



# Vision 2030: African Universities' Agenda for Agricultural Higher Education, Science, Technology and Innovation (AHESTI)

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# Outline

- The rationale behind AHESTI
- RUFORUM Philosophy
- Vision 2030 ( Agenda for Agricultural Higher Education Science Technology and Innovations)
- Deliverables
- Potential Partners

# Vision 2030

## What Motivates AHESTI?

# Agriculture and Africa's Development

## The Numbers:

- Africa accounts for 16.6 % of the World Population

## Demography:

- 60% of the African population estimated at 1.5bn by 2030 will be below the age of 30

## Vocation:

- Two thirds of African population is dependent on farming for their livelihoods

# Basic Stats – Agric for Africa’s Dev’t

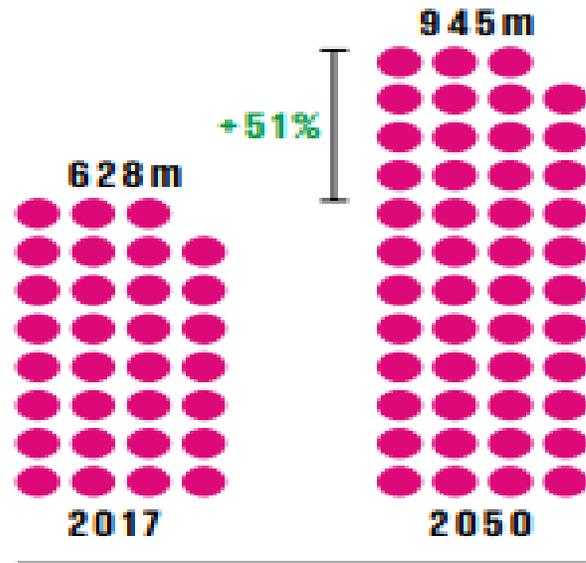
## Subregions in Africa

Area	Population (2019)
Eastern Africa	(445,447,287)
Western Africa	(392,176,114)
Northern Africa	(241,932,523)
Middle Africa	(173,692,967)
Southern Africa	(66,789,825)

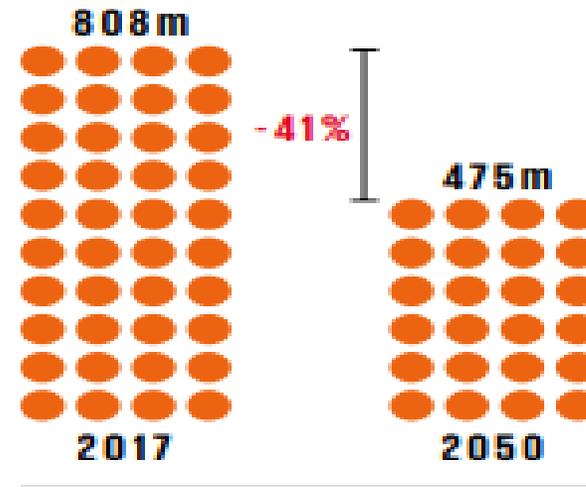
- The current population of **Africa** is **1,310,345,540** as of Saturday, March 16, 2019, based on the latest United Nations estimates.
- Africa population is equivalent to **16.64%** of the **total world population**.
- Africa ranks number **2** among **regions of the world** (roughly equivalent to "continents"), ordered by population.
- The population density in Africa is 45 per Km<sup>2</sup> (115 people per mi<sup>2</sup>).
- The total land area is 29,648,481 Km<sup>2</sup> (11,447,338 sq. miles)
- **41 %** of the population is **urban** (541,028,160 people in 2019)
- The **median age** in Africa is **19.4 years**.

