



**KENYA SUGAR RESEARCH AND TRAINING INSTITUTE (KESRETI)**

# SCIENCE, INNOVATION AND PARTNERSHIPS FOR A COMPETITIVE AND SUSTAINABLE SUGAR INDUSTRY

A Presentation to the 68<sup>th</sup> International Sugar Council at  
Diamonds Leisure Beach and Golf Resort, Diani, Kenya on  
25<sup>th</sup>-29<sup>th</sup> May, 2026

**Chrispine Omondi, PhD**

Ag. CHIEF EXECUTIVE OFFICER



# Geographical Location Kenya Sugar Research and Training Institute Headquarters and Its Subcentres





# KESRETI Headquarters, Kibos, Kisumu County





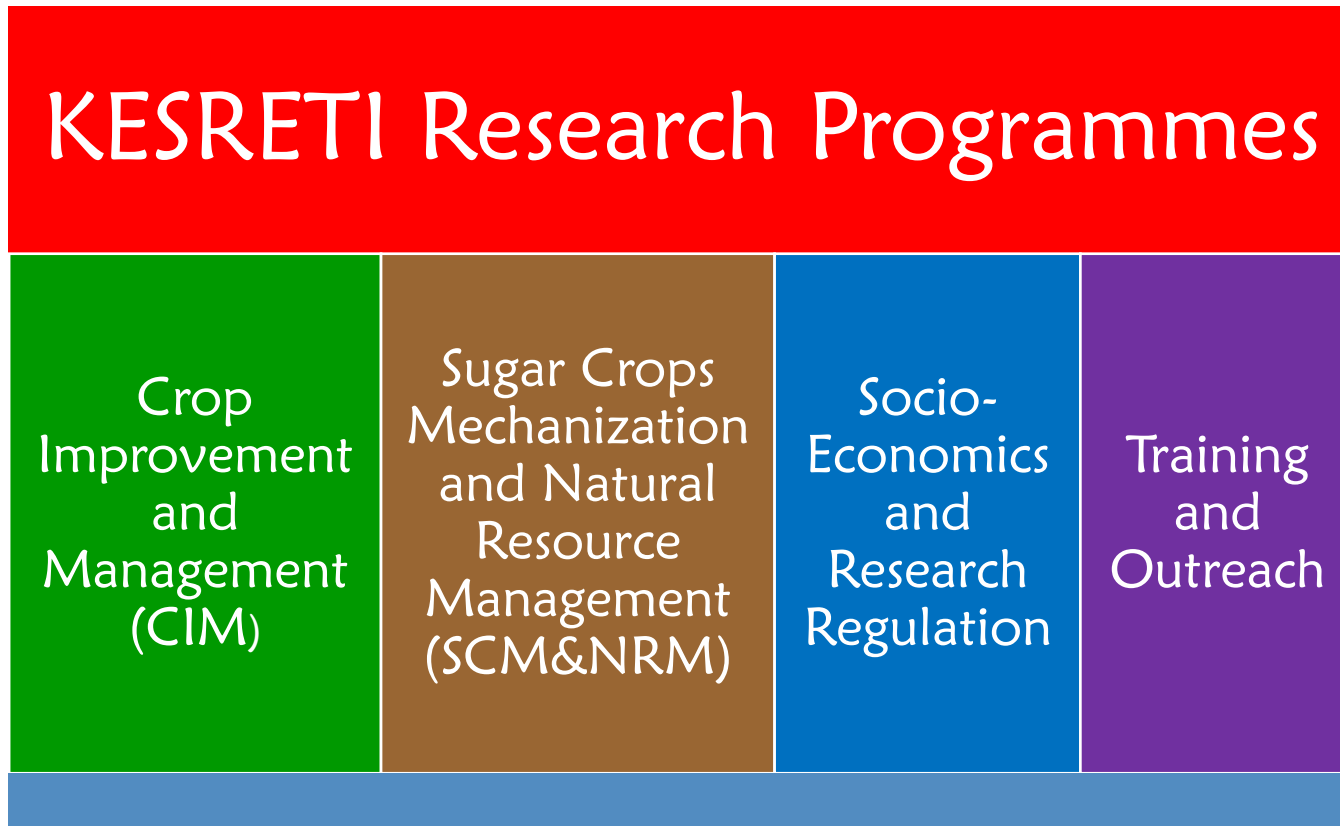
# Mandate

- The mandate of the Institute is twofold:
  - To promote, co-ordinate and regulate research in sugar, sugar crop, sugar by-products, sugar technologies and management practices.
  - To expedite equitable access to research information, resources, sugar technologies and innovations and promote the application of research findings in the development of the sugar industry.



# Research Approach

- KESRETI uses the value chain research approach organized in 4 scientific programmes.





