PABRA experience- Targeting Tool

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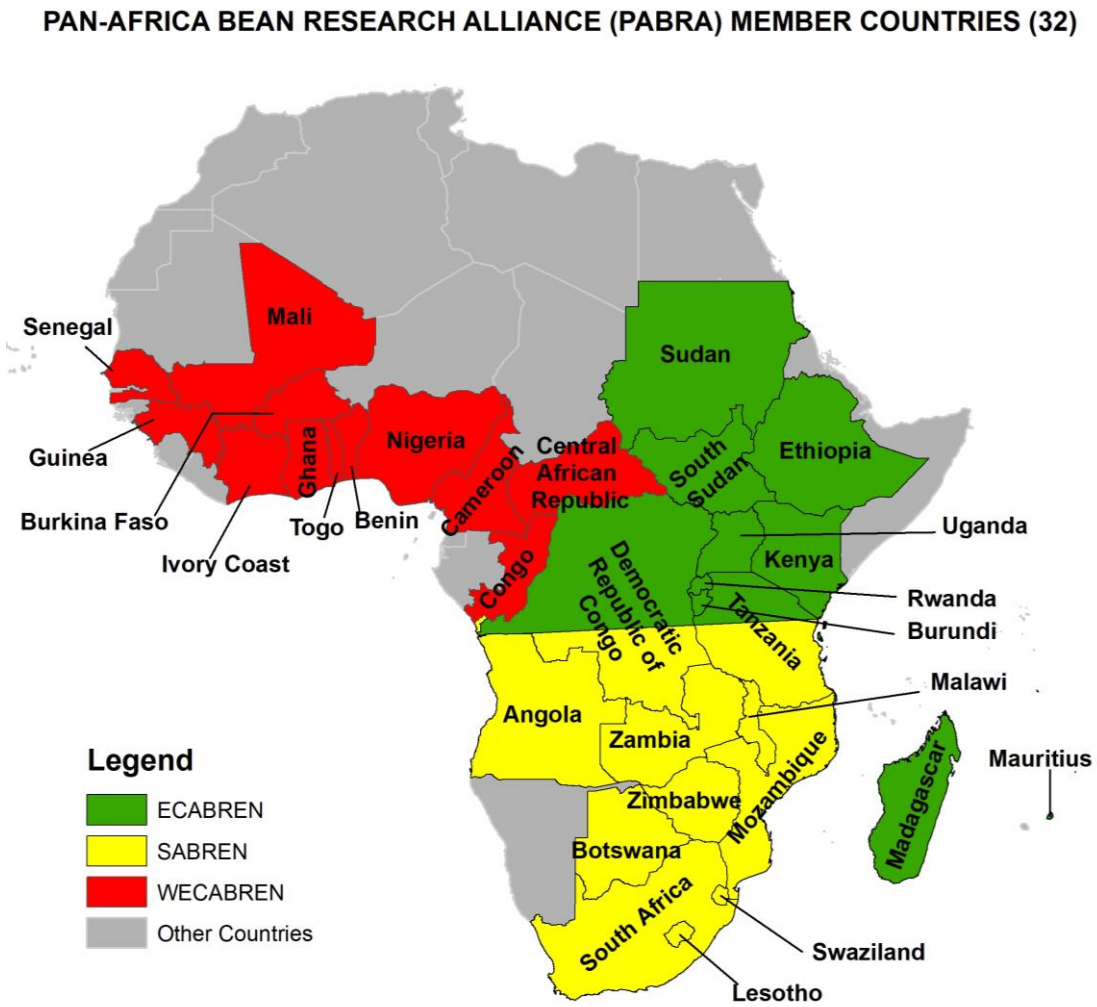
- A bean research program for the Alliance of Bioversity international and CIAT
- 32 countries are member of PABRA (Represented by NARS)
- Divided in 3 Networks
- In Africa, the Bean Programme is member of the Pan Africa Bean Research Alliance and bean research work is carried under PABRA



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- Climate is changing –Drought, too much rains etc
- **Rationale:** To identifying suitable areas (of the bean in demand). Inform bean key actors where to maximize their efforts-e.g bean trial, seed and grain production
- Current(2019) and future (2030) bean suitability analysis was conducted-Using RCP 4.5 IPCC Climatic snario data
- Targeting tool extension in ArcGIS developed by CIAT

