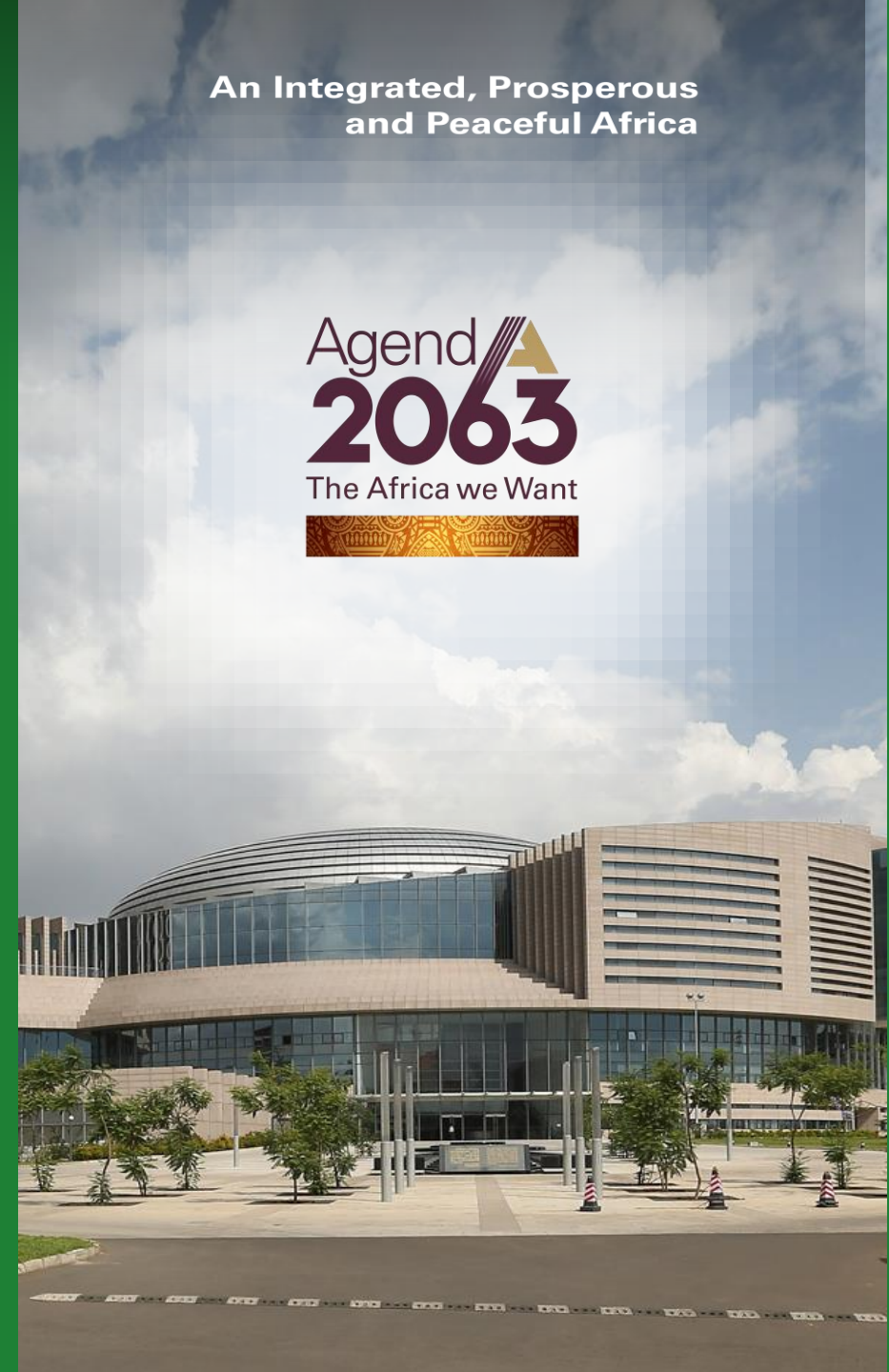


African common position for the sustainable, resilient and nature positive livestock food systems

