



ECABREN CRP

Kampala

3 February 2014



CRP 3.5 update

- Dec 5-6: Research Management Committee (RMC) in ICRISAT
 - Director + Coordinators of Product Lines
 - Beans in 3:
 - PL-1: Drought – Low fertility
 - PL-2: High temperatures
 - PL-4: Nitrogen fixation

Role of PABRA in Product Lines

PL-1: Drought and “Low P” tolerant beans

- In Colombia:
 - 4 ha recently opened for low P in Darién
 - 144 BFS (Mesoamerican) lines under study
 - 100 LPA (Low P Andeans) being increased
- In Africa:
 - Drought: building on TL-2
 - Low P: building on BILFA
- What sites can best serve for testing lines? (Can we review BILFA sites?)

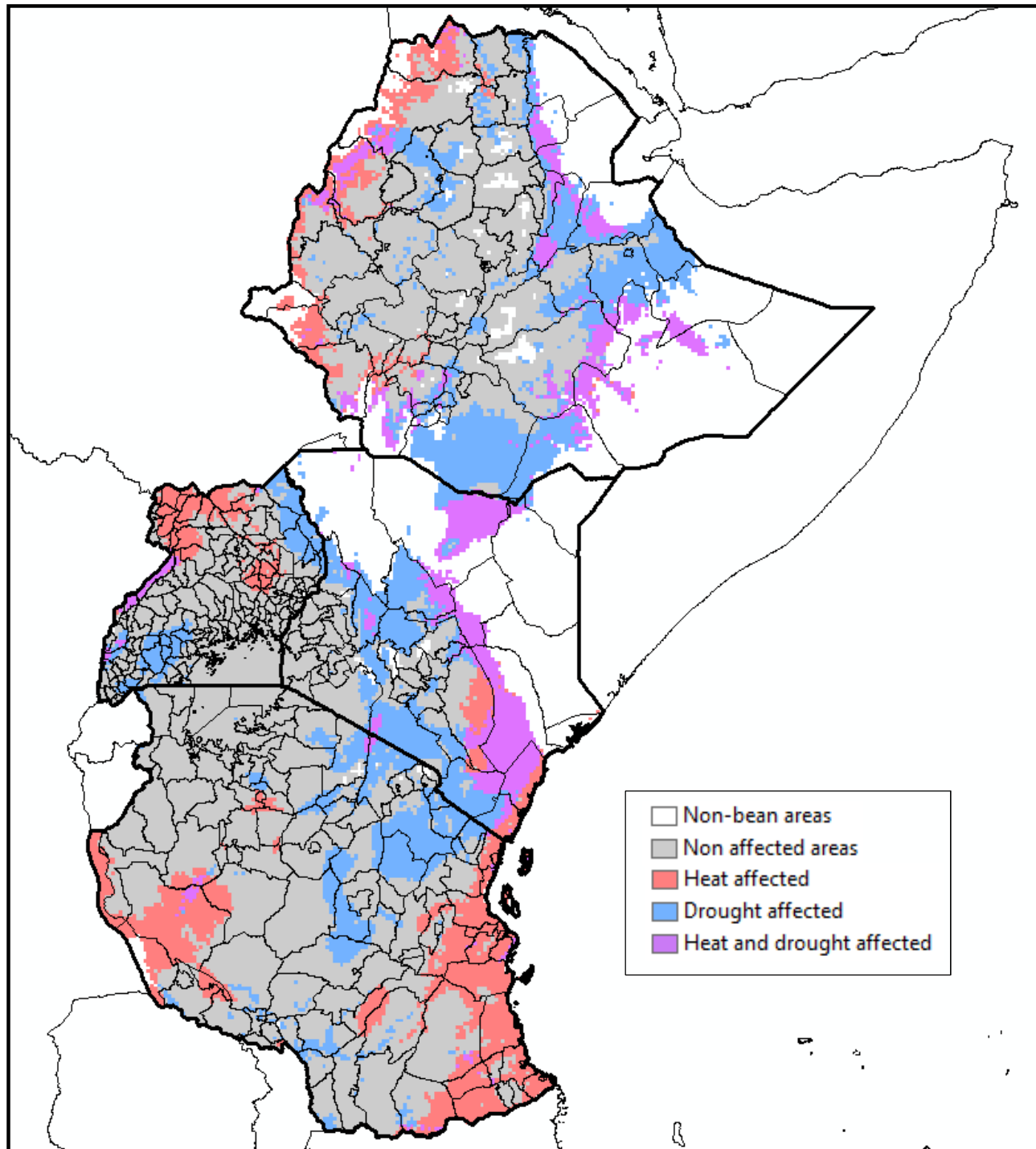
See Crop and Pasture Science

Role of PABRA in Product Lines

PL-2: Heat tolerant beans

- In Colombia:
 - 2 regions: Armero and North Coast
 - Some small seed interspecifics doing well @ 23C nights
- In Africa:
 - Kasinthula
 - Eastern Kenya? Kiboko?
 - WECABREN!
- What is the current demand for heat tolerance in Africa?

Bean potential growing area and future abiotic stresses in East Africa



Average and predicted temperatures by Municipality

Example: Uganda

| | Average mean temperature of growing areas during the growing season (degrees C) | |
|--------------|--|--------------------|
| Municipality | Current | Future (A2, 2030s) |
| Agago | 22.9 | 24.2 |
| Amuria | 23.5 | 24.8 |
| Aringa | 24.3 | 25.5 |
| Soroti | 23.9 | 25.2 |
| Terego | 24.1 | 25.3 |

Role of PABRA in Product Lines

PL-4: Higher N fixing climbers and bush beans

- In Colombia:
 - 15N analysis of bush lines in drought trials
 - Plans for extending 15N analysis to climbers this year
- In Africa: emphasis on climbers
 - Plans to extend climbers to new regions (eg, Kagera)
 - Application of Homologue
 - We should quantify SNF soon
- Can we establish Kawanda as center for sample preparation? (sample grinding)
