

World view



By Alfred R. Bizoza

Meet Africa's challenges with African know-how

The continent has a golden opportunity to develop innovative, home-grown solutions to the problems it faces.

This week, science-policy specialists from around the world are gathering in Kigali for the fifth conference of the International Network for Governmental Science Advice (INGSA). It's the first time that Africa is hosting the meeting, and this year's event marks ten years since INGSA was founded and began helping to shape the global discourse on evidence-informed policymaking.

There has been much to talk about. The past decade has seen the advent of the United Nations Sustainable Development Goals, which have shown the need for improved evidence-supported processes to address global challenges and the huge societal transformations we have come to realize they require. The world is also seeing a rapid transition to a data-driven 'fourth industrial revolution' powered by technologies, such as artificial intelligence, that have the potential to disrupt not just markets, but the foundations of humanity, too.

In Africa and many other parts of the world, impediments to growth and development include poverty and food insecurity, unemployment, gender inequality and inequity, limited opportunities for rural-to-urban migration, and inefficient use of land and other productive resources. Combined with ongoing economic recessions and the all-encompassing urgency of the climate and biodiversity crises, these problems present challenges to infrastructure, institutions and ecosystems worldwide.

But the current circumstances also offer an opportunity for African nations. By capitalizing on its strengths and learning from mistakes made elsewhere, Africa can lead the charge in promoting sustainable innovation. The journey should start in Kigali, with an increased political commitment to embrace evidence, empower young African leaders, foster collaborations within and beyond borders, and adapt to digital innovations that aid systemic change.

Despite – or perhaps because of – its challenges, Africa is already a hub for sustainable innovation. Take the field of food systems, in which I work. Resilient agroforestry and climate-smart agricultural practices, including those using traditional methods such as flood-recession farming, have boosted food security. Business-oriented nutrition models have helped communities to diversify food sources, improve nutrient intake, increase productivity and boost incomes.

African researchers often know what is needed, and how and when implement it. But change can be impeded by over-reliance on innovations designed in other countries, and by a limited capacity to adapt imported science and

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Alfred R. Bizoza

is professor of agricultural economics at the University of Rwanda in Kigali, and is interested in food-systems transformation and policy. He is the team leader of the INGSA-Africa Hub, Rwanda. e-mail: alfredbiz23@gmail.com

technologies to local contexts. What we need is 'supported independence' of science and innovation in Africa, with the aim of designing innovations that work for us.

A groundbreaking step would be for African researchers worldwide to come together to share insights on how to tackle the continent's problems. Multinational organizations already active in our countries, such as the Alliance for a Green Revolution in Africa, the Forum for Agricultural Research in Africa and the US-based Bill & Melinda Gates Foundation, must support our researchers and our governments to seek and use robust evidence that is developed in context and can target African problems.

An evolution in INGSA's role will be crucial here. INGSA's African chapter was, in 2016, the first to be set up, helping to import best practice in science advice to the region. In 2022, the regional INGSA research and training hub, which I lead, was established at the University of Rwanda. The centre now offers opportunities to test how science for transformative innovation, and the public policies that support it, can be developed and applied to the distinctive contexts of African nations. It could increase the region's capacity for science advice by raising awareness, supporting training and encouraging research on advisory principles, processes and practices.

All too often, a lack of evidence-based planning in African countries has produced a breeding ground for trial-and-error interventions that are difficult to scale up and not considered sufficiently supported by research to attract partnerships from wealthy nations. Changing this shouldn't be about passively receiving knowledge and technologies. African countries must not just be part of a chorus, but also have leading roles, by creating environments conducive to data gathering and sharing, impactful analyses and promotion of collaborative action.

That should play to Africa's existing strengths by, for example, incorporating Indigenous knowledge systems that have historically supported the continent's socio-economic development. African nations should identify and empower advocates of change in sectors, such as agriculture, with extensive Indigenous knowledge, and apply similar lessons to emerging areas, including mining and construction. They should also recognize that, although digital infrastructure is crucial in the contemporary world, its absence need not hinder innovation and experimentation – while recognizing that a policy landscape is needed that aids investment in suitable digital infrastructure and innovation ecosystems.

All these initiatives must be approached with inclusivity in mind, taking advantage of Africa's diverse culture, its young people and its resilience. Who better to lead the next wave of transformational tech and social innovation than populations that are already primed to 'leapfrog' directly into clean, sustainable and equitable developments?