This presentation

- CCRP overview
- Framework for grant making
- Legume priorities for 2014-18
- Legume Lab complementarity

http://www.ccrp.org

CCRP Communities of Practice (CoP)

- High Andean Cropping systems
- West Africa: Millet- and sorghum-based cropping systems
- East and Horn of Africa: Crop Improvement
- Southern Africa: Integrating legumes in cereal-based systems

Plant Biology Program
- 1983-1993: $1.7 M / yr
- Collaborative Crop Research Program
  - CCRP-I, 1993 – 2000: ~$2 M/yr
  - CCRP-II-a & b, 2001 – 2008: ~$4 M/yr
  - CCRP-III, 2009 – 2013: ~$10 M/yr, co-funding from BMGF
  - CCRP-IV, 2014-2018: ~$11M/yr, co-funding from BMGF - SLII

2013 - 120 grantee organizations
70 collaborative research projects
12 countries in 4 communities of practice (CoPs)
Collaborative roles in CCRP

- Supports and links diverse stakeholders
- 33% of grantmaking strengthens capacities in RM, M&E, leadership, AEI thinking and practice

N=120 grants by grantee type

Overview of the Program

The CCRP funds collaborative research and provides technical and other support in agroecological intensification to strengthen the capacities of smallholder farmers, research institutes and development organizations to empower poor communities to grow nutritious food, locally and sustainably

Agroecological Intensification (AEI)

Improving the performance of farming systems through the integration of ecological principles in farm and system management

- Supporting...
  - Productivity under resource limitations
  - Sustainability, resilience v. shocks, adaptive capacity
- By facilitating...
  - Diversification
  - Flexible options for diverse contexts
  - Social innovation for local adaptation and adoption

Legume levers

<table>
<thead>
<tr>
<th></th>
<th>Productivity</th>
<th>Nutrition</th>
<th>Livelihoods</th>
<th>Sustainability</th>
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<tbody>
<tr>
<td>Diversify cereal-based systems with legume integration – diversify diets</td>
<td>X</td>
<td>X</td>
<td>x</td>
<td>X</td>
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<tr>
<td>Breeding for best fit to socio-ecological niches</td>
<td>X</td>
<td>x</td>
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<td>Pest management to reduce losses e.g botanicals</td>
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<td>Incorporate residues for soil fertility</td>
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<td>Gender issues related to child feeding</td>
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<td>Small machinery for shelling and processing</td>
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<td>Reduced aflatoxin contamination; increased awareness</td>
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<td>Complementary foods for children</td>
<td>X</td>
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<tr>
<td>Facilitating market access</td>
<td>2</td>
<td>X</td>
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22 of CCRP’s 52 projects are now on legumes
Value chains for legumes

Breeding → Consumption / nutrition
Seed systems → Market access
Crop management → Value addition
Post/harvest → Nutrition

Program trend: More balanced investment pre/post harvest

Impact through seed systems

• Farmer-driven Seed Distribution

In Malawi with NASFAM
6.5 tons of new disease resistant-groundnut (peanut) seed → 566 farmers with 80 seed banks → produced 52 tons of seed
16 tons returned to seed bank → farmers sold remainder to seed companies and other farmers

New seed doubled crop yield: from 600 kg/ha to 1200 kg/ha

Contributions to Legume breeding pipelines

Germplasm assembly and characterization

Crossing and generation advance
Varietal trials and releases
Seed production and deployment

Areas to strengthen:
• Infrastructure – seed care; data management
• Better design and analysis for multi-environment trials (GxExMxS)
• Selecting for farmers’ conditions: participation; intercrops

Addressing the AEI agenda – legume integration examples:

<table>
<thead>
<tr>
<th>Project</th>
<th>System components – AEI levers &amp; agenda</th>
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<tbody>
<tr>
<td>Best Bet Legumes (LUANR, Malawi &amp;MSU)</td>
<td>Legume performance in maize-based systems, across environments, evidence for fertiliser/ISFM policy, diversified diets, linked to nutrition education includes recipe days, local seed systems – “pass-on” organised by NGOs</td>
</tr>
<tr>
<td>Bambara groundnut (LUANR, Naliendeli, IIAM)</td>
<td>Crop diversity, variety adaptation, crop management, local seed systems, diet diversity, developing markets</td>
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</table>
Program priorities -- 2014-18

- Agroecological intensification;
  - Legume diversification
  - Components and systems
- Strengthening capacity
  - Multi-environment trials initiatives (METI)
  - Farmer Research Networks – beyond farmer groups, M&B, democratization of research, powerful tool?
- Next-gen support: Leadership development; post-grad training; AEIx
- Scaling
  - Within, between/amongst CoPs; with other initiatives
  - Policy influence; data/insight to contribute to discussion

Legumes as components of diversified systems for improved sustainability, nutrition & incomes

Grantmaking aims for 2014-2018 -- Sustainable Legume Intensification Initiative

- Mali, Burkina Faso, Uganda, Ethiopia, and Tanzania
- Primary focus on common bean, cowpea, groundnut, chickpea, with secondary focus on other legumes
- Increase legume grantmaking to 50% of overall portfolio
- 60 post-graduate training opportunities (50% related to legumes) with at least half of all funded projects including either a MSc or PhD student. At minimum 1/3 of trainees will be women.
- Functioning FRNs in each region
- Gender-informed grant-making

Increasing research quality and potential for impact

Understanding scale and context: spatial literacy a challenge – in future plan for spatial analysis (agro-ecology & socio-economic) more explicitly: grantees and/or mentors with skills
Increasing research quality and potential for impact

- **Scale for recommendations**: What are implications for contextualised scaling – national vs local? Need robust evidence to inform policy e.g. seed release are we still breeding for stability……..

- **Opportunities for research at scale**: alignment of research with dissemination programs promoting legumes – make use of FRNs

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Increased grant-making on pest management

What are the opportunities for ecological pest management?

Existing work on botanicals in SAf – e.g. *Tephrosia*

Make common-cause with partners – meeting Arusha, May 2014

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**Complementarity: Countries**

- **McKnight**
  - Kenya
  - Malawi
  - Mali

- **Legume Lab**
  - Burkina
  - Niger
  - Uganda
  - Ethiopia
  - Tanzania
  - Mozambique

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[Link to AEI website](http://aeiX3dev.devcloud.acquia-sites.com/)
Complementarity: **Crops**

**McKnight Lab**
- Bambara Groundnut
- (Chickpea Pigeon pea)

**Legume Lab**
- Bush Bean
- Climbing Bean
- Cowpea

Complementarity: **Foci**

**McKnight Lab**
- Agro-ecology/METs
- Botanicals
- Mycotoxin
- Farm tools
- Seed system
- FRN

**Legume Lab**
- Breeding
- Nutrition
- IPM
- ISFM
- Scale
- Capacity
- Molecular tools
- Bio-control
- Child health
- Communication
- Decision making