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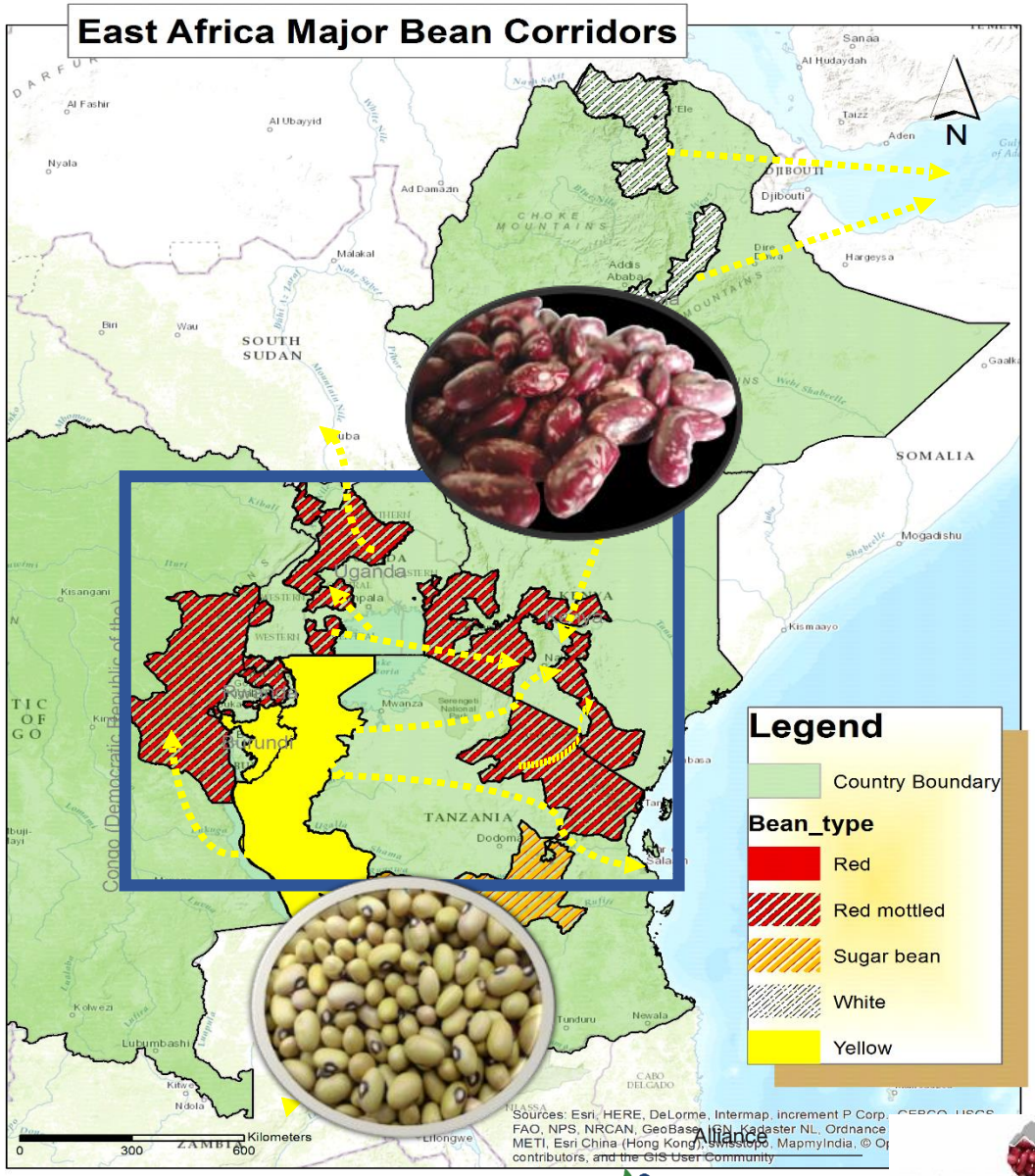
Better Beans for Africa

Among of the driving bean types in Eastern Africa Bean Corridors

- Used the variety suitability tools to determine areas in the EARM and Yellow beans corridors where these two varieties fit/perfom better
- This will accelerate the variety release, seed access and seed adoption
- Increase grain production and access in regional market



Input data

Variety Name	Corridor	Country released	Characteristic advantages	Temp	Rainfall (mm)	Altitude	Soil PH	Cabon fertility	Growing period
RWR 2245 	EAREM	Rwanda Burundi Tanzaia	Bush, High Iron	16.0-24.0C	400-1000	1200-2200	5.5-6.5	>20	87 days
BCB 11-404 	YEBECO	Kenya, Burundi, Tanzania and Uganda	Bush, drought tolerant, great market demand, short duration, low flatulence, cooks fast, sweet taste	16.0-30.0C	400-800	1000-1700	5.5-6.5	>20	77 days

