



Kenya Agricultural & Livestock Research Organization (KALRO)

PROMOTING WIN-WIN PARTNERSHIPS

Eliud K. Kireger (PhD, OGW)

DIRECTOR GENERAL

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About KALRO

This is an umbrella body that brings together the following former organizations:-

1. Kenya Agricultural Research Institute (KARI)
2. Tea Research Foundation (TRF)
3. Coffee Research Foundation (CRF)
4. Kenya Sugar Research Foundation (KESREF)





KALRO 16 Research Institutes

Livestock Research Institutes	Crops Research Institutes	Cross-cutting Research Institutes
<ol style="list-style-type: none">1. Dairy2. Goats and Sheep3. Non Ruminants4. Beef5. Apiculture6. Veterinary	<ol style="list-style-type: none">1. Food Crops2. Horticulture3. Tea4. Coffee5. Sugar6. Industrial Crops	<ol style="list-style-type: none">1. Bio-Technology2. Genetic Resources3. Arid & Rangelands Resources4. Mechanization



KALRO 16 Research Institutes and 53 Centres

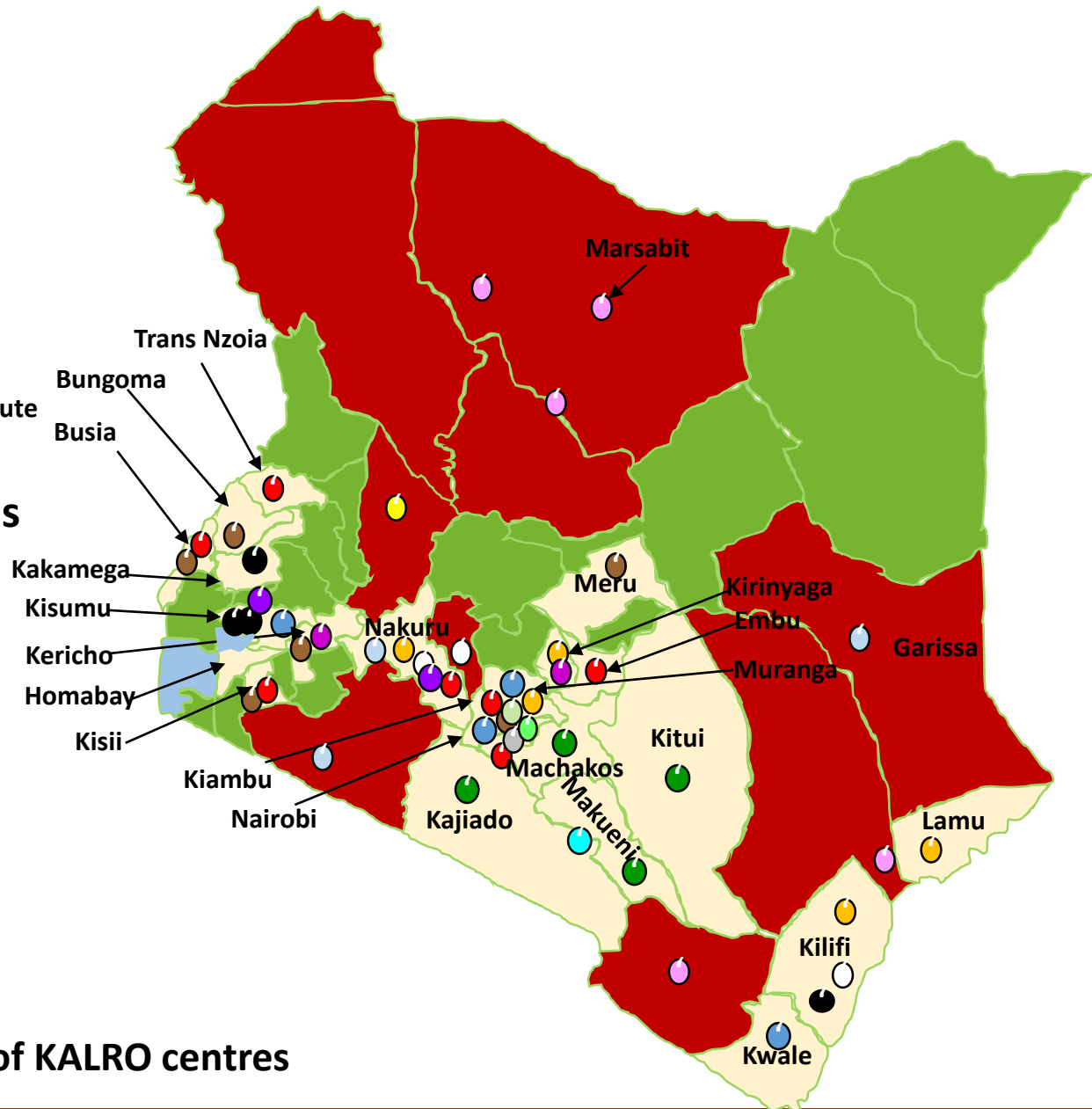
Crop Research Institutes

- Food Crops Research Institute
- Horticulture Research Institute
- Industrial Crops Research Institute
- Genetic Resources Research Institute
- Tea Research Institute
- Coffee Research Institute
- Sugar Research Institute
- Agriculture Mechanization Research Institute

Livestock Research Institutes

- Apiculture Research Institute
- Biotechnology Research Institute
- Dairy Research Institute
- Beef Research Institute
- Veterinary Research Institute
- Arid & Range Research Institute
- Sheep & Goat Research Institute
- Non Ruminant Research Institute

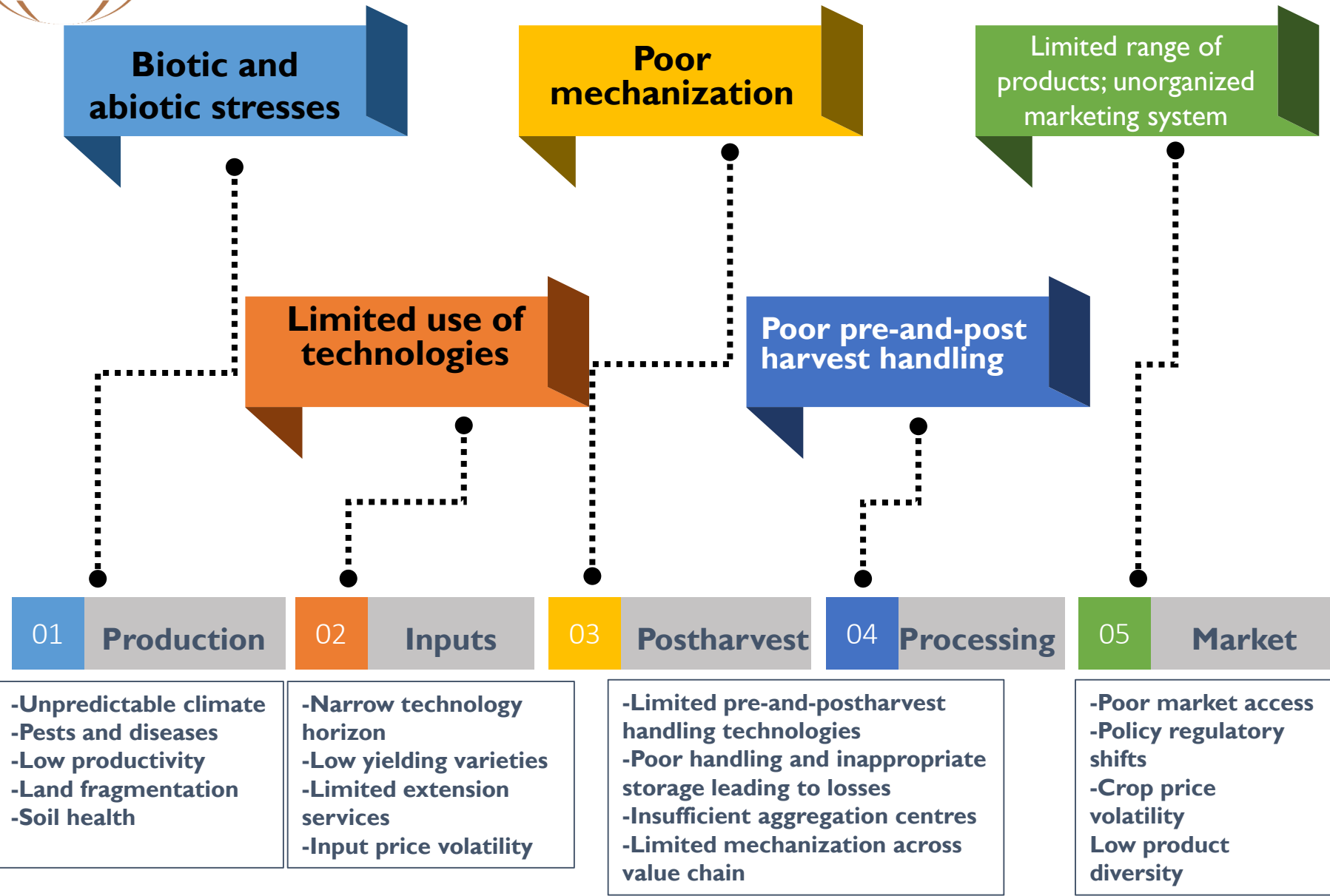
- Crops
- Livestock
- Counties are mandate of KALRO centres



