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Current and emerging trends in Food Systems in Africa

Excellencies, allow me to congratulate Professor Adipala Ekwamu and the entire RUFORUM family for convening this global dialogue of higher education, research, and advisory services in the context of the global UN Food Systems Summit.

I note that in the program, Africa has been paired up with the Americas, whilst Asia is teed off with Europe and the Gulf States. Whether this is by design or random, one comparator that is of significance is that the Americas, particularly Latin America, are the most significant food exporters of the world; whilst Africa is renowned for its significant food import bill.

This would ordinarily paint a gloomy picture; however, I have hope.

I would like to repeat and preface my brief remarks by repeating a bold statement that I made just over seven days ago during the 25 May Africa Day celebrations, where I declared that **the future of the world hinges on the future of Africa.**

I feel compelled to even say this louder today as I address this forum on higher education, research, and advisory services, as I strongly believe that research, particularly transdisciplinary research is the ladder for Africa's transformation.

Africa is indeed the future, not just for Africans but for the whole world.

Africa can feed itself and can feed the whole world as it capitalizes on its demographic dividend and natural resource wealth.

By 2030, young Africans are expected to make up 42 percent of the world's youth and account for 75 percent of those under age 35 in Africa. Further, 60% of the world's arable land is in Africa, and 79% of Africa's arable land remains uncultivated. Overall, Africa has about 9% of the world's freshwater resources and 16% of the world's population. Moreover, the newly established Africa continental free trade agreement, which brings together 54 African countries, is the largest free trade area in the world. We are slowly taking our rightful position in the world map.

The fact that the United Nations has seen it fit to convene for the first time in history a UN Summit premised on food systems speaks volumes about a global food system that needs the world's attention, and that clearly needs fixing. One thing that is clear is that solutions from business as usual, and those from within our silos and compartmentalized education and development systems, will no longer create sustainable solutions.

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We are talking about creative, sustainable solutions that address not just one but all three components of sustainability from the economic angle, social angle, and environmental angle. We need to go back to the drawing board and look at the very basic societal challenges that the world faces and that Africa faces. We can be clever and pull lessons from the ongoing COVID-19 pandemic that has brought the world to a standstill.

With regards to food systems, three burning questions that are live in most African countries are:

- (1) How do we protect human health from zoonotic diseases?
- (2) How do we protect humans from climate change?
- (3) How do we feed and nourish the growing population and provide dignified livelihoods and create opportunities for the youth?

The answer lies in transformational sustainable food systems; from the farmers' fields to the plate on the table and the very people who consume the food - **everything needs to change and embrace the call for sustainability**. After all, food relates to all 17 sustainable development goals (SDGs), and so without transforming our food systems, there is little chance of achieving the SDGs by 2030. This clearly calls for transdisciplinary approaches where researchers, the education system, and the delivery of advisory services are accompanied by multiple disciplines intentionally curated to solve societal problems.

I am happy to report that the African Vice-Chancellors that met up at the University of Pretoria Inaugural Africa Week, which was held on 9-10 March this year, were able to articulate the challenges in our broken food systems and recommend solutions. The five challenges that were highlighted included:

- (1) The lack of visibility and understanding of what a sustainable food system looks like,
- (2) Poor governance in the system,
- (3) Funding that is inadequate for research,
- (4) Poor training, and
- (5) policy discord

In order to transform the African food systems, the Vice-Chancellors highlighted:

- (1) Developing sustainable diets by taking an integrative food systems perspective to deliver health and wellbeing, linked to the transformation towards the circular economy and bioeconomy
- (2) Enabling transformation to a healthy diet and good nutrition
- (3) Understanding food production and utilization issues, covering areas of efficacy, sustainability, climate risks, and diversity of resources
- (4) Capitalizing on opportunities and the coming together of the biosciences and other rapidly advancing sciences
- (5) Addressing the linkages between food, nutrition, energy, water, and health, and
- (6) Promoting activity at the science-policy interface, thereby reconciling policy disconnects.

On the issue of policy, the Vice-Chancellors took a deep dive to come up with the four things that must happen:

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- (1) We need to change from an inclusive focus of increasing agricultural supply in the context of population growth to working towards a radical transformation of food systems as a whole. This is needed so as to improve food security and nutrition and achieve Agenda 2030.
- (2) We need to change from viewing food systems and nutrition as a sectoral issue and view it as systems inter-connected with other systems and sectors.
- (3) We need to change from an exclusive focus on reducing hunger and undernutrition to focusing on hunger and malnutrition in all its forms in their complex relation to one another and to nature.
- (4) We need to focus on finding globally applicable food security and nutrition solutions to understanding our own context specifics requiring diverse solutions.

I am happy to report that these recommendations were submitted to the UN Food Systems Summit Working Group, and I am meant to understand that the message has already been incorporated into the various working groups. The submission was made by the African Research Universities Alliance - Centre of Excellence in Sustainable Food Systems (ARUA-SFS), which by the way is a partnership between three African universities, the University of Ghana, University of Nairobi, and the University of Pretoria, whose vision is to harness partnerships for cutting edge science.

