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EMPOWERING YOUTH THROUGH AGRICULTURAL EDUCATION: PATHWAYS TO ACHIEVING SUSTAINABLE DEVELOPMENT GOALS IN NIGERIA

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Abstract
Despite astonishing ground-breaking advances in science and technology, it is sobering that agriculture remain pivotal to human survival and economic development, especially in Sub Saharan Africa where poverty alleviation, food insecurity and employment generation remain pressing concerns. However, young people's participation in agriculture has plummeted due to constrained access to education, resources, and critical modern technologies. This paper interrogates the transformative role of agricultural education in empowering young people to become propagators of sustainable development. It examines the intersections between agricultural innovation, youth empowerment, and sustainability, focusing on how agricultural training, entrepreneurial abilities, and policy support can defeat food insecurity, environmental stewardship, and rural development. The study contends that empowering youth with adequate agricultural knowledge will not only strengthen the shrinking global food systems but also contribute to realising the United Nations Sustainable Development Goals (SDGs).

Keywords: Youth empowerment, agricultural education, food security, entrepreneurship, innovation, sustainable development

Introduction
Agriculture has long been acknowledged as possessing more capabilities than any other sector to guarantee sustainable livelihoods globally (UNDP,2021) In Sub-Saharan Africa, agriculture contributes considerably to the Gross Domestic Product (GDP), providing employment for the vast majority. For instance, more than 60 percent are employed in the sector (World Bank, 2020). Despite its centrality, agriculture is often stigmatized by the youth as low-income activity, unattractive, labour-intensive, and lacking profitability. The youth demography is put at an estimated 1.8 billion worldwide, with the global south housing the majority (UNDP, 2021). As a result, upsurge in rural-urban migration and waning youth interest have compelled a demographic gap in the agricultural sector.
This trend poses significant threats to food security and stifles the United Nations 2030-sustainable development goals. To reverse the ugly trend, scholars have posited that agricultural education must not only be repositioned as a sustainable pathway for youth empowerment, it must be mainstreamed in the overall efforts of achieving global development. It has been argued that through new skill development, innovation, and entrepreneurship, youths can transform agriculture into a modern, innovative, profitable, and sustainable sector.

This paper explores how agricultural education can empower youth to contribute maximally to sustainable development, with special emphasis on food security, employment creation, technological innovation, and environmental sustainability.
Conceptual Clarification

Youth Empowerment

Youth empowerment encompasses equipping young people with the requisite knowledge, skills, and resources needed to make informed decisions and actively participate in societal development. Empowered youth can be trained to become indispensable drivers of technological innovation and agricultural transformation. In the agricultural context, empowerment implies access to resources, training and decision-making avenues.

Agricultural Education

Agricultural education encompasses formal, non-formal, and informal systems created to transfer agricultural knowledge and skills. It spans vocational training, extension services, classroom instruction, and modern digital platforms. While the formal systems are universities, colleges of agriculture/technology, and vocational schools, the non-formal outlets are extension, apprenticeships, mentorship, and farmer field schools. Informal learning takes place through, peer networks community practices, and family traditions (Akinbami, 2018). The aim of agricultural education is to establish knowledgeable and enterprising workforce with the capacity to apply entrepreneurial, scientific and technological solutions to agricultural problems.

Sustainable Development

According to Brundtland Commission, sustainable development involves meeting present needs without compromising future generations' ability to meet theirs. Agriculture intersects with an array of UN-SDGs, notably poverty reduction (SDG 1), ending hunger (SDG 2), promoting decent work (SDG 8), and implementing climate action (SDG 13).

Nexus of Agricultural Education, Youth, and Sustainable Development

Promoting Food Security

With extensive agricultural education, youths can have up-to-date modern farming techniques like biotechnology, precision farming, and climate-smart agriculture. These practices expand productivity while reducing environmental impact. Educated young people can also scale down post-harvest losses by improving processing methods, and contributing significantly to national food security.

Encouraging Entrepreneurship and Employment Generation

Agricultural education imbues in the youth entrepreneurial abilities, enabling them to create agribusinesses in the entire value chains (production, processing, marketing, and other agro-allied services). Notably, this entrepreneurial template transforms agriculture from subsistence to a profit/ business-oriented enterprise, generating employments for both rural and urban dwellers.