# AFRICA'S YOUTH POPULATION IS BOOMING; THE REST OF THE WORLD'S IS SHRINKING

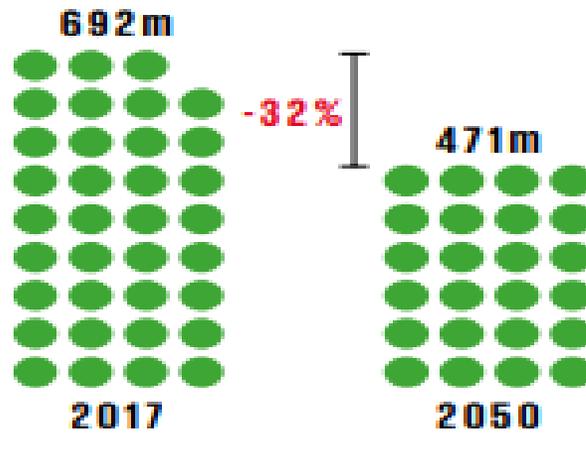
○ Equals 20 million people aged 0–24 years



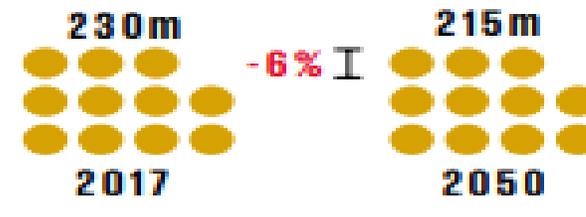
Sub-Saharan Africa



South Asia



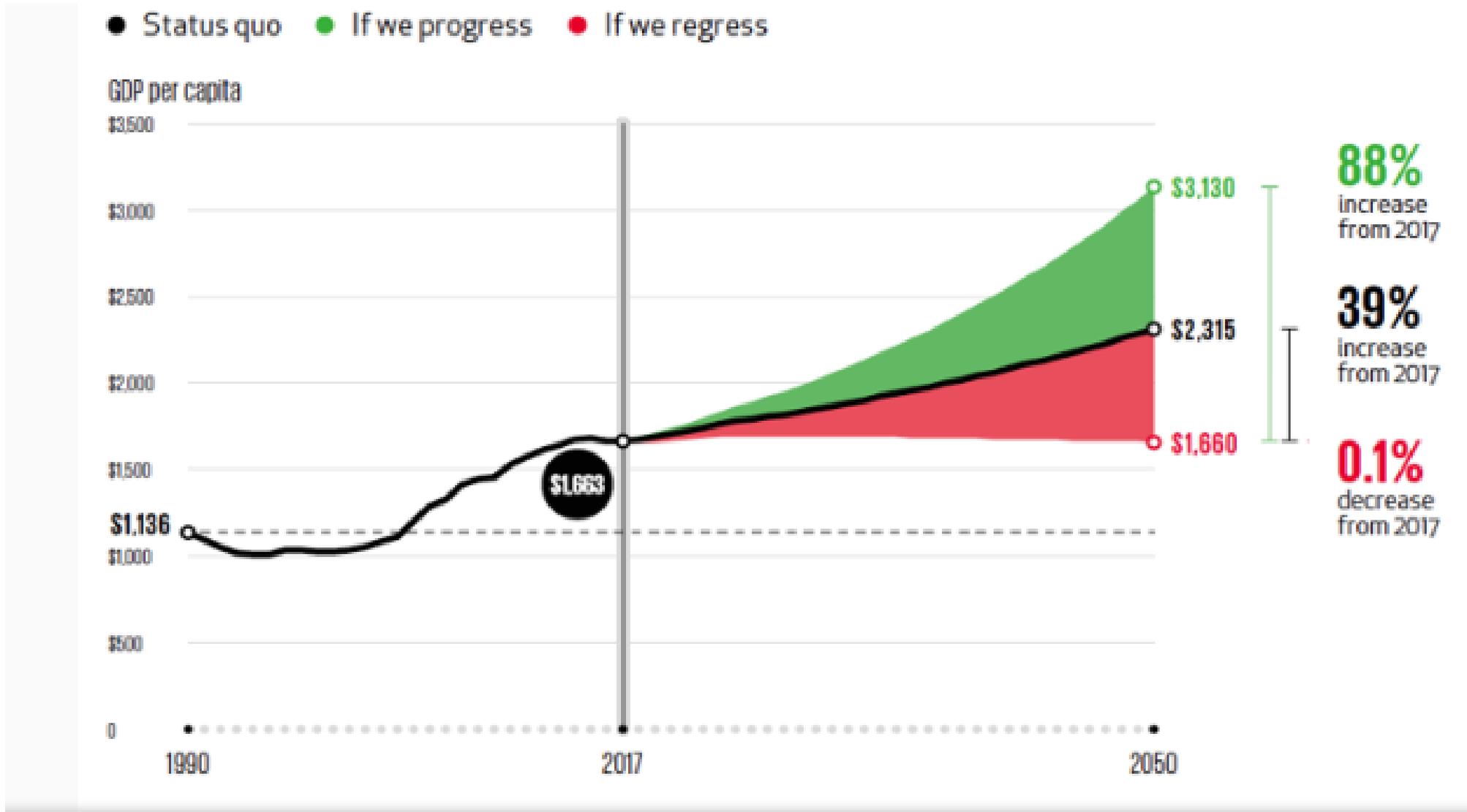
