

AFRICAN NATURAL PRODUCTS RESEARCH AND TRAINING NETWORK (RISE - AFNNET) REGIONAL INITIATIVE IN SCIENCE AND EDUCATION

www.rise-afnnet.com

Supported by The Carnegie Corporation of New York



By

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University**



Uganda



Tanzania



Kenya



**RISE-AFNNET Innovation System: a case study
of the AFRISA ACP3 model for transformative
higher education networks in Africa**

REALITIES: Global, Regional & National Paradigm Shift



One World

One Economy

One Health

One Region

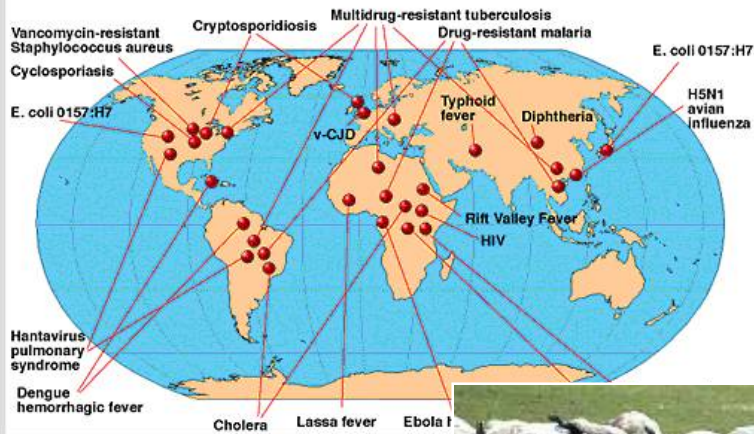
**The focus: people, integration, and a
sustainable planet for all**

Staggering with the Globalization Elephant

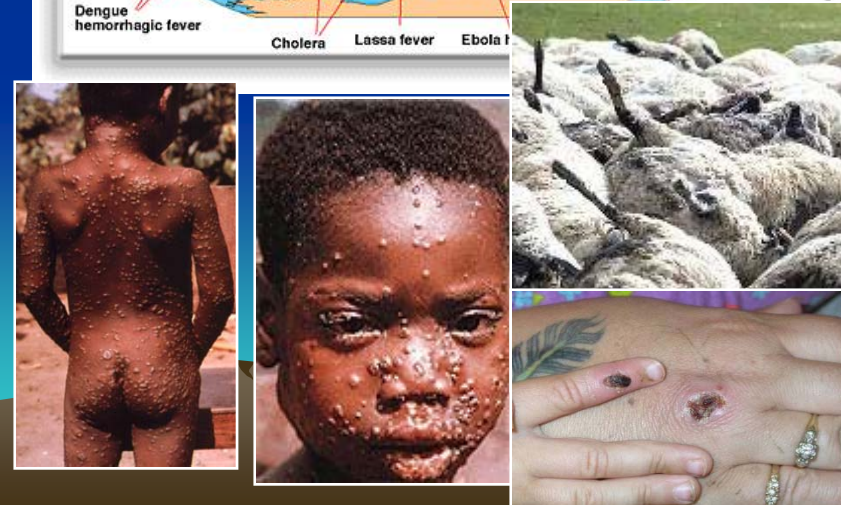


21st Century Africa: “a Global Risk Incubator”- Bio-insecurity, Poor Health, Unskilled & unemployed; Cordoned off & suffocated by global Standards. What went wrong? Africa Education Systems at cross-roads:

Examples of Emerging and Re-Emerging Diseases



- > 70% global zoonoses , emerging & re-emerging Trans-national diseases - in SSA.
- Africa’s share in global livestock trade dropped from 5 to < 1%
- > 70% global HIV-infected - in SSA. HIV-complicated by Zoonoses e.g. TB
- > 50% of herds sold to health bills of HIV/AIDS affected livestock farming households - in Uganda
- Most active age Gp (18-35 yrs) struck
- > 70% popn < 40 yrs - in SSA



21st Century Africa: Zoonoses; Cocktail families, Unsafe products; Trans-boundary Animal Diseases. What went wrong with Africa Education Systems?



