

# Arthur Makara, scientist Uganda's has a robust agricultural research system

A few days ago, I wrote in the *Neo Vision* clarifying that the President is likely to have been misinformed on the decision to defer the signing of the National Biosafety Act 2017 into law (*Neo Vision*, December 29, 2017).

I based my argument on the nature of the issues he raised regarding the Bill, which I felt were a reflection of something else other than the President's well-established views on science, technology and innovation and specifically on biotechnology.

Whereas a number of people, especially the 'anti-everything movement' in Uganda including some sections of the civil society and political commentators were quick to jump and for the first time praise the President due to this decision, I would like to reiterate my view that they are misleading the country.

For those who did not know, Uganda's agricultural research system is indisputably one of the best in Africa, funding constraints and brain drain notwithstanding. Uganda lies slightly behind South Africa and Egypt in agricultural research capacity. Most of our neighbouring countries have had to rely on Uganda's agricultural scientists to strengthen their agricultural research systems.

Those that have good science, a cadreship have had to learn our agricultural research management systems (ARMS). For instance, in 2014, Kenya had to reform her ARMS from institute-based system (formerly Kenya Agricultural Research Institute – KARI) to Uganda's organisation-based, "single-spine" ARMS and renamed it as Kenya Agricultural and Livestock Research Organisation (KARLO).

Rwanda and South Sudan had to hire Ugandan expertise to establish their agricultural research systems, a few years ago. Thus, we have the best of the best in sub-Saharan Africa and the Government, especially the President's letter to a large extent, disappointed and demoralised Uganda's scientists, given the way it was framed.

It gave the impression that Ugandan scientists are unethical, ill-intentioned in their work, non-patriotic and should not be trusted and yet a few weeks ago, when the President supported increase of public servant's salaries, he directed that the salary enhancements should start with scientists because they are the county's most strategic cadres!

Your Excellency, the scientists are wondering why such a sudden change of perception of them?

For the information of the public, I beg to be pardoned for mentioning some of the key leaders of Uganda's agricultural



research system, its architects and forefathers such as Prof. Joseph Mukibi formerly of Makerere University, founding director general of NARO and founding chairperson of the Forum for Agricultural Research in Africa (FARA).

Prof. Mukibi also helped establish South Sudan's agricultural research system and many others in Africa; Dr. Cyprian Ebong, the current executive secretary of the Association for Strengthening Agricultural Research in East and Central Africa (ASARECA) – covering 20 countries and the former deputy director general of NARO. Dr. Ebong also helped establish Rwanda's agricultural research system; Prof. George William Otim-Nape, former director general of NARO and current executive director of Africa Innovations Institute.

Prof. Otim-Nape and Dr. Anton Bua of NARO are credited with successfully fighting the deadly cassava mosaic virus disease in 1990s; Prof. Elly N. Sabiiti, professor at Makerere University and former dean of agricultural sciences. He and others at Makerere have built for the future of Uganda's agriculture; Prof. Patrick Rubaihayo, professor of plant breeding and biotechnology at Makerere University and the father of biotechnology in Uganda; Prof. Adipala-Ekwamu, founder of Regional Universities Forum for Capacity building in Agricultural Research (RUFORUM), which is a consortium of over 30 universities in Africa, the US and Europe. Has helped train hundreds of Ugandan and Africa's next generation of agricultural scientists at MSc and PhD level; Dr. Fina Opio, former director of NaCRRI, Namulonge and immediate past executive secretary of ASARECA; Dr. Dennis Kyetere, former director general of NARO and current executive director of African Agricultural Technology Foundation (AATF) based in Nairobi; Dr. Silim Nahdy, former director of NARL, Kawanda Research Institute, founding executive dDirector of NAADS and current Executive Director of Forum for Agricultural Research in Africa (FAAAS). There are hundreds of other scientists

such as Prof. Wilberforce Tushemereirwe, current director of Kawanda and lead banana research scientist as well as Dr Ambrose Agona, the current director general of NARO that are still actively serving this country. I cannot forget to mention Dr. Wilberforce Kisamba Mugerwa, former Minister of Agriculture and executive chairman of the National Planning Authority.

The departed heroes of agricultural science and biotechnology include Dr Abel A.A. Rwendeire (RIP), former chairman of Makerere University Visitation Committee and deputy executive chairman of the National Planning Authority and Dr. Israel Kibirige Sebunya (RIP) former Director of Kawanda Agricultural Research Institute, an NRM cadre and Minister of Agriculture for many years.

Ugandan scientists have in the recent past won international accolades for ground breaking research in various aspects; the most recent ones being Dr. Robert Mwangi formerly of NARO and now at International Potato Centre (CIP) that won the Global Food Prize for 2016 awarded in Des Moines Iowa, in the US for his ground-breaking research in improving Vitamin A in sweet potatoes, to help address the global challenge of malnutrition. The Global Food Prize is the equivalent of the Nobel Peace Prize, but in this case for agricultural development. The other person that was awarded is Dr Godfrey Asea, the current director of National Crops Resources Research Institute, Namulonge who won International Alumni Award of 2016 from Michigan State University, in the US for his research on maize.

Uganda has been praised globally for its quality of scientists and scientific outcomes, and the evidence is there for everyone to see. The MPs passed the National Biosafety Act because many of them who went to NARO institutes – Namulonge, Kawanda, the National Gene Bank in Entebbe, Livestock Research Institute, in Tororo and Makerere University teaching and research laboratories were amazed at what Uganda has in terms of capacity and the quality of scientists and the science they are doing.

They were further encouraged by the patriotism of the scientists and above all the need to give scientists a legal and regulatory direction as they continue with new and emerging endeavours such as biotechnology for the benefit of all Ugandans.

I, therefore, encourage the President to consult more with his cadres –the scientists.

**The writer is the executive director of the Science Foundation for Livelihoods and Development**

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