Southeast Asia, East Asia and Oceania



Western Europe and North America

Global goal keepers report (2017)

# SSA economic growth will depend on investments in human capital



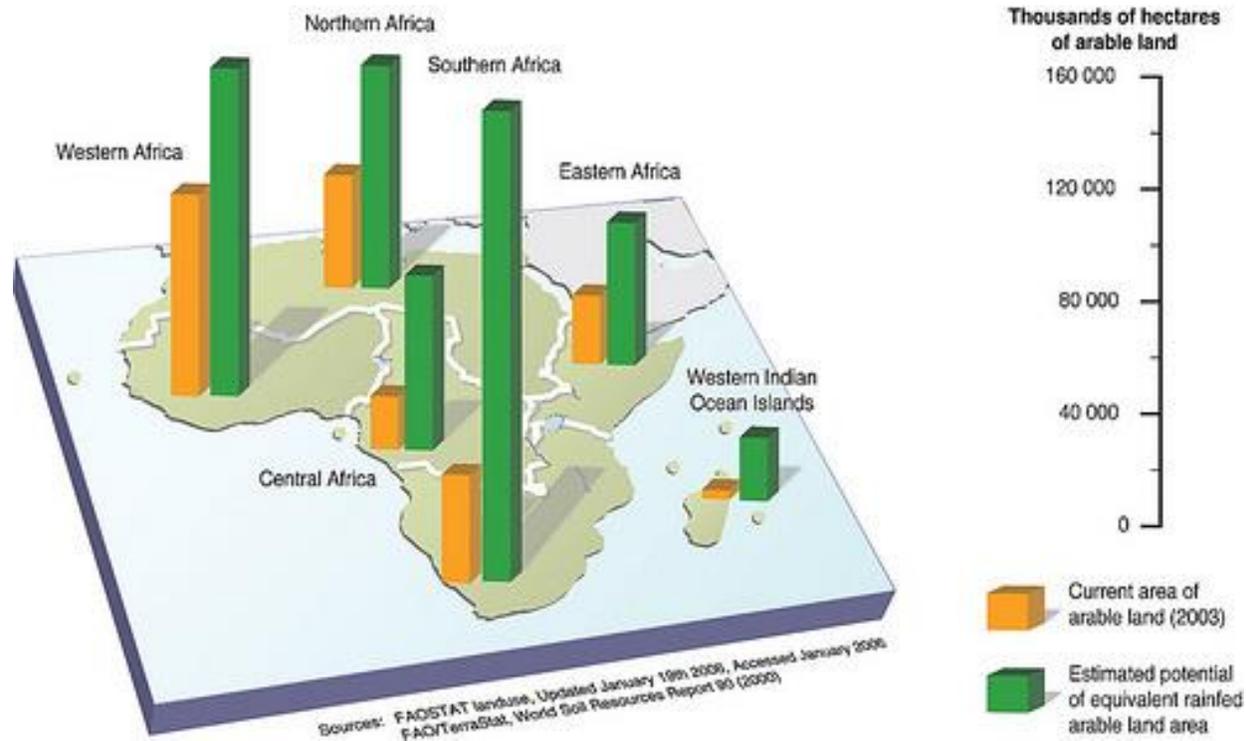
# What motivates AHESI?

