



Alignment of CGIAR Breeding with Regional Strategies

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CGIAR 2030

RESEARCH AND INNOVATION STRATEGY

Transforming food,
land and water systems
in a climate crisis

Impact Areas of the CGIAR 2030 Strategy

- Nutrition & food security
- Poverty reduction, livelihoods & jobs
- Gender equality, youth & social inclusion
- Climate adaption & greenhouse gas reduction
- Environmental health & biodiversity



One CGIAR - Africa

High Level Alignment of Development Goals

CGIAR Impact Areas



Nutrition, Health & Food Security



Poverty Reduction, Livelihoods & Jobs



Gender Equality, Youth & Social Inclusion



Climate Adaptation & Mitigation



Environmental Health & Biodiversity

Feedback		
West & Central Africa	Eastern & Central Africa	Southern Africa
Youth employment	Disease and Pest Resistance	Increased agricultural production and productivity
Food and nutrition security	Nutrition	Improved nutritional value, quality, and safety of agricultural products
Gender, Youth employment	Gender	
Climate Change	Climate Change	Enhanced resilience of agriculture
		Sustainable ecosystems and natural resources

Matching strategies



CGIAR Action Areas

Cross cutting

Genetic Innovation

Resilient Agrifood systems

Systems Transformation

Cross cutting

Matching strategies: CGIAR Genetic Innovation



Outcome 1 Increased agricultural production and productivity.	Outcome 2 Sustainable ecosystems and natural resources.	Outcome 3 Improved nutritional value, quality and safety of agricultural products.	Outcome 4 A skilled and capable agriculture sector.	Outcome 5 Enhanced resilience of agriculture.
<ul style="list-style-type: none"> • Crops with improved characteristics • Diagnostic and analytical services 	<ul style="list-style-type: none"> • Biodiversity management • Soil health assessment • Weed biocontrol • Low carbon technologies 	<ul style="list-style-type: none"> • Product development • Broadening the food base • Processing, preservation, and storage methods 	<ul style="list-style-type: none"> • Skills development • Technology development and dissemination • Smallholder farmers supported • Farmer support • Knowledge generated 	<ul style="list-style-type: none"> • Climate resilient solutions • Diagnostic and analytical services

CGIAR crop improvement portfolio

Considerations by Genetic Innovation for crop priority setting

- Relevance to poverty reduction, nutrition, gender, climate change and environment
- Region-specific requirements
- Engagement by the private breeding sector (prevent duplications)

Appreciate continued guidance and feedback from countries and regions

CGIAR global crop improvement portfolio	Feedback			
	West & Central Africa	Eastern & Central Africa	Southern Africa	AGRA
Cereals			Wide range of grains, vegetables, roots and tubers, indigenous ornamental plants, medicinal plants, fruits and niche crops; industrial crops research	
Maize	Yes	Yes		Yes
Pearl Millet		Yes		Yes
Rice	Yes	Yes		Yes
Sorghum	Yes	Yes		Yes
Wheat	Yes	Yes		
Legumes				
Beans		Yes		Yes
Chickpea		Yes		
Cowpea	Yes			Yes
Groundnuts	Yes	Yes		
Lentils				
Soybean				Yes
Root-Tuber-Bananas				
Banana		Yes		
Cassava	Yes	Yes	Yes	
Potato		Yes		
Sweet potato		Yes	Yes	
Yam				

Within crop priorities – CGIAR promotes the concept of market segments

Market segments: Farmers with common variety needs,

- Driven by common consumer and processor requirements
- Breeding investments prioritized
- Based on where and how the variety will be grown

Avenue for within-crop priority setting: How relevant is the development of a new variety for a given market segment

- In view of poverty reduction, nutrition, gender, climate change and environment
- **Product profiles developed & regularly updated**

Discussed with national breeding teams and other stakeholders, followed by reconciliation of priorities at the regional level



Capacity Development

Continued, high emphasis by CGIAR on capacity development

- Short term training
- Long term training (> 3 months)
- Postgraduate students, executing research in collaboration with CGIAR research
- Emphasis on increased levels of genetic gains in farmers' fields

Source: <https://www.cgiar.org/food-security-impact/new-results-dashboard/>

CGIAR Genetic Innovation – 2022 Results for Africa Capacity Development

		Trainees
Short term	Female	3,800
	Male	4,733
Long term	Female	206
	Male	109
Postgraduate	PhD	9
PhD	MSc	5

CGIAR capacity development initiatives

Capacity sharing for development (CapSha)

- Capacity development at individual, institutional and system-level
- Mutual learning, co-development, sharing and exchange, with partners
- Impact pathway to scale research and innovation & accelerate progress towards SDGs
- **Integrated Online Learning and Knowledge Sharing Platform** being designed
- **CapSha Research Engagement** being prototyped
 - Excellence in Agronomy in Rwanda and Ethiopia
 - Genetic Innovations in Senegal
- **CapSha Breeders Academy**
 - Develop capacity of talent for sustaining NARIS-CGIAR breeding in future
 - One-year training program

One CGIAR Capacity Development Hub at UM6P, Morocco

- Research in agriculture towards food systems stability, productivity, sustainability and climate-smart adaptation
- PhD training and Post-doc fellowships
- Delivery, extension and scaling approaches in agricultural technology transfer
- Partnerships and collaboration with African Agricultural Research and Innovation (AARIs) organizations

Key highlights



- Development goals of CGIAR 2030 Research & Innovation Strategy well-aligned with Regional Strategies
- Close alignment in priority food crops for improvement
- Need for focused breeding driven by prioritized market segments and product profiles
- Urgent need for sustainable capacity development models for NARES to sustain high levels of genetic gain

Thank You