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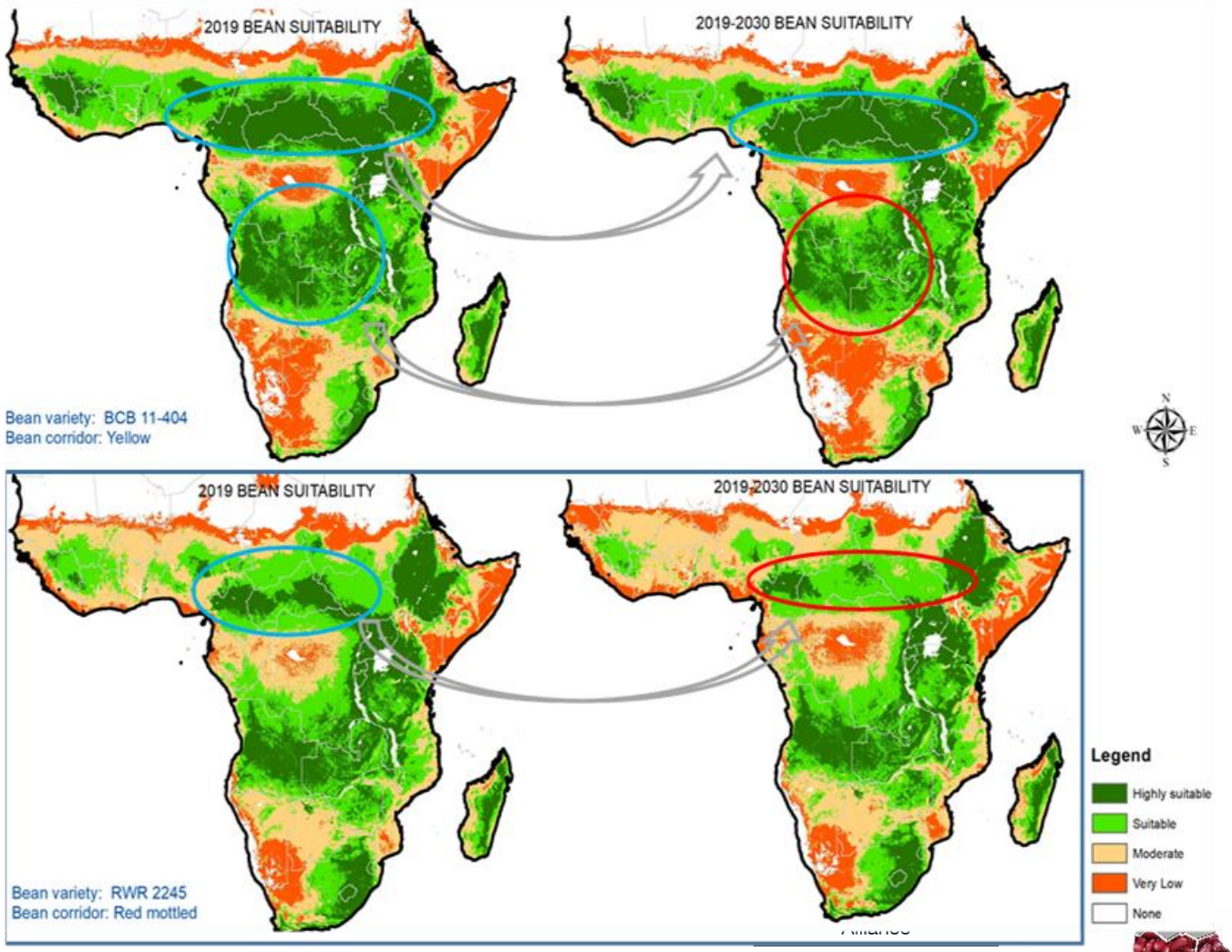
Bean Suitability Output

- All data were rescaled to 1km
- Projected into one projection system
- Used the Targeting tool to determine bean suitable production areas -2019 and 2030
- The current suitable area in the future will be unsuitable due to change in the temp and rainfall by 2030
- Inform breeders on genetic improvement
- Inform seed producers and farmers where to intensify their production



Advantages and opportunities

Advantage to Desktop

- Simple to learn
- Run fast

Opportunities to the online

- The online will serve even the non gis people-high adoption
- Pre processing-reduce time and improve accuracy

Thank you!

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