- We therefore need to create opportunities for young peoples to harness their productive potential but also reap from the demographic dividend created by their consumptive capacities
- it is no longer enough to focus only on transforming agricultural production systems. Today, we need to talk more broadly about the transformation of entire food systems.  
(AGRA 2017)

# What motivates **AHESTI** Agriculture and Africa's Development

- A strong agri-food system is a crucial component of Africa's future development.
- Boosting Africa's agriculture can create economic opportunities, reduce malnutrition and poverty, and generate faster growth.
- The transformation of African Agriculture into a globally competitive, inclusive and business-oriented sector will create employment and wealth to revitalize the rural areas.
- Universities uniquely placed to handle the Agri-food systems and value chain-[integrated focus]

# What motivates AHESTI? Agric practices



## Harnessing Potential

- Skills development
- New Technologies
- Good practices e.g fertilizer
- Markets for produce
- Partnerships

2006

# The big picture

Ensure food and nutrition security for a population that is increasing and becoming more urbanised, helping to create wealth and jobs, in rural areas in particular, while reducing inequalities and vulnerability as well as protecting environmental and human capital

# The RUFORUM Philosophy

***Transforming Agriculture in Africa requires innovative scientific research, educational and training approaches. The education sector should be more connected to the new challenges facing rural communities and must build capacity of young people to be part of the transformation of the Agricultural Sector.***