## Key Research Innovations

(i) proved Early Maturing, High Yielding and High Sucrose Content Varieties

Year	Number of Varieties Released
2002	6
2007	4
2011	3
2014	8
2022	6
<b>TOTAL</b>	<b>27</b>



# Early Maturing Varieties with high Sucrose Content

**KEN 83-737**  
**(14-16 Months PC)**  
**Origin-Kenya**



**D8484**  
**(12-14 months PC)**  
**Origin-Guyana**



## (ii) Single Eye Bud (SEB) Technology

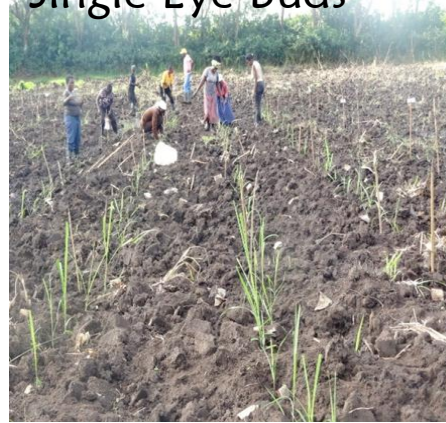
- Raising Single Eyebud Seedlings for rapid multiplication



Propagation of Single Eye Buds



Single Eye Bud Seedlings



Transplanting Single Eye Bud seedlings



Seedcane field



## (iii) From rainfed to irrigated sugarcane production for productivity enhancement





Tana River Sugar Co. recorded yields of **140 MT/Ha at 8 months** against a national average of **60MT/Ha at 14-16 months** due to irrigation and conducive weather





# Factory Efficiency in Managing Cost of Production

- Without factory efficiency, the benefits of high cane yield, early maturity and high sucrose contents will all be lost.
- Modern sugar factories must embrace **automation** to reduce labour costs and increase efficiency.



# Automation in Sugar Manufacturing: A solution to factory efficiency and reducing labour costs





# Value Addition to Grow Revenue





# Value Addition in Sugar Manufacturing





# Value Addition from Mollasses



# Value Addition from Bagasse

**1. PAPER & PAPERBOARD**



**2. BIODEGRADABLE TABLEWARE & PACKAGING**



**3. BUILDING & CONSTRUCTION MATERIALS**



**4. BAGASSE PELLETS**



**5. BAGASSE BRIQUETTES**



**6. ACTIVATED CARBON & ADSORBENTS**





# Cogeneration in a sugar factory





## Enhancement of Productivity through **Partnerships**

- KESRETI forges partnerships with stakeholders to enhance productivity at the farm and factory levels through:
  - Exchange and testing of improved sugar cane varieties in recipient countries
  - Collaboration with manufacturers of agricultural machinery to address specific farm and factory operations
  - Training of Trainers (ToTs) and training of farmers



# Training of Trainers



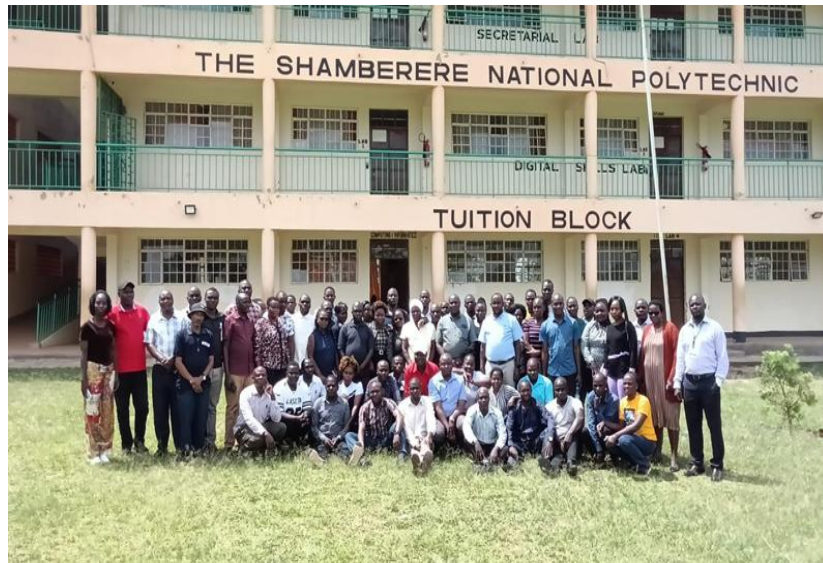


# Training of farmers





# Training of farmers



# Participation in Exhibitions



*Kaimosi Exhibition 2024*



*Kabianga Exhibition 2024*



*National Agribusiness Exhibition 2025*



*Siaya Exhibition 2025*

# Conclusion



Science

- Develop Improved Technologies
- Roll out modern innovations
- Improve Crop management practices

Innovations

- Value Addition
- Enterprise Diversification

Partnerships

- Farmers
- Sugar Manufacturers
- Equipment Manufactures
- National and County Governments
- Input Suppliers

*Thank you  
Mercí  
Obrigado  
Danke  
Grazie  
Gracias*