change, and pandemic recovery hinder progress.
- Science shows agrifood systems provide pathways to addressing poverty reduction, livelihoods and jobs. With the right policies, investments and research, they can drive growth and social inclusion.
- Innovations alongside supportive policies and capacity development, can stimulate growth across value chains, benefiting young people and women.





Nutrition, Health, & Food Security

- Nearly 1/3 of people face moderate or severe food insecurity, while malnutrition, linked to diseases like diabetes and obesity, is rising, particularly in Latin America, Africa, and [Asia](#).
- Science shows food-based approaches to nutrition and health can accelerate through innovations in agronomy, livestock, fisheries, and understanding consumer food choices.
- Improving nutrition outcomes requires collaboration across sectors—health, education, finance, agriculture—and engagement with large and small agribusinesses.

Gender, Youth, and Social Inclusion

- Women in low- and middle-income countries form much of the agricultural workforce but face inequitable resource access. Young people struggle with limited rural work, education, and training.
- Science shows investments in these groups can achieve global goals but they must address local gender norms, relations, and markets to avoid widening inclusion gaps.
- Filling knowledge gaps, such as on youth and Indigenous equity, allows shared lessons to drive progress.



Challenges and opportunities on the horizon

- Decision-makers remaining merely reactive will hinder progress toward global development goals. They must prepare for crises like pandemics, observe changes in farming and dietary patterns, and build climate resilience.
- Science shows emerging trends and technologies can guide solutions for food, land, and water system challenges.
- New technologies like AI, machine learning, and drones are transforming agriculture. Decision-makers need insights to ensure they reach those in need.



Our Approach

CGIAR Flagship Report



Interlinked support across CGIAR's portfolio

- **Launch:** At CGIAR's inaugural Science Week on April 2025.
- **Use:** The Report breaks down development challenges through *asks and answers*. Each section summarizes science-based entry points for action, investments and policy decisions. *Answers* provide menus of impactful options that can be applied across contexts.
- **Engagement:** Resources and seminars will support use.

What CGIAR provides

- CGIAR is the world's largest partnership dedicated to transforming food, land, and water systems in a climate crisis. With 13 Research Centers and 3,000 partners, CGIAR generates cutting-edge data, and innovations.
- CGIAR tools, resources, and products are freely available as global public goods, including to experts involved in global, regional, and national processes who shape evidence-based decisions and policies that deliver impact toward SDGs.
- By leveraging the expertise and comparative advantage of CGIAR and its partners, decision-makers can accelerate progress toward sustainable, equitable, and climate-adaptive food systems, ensuring a more secure future for all.

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