Impact of drought on maize field (Masaka 2005, 90% loss)



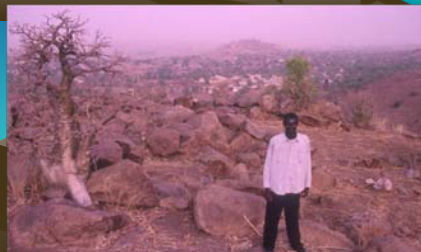
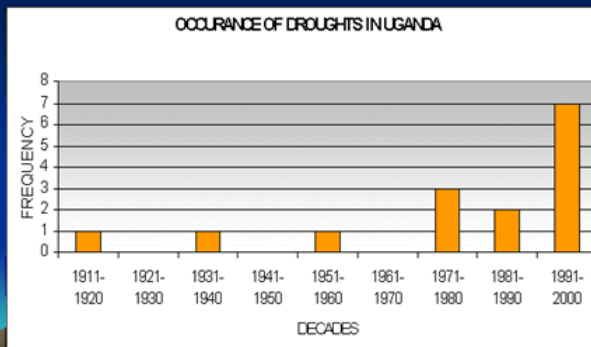
21st Century Africa: – Climate Change vulnerability, Warming Pathogen & Vector dynamics, water & feed stress, Biodiversity loss



Watering the animal & humans
January 2007

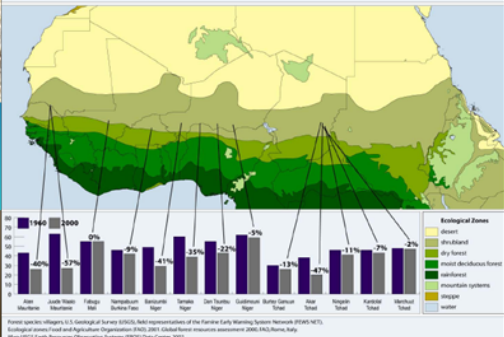


Occurrence of Droughts in Uganda



Forest species loss in the Sahel 1960-2000, field data

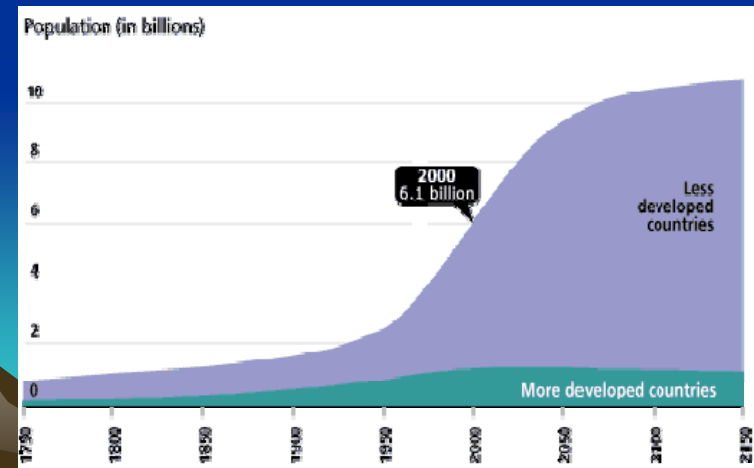
Total number of forest species on village lands and percent decline



