

### Strengthening Regional Crop Networks (RCN) and Breeding Partnerships

Accelerated Breeding 2025 Goals #7 Deep Dive

> Bish Das, Enable Lead August 14, 2025

### **AB Goals Introduction**



The purpose of these Goals is to help you to know where to focus during what we know is a tumultuous time.

There has been "a LOT of important progress made" and we are "on track". These goals build upon the Nov 2024 Dubai discussion.

Strong need for prioritization.

# 7. Strengthening Regional Crop Networks (RCN) and Breeding Partnerships



### Bish Das (b.das@cgiar.org)

- 1. Network partners (in funded regions) identified, prioritized; breeding priorities jointly established (fully aligned); 1-3 most impactful, in-demand value propositions verified.
- 2. Advancement decisions are made jointly with regional network partners.
- 3. Regional technical planning e.g., new crosses, is conducted jointly with regional network partners.
- 4. Regional Crop Networks with few scaling partners, identify and work with a wider range of effective scaling partners; or discontinue breeding for that market segment.
- 5. Standardized network agreements implemented with Level 1 and Level 2 network partners.
- 6. On a network basis, NARES and CGIAR partners have their costs documented.
- 7. A percentage of network operational costs (aiming for 30% by 2030) is directed to NARES to support breeding and testing efforts.

**Evidence:** Updates in the Breeding Portal: variety releases and associated scaling partners.

**Support:** TRANSFORM / ENABLE

### Where did these Subgoals come from?



Partnership and Network priorities co-defined with partners (SSA) through extensive consultation involving NARES, CGIAR, SROs, funders.

#### 8 key areas for improvement

- Need for co-creation and increased alignment with national priorities;
- 2. Increased role for partners in regional breeding networks;
- 3. Better attribution;
- 4. Increased funding transparency;
- 5. Joint ownership and decision-making;
- 6. Need for annual partnership **KPIs & health- check**;
- 7. Need to incorporate **Universities and Small and Medium-sized Enterprises** in regional breeding networks;
- 8. Need to institutionalize **human capacity development.**







#### Partnerships are Vital

- CGIAR can't do everything limited mandate and capacity
- We need to work strategically with partners to ensure impact
  - Right partners in right locations
  - Comparative Advantage -> network roles
- Strengthening Partnerships
  - Intentional
  - Define & Align on common goals
  - Build trust through transparency
  - Clarify roles and responsibilities
  - Ensure institutional support
  - Commit to Shared success metrics (KPIs)





Step 1: Partner strategy – who do we work within funded (sub-)regions?

- Level 1 indicates that we invest in strengthening local breeding and testing capacities; criteria are
  - Viable in-country capacity as assessed through NARES breeding program reviews (Tier 2)
  - Willingness to work on better approaches as assessed through NARES breeding program reviews
  - Crop has >1m ha or value adjusted area equivalent
  - Resources are available
- Level 2 indicates that we invest in strengthening local testing capacities; criteria are
  - Willingness to work on better approaches as assessed through NARES breeding program reviews (Tier 3, 4)
  - Crop has >250k ha or value-adjusted area equivalent
  - Resources are available
- Level 3 Countries where spillover is expected
  - Crop has <250k ha or value-adjusted area equivalent
- Self Supported: Partners in high-income or upper middle-income countries.

Step 2: Identify priority institutes within Level 1 and 2 countries

- NARES
- Universities
- SMEs

Coordinating CGIAR center

# Beans and Cassava - Example where Level of partnership has been / has not been defined



3. Partners Involved (i)							
Crop	Subregion	Country	Level	FAO Area (ha)	Partner Organization		
Beans	East Africa	Ethiopia	Level 2	455,300	Ethiopian Institute of Agricultural Research		
		Kenya	Level 1	1,224,039	Kenya Agricultural and Livestock Research Organization		
		Rwanda		662,670	Rwanda Agriculture and Animal Resources Development Board		
		Tanzania	Level 1	1,039,793	Agricultural Research Institute - Tanzania		
					Tanzania Agricultural Research Institute		
		Uganda	Level 2	794,527	National Agricultural Research Organisation (Uganda)		
	Southern Africa	Angola		808,071	Instituto de Investigação Agronómica		
		Malawi	Level 2	377,050	Department of Agricultural Research Services		
		Mozambique	Level 2	948,083	Mozambiques Institute of Agricultural Research		
		South Africa	Level 3	50,397	Agricultural Research Council		
		Zambia	Level 3	99,260	Zambia Agriculture Research Institute		
		Zimbabwe	Level 3	43,640	Department of Research and Specialist Services (Zimbabwe)		

#### 3. Partners Involved (i)

Crop	Subregion	Country	Level	FAO Area (ha)	Partner Organization			
Cassava	Central Africa	Democratic Republic of Congo		5,734,352	Institut National pour l'Etude et la Recherche Agronomiques			
	East Africa	Tanzania		1,030,835	Tanzania Agricultural Research Institute			
		Uganda		1,313,512	National Agricultural Research Organisation (Uganda)			
					National Crops Resources Research Institute			
	Southern Africa	Malawi		255,389	Department of Agricultural Research Services			
		Mozambique		776,056	Mozambiques Institute of Agricultural Research			
		Zambia		174,525	Zambia Agriculture Research Institute			
	West Africa	Ghana		1,038,710	Council for Scientific and Industrial Research (Ghana)			
					CSIR-Crops Research Institute			
		Ivory Coast		1,219,644	Centre national de recherche agronomique			
		Nigeria		9,953,461	Institute of Agricultural Research			