❖ **Organizations Mandate** – To support the agriculture and livestock sector through research coordination, technology and innovations development; catalyze transfer and utilization of agricultural and livestock research outputs.



By addressing the following Constraints



Biotic and abiotic stresses

Poor mechanization

Limited range of products; unorganized marketing system

Limited use of technologies

Poor pre-and-post harvest handling

01

Production

02

Inputs

03

Postharvest

04

Processing

05

Market

-Unpredictable climate
-Pests and diseases
-Low productivity
-Land fragmentation
-Soil health

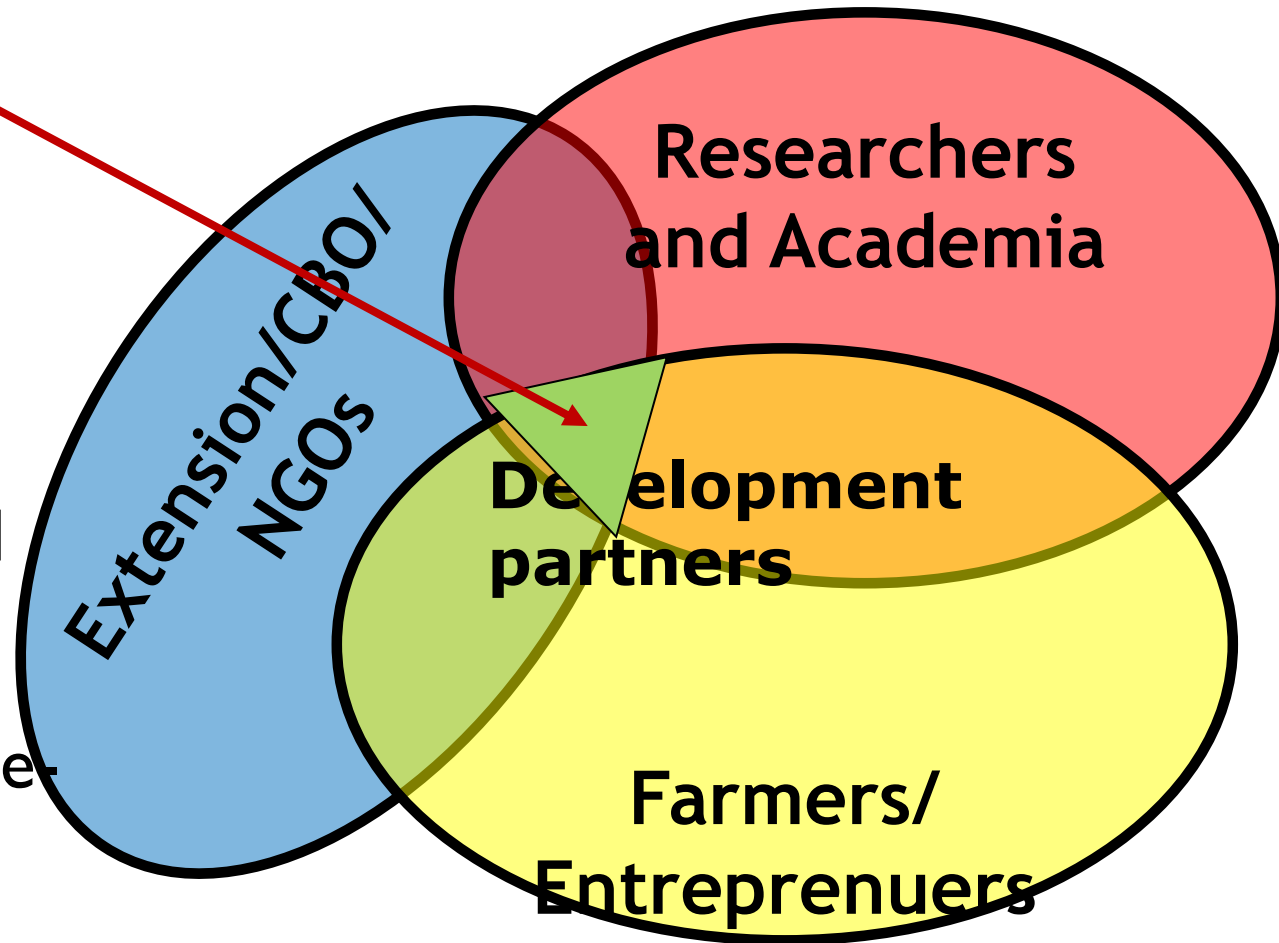
-Narrow technology horizon
-Low yielding varieties
-Limited extension services
-Input price volatility