Dr. Mary Mbole-Kariuki
AU-IBAR

6th IWRAAAB
6th – 7th November 2025
Ghent, Belgium

An Integrated, Prosperous
and Peaceful Africa





- Increased food demand
- Increased urban migration

- Limited Natural resources
- Increased pollution
- Environmental degradation

- Increased food and nutritional insecurity

2100

Human population in Africa
Approx. 4 billion

Challenges

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Challenges

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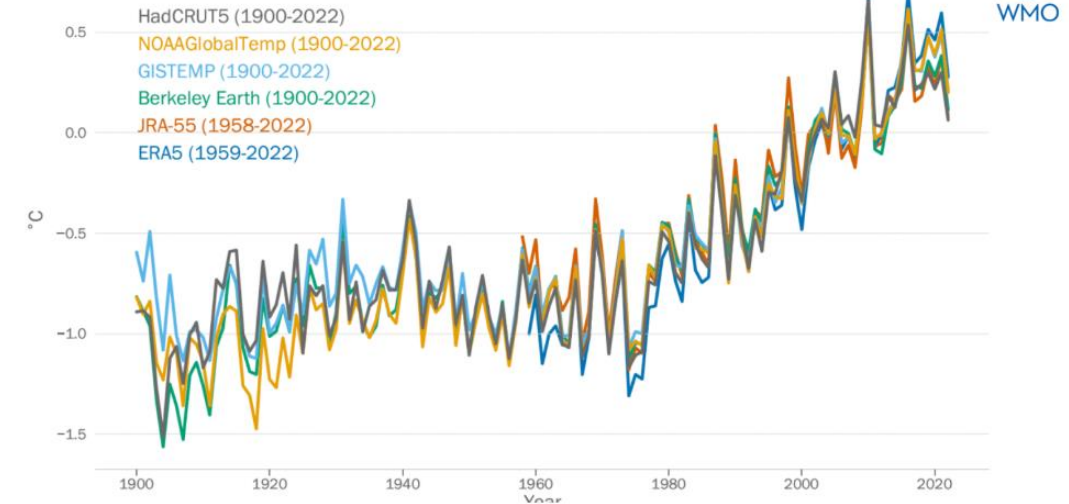


Impacts



- Four out of the 10 most vulnerable countries to climate change (40%) are in Africa and yet Africa accounts for only **4-6% of global greenhouse gas (GHG) emissions**
- Global greenhouse gases (GHG) emissions attributable to livestock range from **8 to 51%**
- Africa – Livestock contribute **18% of global methane emissions**
- Cattle – responsible for **70%**
- Projected – **triple increase by 2050**

Africa Annual Temperature 2022



Temperature difference in °C with respect to the 1991–2020 climatological period for Africa (WMO Regional Association I) from 1900 to 2022, based on six datasets

WMO



Integration: Thematic Area	NAPs	NDCs	NBSAP	LDN
Livestock Integration	Livestock themes within NAPs receive substantial coverage across MSs but achieves a relatively low mean score of 1.06. This suggests that while NAPs recognize livestock systems as important for climate adaptation, the integration depth remains limited or lacking in some cases.	Livestock themes within NDCs receive substantial coverage and a strong mean score of 2.04, indicating effective recognition of livestock systems within the climate action frameworks.	Livestock themes in NBSAPs receive limited coverage with a mean score of 1.26. This suggests that biodiversity policies may not fully recognize the complex and intricate relationships between livestock systems and biodiversity conservation.	LDN policies show substantial livestock integration addressing various aspects of livestock-land interactions. The mean integration score of 2.06 indicates moderate to strong recognition of livestock systems within land degradation frameworks.



AFRICAN UNION
**INTERAFRICAN BUREAU
FOR ANIMAL RESOURCES**



Programme 1: Promoting Resilience in Africa's Livestock Systems through Adaptation and Mitigation Measures to Climate Change and Other Crises



Climate-smart and biodiversity friendly livestock systems



Programme 6: Promoting innovation, generation and utilization of technologies

ALIGNMENT TO AU POLICIES

- The **African Union Agenda 2063** Aspiration 1 calls for A prosperous Africa based on inclusive growth and sustainable development calls for promoting environmentally sustainable climate and resilient economies and communities.
- **AU Climate change and resilient development strategy and action plan (2022-2032)** call for continental climate improves livelihoods and well-being, promotes adaptation capacity, and achieves low-emission, sustainable economic growth
- The **African Green Recovery plan 2021-2027** - To support the realisation of a shared vision for a prosperous, secure, inclusive and innovative future for Africa.
- The **African Union Biodiversity Strategy and action plan** - By 2050, the rich **biodiversity** and **resilient** ecosystems across Africa significantly contribute to the aspirations of Africa's Agenda 2063
- **Comprehensive African Agriculture Development Programme (CAADP) strategy and Action plan (2026-2035)** whose vision is to build **Sustainable and Resilient** Agri-food Systems for a Healthy and Prosperous Africa
- **Continental guidelines for the use of biotechnology to enhance Agricultural Productivity for food and Nutrition Security in Africa**



