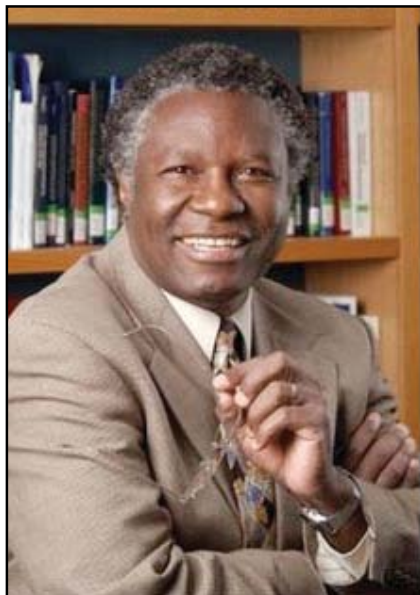


GROWING AFRICA

Technological Leapfrogging in Agriculture

By Professor Calestous Juma



It is estimated that nearly 60% of the world's arable land is in Africa. This provides the continent with a historic opportunity to create new agricultural systems that are inclusive and sustainable.

As argued in *The New Harvest: Agricultural Innovation in Africa*, it is an opportunity because Africa has the potential to leapfrog and pursue different agricultural strategies that are both inclusive and sustainable. Africa has access to much larger quantities of scientific and technological knowledge compared to Mexico and India when they launched the Green Revolution in the 1960s.

These technologies include conventional plant breeding, information and communications technologies, biotechnology, space satellites, agricultural drones, farm robotics, nanotechnology, biopolymers and 3D printing for machinery design and manufacturing.

But even more importantly, Africa has demonstrated clear commitment to putting agriculture at the center of the development process. This is reflected in the adoption of the Comprehensive Africa Agricultural Development Programme (CAADP) in 2003 under the political oversight of the African Union and its technical arm, the NEPAD Agency.

Ten years later at the May 2014 Joint Conference of African Ministers of Agriculture, Rural Development, Fisheries and Aquaculture in Addis Ababa, African Ministers recommended that Heads of State and Government renew and strengthen their commitments to sustain the CAADP momentum toward advancing Africa's agriculture and food security for the next decade.

In addition to various political commitments, the AU is developing its Agenda 2063 that provides a coherent framework for leveraging the potential of agriculture a driver for deeper economic transformation, regional integration and international trade.

To harness the globally available technologies, African leaders will need to take into account the multisectoral dimension of African agriculture and pay particular attention to the urgency of investing in rural infrastructure, higher agricultural training and creation of regional markets.

Infrastructure and regional markets are already receiving high-level policy attention. In that context, the Dakar Financing Summit for Africa's Infrastructure will take place mid-June 2014 with the ambition of forging

collaborative public-private solutions for the implementation of a set of priority regional infrastructure projects in Africa. But infrastructure and markets will not function well without upgrading human competence to meet the growing challenges. Transforming agricultural education, especially through vocational and university training, should therefore be given high priority.

The challenge is not just about providing training. It entails creating new universities that combine research, training, agricultural extension and product commercialization under a single institution. Such universities, colleges and institutes can be created by upgrading many of the training centers that existing in numerous ministries.

The new generation of institutions of higher agricultural learning should specifically focus on women. An example of such an institution is the African Rural University for Women in Uganda. Other university models could focus on the full value chain of staples such as banana, cassava, rice, maize and potatoes.

Such reforms will require high-level coordination, especially in the offices of presidents and prime ministers. Such coordination needs to be guided by the best available scientific and technical knowledge. African countries should therefore set up Office of Science and Innovation Advisors to Presidents and Prime Ministers to ensure that they are not operating in scientific darkness and technological short-handedness.

It is through such major institutional innovation that Africa can take full advantage of its land as a strategic resource and use it for inclusive economic growth and sustainable development. Without doing so it will only harvest the

bitter yield of mounting economic and ecological challenges.

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East African Community receives a boost in the fight against Malaria

The anti-malaria and reproductive health drive in East African countries has been enhanced, through the approval of five significant drugs for the region. This follows the endorsement by the East African National Medicines Regulatory Agencies of five anti-malarial and reproductive health products.

The fast approval of these drugs will contribute to increasing access to the most needed safe and quality medicines and increase public confidence in the health delivery system.

The generic products — three for anti-malaria and two reproductive health drugs (under the trade names of Falcimon, Misoprost 200 and Pill 72 respectively) were approved under the World Health Organisation (WHO) Pre-Qualification Programme and registered by the three national medicines regulatory authorities of the East Africa Partner States in less than a year. This is faster than the average time required for the WHO prequalification and that of the East African Community's country registration for a generic medicine. Normally, registration of medicines can take up to two years.

The drugs are now registered by Rwanda's Ministry of Health, Tanzania's Food and Drugs Authority and National Drug Authority of Uganda.

In a pilot project in July 2013, the five multi-source products were reviewed jointly by East African Community Partner States under the Medicines Regulatory Harmonization (MRH) Programme. The Programme is supported by NEPAD African Medicines Regulation Harmonisation (AMRH) Initiative, which was established in 2009.

AMRH contributes to improved regulatory standards and practice. It helps reduce technical barriers to trade among African countries. This ultimately increases access to quality and safe medical products for African citizens. It achieves this by promoting harmonization of medicines regulations among African countries within Regional Economic Communities (RECs),

reviewing medicines and regulatory policies and putting in place appropriate legal framework.

Harmonized medicines regulatory processes benefit regulators and manufacturers by reducing costs and helping to eliminate duplication of efforts.

It was the first time that EAC countries reviewed applications together. Joint dossier assessments reduce complexities in introducing new products in the market. It also minimizes the number of applications that must be submitted by manufacturers to the five Partner States.

Building on the lessons learnt in the EAC, the Consortium of partners is now working with other Regional grouping in Africa to launch two programmes, in the West and Southern Africa within the next 12 months.