# Framework for Community transformation

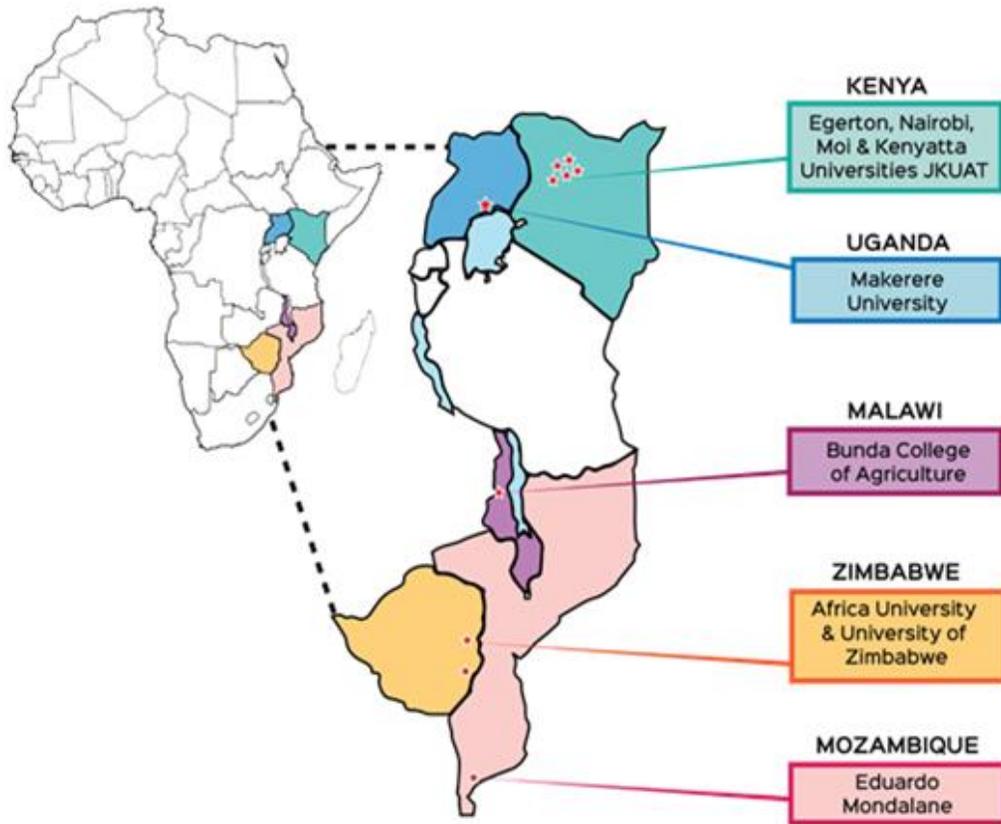


# AHESTI : Vision 2030

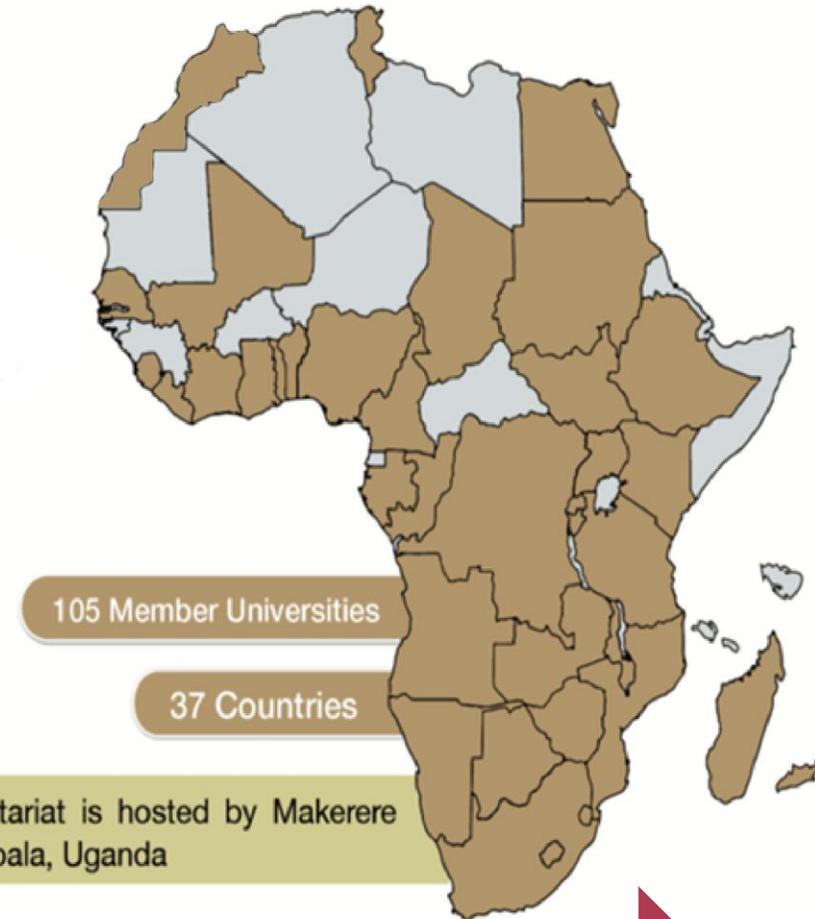
*Vibrant transformative universities catalysing sustainable inclusive agricultural development to feed and create prosperity for Africa*

- Universities have a major responsibility to contribute to society by producing: skilled and proactive graduates, research outputs and innovations that are relevant and impactful
- Universities committed to peer learning, sharing their knowledge-resources-skills with the public, listening to and learning from community-industry expertise and insight.
- Universities committed to developing their approach to managing, supporting and delivering public engagement for the benefit of staff, students and the public

# Building on Productive Traction: RUFORUM EVOLUTION



2004



2018

# Building on productive traction

 RUFORUM AT A GLANCE

Regional Universities Forum for  
Capacity Building in Agriculture



Alumni live and work in their country of origin



Female Representation



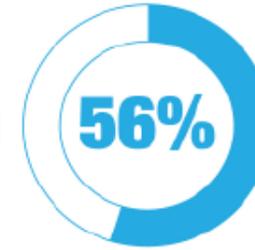
Alumni found employment within 6 months of completion



Alumni are on permanent or long-term contracts



Of Alumni produced at least one paper in a refereed journal



Alumni are in a position of influence at Regional, National or Local Government levels



**1,716**

MSc Graduates Trained



**\$169m**

Mobilized by RUFORUM on behalf of member Universities



**436**

PhD Graduates Trained



**300+**

Technologies Developed under RUFORUM Research



**441+**

Networkin Events Held



**411**

Research Grants Awarded

# Building on productive traction

- Developing quality human resources and capacity required to intensify and increase Africa's agricultural productivity
- Ensuring the products, processes and knowledge developed through university research reach down to value chain actors to catalyse transformation
- Marshalling resources and strategically allocating them to enable universities to transform into viable institutional entities
- ensure that the universities create opportunities that enable farming communities to harness existing agricultural resources

# VISION 2030

*Vibrant transformative universities catalysing sustainable inclusive agricultural development to feed and create prosperity for Africa*