LIVESTOCK AS A SOLUTION



- The "Common African Position" on global issues perceived as a **coordinated approach** developed by the African Union (AU) to represent Africa's collective interests and views on international matters on livestock
- The Common African Position serves as a platform for Africa to speak with **one voice**
- Promote national, regional and continental co-ordination and collaboration for improved **climate change governance, management and context-specific solutions.**
- Promote co-ordinated efforts to access **climate finance** and promote climate-positive investment.



REPORT OF THE AFRICAN COMMON POSITION FOR SUSTAINABLE, RESILIENT AND NATURE-POSITIVE LIVESTOCK FOOD SYSTEMS

**6th Specialized Technical Committee - 22nd – 24th October 2025
Addis Ababa**

ENDORSED the proposed framework of the Africa Common Position for sustainable, resilient and nature-positive livestock food systems

This common position features five strategic pillars;

- i. **Boost nature-positive livestock production systems** - aims at promoting sustainable low-carbon, efficient and climate resilient livestock food systems through adoption and upscaling of climate smart, environmentally friendly and gender inclusive innovations and practises geared towards reducing GHG emissions, reducing biodiversity losses and
- ii. **Build resilient and inclusive African livestock-centric communities** – leverages on strengthening community led initiatives on conserving and restoring biodiversity and ecosystem; promoting grass-root climate literacy and awareness, creating green agri-jobs – renewable energy.

- i. **Enhance co-ordinated and equitable climate governance** – aims promoting the inclusion of livestock in national-level **governance and regulatory instruments** and promoting harmonized regional frameworks and protocols on climate mitigation and adaptation.
- ii. **Enhance sustainable innovative financial flows and alliances** - aims at promoting financing for adaptation, co-ordinated access to climate finance and strategic public-private alliances for targeted green AnGR investment.
- iii. **Promote Robust Research, Technology and Innovation ecosystems** – Aims at generation, adoption and upscaling of climate smart innovations and technologies including animal biotechnology

ENDORSED the establishment and operationalization of an Africa Climate and Livestock Think Tank to spearhead synergy and coherence in climate action for livestock food systems

Pillar 5: Promote Robust Research, Technology and Innovation ecosystems

Challenges;

- Inadequate budget allocation,
- Weak technical capacities
- Poor Infrastructural capacities
- Disjointed or unco-ordinated research



Solutions;

Inclusive Research: Fostering collaborative, inclusive research agendas that engage diverse stakeholders through case studies can generate context-specific solutions and align with continental framework

Operational Research: Support research to understand context-specific solutions, identify drivers of transformation, and assess innovative technologies and biotechnology.

Vulnerability Research: Research the impact of climate change and zoonotic diseases on livestock systems to inform adaptive strategies

SWIM UPSTREAM



Continental guidelines for the use of biotechnology to enhance Agricultural Productivity for food and Nutrition Security in Africa

Key areas of focus;

- Trade-related transboundary movements of GE products
- A functional biosafety regulatory system
- Confined Field Trials of **Genetically Modified crops**
- Public awareness and participation in biotechnology

• Purpose of the Guidelines

- To build confidence and strengthen collaboration on Information/data sharing, and commonly agreed or harmonized risk-assessment procedures.
- To support African countries with no Biosafety Regulatory Systems for unknowingly import or transit GE products.
- To provide guidance for handling trade-related transboundary movements of GE commodities and derived processed products in the context of the AfCFTA.

