



## The Catalytic Role of RUFORUM in the Future Higher Agricultural Education in Africa



It is undoubtedly that the outputs of research for development have filled many shelves and repositories across Africa and this development is complemented by the very impressive recognition of many scholars and researchers in the various universities and research institutions. Using the proxy of the number of publications that have been produced by the African universities in the past ten years Africa can proudly say it has found its footing in science and technology domain. An examination of the place that Africa occupies in regards to innovation ranking, however, reveals a gap that needs to be addressed to make the outputs of research have a felt impact on society. Notwithstanding that some innovations may be found at local level within countries with limited scope of application at regional and sub regional levels.

In this Thought Piece I try to relate to the role that RUFORUM has played, from a participating university point of view, in the enhancement of human resource capacity in agriculture for Zambia and the SADC region at large, through the School of Agricultural Sciences of the University of Zambia. This having been done towards building capacity for research for development. A case shall be made of the catalytic role that RUFORUM can play, building on the past successes, in closing the gap between research outputs (trained human resource and publications) and innovations (application of the knowledge/technology for impact) in agriculture in Africa.



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### Enhancement of Human Resource Capacity: A Case of School of Agricultural Sciences at the University of Zambia

The University of Zambia was admitted to the Regional Universities Forum for Capacity Building in



Agriculture (RUFORUM) consortium on the January 1<sup>st</sup> 2006. Over the years through the School of Agricultural Sciences a number of activities were undertaken, starting with the formation of the National FORUM (NFORUM). Embracing and operationalizing the then RUFORUM mission statement “*strengthening the capacities of universities to foster innovations responsive to demands of small-holder farmers through the training of high quality researchers, the output of impact-oriented research, and the maintenance of collaborative working relations among researchers, farmers, national agricultural research institutions, and governments*”, the Zambian Chapter of NFORUM embarked on realizing the following outcomes related to (1) Enhance relevance and visibility of universities in national development agenda via strengthening the operationalization of national platforms for university engagement with communities and (2) Improved quality of university training and service delivery in the ECSA via enhancement of student internships and establishment of MOUs with non-governmental, research and private sector organizations for sustainable partnerships

The outputs of the NFORUM activities can be summarized as follows:

1. Two PostDocs at the University of Zambia
2. Six (6) PhD scholarships in different fields of agriculture attained from member RUFORUM Universities
3. Forty (40) MSc Scholarships in different fields of agriculture attained from member RUFORUM Universities
4. Trained academic and research staff in Proposal Writing and Scientific Writing
5. Trained academic and research staff in data analytics

The provision of trained human resource in agriculture was significantly enhanced through the above activities; indeed the sharing of knowledge through published results (scientific publications) was realized from the above.

The above types of outputs, and at some places even more of them, can be found at all member Universities and relevant RUFORUM repositories can be consulted.

At institutional level RUFORUM collaborated with the University of Zambia in the designing and management of the following regional projects:

1. Rockefeller Foundation supported Training Project
2. EU funded ICART Training project
3. EU funded SCARDA Project
4. Intra-ACP Mobility Project

## Status of Africa in the Innovation Domain

The publications from the World Intellectual Properties Organization (WIPO, 2010-2021) reveals a very poor showing for Africa as a continent based on the Global Innovation Index (GII), with the Sub-Saharan Africa being the lowest ranking. This is in spite of the positive things said about this region in terms of endowment (land, water, young population, natural resources etc.) the poverty levels are highest in the world. **WHY?**

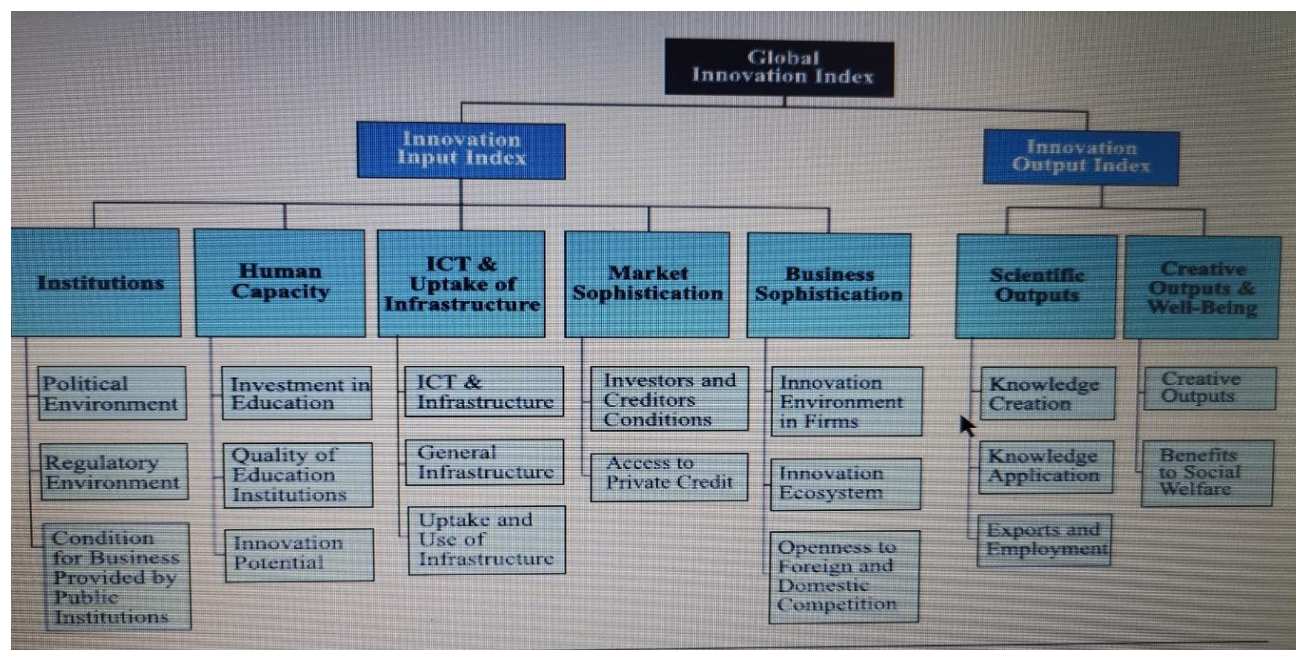
The Global Innovation Indices for 2010, 2015 and 2021 (WIPO, 2010; WIPO, 2015; WIPO, 2021) reveal that in Sub Sharan Africa the Mauritius and Republic of South Africa are always the best. In 2010

