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Linking Agricultural Universities with Civil Society, the Private Sector, Governments and other Stakeholders in support of Agricultural Development in Africa
Partnerships to unlock the Potential of Agricultural Development in Africa

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Foreword

Global dynamics indicate that the world is at a position of immense opportunities primarily driven by the surge in innovation from all parts of the world and not merely limited to the high-technology sectors (Crunchbase, 2016). Population is expanding and so are markets and product value chains; in all innovation is playing a critical role. The 2030 Agenda for sustainable development recoganises that significant progress has been made in meeting many development challenges, with millions of people moving out of poverty, access to education increased, and global interconnectedness strengthened through digital commons (UN, 2017). Yet, a lot more progress is still required in order to respond to pressing development needs. For example, in the next three decades, a rising global demand is projected that will put pressure on the agriculture and food sector, increased competition for limited natural resources, and the effects of climate change will continue to pile pressure on the food system. Innovation remains critical to sustaining the productivity growth required to meet the rising demand, enhance the networks that integrate sustainable food production, processing, distribution, consumption, and waste management thereby expand the opportunities and resources available on a global scale (Dutta *et al*., 2017).

Research is at the centre of facilitating advances in innovation through knowledge translation. Studies have shown that knowledge translation resulting into innovation often arises from a series of continuous efforts often responding to discrete events, history-specific problems and new technological opportunities Innovation space is widespread from every person's daily life experiences, observations, and communities to industry; for industry it has been observed that patterns of response often are industry specific and are associated with the radicalness and complexity of the innovation processes (Taalbi, 2017). Universities have a critical role as innovation centres through research processes and research products that emerge out of their undertakings (Power and Malmberg, 2008). Universities have equally recoganised the fundamental role that innovation plays in creating a competitive advantage. As such, partnerships and innovations to strengthen higher education have become critical facets sought by universities globally, Africa inclusive. To this end, building regional innovation infrastructure and learning through networking have been proven to be key to achieving successful approaches in a dynamically aligning societies (Cooke, 1996). This has allowed universities and businesses to maximize the full range of regional innovation assets at their disposal. In this RUFORUM Working Document Series Volume 14 (3), perspectives into partnerships and innovations to strengthen higher education in Africa as well as strengthening information and communication technology and knowledge management in agriculture are presented.

As earlier pointed out, the world will have to respond appropriately to meet increased demand for food requirements by the accelerating population as well as the changing consumption patterns and evolving food systems. To this end, sustainable agricultural intensification has been fronted as an innovative paradigm and approach to increasing production with efficient use of inputs on a long-term basis, whilst reducing environmental damage and building resilience, natural capital and the flow of environmental services (Seed, 2013). In this Volume 14 (3), an expose of sustainable crop and livestock production within smallholder value

chains is provided. In addition, innovations for reducing post-harvest losses within the smallholder value chains are addressed. Post-harvest losses are a recoganised challenge within the African agricultural food systems accounting for at least 30% of the food waste in general but with as much as 50%-60% of the cereal grains susceptible to loss due to technical inefficiency of storage facilities (Kumar and Kalita, 2017; Sheahan and Barrett, 2017). This Volume 14 (3) also discusses the reality of addressing risks associated with climate variability and change in agricultural systems. Climate variability and change impacts are widely discussed and how they will impact on African farmers (Muller *et al*., 2011); providing opportunity to profile what innovations and perspectives are available in the scientific community to appropriately respond is imperative. Finally, this Volume 14 (3) also tackles an issue that has had a limited consideration yet very critical for sustainability and availability of healthy protein diets; Marine science and blue economy-fisheries and aquaculture. Sustainable fisheries and aquaculture are particularly critical to securing food and nutrition security among the world's poorest regions such as in West Africa, Asian coastal regions and many island states whose proportion of dietary protein intake is in the region of 60% and beyond (EU, 2015).

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