### **Identify Common Goals (Client driven approach)**

- Product Design Team meetings in Level 1 and 2 network countries
  - Multistakeholder consultations
  - Truthing, Capacity Development, Ownership, Sustainability
- National TPPs endorsed by NARES leadership and uploaded to Breeding Portal
- Aggregation and prioritization of sub-regional MS and TPPs
  - Prioritize MS and TPPs
  - Jointly define 1-3 most impactful value propositions per TPP being pursued

# 2/3/4. Product Advancement and Planning Meetings (PAPM)



- PDT meetings will transition into PAPM
- PAPM in industry, the most important operational meeting of the year
- PAPM are annual and serve several critical functions
  - Update on market intelligence
  - Update on seed systems (new checks, product life cycle management, status of scaling partners etc)
  - MS and TPPs are updated with above information and prioritization reviewed (continue all pipelines, discontinue etc)
  - Advancement of Germplasm between stages
  - Track the operational status of the network
  - Plan and Agree new breeding starts, TPP alignment, TI





- Regional technical collaboration and strategic partnerships are fraught with uncertainties and risk
- Transparency and Institutional endorsement critical
- Network membership agreements help formalize operational ways of working in a clear document endorsed by institutional leadership
  - Eg use of common data management systems, sharing of market intelligence, returning data on time, participating in advancement meetings
  - TORs of a **cross institutional** steering committee (lean, effective) that guides resource allocation, dispute resolution etc
  - Good examples: Africa RTB crop network agreements; ADCIN (Africa Dryland Crops Improvement Networks)





- Costing of operations is critical for budgeting, resource allocation, identifying high cost centers
- 6 crop networks have been costed using the University of Queensland Breeding Costing tool
- Current transition to an Excel based costing tool customized for RCN needs
  - Simplified use (no specialized software, updates etc)
  - Targeted to CGIAR and NARES needs
  - Freedom to operate and integrate in CG systems in future (BP, EBS etc)
- Webinar on new costing approach in late Q3 2025

# 7. Roles and Responsibilities Defined and Partners funded accordingly



- Funders of RCNs work with the CG to reduce transaction costs, support the CG's mandate and build on CG track record of delivery / success / reliability
- Funders increasingly expect network partners to play bigger roles in RCNs; that these roles are clearly identified based on CA; and that partners are co-funded through networks to execute their network functions
- RCN members differ from CGIAR in that their staff and infrastructural costs are already met. GF expects 20% of projects funds to flow through to RCN members (SSA)
- Augmenting partner roles depends on:
  - Country prioritization
  - Aligning priorities (national and regional MS and TPPs)
  - Defining CA of network members (standardized assessment)
  - Agreeing partner roles in RCNs
  - Costing out operations to effectively budget and develop subgrants

#### WCA ADCIN pearl millet network (Inoussa Drabo, Harish Gandhi)

_				,		,						
MS ID in the breeding portal	Market Segment Description	MS code	Nigeria	Burkina Faso	Mali	Ghana	Togo	Senegal	Niger	Chad	CIMMYT	Total area
			3B	2B	3B	4B	5	2B	4B	5		Tier Rating
	Short duration dual purpose pearl millet OPVs adapted to Sahelian zone for food and food processing	SD-OPV-Sahel	660,000	625,954.	1,262,662			484846.5	4,407,405	334,338	TPP00319 (BP00139)	7,775,206
B4000040 ***	Medium duration pearl millet OPVs adapted to Sudanian zone for food and food processing	MD-OPV-Sudan	1000000	344,275	631331.1			339,393	2,034,187	155,228	TPP00329 (BP00140)	4,504,414
M000046	Late maturing pearl millet OPVs adapted to lowland Sudanian, Guinea and Savanna zones, for food and food processing	LM-OPV-LL	300,000			95,444	28,165		67,806		TPP00332 (Spill over for BP00140)	491,416
MO000044 ***	Medium duration Pearl millet hybrids for better endowed Sudan environments for food and food processing	MD-HYB-Sudan	20,000	62595.42	105,222				33,903		TPP00330 (BP00141)	221,720
11000040	Short duration Pearl millet hybrids for better endowed sahel environments for food and food processing	SD-HYB-Sahel	10,000	10,433	105,222			48,485	6,781		TPP00331 (Spill over for BP00141)	180,920
14000045	Late maturing pearl millet OPVs adapted to High land guinea zone for food and food processing	LM-OPV-HL						96,969			TPP00333 (Spill over for BP00140)	96,969
14000047		SD-OPV- Savanna				40,905	18,777		271,225	704,498	TPP00334 (Spill over for BP00139)	1,035,404
Total area			1990000	1043257	2104437	136349	46942	969693	6821306.77	1194064		14306049

Program receiving resources for population development

Program receiving resources for trialing

Not a regional priority, country effort only

# Thank You! Questions and Discussion