- Collaboration with C. Wortmann's project in Rwanda, Kenya, Tanzania, and Mozambique: 15N on N and P treatments

CRP 4 update

- HarvestPlus continues much as before
- Congress in Rwanda, 31 March-2 April
- Our big ticket item: Iron rich climbers!
- A secondary product with potential
 - White (low tannin) high iron beans, possibly with low phytate
 - As a complementary (“weaning”) food for the First Thousand Days

Data Recovery for Documentation

- Especially on farm data!
- The donors want to know what is happening in terms of the System Level Outcomes (SLOs)
 - Income
 - Food security
 - Nutrition and health
 - Environmental sustainability

IDO = Intermediate Development Outcomes

- **Improved and stable access** to grain legumes by urban and rural poor
- **Increased and more equitable income** from grain legumes by low income value chain actors, especially **women**
- **Increased consumption of healthy** grain legumes and products by the poor for a more balanced and nutritious diet, especially among nutritionally vulnerable **women and children**
- **Improved productivity** of pro-poor farming systems, especially among smallholder farmers
- **Minimized adverse environmental effects** of increased production and intensification of grain legumes

Are we getting the metrics right??

Our own “Flagship” projects

- Photosynthate translocation
- A proposal on phenomics with
 - U Sydney (Andrew Merchant)
 - U Washington (Liz Van Volkenberg)
 - Julich (Carel Windt)

Our own “Flagship” projects

- Exploit interspecific crosses
- Much attention to abiotics
 - Drought, aluminum, heat...
- What opportunities do we want to explore for biotics?

- Interspecifics for root rots
 - Mesos: ALB 1 to 214
 - SER 16 x (SER 16 x G35346)
 - In Uganda, Ethiopia, Kenya
 - For Fusarium, Pythium, BSM
 - Andeans: new ALBs
 - SAB lines x (SAB x *P. coccineus*)
 - Now, F3's: SAP 1 x Andean ALB
 - Good root rot resistance in Popayán! To what?