

Seed Equal



Seed Equal aims to support the delivery of seed of improved climate-resilient, market-preferred, and nutritious varieties of priority crops, providing farmers with a high rate of genetic gain while ensuring equitable access for women and other disadvantaged groups. The Initiative primarily supports the delivery of improved varieties from CGIAR and national agricultural research and extension systems (NARES) breeding networks, and forms part of CGIAR's new Research Portfolio, delivering science and innovation to transform food, land, and water systems in a climate crisis.

Objective

Seed Equal is working to support delivery of quality seed of improved varieties that are climate-resilient, market-preferred, and nutritious, providing farmers with a high rate of genetic gain while ensuring equitable access for women and other disadvantaged groups.

The Challenge

Smallholder farmers, especially women and disadvantaged groups, are particularly vulnerable to climate-related challenges, such as more frequent and severe droughts and erratic rainfall. These challenges threaten agricultural production and compromise farmer access to climate-resilient improved varieties and quality seed for their food, nutrition, and income needs, and for the wider benefit of our food systems. In addition, inadequate seed supply and delivery systems misaligned with user and market demand mean that smallholders continue to use poorly adapted varieties and poor-quality seeds, leaving them more vulnerable to pests and diseases.

With increasing population and climate pressure, inclusive and climate-smart intensification of food production is urgently needed to achieve global goals for food security, nutrition, poverty, gender, climate, and environment. Improved varieties, innovations, and approaches developed and promoted by CGIAR and partners have the potential to transform agri-food systems and reduce yield gaps, "hunger months" and other disparities. However, limited access to and use of affordable, quality seed of well adapted varieties with desired traits remains a bottleneck.

AT A GLANCE

Primary CGIAR impact area: Poverty Reduction, Livelihoods & Jobs

CGIAR science group: Genetic Innovation

Focus countries: Bangladesh, Burundi, Cameroon, Cambodia, Colombia, Cote d'Ivoire, Democratic Republic of Congo, Ethiopia, Ghana, India, Kenya, Lao PDR, Madagascar, Malawi, Mexico, Mozambique, Nepal, Nigeria, Pakistan, Peru, Rwanda, Senegal, Uganda, United Republic of Tanzania, Vietnam, Zambia, Zimbabwe

Works towards sustainable development goals: No poverty; Zero hunger; Gender equality; Clean water and sanitation; and Climate action



Activities

Researchers and partners are focusing on the following areas of activity:

Demand-driven cereal seed systems

Supporting more effective delivery of genetic gains from CGIAR cereal breeding, as well as building government, private sector, and NGO capacity to deliver productive, climate-resilient, and market-preferred varieties to smallholder farmers, leading to quantifiable increases in the rate of adoption.

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Boosting legume seed access through a demand-led approach

Building on growing demand for grain legume through a multi-stakeholder approach that strengthens partnerships to have efficient, more predictable, and demand-led access to new varieties. Leveraging market pull, incentivizing private sector participation, and building capacity among seed entrepreneurs is helping accelerate delivery of quality seed, particularly to marginal farmers and women.

Scaling demand-responsive delivery of vegetatively propagated crop seed

Sustainable delivery of seed at scale is achieved through enhanced seed delivery pathway efficiency and effective targeting for different market segments and farmer preferences. Researchers are developing and applying new technologies and phytosanitary measures to boost seed production and designing and validating business models for smallholder seed entrepreneurs.

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“ focuses on leveraging comparative strengths

Partnerships, capacity building, and coordination to ensure uptake of public-bred varieties and other innovations

This area of work focuses on leveraging comparative strengths of national agricultural research and extension systems (NARES), the private sector, and civil society organizations, among others, in early generation seed production, commercial seed delivery, enabling seed policies, inclusive seed systems and variety promotion.

Policies for varietal turnover, seed quality assurance, and trade in seeds

By leveraging global expertise and experience, this area of work is generating the evidence and engagement necessary to advance efficient, sustainable, and inclusive seed markets, accelerating rates of seed sector growth and varietal turnover and increasing the use of quality seed.

Scaling equitable access to quality seed

Researchers are identifying and scaling strategies for providing access to quality seeds for women and unreached groups, with an emphasis on maximizing synergies between the formal and informal sectors. They are also working to promote financial and digital inclusion and the development of technical and business skills among women and youth by supporting entrepreneurship in seed production and marketing.

Strengthening resilience through inclusive seed and product value chains

The focus of this activity is to provide upstream linkages with early generation seed and downstream linkages with grain markets, farmers being the fulcrum on which the pre-farm (seeds) and post-farm (grains) operations hang. It involves scientific guidance on emergency seed assistance programs in countries and regions where CGIAR and the UN World Food Programme work to promote well adapted climate-resilient varieties and quality seeds to vulnerable rural populations in both crisis and chronic stress conditions. This is in addition to generating strategic evidence and recommendations on design and implementation options for both policy and practice in seed sector development programming to ensure that assistance is simultaneously effective, inclusive, and sustainable.





Outcomes

Proposed three-year outcomes include:

- Seed systems actors including, but not limited to, seed companies, seed entrepreneurs, farmer-based organizations, women's organizations, and community-based organizations develop their capacities to produce and deliver increased quantities of quality seed of improved varieties in selected countries, geographies, and market segments.
- Seed system actors promote uptake of quality seed of new improved varieties derived from breeding programs by women and men farmers in selected countries, geographies, and market segments.
- Increased number of public and private early generation seed enterprises are playing their roles more effectively by adopting models that reduce their cost and increase their output in selected countries, geographies, and market segments.
- Government partners actively promote policy solutions to accelerate varietal turnover, adoption and quality seed use by women and men in selected countries, geographies, and market segments.
- Governments, funders, researchers, and extension staff use new tools to be developed for monitoring varietal turnover and quality seed use.

Christopher Ojiewo, Initiative Lead, c.ojiewo@cgiar.org

David Spielman, Initiative Co-Lead, d.spielman@cgiar.org

CGIAR is a global research partnership for a food-secure future. CGIAR science is dedicated to transforming food, land, and water systems in a climate crisis. Its research is carried out by 13 CGIAR Centers/Alliances in close collaboration with hundreds of partners, including national and regional research institutes, civil society organizations, academia, development organizations, and the private sector. www.cgiar.org

We would like to thank all funders who support this research through their contributions to the CGIAR Trust Fund: www.cgiar.org/funders.

To learn more about this Initiative, please visit cgiar.org/initiative/seed-equal

To learn more about this and other **Initiatives in the CGIAR Research Portfolio**, please visit www.cgiar.org/cgiar-portfolio

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