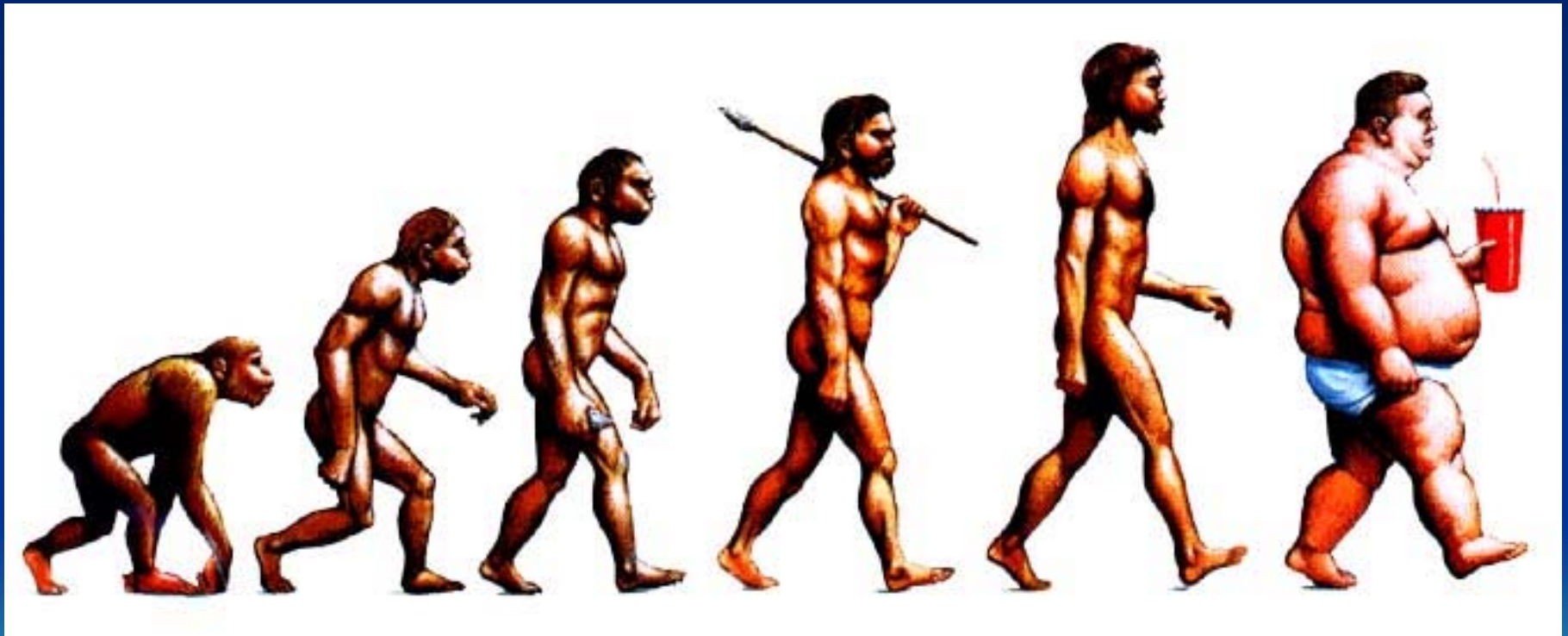
21st Century Africa: Conflicts, Exploding Youth Populations; Unemployment, Mass Urbanization



Africa Education systems at cross-roads: what went wrong? -



21st Century Africa: Westernization Confounds the system – Growing middle class grappling with western culture



Pessimistic Message 1: 21st Century Africa is either paralyzed or besieged! No longer an Island, Lost historical freedom from Diseases, independence

Rise of Anthropogenic Ecosystem Pathology

Nexus of Fights for Natural Resources

Clash of Civilizations & Cultures
Westernization versus Indigenization

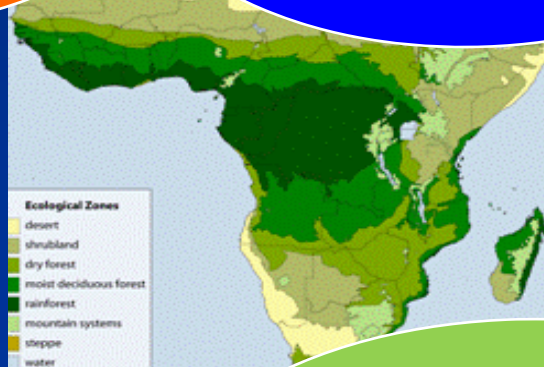
Coastal Hurricanes

Tsunamis

Y2K8 Food & Energy Crisis

Rise of Emerging & Re-emerging Diseases & Epidemics

Bio-terror & Bio-insecurity



Message 2: Africa's Historical Mistake was a sustained imitation, a narrow perspective and approach to Higher education and capacity building.



- Sustained Colonial & Ancient models of education & capacity building
- Sustained Westernization & Imitation
- Imitation is limitation!
- Originality in African Higher Education is urgently needed



Message 2: 21st Century – a century of opportunity.

Africa poverty industry is a blessing / a curse?

