

Nigerian scientists call for biotech to address food security in Africa

B iotechnology has the potential to reshape agricultural policies in Africa by addressing both climate change and food and nutritional security, said Benjamin Ubi, president of the Biotechnology Society of Nigeria (BSN). Ubi, speaking to the Alliance for Science on the sidelines of the group's annual conference, stressed the importance and challenges of ensuring enough healthy, nutritious food to feed future generations.

"This year's conference, centered on food security in sub-Saharan Africa, was timely and apt considering the fast-growing population on the continent, particularly in Nigeria," Ubi said. "We have long recognized that there is a dire need for us to harness the tools of biotechnology to increase food production towards achieving food security in Africa."

"We cannot continue to do agriculture without deploying science, considering the impacts of climate-change around the world," he added.

Ubi said he considers biotechnology of utmost importance not only to agriculture, but other sectors of the Nigerian economy, including medicine, the environment and industry. With this wide-ranging potential, he said, Nigerian biotechnology experts need to come together to chart ways to ensure the use of biotechnology tools in Nigeria and Africa.

"Our expert base is wide, and we have scientists working in different areas of biotechnology, including medical diagnostics and forensics, pharmaceuticals, crop genetics, breeding and genomics, as well as examining the safety and legal issues of biotechnology," he said.

Ubi noted that the establishment of the National Biosafety Management Agency (NBMA) — as well as the [recent amendments of the NBMA](#) Act of 2019 to include modern biotechnology — was a tremendous boost for Nigeria.

"Now, scientists have the legal framework under which they can carry out their research," he noted.

Dr. Yemi Akinbamijo, executive director of the [Forum for Agricultural Research in Africa](#) (FARA), gave the keynote address, outlining the opportunities that agricultural biotechnology present for achieving food security on the continent.

"The role of biotechnology towards achieving food and nutrition security in Africa cannot be overemphasized," he said. "With the current demographic boom in Africa and limited land for cultivation, projections currently have it that by 2050, not more than 10 percent of global food production will be attributable to expanded cultivable areas. On the contrary, the remaining 90 percent of our food will arise from agricultural biotechnologies.

“Hence, we have to deploy new production technologies, and science is humankind’s greatest resource with the potential to meet the growing demands of food and nutrition in Africa — just as it holds for other countries around the world,” Akinbamijo added.

Akinbamijo called for “more science in politics and less politics in science,” adding that there is a need for scientists to constantly engage the public and policymakers.

“Policymakers provide us with the framework within which science and scientists operate, he explained. “Therefore, we need adequate science policies to drive scientific innovations. We need to have a systematic way of engaging with policymakers to provide them with credible scientific information to make science-based decisions,” Akinbamijo said.

FARA is well positioned to deploy science and biotechnology in order to enhance agricultural productivity on the continent, Akinbamijo said.

“As an institution, we are the custodian of the Science Agenda for Agriculture in Africa, which is aimed at connecting science to transform Africa’s agriculture,” he said. “Thus, we have a much bigger and constructive role to play in the deployment of science on the continent.”

Akinbamijo noted that Africa has the world’s highest population growth rate while at the same time being the most science-deficit continent in the world. A solution to that dilemma may be better advocacy, Ubi suggested.

“We need to do more advocacy for biotechnology in Nigeria and ensure accurate dissemination of scientific information, particularly on agricultural biotechnology,” Ubi said. “Many people are misinformed and consequently they are not stating the scientific facts behind GM technology.”

BSN is Nigeria’s top professional body focused on promoting biotechnology research, innovation and advancements across universities, research institutes, government agencies, industries and the global community. Its annual conference provides a platform for the exchange of ideas among Nigerian scientists from various scientific backgrounds on the concept and application of modern biotechnology.

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