Forum on Regional Networks in Africa



Involvement of
University of Dar es
Salaam in RISE
and other Regional
Networks

Plan of my Presentation

This presentation is divided into 4 sections:

- 1. Participation of UDSM in RISE Networks
- 2. Future planned participation of UDSM in RISE Networks
- 3. Involvement of UDSM in other Regional Networks
- 4. Collaboration within UDSM, between the RISE Networks: SABINA & WIO-RISE; and other Regional Networks at UDSM

Current Participation of UDSM in RISE

UDSM is participating in 2 RISE Networks. Namely;

- The Western Indian Ocean Regional Initiative (WIO-RISE), and
- Southern African Biochemistry and Informatics for Natural Products (SABINA)

Future planned Participation of UDSM in RISE

In addition to the 2 networks mentioned above, UDSM is planning to participate in two other RISE`networks. Which are;

 African Materials Science and Engineering Network (AMSEN).

Our interest lies particularly on the aspects of developing and adding value to minerals (with new minerals findings in Tz, including Uranium)

 African Natural Products Network (RISE-AFFNET)

This is because, Tanzania is very rich in biodiversity (several of the germplasms being endemic to Tanzania) from which to obtain natural products of economic importance

 NB: Natural products from microorganisms and animals, are in most instances forgotten

Involvement of UDSM in Other Regional Networks

The College of Natural and Applied Sciences (CoNAS) at UDSM is involved in the following other Regional Networks.

1. African Research Consortium on Ecosystem and Population Health "Afrique One"

This network is funded by Wellcome Trust

- The "Afrique One" Consortium consists of research institutes and Universities of some Francophone and Anglophone countries of west and eastern Africa, with medical, veterinary and wildlife expertise.
- The main 11 institutions comprise 7
 Universities, 4 Research Institutes, in partnership with 3 European Institutions or Universities

2. ASARECA

- ASARECA is The Association for Strengthening Agricultural Research in Eastern and Central Africa
- It is formed by National Agricultural Research Institutes (NARIs) of ten countries: Burundi, D. R. Congo, Eritrea, Ethiopia, Kenya, Madagascar, Rwanda, Sudan, Tanzania and Uganda.
- Funded by DFID of UK and by the European Commission

3. BIO-EARN

- BIO-EARN is an East African Regional Program and Research Network for Biotechnology, Biosafety and Biotechnology Policy Development
- Countries involved: Ethiopia, Kenya,
 Tanzania and Uganda
- Most of its funds are from Sida (Sweden)

4. BiosafeTrain

- Biosafe-Train is project funded by DANIDA (Denmark).
- Vision: To build capacity to cope with challenges of introducing genetically modified crops in East Africa.(bisafety impact assessment of transgenic plants).
- Institutions involved: University of Nairobi, KARI (Kenya), UDSM (Tanzania), Makerere University (Uganda), University of Aarhus, University of Copenhagen (Denmark)

5. Lake Victoria Environmental Management Project (LVEMP)

- LVEMP is a programme for the conservation of lake Victoria and its basin.
- Countries involved: Kenya, Tanzania and Uganda
- LVEMP is funded by the Global Environmental Facility (GEF) through the World Bank

6. Millennium Seed Bank Project

- Millennium Seed Bank Project is an International conservation project coordinated by the Royal Botanic gardens, Kew, UK.
- Its purpose is to provide an "insurance policy" against the extinction of plants in the wild, by storing seeds for future use
- Expeditions from CoNAS collect seeds of plants endemic to Tanzania for storage within the country and at an underground frozen facilities at Wellcome Trust Millennium Building at Wakehurst Place, West Sussex, UK.

7. MSSEESA

- MSSEESA: Material Science and Solar Energy for Eastern and Southern Africa
- Institutions involved are Physics
 Departments of the Universities of
 Zambia, Moi University and Nairobi
 University (Kenya), Makerere University
 (Uganda), Addis Ababa University
 (Ethiopia) and University of Dar es
 Salaam (Tanzania).
- It was supported by IPPS (Sweden) and now by International Science Program

8. NAPRECA

 The aim of the Natural Products Network for East and central Africa (NAPRECA) is to initiate, develop and promote research in the area of natural products in the Eastern and Central African subregion and to co-ordinate and maintain inter- and intra-regional links among different research groups.

