



### Sphere of control

Monitoring, evaluation, learning and impact assessment

### Sphere of influence

### Sphere of interest

#4 Challenges for Impact Areas

#### Product design

#3 Demand assessment & market segmentation (#2) → Target product profiling

#### Product development

Trait discovery → Trait deployment → Crossing & screening → Early testing → Late testing → On-farm testing

**Breeding Pipeline**

Trait D&D pipeline (#3)

#### Product delivery

Product registration → Stage n...Stage n+1 product launch, growth, maturity, decline, phase out (#4)

Germplasm pathway: Genetic products are developed faster and deployed in targeted countries

ST/RAFS 1 #6 Capacity/Partnership pathway: Teams achieve higher efficiency and effectiveness across crops & disciplines, & institutions (CGIAR-NARES-SMEs-other partners) #5

Market Intelligence Accelerated Breeding / Genome Editing / Breeding Resources Seed Equal

Genebanks #1

ST 1 #9

Intermediate outcome	Ultimate outcome: farmers	Ultimate outcome: markets	Ultimate outcome: consumers	Impact
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#1 Seed producers successfully market new demand-driven improved varieties to more farmers	#2 Low-income farmers derive greater value from growing new varieties Farmer-to-farmer dissemination	#6 Processors and traders source more produce from low-income farmers Local market opportunities & public sector distribution	#10 Urban consumers have access to more affordable & nutritious food Rural consumers have access to more affordable & nutritious food	New demand-driven varieties provide benefits to poverty reduction, gender equality, nutrition, environment and climate
#5	ST 1 ST 2	+	#8 Systems transformation	
	RAFS 1	+	Resilient agrifood systems	

**Nutrition, health and food security:** Crop varieties with higher nutritional content and quality increase nutrition and health of population

**Poverty reduction, livelihoods and jobs:** Productive varieties better suited to farmers needs contribute to increased income

**Gender Equality, youth and social inclusion:** Women and marginalized groups are empowered through varieties addressing their needs

**Environmental health and biodiversity:** Loss of genetic variation reduced through agrobiodiversity conservation. Expansion of farm land prevented with increased productivity

**Climate adaptation and mitigation:** Climate smart varieties with novel traits increase resilience of food system actors



- #1 **Farmers, researchers, breeders** and others worldwide access and use germplasm managed by genebanks, generating and sharing benefits equitably.
- #2 **One CGIAR-NARS-SME networks** use market segments, product profiles and pipeline investment cases to orient variety development and deployment towards those that provide larger scale benefits across the 5 impact areas.
- #3 **National and private seed company breeding programs** accelerate the development of varieties that provide larger scale benefits across the 5 impact areas.
- #4 **Integrated public and private seed systems** increase the quantity of seed of improved varieties available to farmers in priority crops and geographies.
- #5 **Integrated public and private seed systems** increase the rate of adoption by farmers of new varieties for priority crops and geographies.
- #6 **CGIAR partners** develop and scale innovations that contribute to the empowerment of women, youth and other social groups in food, land and water systems.

- ST 1 NGO, extension, and other implementation partners actively engage with farmers and other actors in implementing transformative innovations in food, land, and water systems.
- ST 2 National and sub-national government agencies use system transformation research to implement strategies, policies and programs which transform food, land and water systems to meet livelihood, inclusion, nutrition, environmental and climate objectives.
- ST/RAFS 1 National and local multi-stakeholder platforms are strengthened to become more effective and sustainable in addressing development tradeoffs and generating strategies for effective food, land, and water systems transformation.
- RAFS 1 National Agricultural Research Systems, Regional Research Institutes, extension services, and national and international NGOs implement agrifood system innovations with the potential to improve the livelihoods, climate resilience, and environmental health of smallholders and pastoralists.