Youth have a lot of work to do. Lets capacitate them



Message 3: 21st Century Africa – is rich, gifted by nature – rich in natural resources, rich in biodiversity. Africa's biodiversity should not be displaced without understanding its potential to future generations











**RISE-AFNNET Alternative
thinking: harnessing a rich
and diverse african
biodiversity provides
immense job opportunities
for Africans including youth**

Foot Print of the Neglected African Natural Products Industry & Value Chains

- Biomolecules and compounds abundant in Africa's rich biodiversity be it disease germs or snake poisons are the basis for a vibrant science and technology industry in Africa. The biomolecules are precursors for many industrial products across values chains including: vaccines, medicines and drugs, cosmetics, condiments, dyes, herbal products, neutraceuticals, insecticides, environmental and industrial enzymes, etc



HUMAN CAPITAL THROUGH HEIs AS A PILLAR



- **ANY** sustained development of a nation depends on the quality and quantity of its skilled human capital.
- Higher Education Institutions (HEIs) are the fulcrum of development in Africa. HEIs are at the centre of a sustainable Public -Private Sector interface.
- To address these, RISE-AFNNET was founded by Makerere University, University of Nairobi and Sokoine University with the support of the Carnegie Corporation of New York through the SIG and AAS.

Three Core Functions

Teaching & Learning

Research

*Services
(Knowledge &
Technology
Transfer
partnerships)*



RISE-AFNNET STRATEGY FOCUS (SF) / MODEL

Communicating Performance Achievements, Improvement Plans and Vision Impact

MANAGEMENT COMMUNICATION

Feedback, Strategy Review and Improvement Program
Management Communication

AVAILABILITY

Essential and one-choice is Accessibility, Affordability and Reliability on basic Human & Natural Sustaining, Supportive, Resources, Products & Services, Knowledge Acquisition & Know-How Perfection, Strategic Research and Development + Training Programs, aimed at enabling healthier and wealthier majority especially among the disadvantaged
SF: HOLISTIC STRATEGY

ACCESSIBILITY

Availability of resources, products, education, services, etc, is not adequate without one having to manage accessibility challenges related to: Distance (Location) & Delivery Time Leads, Commercial Delivery Systems (tools & processes and commercial practices), Access to Voice/Data Communication Infrastructure Channels, Legal/Commercial Policies, Rules and Regulations, etc, and obviously Personal Affordability Capacities
CFS: IS&T STRATEGY

AFFORDABILITY

Securing Availability and Accessibility of/to resources, knowledge, products, services, etc, is good enough provided that one is able to prioritise Personal Desired Vision, Personal Entrepreneurship Creativity, Productivity and that tied to Managing the Environmental Living Factors and Surroundings, Acquaintance with the reachable Delivery Systems & Process Streams that lie within areas of his/her influence
S: BUSINESS STRATEGY

RELIABILITY

Successful Leadership and Management must secure that Availability, Accessibility and Affordability of Resources, Knowledge, Services, etc, lead to achievement of desired delivery, Quality Levels & Risk Management, Customer Support, Trust, Loyalty, Experience and Satisfaction Targets
SF: TOM STRATEGY

SUSTAINABILITY

Managing Stakeholders' Requirements, Expectations, Experience & Satisfaction through constant evaluation, analysis and improvement of the 4 ARMS
And:
Communicating Performance Achievements and Improvements in progress is what will lead to achieving the Vision and Mission
SF: LEADERSHIP

SCIENCE & EDUCATION LEADERSHIP & MANAGEMENT

Organisational Governance, Strategy & Business Operations and Accountability Management

RISE-AFNNET AFRISA Platform

VISION OF AFRISA

- Wealthier and Healthier Communities in Africa

MISSION OF AFRISA

- To nurture a productive and entrepreneurial generation through transformative Learning and Skills, Technology and Innovations, Community Services, and academic-community-public-private partnerships