NAPRECA (contd.)

- Member countries of NAPRECA are;
 Botswana, Cameroon, Congo, DRC,
 Ethiopia, Kenya, Madagascar, Rwanda,
 Rwanda, Uganda, Tanzania and
 Zimbabwe
- NAPRECA receive funding from ISP (Sweden), DAAD (Germany), IFS, UNESCO and OPCW (Organization for the Prohibition of Chemical Weapons)

9. Nile Basin Research Programme

- Countries involved: Burundi, Rwanda, Tanzania, Kenya, Uganda, the DR Congo, Sudan, Ethiopia, Eritrea and Egypt.
- The main objective of this programme is to stimulate research in the Nile region and contribute to the peaceful utilisation of resources.
- It is funded by the Norwegian Ministry of Foreign Affairs

10. NOMA

- NOMA stands for Norwegian Masters Program
- At the CoNAS-UDSM we have an M.Sc in Mathematical Modeling under NOMA
- Currently it is a 4 years program admitting 10 students each year.
- Participating countries are: Malawi, Mozambique, Tanzania, Uganda and Zambia
- It is funded by NORAD

11. TanBIF

- TanBIF is the Tanzanian national node of the Global Biodiversity Information Facility
- This site provides access to biodiversity data of Tanzania
- The Departments of Botany and Zoology in our College of Natural and Applied Sciences are one of the main sources biodiversity data of Tanzania
- TanBIF18 is funded by the governments of Tanzania and Denmark

12. VicRes

- Lake Victoria Research (VicRes) supports inter- and multi-disciplinary research contributing towards poverty reduction and environmental restoration in the Lake Victoria basin.
- Beneficiaries are Staff of East African Universities ands other institutions of the East African East African Community (Burundi, Kenya, Rwanda, Tanzania, Uganda)
- Funded by Sida (Sweden)

13. WIOMSA

- WIOMSA is a regional professional, nongovernmental, non-profit, membership organization, registered in Zanzibar, Tanzania.
- It promotes educational, scientific and technological development of all aspects of marine sciences throughout the region
- Countries participating: Somalia, Kenya, Tanzania, Mozambique, Seychelles, Mauritius, and Reunion

Examples of Collaborations within UDSM, between the RISE Networks: SABINA & WIO-RISE; and other Regional Networks at UDSM

Collaborations so as to have complimentary & Synergistic effects within networks at UDSM

- 1. Molecular Biology/Functional Genomics activities of SABINA with the Biotechnological & Biosafety activities under the BIO-EARN and Biosafe Train networks.
- 2. Natural products Chemistry aspects of SABINA with the Millennium Seed Bank and TanBIF networks activities

Collaborations within UDSM (contd.)

- 3. Food Science activities of SABINA, with the Biosafe Train activities, especially on biosafety impact assessment of transgenic crop plants.
- NB: At CoNAS, we have a Biosafety level II Facility. We are still looking for means to equip the facility so as to upgrade it to Level IV for conducting serious Molecular Biology and Genetic Engineering Research Work.

Can RISE assist?

Collaborations within UDSM (contd.)

- 4.On M.Sc. Students in Mathematical Modeling, doing their Dissertation Research work on aspects related to SABINA and WIO-RISE activities
- 5.Our participation in ENRECA network is at its lowest, due to out-movement of the Human Resource that we had in the Natural Products Chemistry group.

 We would like to replenish those Staff through the SABINA network

Collaborations within UDSM (contd.)

5. The marine biodiversity conservation activities of WIO-RISE, collaborated to the WIOMSA network activities & also to the TanBIF data available at the Departments of Botany & Zoology at CoNAS

Honorable Chairperson, Ladies and Gentlemen; I would like to thank

- RISE, SIG and IAS, for the networks, and also for having made it possible for me to attend this Forum.
- I would also like to thank all of you for listening

Thank you Very Much