-Limited pre-and-postharvest handling technologies
-Poor handling and inappropriate storage leading to losses
-Insufficient aggregation centres
-Limited mechanization across value chain

-Poor market access
-Policy regulatory shifts
-Crop price volatility
Low product diversity

Approach: An integrated system with various partners

- ❖ Private sector
- ❖ Farmers
- ❖ Brokerage of knowledge, information and technologies
- ❖ Uptake and scale-up research products

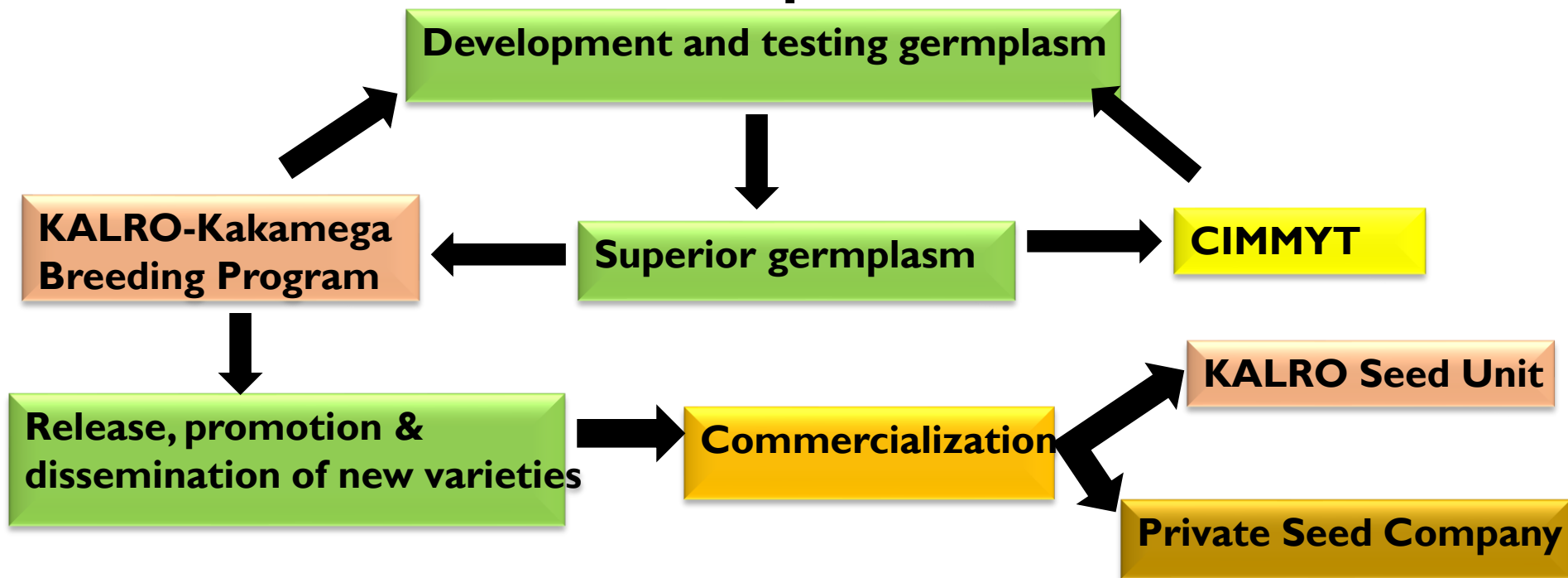


Approach: Use of Agricultural Product Value Chain Platforms

- ❖ Recognizes the need to have **people level impact** (to improve livelihoods)
- ❖ Recognizes **need for partnerships** for impact
- ❖ Establishes **partners to work** with and identifies their roles
- ❖ It advocates for **'market responsive products'** (driven by needs & consumer preferences) & not **'pushing of commodities'** (production of commodities driven by existing agricultural potential)



Examples: Partnership in Seed System Development



Focus

- ❖ Development and testing germplasm
- ❖ Release, promotion and dissemination of new varieties
- ❖ Socio-economic and policy development



