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Role of modern biotechnology in Africa nutrition

Ademola A. Adenle
United Nations University-Institute of Advanced Studies (UNU-IAS) Science and Technology for Sustainable Societies, Japan

The protein-energy malnutrition and micronutrient deficiencies, continues to be a major health burden in sub-Sahara Africa. Most women and young children that represent agricultural labour force lack adequate intake of essential micronutrients such as vitamins, minerals and trace elements. Intervention to prevent or reduce protein- energy malnutrition is to apply new innovation to improve human nutrition. Modern biotechnology, especially, genetic modification (GM) technology has a significant role to play in the improvement of essential micronutrients. Biofortification of orphan crops such as cowpea, potato, yam, banana and cassava through GM technology is fundamental to nutrition and food security. But, the lack of scientific capacity, lack of functional biosafety system and potential risks of GM represent a significant challenge in introducing the new technology in Africa. Moreover, global conflicts over development and regulation of GM have major consequences for African countries. Only four countries such as South Africa, Sudan, Burkina Faso and Egypt have commercialized GM crops in Africa. Our recent study based on stakeholder interviews in African countries shed more light on factors that may hinder the development and adoption of GM biofortified products.

Biography

Ademola A. Adenle holds a M.Sc in Genetic Manipulation from University of Sussex, UK and a Ph.D in Toxicology from the University of Nottingham, UK. He has published in several peer-reviewed international journals including book chapters. He has won prestigious awards including the best student prize for his Ph.D. research presentation at the British Toxicology Society's Annual Congress in Surrey, UK. He first authored a reviewed paper on impact of space flight on the human body and health which attracted interest from UK and US media respectively. His current research at the United Nations University-Institute of Advanced Studies (UNU-IAS) is based on the role of biotechnology in health improvement, sustainable agriculture and climate change mitigation/adaption in developing countries, particularly countries in Africa. He has visited and looked into the procedures leading to the development of biosafety regulatory frameworks across different African countries