The Pan- Africa Bean Research Alliance (PABRA) Model: Impactful Partnership

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What PABRA Is?

- A consortium of 3 bean networks + CIAT + Donors
- PABRA ≠ CIAT

**Goal:** Improved nutrition and health, gender equality, food security, incomes and natural resource base for sustainable livelihoods of resource poor women and men farmers
PABRA Evolution

• Network Development
  o In 1985: EABRN, RESAPAC, SADC-SABREN established.
  o EABRN merged with RESAPAC to form ECABREN
  o 1996: PABRA established (18 countries)
  o 2006: WECABREN established (10 countries)
  o Today: PABRA - 30 countries

• Thematic Shift:
  o Discipline focus → multi-disciplinary/value chain approach
  o Capacity in general methods → specialized working groups
    e.g. breeding/seed systems, Integrated crops management
    market /nutrition
Governance

• National level (coordination of actors and efforts)
• Sub-regional level (3 networks – SC)
• Pan Africa level (PABRA SC) - meeting once a year
• CIAT is a partner and overall facilitator (referee and player)

Donors: GCA SDC, BMGF, Kirkhouse Trust, SROs, SFSA...
representatives of value chains, network representatives

Transparency
Ownership of program by partners
Empower partners to take decisions and responsibilities
Partnership and Implementation FRAMEWORK 2014-19

- 5-Yr regional agenda and priorities

- Aligned to national, sub-regional and Comprehensive Africa Agric. Programme (CAADP) priorities

- Jointly developed for joint planning and implementation.

- Provide space and entry point for actors or donors to integrate and contribute components at any point/stage

**Ultimate Outcome**
- Improved nutrition and health, gender equality, food security, incomes and natural resource base for sustainable livelihoods of resource poor women and men farmers

**Intermediate Outcomes**
- Increased and in gender equitable manner utilization of improved and marketable bean varieties, new crop
- Increased trade in a gender equitable manner
- Increased response to demands in the bean sector, and utilizing information and knowledge to influence bean policy in a gender equitable manner

**Immediate Outcome**
- Increased access by especially women farmers to improved dry bean varieties resistant to multiple environmental stresses
- Increased access to cost effective and environmentally friendly integrated stress management options (e.g. for soil fertility and water, pest and diseases) by particularly women farmers
- Increased access to micronutrient rich bean based products in the diets of vulnerable communities
- Increased access to high value bean products targeted to niche markets with a focus on women
- Increased access to new and existing markets and opportunities for both men and women
- Increased capacity of men and women to participate in technology development, delivery and decision making bodies equitably
- Increased access to information and knowledge that shapes bean technology development, delivery and influence policy

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Principles

• To enhance synergy and efficiency
• Building social capital
• Partnership and leveraging comparative advantages of partners
• Strengthen national ownership of programs
• Take advantage of other potential / common actors (seed companies, NGOs)
• Build on NARS bean programs and existing partner networks.
• Linkages with other big initiatives (several seed companies and donor supported)
• Shared responsibility among PABRA members
Shared Breeding Responsibilities:

CIAT-HQ, CIAT-Africa & NARS

CIAT –Africa Regional Programs (Malawi and Uganda)

CIAT HQ

D R Congo & South Africa

Tanzania & Ethiopia

Tanzania & Zimbabwe

South Africa & Ethiopia

Kenya

South Africa & Madagascar

Rwanda

Malawi & Uganda

Climbing Beans

Snap Beans (French)

Large White

Small White

Red Mottled

Dark Red Kidney

Small Red

Pintos, Carrioca s

Sugar, Tan & Yellow

Others
Achievements
• Accelerated variety development, release & availability

NUMBER OF VARIETIES RELEASED (1970-2016)

1970-1979: 7
1980-1989: 22
1990-2000: 73
2001-2008: 130
2010-2016: 340

PABRA Model introduced


10/10/2016
Collaborative Research

- Less endowed national programs have released varieties through PABRA networking
- Countries without breeding programs have released bean varieties through collaborative evaluation and sharing of germplasm
- Enhanced movement of bean technologies and approaches across countries and networks
- PABRA offers faster mechanism to introduce and disseminate innovations across the alliance (e.g. use of small packs)

### Variety fast track/release in countries less resource endowed 2006-2015

<table>
<thead>
<tr>
<th>Country</th>
<th>Varieties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burundi</td>
<td>15</td>
</tr>
<tr>
<td>Cameroon</td>
<td>12</td>
</tr>
<tr>
<td>DRC</td>
<td>10</td>
</tr>
<tr>
<td>Swaziland</td>
<td>8</td>
</tr>
<tr>
<td>Congo Brazzaville</td>
<td>3</td>
</tr>
<tr>
<td>Lesotho</td>
<td>3</td>
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<tr>
<td>Guinee Conakry</td>
<td>2</td>
</tr>
</tbody>
</table>
Enhanced seed system efficiency through multi-stakeholders platforms

Bean Platform

- Extensionists
- Researchers
- Local leaders
- Micro-finance/insurance/MIS
- Inputs Suppliers
- Processors
- Storage/warehousing
- Transporters
- Marketers/Buyers
- Seeds multipliers
- Farmers groups
Diversified seed systems (production, supply & info flow)

Decentralized seed production

Open opportunity for commercial companies

NGO supported seed systems: seed fairs

Seed supply through local agro-dealers shop

![Graph showing the number of seed producers by categories of actors.]