Strategic Priorities

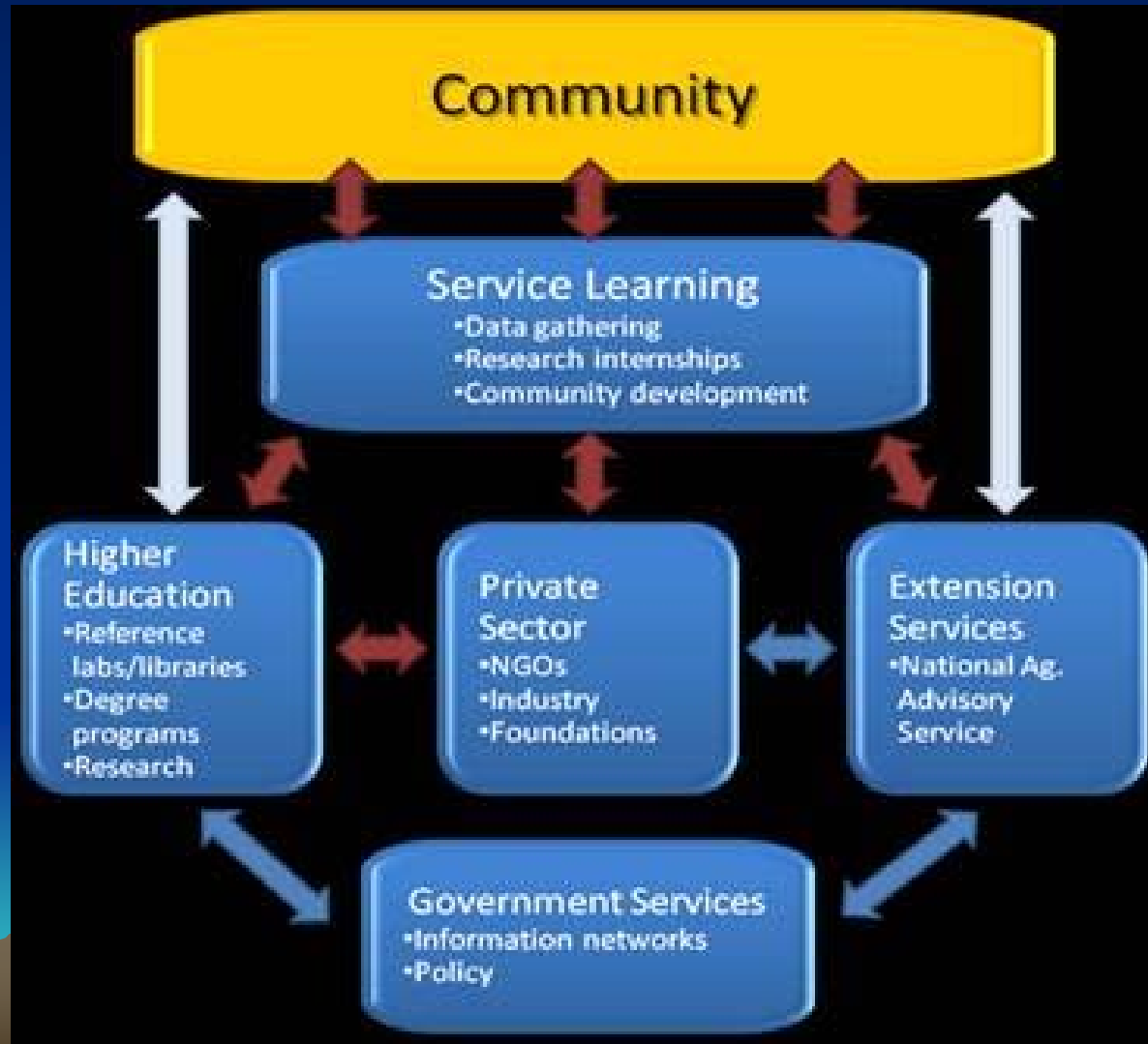
1. **Securing “One Health” – (Health for the people, animals, water, environment) through freedom and safety from disease, hunger, stress**
2. **Securing the current and future bio-resources as assets for the people**
3. **Improving the productivity of bio-resource systems**
4. **Building Human capital to enhance engagement and competitiveness of the populations**
5. **Enhancing participation in available markets and marketing**
6. **Enhancing Science, Technology & Innovations (STI)**
7. **Strengthening Policy development**

