Engaging African universities in agriculture and food and nutrition security process in Africa: a policy perspective

Allow me to thank and acknowledge the efforts and commitment displayed by organizers of the Regional Universities Forum for Capacity Building in Africa (RUFORUM). Your vision of vibrant, transformative universities catalysing sustainable, inclusive agricultural development to feed and create prosperity for Africa, still remains relevant, more so after the advent of COVID-19 and its impact in the agricultural sector. Academia has to play a pivotal role in fostering innovative and responsive research in this challenging time for African Agriculture.

Key issues and challenges in relation to Food, Nutrition and Sustainable Agriculture in South Africa

Food security is a fundamental strategic imperative of the South African government as highlighted in many government policy documents including the South African Constitution. The right to have access to sufficient food by all citizens is enshrined in Section 27 (1) (b) of the Constitution. However, South Africa, like many of our African countries is not spared from the challenges of food insecurity, noting the current millions of our people that experience inadequate access to food currently. The advent of COVID-19 also threatens to erode the gains that we had made towards the fulfilment of the United Nations’ 17 Sustainable Development Goals (SDGs) with specific reference to SDGs 1 – of eradicating poverty and SDGs 2 of ensuring zero hunger.

There are a number of factors that affect food, nutrition and sustainable agriculture in South Africa:

(i) Loss of agricultural land to competing sectors - competition for land by other sectors is very fierce. Some of the most productive agricultural land in the Mpumalanga region is targeted for mining. This in turn places pressure on agriculture to preserve highly productive land while also exploring other options for the continued supply of grains to the country.

(ii) Climate change – the western parts of South Africa are getting drier and agricultural
production of agronomic crops is expected to shift towards the east of the country. This change in the climatic conditions is impacting on the production capacity of our country and further challenges us to adapt and mitigate against the changes that are being observed by our scientists.

(iii) **Pests and diseases** – pests and diseases impact on the productivity of our sector. South Africa has of late addressed the outbreaks of Foot and Mouth disease, Highly Pathogenic Influenza; Fall Army Worm and migratory locusts. The control of trans-border pests and diseases is important to ensure food and nutrition security;

(iv) **Water scarcity** – South Africa is a water scarce country and utilises just over 60 percent of our water for agricultural irrigation. For the available water, agriculture is driving strategies for efficient water use, including seed technologies adapted to drought. Furthermore strategies to harvest train water are used to ensure that water is conserved.

(v) **Growing levels of unemployment and poverty** - it is estimated that more than 32 million people are already living below the Upper-bound Poverty Line of R1 227.00 per person per month. This is the number of people that could barely afford to purchase additional non-food items besides procuring their essential food items in terms of the poverty line. Due to disruptions in the economy, South Africa’s unemployment rate, already one of the worst in the pre-Covid-19 period at 29%, could escalate and this could have an impact in terms of the affordability of food.

South Africa through policy and legislative interventions is already responding to the challenges as outlined but due to the brevity on this intervention, I will restrict my intervention to the whole of government approach that we have adopted towards tacking the matters. Government, business, labour and communities have also agreed to work on a social compact within the agriculture and agro-processing to ensure that challenges in the sector are tackled with verve by all sector stakeholders.

**The European Union has supported South Africa in addressing FNSSA challenges**

South Africa has worked with the EU to address a number of FNSSA challenge through a number of innovative initiatives. These initiatives are driven by government and its State Owned premium research institution, the Agricultural Research Council. Allow me to highlight a few of these interventions:
(a) **The Soils4Africa project** - which will overcome constraints in the compilation of soil databases for Africa as these are often compilations of datasets generated for different purposes and therefore based on a variety of methods for soil sampling and analysis. Soils4Africa aims to develop a soil information system that uses a sound sampling framework, uniform methodologies for data gathering, accompanied with thorough documentation of the methodologies. The project will develop a methodology that can also be used for continental scale soil quality monitoring in the future, as well as for national level data collection and soil monitoring. The Soils4Africa consortium has obtained massive support in Africa for its objectives and methodologies from national agricultural research institutes, national soil institutes and universities.

(b) **CIRACASA project** - the Agricultural Research Council was involved in the compilation and submission of a proposal in reply to the H2020 topic SFS-50-2017 - Supporting international cooperation activities on agriculture soil contribution to climate change mitigation and adaptation. The project is titled ‘Collaboration for International Research on soil Carbon Sequestration in Agriculture’ (CIRCASA). This project supports the ‘4 per 1000 initiative on soils for food security and climate’. The overarching objective of the CIRCASA project is to develop international synergies on soil carbon sequestration research and knowledge transfer.