## Flagship Programs

**TAGDev**  
**Transforming African Agricultural Universities for Development**

**RANCH**  
**Regional Anchor Universities for Higher Agricultural Education**

**CREATE**  
**Cultivating Research and Teaching Excellence**

**K-Hub**  
**Knowledge Hub for University Networking, Partnerships and Advocacy**

## Commitments

**Student learning-** Providing opportunity for transformative student learning  
**Research Excellence:** - Member Universities create and advance knowledge to improve the quality of life  
**Community Engagement-** Member universities serve and engage society to enhance economic, social, and cultural well-being.  
**Enhancing innovation-** Member universities create opportunities promoting cooperative action among the public, private, and civil sectors to leverage resources to stimulate innovation  
**Knowledge generation and sharing** – enhancing knowledge exchange to policy dialogue and reform to drive positive change in Africa’s food and agriculture and higher agricultural education systems  
Fulfilling the **potential of women** in agricultural science, technology and innovation

## Situation Analysis

### Africa Higher Education Landscape

- Low quality related the low levels of transferable skills
- increased demand and enrolment amidst restricted and inequitable access
- Reduced public financing, inadequacies in key inputs and infrastructure.
- Limited University engagement with communities and the business sector in Research, Development and Training

### Africa’s Agriculture Landscape

- 2/3 of Africa population is dependent on agriculture
- Africa holds ¼ of the world arable land
- Agriculture is the engine for growth for most African countries
- Feeding 15 Billion is already a daunting task, what about 2.5 billion by 2050?

## **TAGDev - Transforming Agricultural Universities in Africa to meaningfully contribute to Africa's growth and development**

- model of agricultural education that connects tertiary agricultural education to rural communities through student-centred agricultural extension model
- strengthening agribusiness and entrepreneurship through “student and/or community enterprise projects”
- fosters greater integration and collaboration with the business, technical and vocational education and training (BTVET) institutions for practical skills building
- Building a critical mass of youth in Agriculture – ‘Making it cool’ across the value chain

## Flagship 2 (RANCH)

### Regional Anchor Universities for Higher Agricultural Education

- Anchor universities in Africa taking leadership to transform their teaching, research and outreach for greater relevance
- Promote *specialization* among universities within areas that address targeted common development challenges
- Build regional capacities of the anchor and associated institutions to deliver quality training and applied research
- Research excellence and communities of practice that generate ideas that link Universities to industry and other development needs

## **Flagship 3 (CREATE)**

### **Cultivating Research and Teaching Excellence**

- Continuing professional development scheme for academics at member universities
- increase doctoral student enrolment through competitive funding
- Environment to foster a culture of research excellence for all aspects of the university agricultural research enterprise;
- Galvanise member universities to institute processes for ensuring the continued upward trajectory for faculty (research output and impact)

## ***Flagship 4 K-Hub:***

### ***Knowledge Hub for University Networking, Partnerships and Advocacy***

- Digital technology to enhancing the creation, capture, organizing, sharing and refining information and content across teams and geographic locations
  - Higher Agricultural Education Capacity Indicators (HAECI) Portal and database to capture and profile progress and impact in human capital development in the member universities
  - Online Impact Platform to profile R&D outputs, impact and storylines - elearning
  - Knowledge Repository to capture and share knowledge and R&D outputs, products and services