Example: Partnerships in the Legume Value Chain



WORLD BANK GROUP

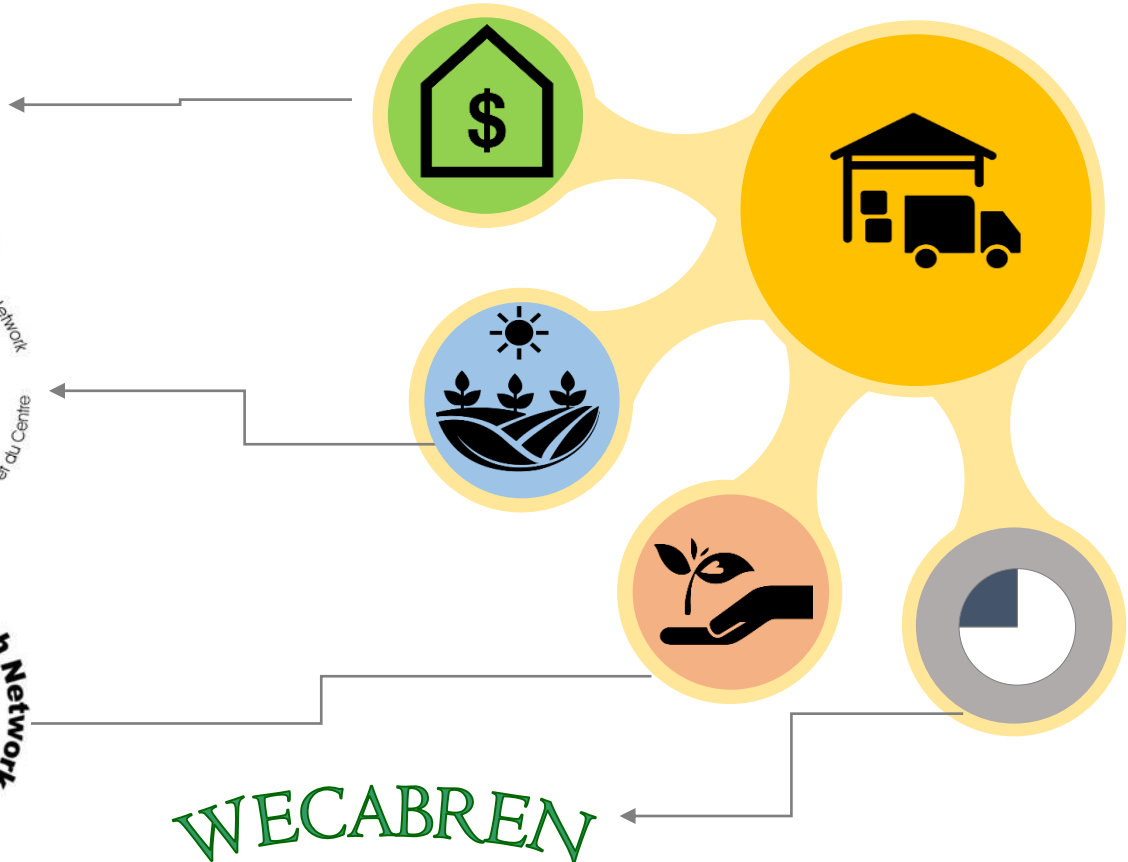




Pan-Africa Bean Research Alliance
PABRA



Strengthening bean value chains through effective partnerships



CIDA, SDC, USAID, BMGF, McKnight, ASARECA, SADC-FANR, AGRA, KIRKHOUSE

Partnership in management of striga

Tolerant Varieties



Yield Losses

Biological Control



Appropriate Technology Development

Fusarium oxysporum (FoxyT14)

Farmer Capacity Building



Technology Adoption



Management of Striga in Maize

Strengthening Sericulture Value Chains

Kenya

- Silk value chains
- Medicinal value chains
- Mulberry value chains

Japan

- Silkworm introduction and breeding
- Mulberry selection and development
- Silk value addition – reeling, textiles

Client

- Silk worm and mulberry variety introduction
- Increased production and productivity
- Improved marketing and market access