(c) **LEAP4FNSSA project** - the ARC participates in the Long-term EU-AU Research and Innovation Partnership for Food and Nutrition Security and Sustainable Agriculture (LEAP4FNSSA) which is a Coordination and Support Action (CSA) whose main objective is to provide a tool for European and African institutions to engage in a Sustainable Partnership Platform for research and innovation on Food and Nutrition Security, and Sustainable Agriculture (FNSSA). ARC was instrumental in the Work Package 1 of the project which provides support and information services to the various structures that govern the bi-regional partnership in FNSSA, and facilitates evidence based decision-making.

**Relation to the our response as South Africa and engagement with research agencies including universities in the design, implementation and evaluation of FNSSA policies, frameworks and programme**

The ARC has established partnerships with various Universities in South Africa collaborating in research, technology development, education and training as well as public awareness. To date,
the ARC is the main financial contributor towards the operations of the Centres of Collaboration at a cost of R2, 5 million per year. Each Centre of Collaboration has a mandate in a specific priority area:

i. **Ensuring healthy nutrition through broadening the food base**
A collaboration that includes University of Free State and Durban University of Technology with an objectives of:

- Developing new food sources, particularly from neglected and underutilized crops such as Bambara groundnuts, amadumbe, cactus pear, amaranth and cowpea;
- Providing scientific information about the nutritional value of the new food crops and educate the public;
- Training students at postgraduate level; and
- Delivering scientific publications.

ii. **Climate Change**
Collaborating partners include UNISA and University of Pretoria with objectives of:

- Conducting research and development to generate knowledge and solutions for agriculture resilience towards climate change;
- Promoting the sharing of climate change expertise and other resources (e.g. facilities, equipment etc.);
- Training students at postgraduate level; and,
- Deliver scientific publications.

iii. **Agricultural Economics**
Collaborating partners include University of Limpopo, University of Fort Hare and University of Pretoria with objectives of:

- Identifying, measuring and demonstrating the impacts of investments (public and private) in agricultural research and development on the agricultural sector in South Africa as well as on the national economy;
- Conducting seminars, colloquia, short course training and staff exchange;
- Education and training of postgraduate students; and
- Scientific publications.

iv. **Food Security**
A Centre of Excellence established by the Department of Science and Innovation. ARC is participating as a collaborating partner with other entities. South Africa also collaborates with SADC on the implementation of the Regional Vulnerability Assessment and Analysis Programme. The Programme aims to understand the livelihood systems in various Livelihood Zones, District, Local Municipalities, provinces and at National level to determine the extent of food and nutrition insecurity in the areas.

More needs to be done to engage the private sector and to get them involved as critical actors in the partnership for FNSSA. Effort should be made to explore mechanisms through which innovation cooperation with the private sector can be enhanced, and the possible incentives and policy instruments to attract the private sector in Africa. Our commitment towards Agenda 2063 and supporting the African Union Research Grant System is key towards enabling the partnership on AU – EU in the FNSSA, particularly between universities.

Finally, the South African Government acknowledges the critical role Universities play not only in human capital development but also in generating knowledge and innovations and informing policy. We need to continue to strengthen engagement of African Universities in our development processes: we need to engage them, especially through the Networks such as RUFORUM in the EU-AU FNSSA, CAADP and in foresight studies to guide our future planning. But for universities to deliver on their mandates they need support from our Governments and partners such as EU. Accordingly, we need to bring to the attention of the EU-AU Ministers meeting in September 2020, EU-AU Summit in October 2020 and the AUC Specialized Technical Committee on Rural Development and Agriculture, the key issues and recommendations of our deliberations today and that of the Africa’s Ministers meeting held in Cape Coast Ghana in December 2019.

This is our twenty fourth issue in a series of articles we are releasing as part of our RUFORUM Thought Pieces on the Corona Pandemic. This Thought piece is part of the discussion points raised by H.E Ms. Didiza during the 10th RUFORUM Webinar on “Engaging African universities in agriculture and food and nutrition security process in Africa: a policy perspective” You can get more information about RUFORUM at www.ruforum.org. You may also share your thought piece about the Pandemic with us by writing to e.adipala@ruforum.org and copying m.agena@ruforum.org

The Regional Universities Forum for Capacity Building in Agriculture (RUFORUM), www.ruforum.org
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H.E. Angela Thoko Didiza was a Member of the 5th Parliament of South Africa and appointed as the House Chairperson responsible for Internal Arrangements. In 2016, she was elected as the Chairperson of the Commonwealth Women Parliamentarians (CWP) Africa Region. Minister Didiza is the Chairperson of the AU Ministerial STC.