RSA #1 in SSA and #60 in the world, Tunisia #2 and #62; Mauritius #3 and #73; in 2015 Mauritius was #1 and #49 in the world; RSA was #2 and #60; Tunisia was #3 and #76 and in 2021 Mauritius was #1 and #52, RSA was #2 and #61 and Tunisia was #3 and #71. Kenya featured well at #6 in SSA in both 2010 and 2015 with great improvement in 2021 to #4; its global rankings were #83, #92 and #85, respectively. No comparison is made with developed countries regarding their GII rankings, rather to confirm that those countries with highest publication outputs are the ones among the top ten countries with highest rankings, namely Switzerland, Sweden, USA, UK, North Korea among others.

The above point to three countries Mauritius, RSA and Tunisia featuring very well on the GII Score and always among the top three. The shifting in their world rankings suggest that some other countries are constantly improving or getting worse. **WHAT ARE THEY DOING RIGHT?** How do we get most of the SSA countries move in the direction espoused in the following quote:

*“In recent years, the world has witnessed the power of innovation and its various constituents in revolutionizing the business and economic landscape. With the advancement of the knowledge economy, the world is also seeing how innovation empowers individuals, communities and countries with profound impact on business, politics, and society. What is equally evident is the increasing role that innovation plays in accelerating economic growth and promoting development”.* (Source: [www.gov.cn/r/Pub/GOV/ReceivedContent/Other/2016-08-12/GII-2009-2010-Report.pdf](http://www.gov.cn/r/Pub/GOV/ReceivedContent/Other/2016-08-12/GII-2009-2010-Report.pdf))

## New Thrusts for RUFORUM



An examination of what constitutes the GII reveals two components (Figure 1) namely: the Innovation Input Index (III) and the Innovation Output Index (IOI). Each of these components have their specific sub-components which drive the final Index. Within the seven pillars recognized as

important in the GII are those that RUFORUM must focus, and have been focusing within the Human Capacity and Scientific Output. The comparative advantage of RUFORUM is in these pillars.

Source: [www.gov.cn/r/Pub/GOV/ReceivedContent/Other/2016-08-12/GII-2009-2010-Report.pdf](http://www.gov.cn/r/Pub/GOV/ReceivedContent/Other/2016-08-12/GII-2009-2010-Report.pdf)

### Figure 1. Generic Components of the Global Innovation Index (GII)

A comprehensive assessment of the status of the components of the GII will need to be made to identify points of enhancement in their effects. This should be complemented by regular and constant sensitization of policy makers on the need to have these components relate to each other through sound policies

### Conclusion

Going forward RUFORUM should realign its focus on making the research outputs go beyond the publication platforms into innovations that will change the strategy in dealing with poverty. We should not lose ground in publications but let the scientific results be turned into innovations. When society feels the benefits of research, pre-requisites by provision of well-trained scientists, the support for Research and Development shall receive the necessary support from policy makers. This begs on the rather unwelcome statement shared with researchers that *'people cannot eat papers!'* There is need for a concerted effort to deal with **'Knowledge Application'** and the aspects of **'Creative Outputs!'** away from business as usual.

The RUFORUM program on Young Innovators deserves more focus with experiences from this being made part of the curriculum in the capacity building for improved quality of education, **'start them young!'**

### About the Author:

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This is our sixth issue in a series of articles we are releasing as part of the RUFORUM Seventh Africa Higher Education Week and RUFORUM Triennial Conference Digests. More information about the conference is available at <https://www.ruforum.org/Triennial2021/>. Join the Conversation on Social Media using our Official hashtag **#AfricaHEWeek2021**