AFRISA **ACP3** INCUBATION MODEL

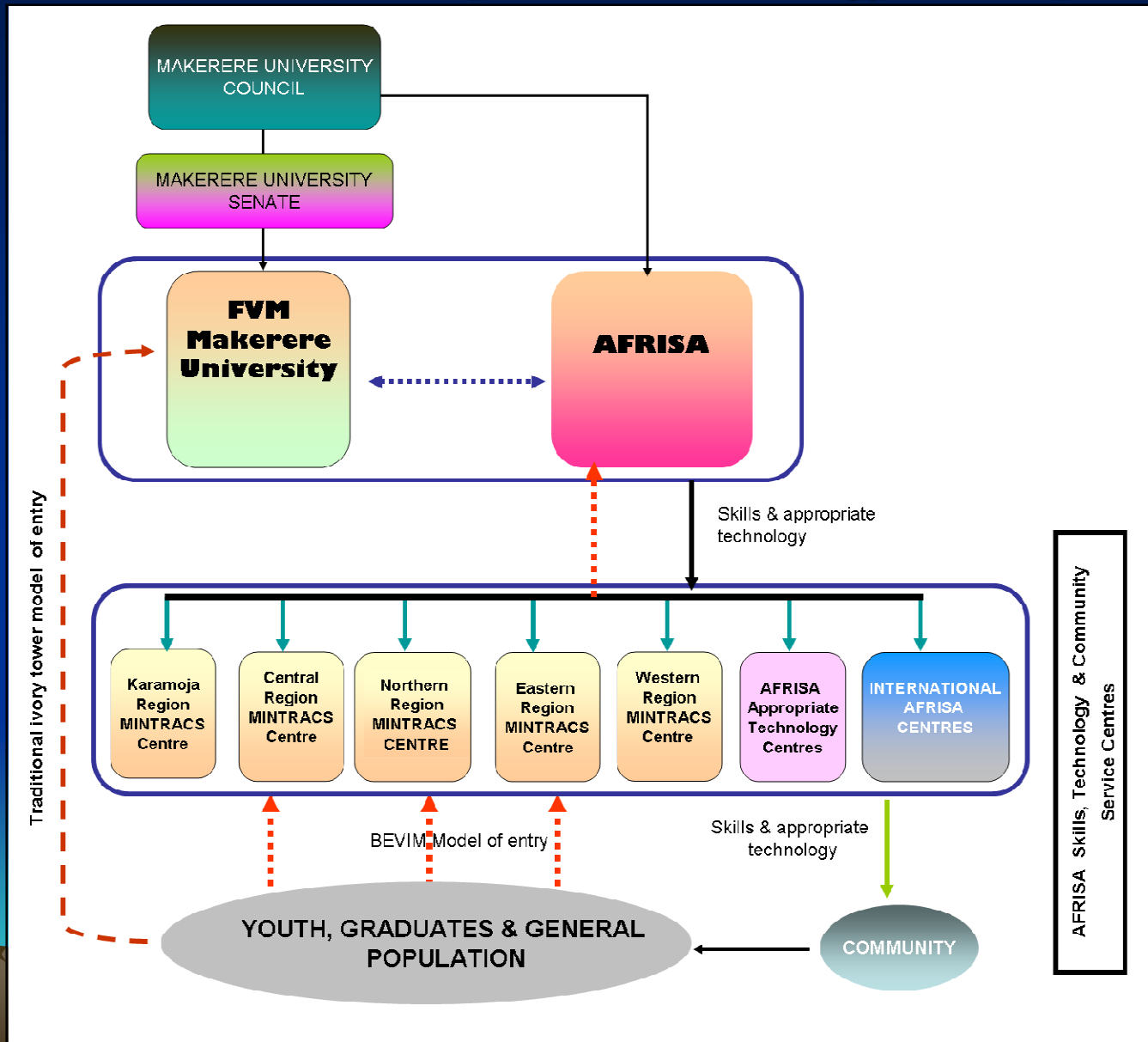
A transformative **A**cademic-**P**ublic-**P**rivate
Partnership (**AP³**) **M**odel for **I**ncubation of
STI, **E**nterprises, **S**kills for Youth and
Community in the Animal Industry

