Kenya Agricultural & Livestock Research Organization (KALRO)

Modernizing KALRO Breeding Programme: EiB/KALRO Engagement

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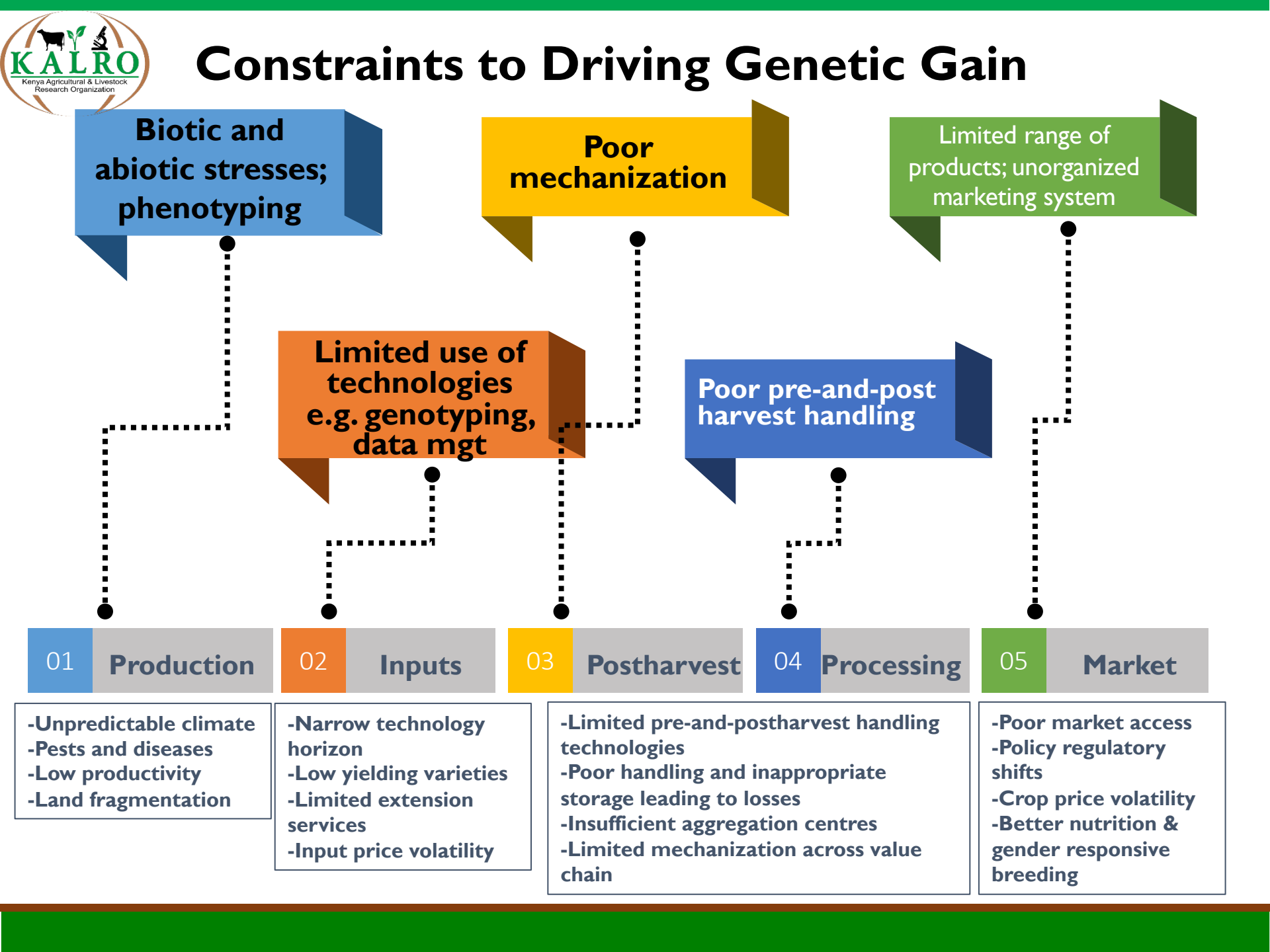
Presentation Outline

1. Introduction
2. About KALRO
3. Constraints in Agriculture in Kenya
4. CGIAR Linkages
5. EiB engagement, KALRO Plans and models

KALRO's mandate is to:

- Promote, streamline, co-ordinate and regulate research in crops, livestock, genetic resources, biotechnology and animal diseases
- Expedite equitable access to research information, resources and technologies and
- promote the application of research findings and developed technologies in the field of agriculture and livestock

Constraints to Driving Genetic Gain



Focus Crops

Cereals - Maize, Sorghum, Rice, Millets, Wheat, Barley

Grain Legumes - Beans, Pigeon pea, Cowpea,

Root & Tuber Crops – cassava, potato, s/potato,

Industrial crops -Tea, Coffee, coconut, Oil Crops, fibre crops,

Horticulture - Fruits (Musa), vegetables

East African Breeding Networks Countries to compliment each other









Current Status and Linkages with CGIARS

- Capacity building NARs staff
- Provision of parental breeding lines
- Provision of specialised services (DH development, Genotypying, Global rust initiative)
- Infrastructure development
- Integrated Breeding Platform for BMS