I have every reason to believe that Africa can and will be able to feed the world. We are already making major transformational changes. I would like to share three recent events that have reignited my belief in Africa as the emerging lion:

- (1) Just a few weeks ago there was a ship on the high seas sailing to Rotterdam in the Netherlands carrying export agricultural products from South Africa. This ship was carrying 3D printed avocados fitted with microcomputers from the University of Pretoria where we were measuring the impact on the produce by the ship's movement and sending live real-time data to the University of Pretoria's Engineering 4.0 Complex.
- (2) Secondly, on the 18th of May, we hosted at the University of Pretoria Future Africa Campus, the first Nobel Prize Dialogue in Africa, which focused on "the Future of Work". The open cross-disciplinary forum brought together a unique constellation of Nobel Laureates, world-leading scientists, policy makers and thought leaders to discuss global issues that affect us all. The Dialogue centered on three broad themes: the role of education and training, and how it is adapting to suit changing needs and patterns of work; our relationship with industry and employers and how the nature of employment will change; and the social and environmental impact of work. The impact of technology is central to almost every aspect of our lives and will naturally form a cross-cutting theme, in creating the Africa we want. To host the Nobel Prize Dialogue for the first time in Africa means that Africa has joined the critical conversations on current major issues that are both local and global. It further means Africa's voices will be part of the discourses shaping the choices that influence the future.
- (3) Exactly five days ago on the 28th of May, we broke new records by hosting two sitting Presidents, South Africa's President His Excellency, Cyril Ramaphosa and the French President His Excellency, Emmanuel Macron, who were at the University of Pretoria as part of the visit to the Vaccine Production Support Initiative for Africa. From the

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discussions held and the evidence at hand, there was consensus that Africa has the capabilities and the experience to produce vaccines.

I am happy to say that at the University of Pretoria, it has not been just the hosting of sporadic events, but we have institutionalized the whole journey of creating the Africa We Want by establishing a fully-fledged center, the Future Africa campus, where we are hosting the best of the world's scholars with dedicated research chairs for coordinated transdisciplinary research to find sustainable solutions to Africa's complex challenges and development targets.

Future Africa is an African-focused initiative, promoting research by establishing multinational academic leadership networks, conducting impactful, future-focused research that is relevant to Africa, but also to the rest of the world. We do this on the premise that through excellent research, Africans can and should be leading the transformations needed by that our continent and our world. The Center has a strong focus on capacity building and seeks to empower future leaders both doctoral and post-doctoral students, to become cutting edge researchers who have transdisciplinary research capabilities in their DNA.

The UN Secretary-General António Guterres has raised the bar for us by hosting a science led food systems summit. We as universities should not be left behind. We are at a pivotal moment of elevating the food systems discourse and providing answers through innovative transdisciplinary research that automatically provide solutions that can be packaged for impactful advisory services, and policy development.

I want to stress that, within our organizations, we need to understand and build the capabilities we need for the future and re-examine and redesign the processes we use in running our organizations and delivering our service offerings.

Our hard and soft infrastructure may need to be adapted, upgraded, or repurposed to support our reimagined strategic intent. All of this needs to be done through partnerships, leveraging technology and in a way where transdisciplinarity and collaboration are embedded and hardwired by design into our core functions of research, education, and engagement.

In this transformation, we are charting new territory. Its ultimate success will be determined by our ability to learn and share knowledge with each other, collectively seeking an iterative and ongoing cycle of renewal and resilience.

As we go forward, we will maintain the momentum we have created. This gathering, **the Global Dialogue of Higher Education, Research and Advisory Services Networks, and selected Actors** forms the basis of a powerful guiding coalition to collaborate and strengthen the partnerships we have formed.

For us in Africa, all this is being done with full recognition that Africans will need a mindset change to embrace the new way of doing business. We will need digital transformation; we will need innovation hubs; we will need partnerships that provide equity and shared value. These needs are entrenched in the African Union Charter, which details our aspirations of the Africa We Want - which is to transform Africa into the global powerhouse of the future that aims to deliver on its goal for inclusive and sustainable development, including to feed ourselves.

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The journey has begun, and I have every hope in Africa as we curate our journey of transforming sustainable food systems and creating the future we want. We are making significant strides to make sure that Africa is a leader and that the future of the world hinges on the future of Africa. We have exciting times ahead, and I urge you all to be part of the food systems transformation agenda and to be part of a relentless pursuit for a better world, and for a better Africa.

That is our calling.

This is our Sixth issue in a series of articles we are releasing as part of our RUFORUM Thought Pieces on the Pre-UN Food Systems Summit 2021. This Thought Piece is part of the discussion Issues presented by the author during “the Global Dialogue of Higher Education, Research and Advisory Services Networks and selected Actors”. You can get more information about RUFORUM at www.ruforum.org. You may also share your thought piece about the Food Systems with us by writing to e.adipala@ruforum.org and copying e.acan@ruforum.org

About the Author

Prof. Kupe is the Vice Chancellor and Principal of the University of Pretoria, South Africa. He holds a DPhil in Media Studies from University of Oslo, Norway and an Honorary Doctorate in Humanities from Michigan State University. He has authored several journal articles, books and book chapters. He is an active member of several Civil Society Organisations, including the AmaBhungane Centre for Investigative Journalism and is Chairman of the Board of Media Monitoring Africa.

He has been a judge and convener of multiple major journalism competitions in South Africa and is a member of the Council of the International Association of Media and Communication Research. He is also a member of the Association of Commonwealth Universities Council, the National Advisory Council on Innovation in South Africa, and Advisory Committee of the South African Sustainable Development Goals Policy Support Initiative.