# DELIVERABLES

**BRINGING IT ALL TOGETHER THROUGH  
PARTNERSHIPS**

# Towards 2030 - AHESTI

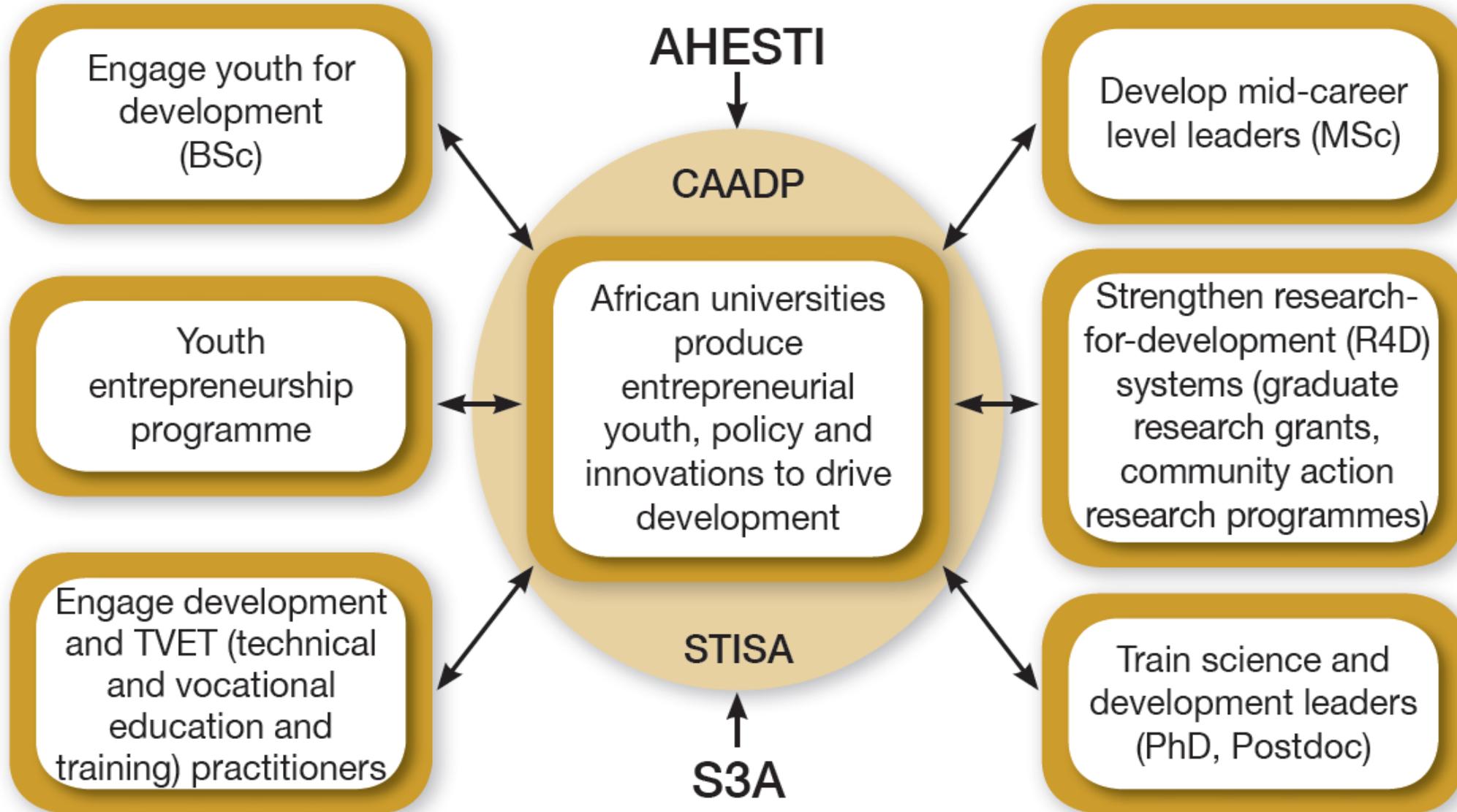
***Use Partnerships and the RUFORUM convening power, footprint, and experience to mobilise universities in Africa to***

- Build resilient and sustainable agriculture systems to feed the growing population
- Build Digital Platforms for knowledge sharing and learning across African Universities University community engagements create living labs with new technologies and agricultural automation)