- **Private Seed Companies**: 33 in 2009, 61 in 2015
- **Public Seed Enterprises**: 6 in 2009, 16 in 2015
- **Individual Seed Entrepreneurs**: 6 in 2009, 92 in 2015
- **Farmer Organizations**: 75 in 2009, 188 in 2015
- **NGOs**: 2 in 2009, 11 in 2015
Complementarity between seed company and QDS production

Private Sector Bean seed production: CEDO – Uganda

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount (tons) of bean seed produced</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>149.1</td>
</tr>
<tr>
<td>2011</td>
<td>171.8</td>
</tr>
<tr>
<td>2012</td>
<td>301.3</td>
</tr>
<tr>
<td>2013</td>
<td>380.4</td>
</tr>
<tr>
<td>2014</td>
<td>440.7</td>
</tr>
<tr>
<td>2015</td>
<td>567.6</td>
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</tbody>
</table>

QDS production in Uganda

QDS PRODUCTION FOR THE YEAR 2015-UGANDA.
Increasing interest in bean seed by certified seed producers (private and public seed enterprises)

ASA bean seed production (tons) in 2015-2016

BEULA and Meru Agro-bean seed production (tons) in 2015-2016

Being piloted through TLIII-USAID/AGRA
Innovations: Institutional change with strategic/influential organizations

Before 2012

From 2013

Agro dealers—network establishment and sale of small pack approach through AGRA/TLIII
Innovation: QDS production and emerging seed enterprises in Burundi

Seed multiplication in Burundi

- QDS across several bean growing areas through multiple partnership catalyzed by ISABU
- Emerging from community based to individual seed entrepreneurs
Increased seed production under variety license by KALRO in Western Kenya

- Licensing addresses some of the institutional barriers on accessing early generation seed (breeder)
- It incentives private sector to invest in seed production

Under the support of the SFSA, KARLO has licensed two companies and three more have applied
Seed access for wider impact

• Between 2012-2016:
  • 96,230.9 tons of certified/quality declared produced across 22 countries enough to plant about 1.4 million hectares
  • 490 seed producers engaged in bean seed production
  • Ten seed producers adopted small packs approaches (100g to 1000g (normal 2000 g))
  • Approach expanded to other legumes in 20 countries
End Users Reached
More than 23 million households accessed quality seed of improved bean varieties (2003-2014)

- 2003-2008: 75,000,000

59.6% being women

Source: PABRA report 2014, Buruchara et. 2011 and Rubyogo et. 2007
What are lessons learned as PABRA?

• CGIAR –NARS alliance is enabler rather a competitor to seed enterprises/think about private (small to large)

• Continuous engagement and innovation to respond to changing partnership demands

• Complementarity of decentralized and centralized seed systems

• Partnership building is a lengthy process but more sustainable –it requires
  • Shared values /targets on impact
  • Communication
  • Engagement
  • Reviews
  • Innovation
  • Each partner should add value to the partnership
What did CIAT bring on board?

- Support NARS transformation toward impact orientated research and delivery seed systems
  - Demand led and coordinated breeding
  - Efficient and diversified seed systems
  - MLE

- Supportive messages on utilization e.g. nutrition messages (iron and zinc) or marketability

- Engagement with policy makers (national and regional EAC, SADC, COMESA etc.)

- Production of public goods e.g. a range of user friendly training manuals

- Coordination/facilitation of actors within the PABRA Framework
Potential areas for further strengthening and scaling up impacts of beans and other legumes

- Scaling up and out of technologies by strengthening the PABRA model
  - Linking to markets
  - Exploiting the potential of nutrition (interest in iron and Fe beans)

- Incentive more private and bring them on board
  - Addressing institutional barriers across the countries e.g. licensing and branding varieties
  - Forecast of bean seed demand (varieties, clients and quantity)

- Application of the model beyond beans
  - Expressed interest by donors in other legumes (being done under TLIII
Acknowledgements

• PABRA members
  farmers, private sector, NARS, CIAT and NGOs & GOs, African University

• Donors
  GOs, SDC, GCA, BMFG, USAID, SFSA, AGRA, IDRC-ACIAR, CRP-L

Other organizations
CGIAR
US -Universities e.g. MSU/KSU