Plantwise: Partnership in Extension-Driven Research

Devolved crop protection advisory services using a Plant Clinic Model

Crop health data capture to inform research

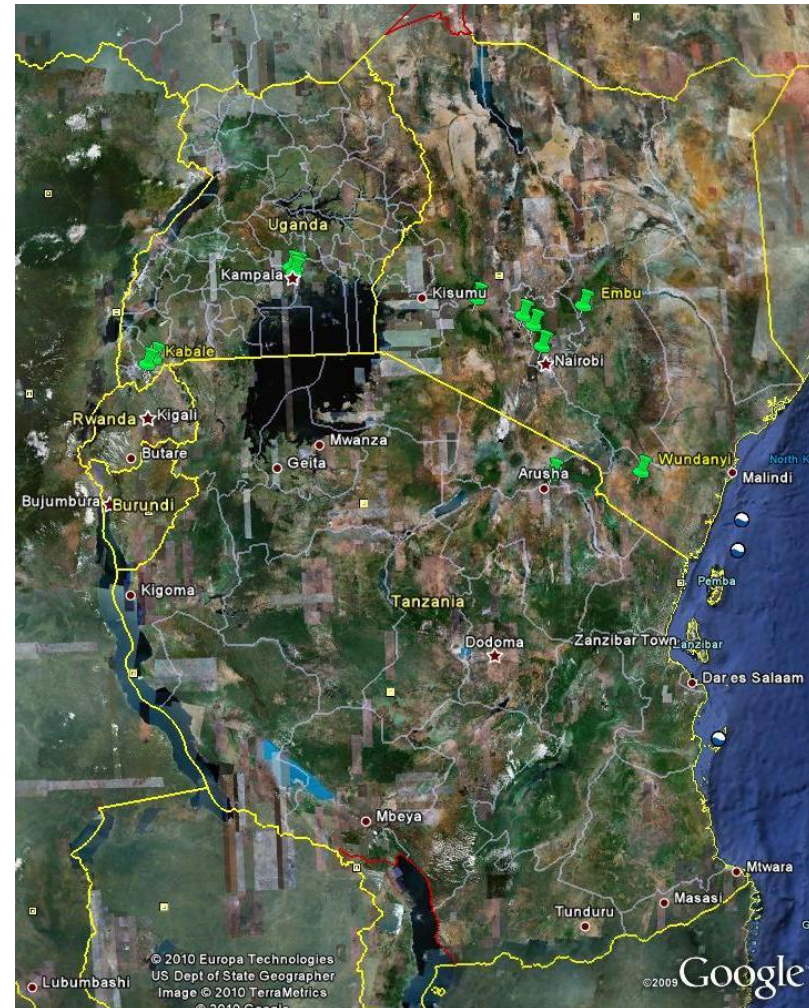
Surveillance data to inform policy



Strategic Partnerships: Web-based repository for pathogen population genetic data

Proposed interventions:

- ❖ **Pest and disease mapping** to inform management strategies
- ❖ **Capacity building** on and IPDM and developing a surveillance system within the schemes
- ❖ **Provision of IPDM technologies**
- ❖ Training Plant Doctors and **setting up of Plant Clinics**