# Towards 2030 - AHESI

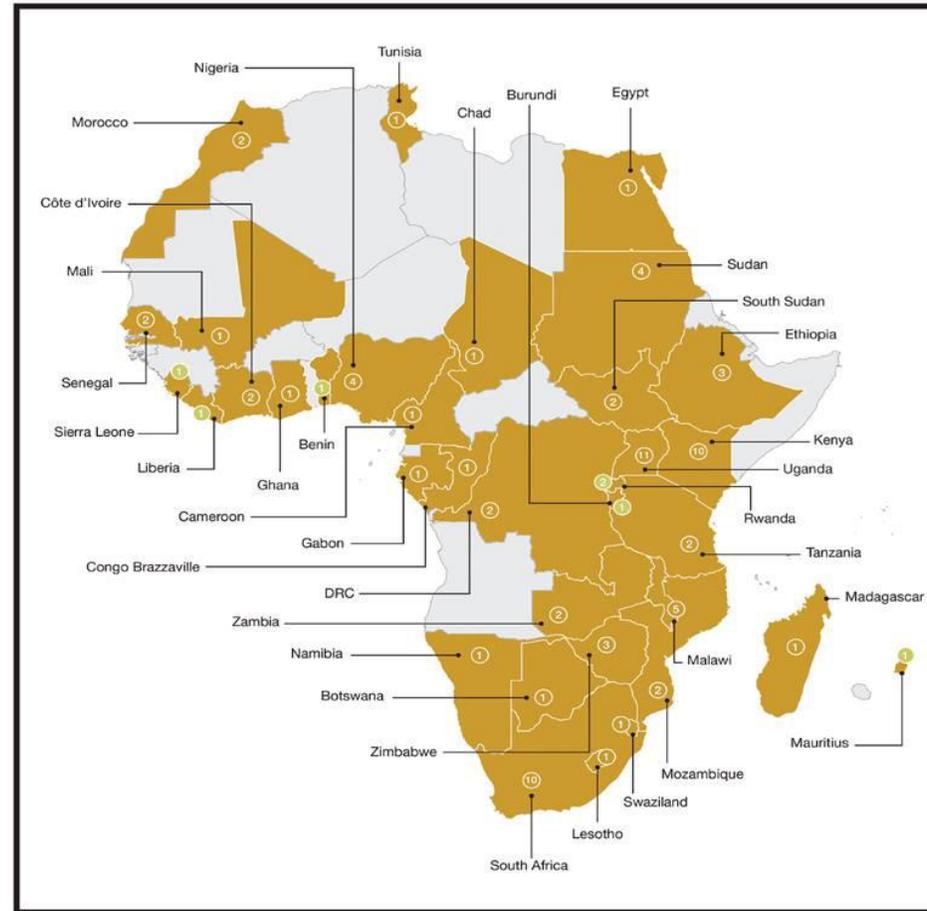
***Use Partnerships and the RUFORUM convening power, footprint, and experience to mobilise universities in Africa to***

- Strengthen graduate supply capacity and enhanced application of science, technology, business and innovation in Agric Education
- Develop Centres of excellence that harness institutional strength and economies of scale
- Strengthening the RUFORUM Secretariat operations



The Regional Universities Forum for Capacity Building in Agriculture (RUFORUM)

# The RUFORUM footprint in Africa



# Our Appeal- Together we have and we can

Building Africa's Agricultural Higher Education Science, Technology and Innovation Capacity for **Accelerated**, **Sustainable** and **Inclusive** Development will draw on partnerships and partner support for effective realisation.

- Technical guidance
- Financial resources
- Advocacy, integration and policy direction

But most importantly synergy and partner commitment to implementation, financing of the flagships and the Coordination of AHESTI

# Strengthen graduate supply capacity and enhanced application of science, technology, business and innovation in Agric Education (TAGDEV)

**Key partners:** UM6P/OCP, RUFORUM, Mastercard Foundation, Farmer organizations, Country agricultural extension actors, NARS, African Agribusiness Incubation Network (AAIN), EARTH University



# Build Digital Platforms for knowledge sharing and learning across African Universities (K-HUB)

**Key partners:** UM6P/OCP, RUFORUM, IFPRI, & Global open data for agriculture and Nutrition (GODAN)



## Develop Centres of excellence that harness institutional strength and economies of scope and scale (RANCH)

**Key partners:** UM6P/OCP, World Bank, RUFORUM,  
African Development Bank, Islamic Development Bank,  
national governments



# Strengthening the RUFORUM Secretariat operations and convenings

**Key partners;** UM6P/OCP, RUFORUM, Go Trolley films, BMGF, Mastercard Foundation, national governments



# Train and develop the next generation of science, technology and policy leaders in Africa (CREATE)

**Key partners:** UM6P/OCP, RUFORUM, Mastercard  
Foundation, Carnegie Corporation of New York,  
European Union



# Collective responsibility and Ownership by Universities

*Build local academic staff development capacity through the **Graduate Teaching Assistantships***

RUFORUM Member Universities committed to build network strength from Institutional



**COTRA**  
Collaborative Training in Fisheries and Aquaculture in East, Central and Southern Africa

**PhD and MSc Fellowships for Ugandans to study in Rhodes, Eldoret and Mzuzu Universities**

**Study in Another African Country**

Logos included: University of Eldoret, Rhodes University, EARI (Egerton Institute of Agricultural Research), RUFORUM, and various African university crests.

# Thank You!



TRAINING THE NEXT GENERATION OF SCIENTISTS FOR AFRICA



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