Engagement with EiB and KALRO Plans

Identify Priority Crop Networks

Baseline Program Assessment

Rating of Breeding Program

We are currently here with NARO maize, cassava, sweet potato, g/nut & KALRO maize, bean, wheat and potato

Develop Improvement Plan

Investment Plan

Implement Plan

5 years (priority crop programmes)

10 year (priority crops)

Non functional

- No product profiles
- Little breeding capacity
- Highly dependent on CGIAR germplasm

Testing program

- Limited testing network
- Very dependent on CGIAR germplasm
- Most operations manual

Early stage

- Reliable testing network
- Limited resources for breeding pipeline
- Irregular release of mostly CGIAR varieties

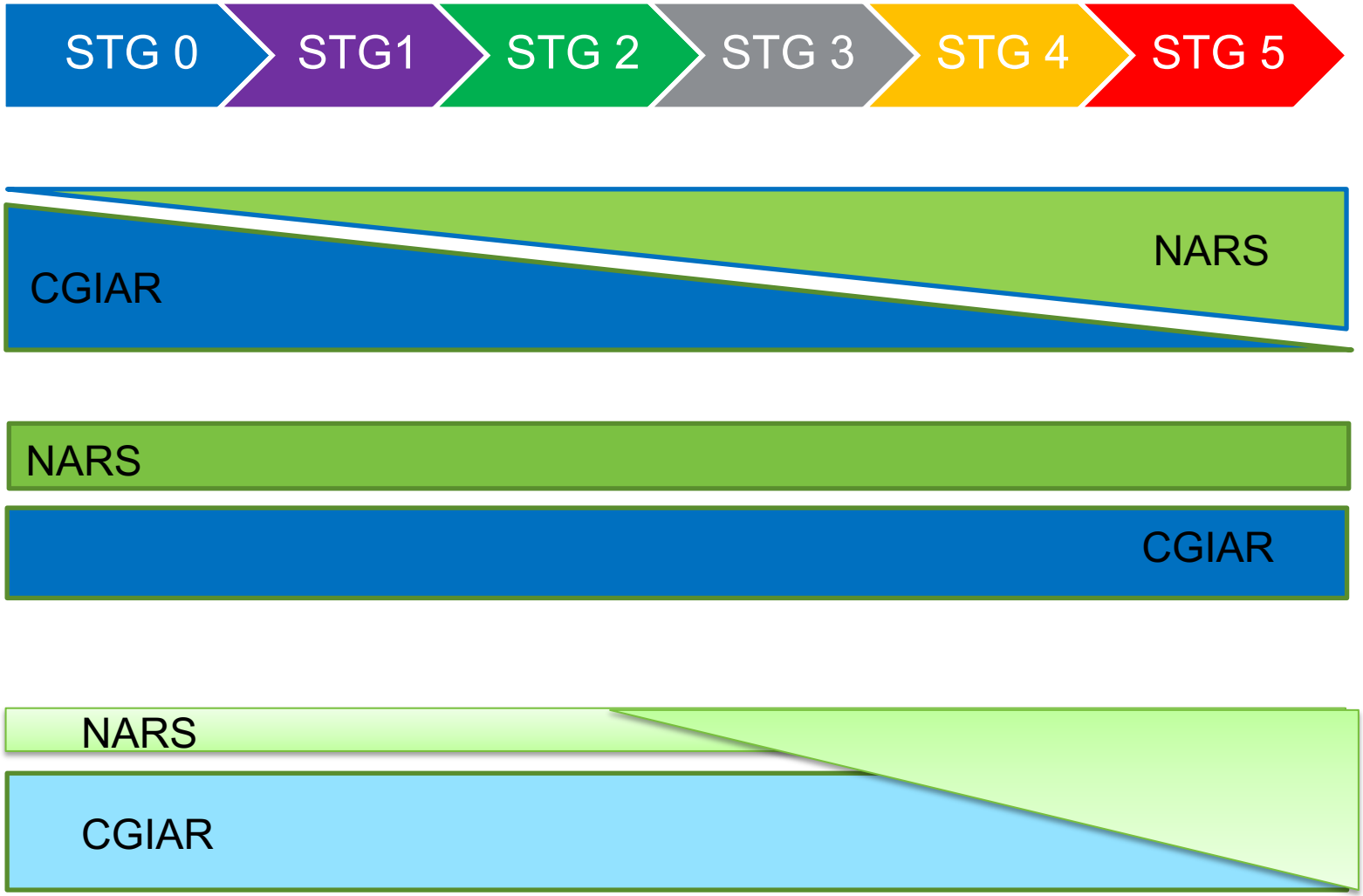
Mid-stage

- Multidisciplinary breeding team
- Moderate size pipeline
- Mix of CGIAR and NARS germplasm
- Regular variety release
- Limited molecular breeding capacity

Mature breeding program

- Well-resourced program driven by market needs
- Genetic gain is measured
- High variety adoption rate
- MAS and digital field data collection in use

Models for CG-NARs networks



Thank you and God bless you