Technological Innovation

Young people are naturally inclined to adopt digital technologies. By integrating Information Communication Technology (ICT) into agricultural education- mobile applications, drones, and data-driven farming—fosters productivity and efficiency. Agricultural education also imbues young innovators who develop local solutions to mechanization and market access challenges.

Environmental Stewardship

Sustainability requires practices that preserve ecosystems while boosting production. Agricultural education provides knowledge of organic farming, integrated pest management, soil conservation, and

agroforestry. Youth trained in these methods become agents of climate-smart and environmentally friendly agriculture.

Rural Development and Social Inclusion

Empowered rural youth stem urban exodus by establishing vibrant local economies. Education programmes that target vulnerability communities assist to integrate marginalized groups, ensuring equity and inclusion in sustainable development.

Challenges to Youth Empowerment through Agricultural Education

In spite its enormous potential, a plethora of challenges constrain the inherent impact of agricultural education on youth empowerment:

Central to the challenges preventing youth participation in agriculture is limited access to critical resources. There is no gainsaying that for agriculture to achieve food security, ramp up income and help in diversifying the economy, improved access to credit, land, and inputs are fundamental. If these obstacles continue to pervade, the likelihood of the youth participation in agriculture would continue to be a pipe dream.

Another major challenge militating against youth participation in agriculture is the widespread negative perception of agriculture. Successive agricultural policymakers have promoted efforts aimed at changing such prevailing negative perception. For instance, a former federal minister of agriculture and rural development, who later became a two-term President of African Development Bank (ADB), Dr Akinwumi Adesina, made significant efforts to change the narrative, to the extent that he confessed to wearing English suits to alter the negative perception among the youths. To the youth demography, agriculture is widely perceived as lacking in prestige, unattractive, unsignifying, low-paying, and full of drudgery and laborious. Worse still, most admission seekers do not want to study Agriculture in the higher institutions. Even those that finally opt to study it mostly do so out of being denied their preferred discipline.

Persisting policy gaps. Policies constitute the cornerstone to achieving aims and objectives of government. Unfortunately, governments' agricultural policies are not only weak policies but grossly inconsistent and inadequate. Almost every government in Nigeria inaugurate agricultural programmes aimed at improving participation, however, the lack of continuity and support disincentivises youth participation. Perhaps if there had been continuity, the perennial problems of food insecurity and dismal youth participation would have been long addressed.

Chronic infrastructural deficits is one area where government has been terribly inept. While governments continue to reassure the citizens of elaborate agricultural intervention, the level of infrastructure remain abysmal. Regrettably, poor rural linkage roads and electricity undermine agribusiness ventures.

Curriculum Gaps

Despite the development of modern agricultural technologies and new trends, the curricula is outdated hence the failure to integrate emerging ideas and entrepreneurial training.

Recommendations

To optimise the centrality of agricultural education in the empowerment of youth and fostering sustainable development, under listed strategies are recommended:

1. Curriculum reform that prioritises the incorporation of ICT, agribusiness, climate-smart and precision agriculture into curricula. Outdated philosophies and theories in current curricula must be expunged.

2. Governments and financial institutions must make youth-friendly credit facilities and input subsidies available.

3. Expanding extension services and mentorship opportunities that will link the youth with agribusiness experts and experienced farmers.

4. Encouraging collaboration between private investors, development experts, and educational institutions to create innovation hubs.

5. Launching massive awareness campaigns aimed at rebranding agriculture as sexy, attractive, prestigious profitable and worthwhile career path for the youth.

Conclusion

Agricultural education serves as a veritable tool for empowering young people and realising sustainable development. By equipping the youth with requisite modern skills, knowledge, and entrepreneurial acumen, nations would tackle food insecurity, foster innovation, generate employment, protect and preserve the environment. Nevertheless, to unlock the untapped potential, various stakeholders ranging from the governments, financial institutions, input providers and others in the agricultural value chain must implement supportive policies and surmount systemic barriers. To be clear, empowered young people in agriculture are not only farmers, but entrepreneurs, innovators, and leaders who hold the ace to building a sustainable, resilient, and virile economies and food systems.

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