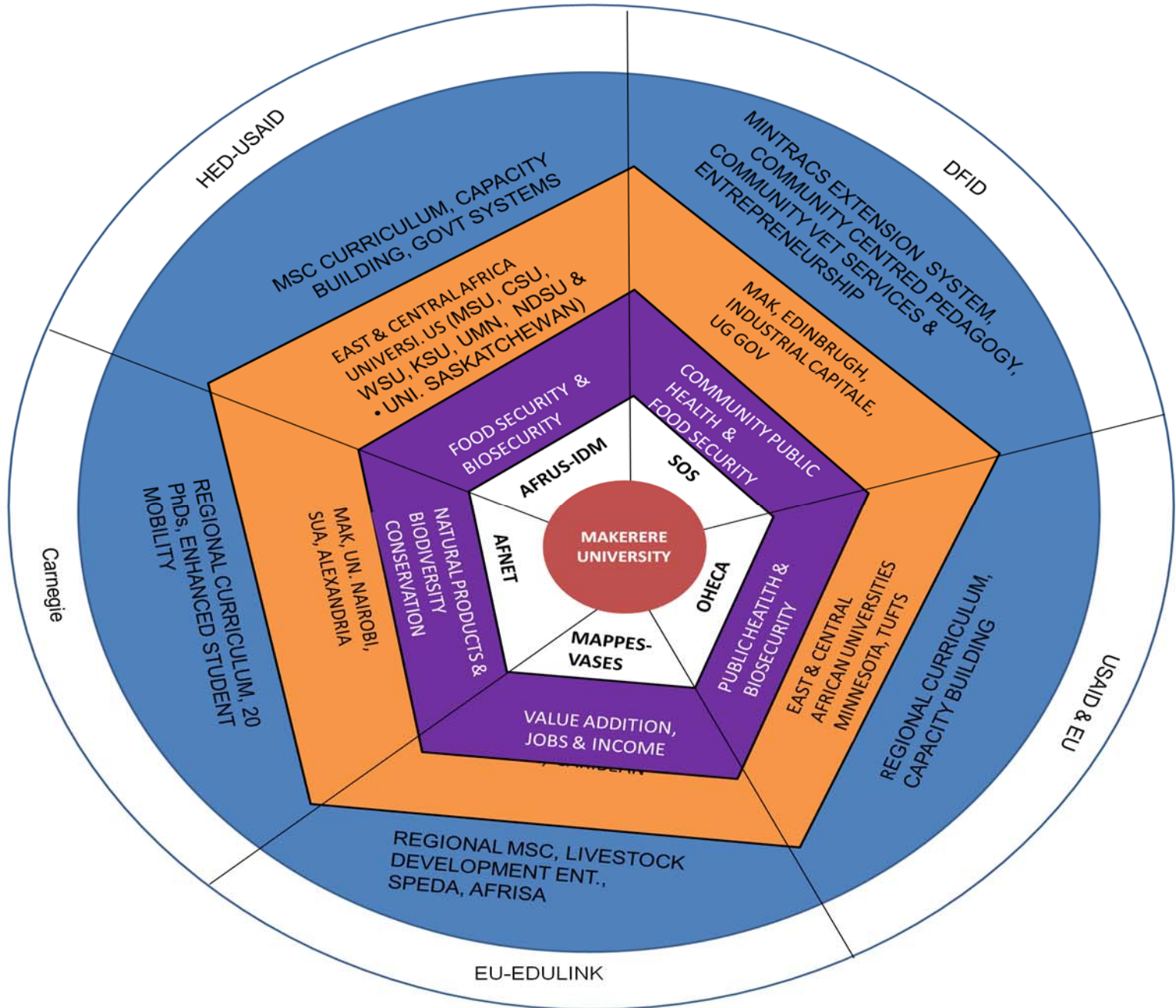


AFRISA ACP³ MODEL FOR INTEGRATED SERVICE LEARNING, VALUE ADDITION, ENTERPRISES, SKILLS & TECHNOLOGY DEVELOPMENT



AFRISA: the Academic-Public-Private Partnership (ACP3) model for STI, Skills, Enterprise & Technology Development









Conclusion

Networks work well – they are an STI incubation and multiplier platform, promote synergy & sharing, uphold mutuality, and promote regional mobility and integration.

Thank You!

Asante sana; Ameseagnalehu; Merci beaucoup; Thank you