- Most Countries fall below the average in support towards policy framework to govern Biotechnology

Policy Environment	Countries
Very Weak	Angola, Benin, Burundi, Chad, CAR, Congo, Djibouti, DRC, Eritrea, Gambia, Equatorial Guinea, Gabon, Guinea, Guinea Bissau, Lesotho, Liberia, Niger, Togo, Sierra Leone, Somalia, South Sudan, Swaziland
Weak	Burkina Faso, Cameroon, Cote d'Ivoire, Madagascar, Mauritius, Mozambique, Rwanda, Senegal
Medium	Botswana, Malawi, Mali, Namibia, Tanzania, Uganda, Zambia, Zimbabwe
Strong	Ethiopia, Ghana, Kenya, Nigeria, Sudan
Very strong	South Africa

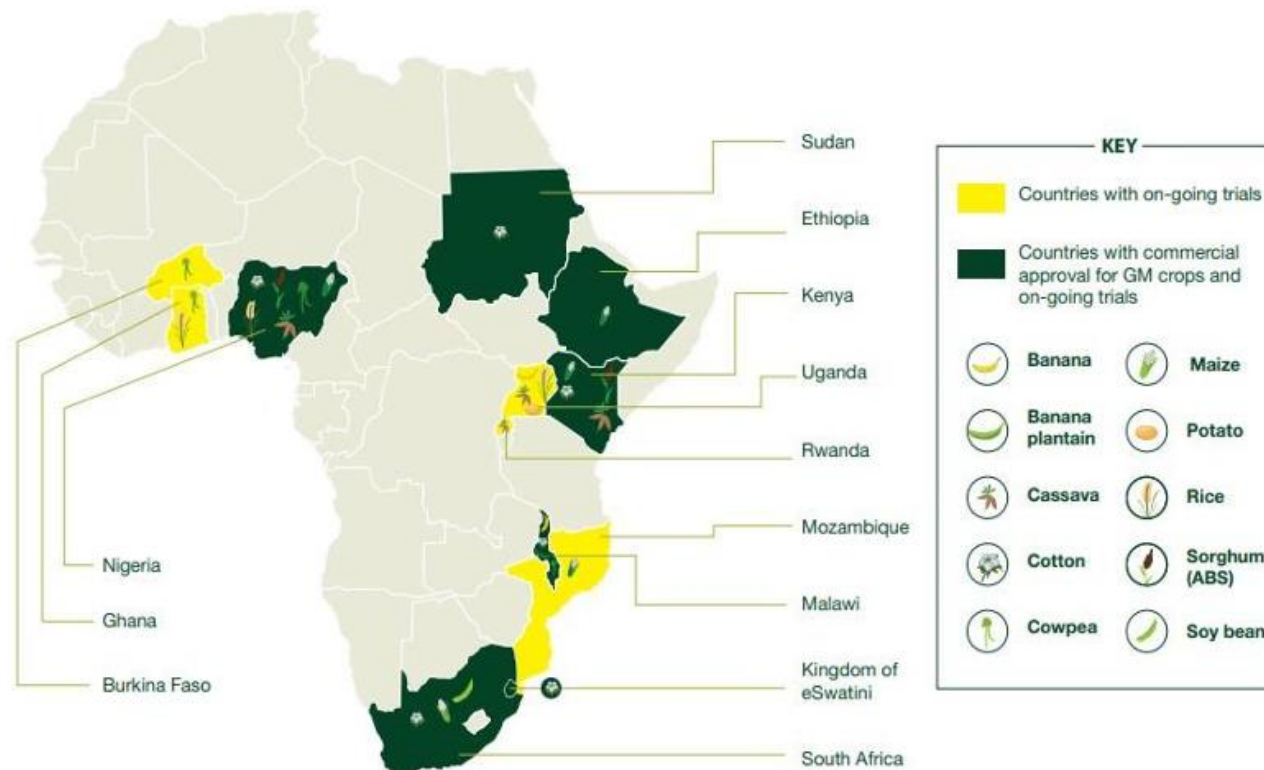
Actions	Status
Continental level Biosafety Clearing House for information exchange among member Countries	Discussions initiated
Confined Field Trials of Genetically Modified <u>crops</u>	Animals (GE)?
Public awareness and participation in biotechnology	Continental level Biotechnology Communication Strategy and Knowledge hubs