- ❖ Continuous **monitoring for pest and disease outbreaks** and emerging ones



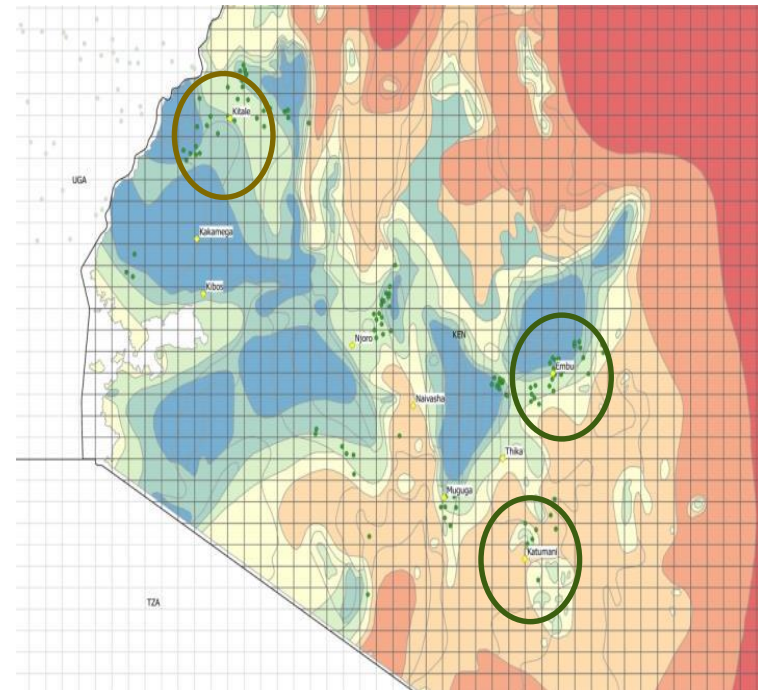
Invasive pests: Management Parthenium (*Parthenium hysterophorus*)

- ❖ Parthenium poses a significant threat to agriculture and livelihoods
- ❖ Risk Assessments for the introduction and release of *Zygodontia bicolorata* in Kenya
- ❖ Improve knowledge sharing, awareness, and education on biocontrol of parthenium, through increasing capacity of institutions
- ❖ KALRO working with KEPHIS to introduce and release 2 biocontrol agents:
 - *Zygodontia bicolorata*
 - *Listronotus setosipennis*