African countries that have commercialized GM-crops

10 CROPS

12 COUNTRIES

16 TRAITS

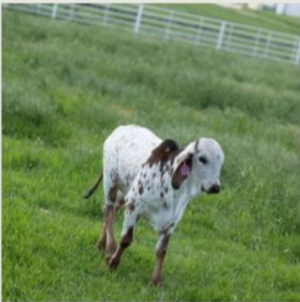


Way forward for animal biotechnology in Africa


PROMOTE PUBLIC PRIVATE PRODUCER PARTNERSHIPS

acceligen™


HOMEABOUTPRECISION BREEDINGFAQSNEWSCONTACT US



Review: Cross-breeding, advanced reproductive



ACCELIGEN
FEATURED IN MIT
TECHNOLOGY



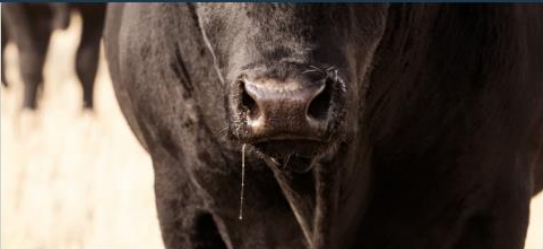
First gene-edited calf with reduced susceptibility to

INTERNATIONAL
GENETICS
PARTNERSHIP
ENHANCING DAIRY
RESILIENCE

Acceligen is eager to contribute to an impactful project, launched by LIC, aimed at combating food insecurity and advancing sustainable farming practices.

Commercial perspectives:
Genome editing as a breeding tool for health and well-being in dairy cattle

Genome editing is the latest breeding tool capable of accelerating the rate of genetic improvement for health and well-being traits in food animals.



BIOTECH SOLUTION
CAN REDUCE
CATTLE DEATHS
LINKED TO
EXTREME HEAT

Slick Genetics Revolution: How One Gene Could Save Dairy Farmers \$5,000 Per Cow Lifetime

Tuesday, July 1st, 2025

While you spend \$4,000 per cow on cooling infrastructure, slick genetics deliver \$5,000 lifetime ROI with zero electricity bills.

EXECUTIVE SUMMARY: Most dairy producers are throwing money at expensive cooling infrastructure when a single genetic trait could deliver superior heat tolerance at a fraction of the cost. New research confirms slick genetics provide 1.2 pounds more milk per day and reduce calving intervals by two months, translating to \$5,000 lifetime value per cow. While the industry lost \$2.5 billion annually to heat stress and saw production drop 9 pounds per cow during July 2023's extreme temperatures, progressive producers using slick genetics maintained normal production and reproductive efficiency. The FDA's landmark approval of gene-edited slick cattle validates both traditional breeding and cutting-edge biotechnology approaches. With documented advantages including 50-70% heat stress reduction and permanent heritability, slick genetics represent dairy farmers' most cost-effective climate adaptation strategy. Yet most operations continue pouring capital into infrastructure solutions that depreciate while genetic improvements appreciate annually. Contact your genetics supplier this week to evaluate slick sire offerings—your 2030 herd's profitability depends on your breeding decisions today.

KEY TAKEAWAYS



REGULATORY PARALYSIS



**Awareness
and advocacy**
–
***risk
assessment –
an organism
in an
organism**

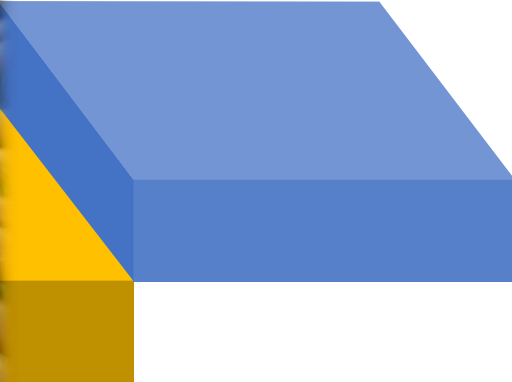


**Pub
par
in re
dire**



**Knowledge and
tools –
case,**

**Inclusion and
inclusivity – Animal
Biotechnology**



**GET GOVERNMENTS AND
RESPECTIVE ORGANS
ONBOARD**

DEMYSTIFY

**Research without
government buy-in is as
good as lab-book whose
contents are known only
to the scientist**

**BUSINESS WITHOUT
MARKETING**



**IS LIKE
WINKING AT SOMEONE
IN THE DARK**

Sketchplanations



Acknowledgements





**THANK YOU
ASANTE SANA
MERCI
OBRIGADO
SHUKRAN**