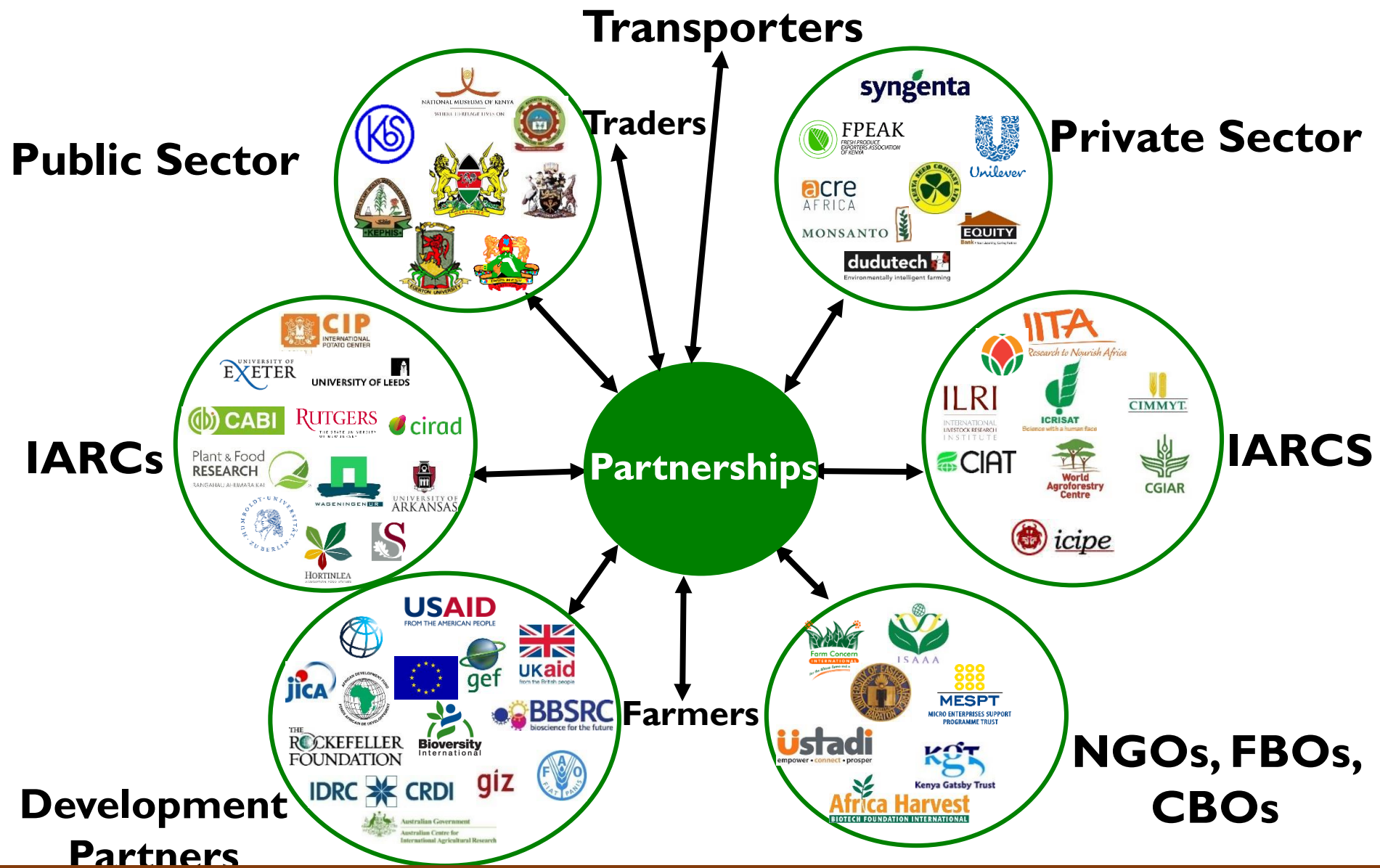


PRISE: Pest Risk information Services

- ❖ Developing models for **early warning systems** for pests such as fall army worm, *Tuta absoluta* and bean fly in Kenya in Kitale, Machakos and Embu
- ❖ **Partners** - CABI, KALRO, Assimila, Kings College London, Centre for Environmental Data Analysis and Plant Protection & Regulatory Services Directorate in Ghana
- ❖ **Controlled Temperature (CT)** rooms at KALRO-Muguga rehabilitated to study FAW



Opportunity: It is all about Strategic Partnerships



Win-WIN-WIN Strategic Partnerships

This has been achieved through Win-Win-Win strategic Partnerships that avoid conflicts but beneficial to KALRO, the partners and most importantly the customers- Farmers

Thank you

