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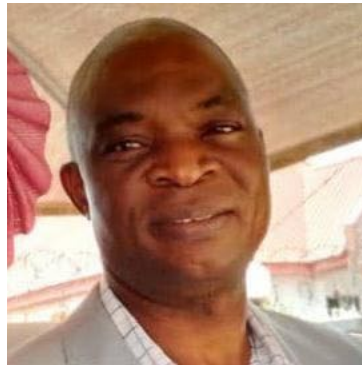
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AGRICULTURE AND THE YOUTH POPULATION IN AFRICA: AN UNDER-TAPPED RESOURCE FOR INCLUSIVE DEVELOPMENT

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ABSTRACT

Several countries in Africa and other developing nations have grown, not only astronomically in terms of population, but also economically over the past two to three decades. However, available evidence has shown that economic growth alone does not guarantee inclusivity, a precondition for development. While some economic growth initiatives are pro-poor leading to some form of segregation, others are overtly sectoral, discriminatory, and sometimes unsustainable. Meanwhile, agricultural development through a conscious and committed investment portends a good deal for inclusive transformation considering the pivotal place of agriculture in the economic fabric of these countries. Again, with the rising population of young people in the continent with no appreciable investment in new skills and technologies to catch up with the demand of 21st century labour markets, agriculture remains the only sector capable of absorbing the burgeoning demographic. The youth population in Africa represents a dynamic and transformative force for the continent's socioeconomic landscape. With over 60% of the population under the age of 25, this group can significantly drive inclusive development, particularly through agriculture. Agriculture, as a primary sector, not only supports livelihoods but also fosters innovation, job creation, and food security. Agriculture, no doubt has always provided the necessary impetus required to drive the engine of industrialisation in Africa despite the many challenges facing the sector. It is against this backdrop that this paper explores the intersection of youth engagement in agriculture and inclusive development in Africa. It highlights how empowering young people with access to education, resources, and critical technology can lead to sustainable agricultural practices and enhanced productivity. By highlighting some important initiatives, the paper illustrate how youth-led initiatives in agriculture can address critical challenges such as unemployment, rural-urban migration, and food insecurity.

Key words: Africa, Agriculture, Human resource, Inclusive development, Youth population



INTRODUCTION

There is no gainsaying the fact that Africa has witnessed some growth and development in the past two or three decades with average annual economic growth rates of more than 5 percent, which is far more than the global 3.6 percent average [1]. Against this background a number of narratives have emerged based on the realisation that economic growth on its own is not enough for Africa's transformation [2, 3]. While agriculture remains the hinge upon which the development of African countries depends, there are so many drawbacks to the realisation of the full benefits this all-important livelihood source in the continent. It has been estimated that over 65 percent of the inhabitants of the continent rely on agriculture as their source of livelihoods and survival [4]. In fact, for the greater majority of Africans, agriculture is the pivot for their existence in terms of creating job opportunities and meeting other socioeconomic obligations.

Agriculture provides the raw materials for the much-desired industrial growth and economic transformation, a prerequisite for the coveted jobs required by the growing population of youth in the continent. According to Mulikita [5], Africa has the highest population of young people in the world, with 70% of sub-Saharan Africa under the age of 30. This high number of youths is a potential resource for the continent's growth provided they are fully capacitated and empowered to realise their best potential. By 2030, young Africans are expected to constitute 42 percent global youth. According to FAO [6], "agriculture is the only sector of the economy capable of absorbing this workforce," He further said. "There is no inclusive and sustainable way forward for Africa without women, youth and agriculture. Thus, farmers, artisans and other technocrats all depend on agriculture for prosperity. Lewis [7] opined that productivity improvements in the agricultural sector are critical for economic and employment transformation, although the thinking on how they interact continues to evolve.

Early scholars of economic development ignored the prospect of within-sector productivity gains, focusing only on employment transformation, and saw agriculture as providing a deep pool of cheap labor that would need to flow into more productive manufacturing and service sectors as soon as they could start developing [7, 8]). Since then, however, agricultural growth has come to be understood as a powerful catalyst of growth for the other non-farm sectors, especially in Low Income Countries (LICs), which can initiate and support inclusive transformation processes.

INCLUSIVENESS AS A NON-NEGOTIABLE PARADIGM AGENDA FOR ACCELERATED DEVELOPMENT

Inclusivity is a necessary condition for economic development across the globe. Inclusiveness refers to equitable and fair access to opportunities and how allocation



of basic resources is organized and sustained within a geographical location or an economic unit. Specifically, inclusive development focuses on shared prosperity that is hinged on broad-based social, ecological and relational advancements. This implies that inclusive development provides that every member of the society has access to sustainable opportunities to improve their economic outcomes [9]. Therefore, inclusiveness has economic, environmental, sociological and gender dimensions. This implies that the concept of inclusion is multidimensional and multidisciplinary [10]. It has been documented in literature that sustained inclusive growth is a critical path to development. The economic growth that increases unemployment and poverty is not only unsustainable, it deepens the inequality problem [11]. According to Kanbur and Rauniyar [12], growth can either be pro-poor or inclusive. Pro-poor growth exists when income poverty is reduced within comparable periods. Inclusive growth occurs when growth comes with reduced inequality and income increases disproportionately flow to people within the lower income categories. Therefore, it follows that pro-poor growth without inclusivity is possible. Inclusive development is the sustained growth that focuses on the reduction of poverty and inequality [13]. Accelerated development can be achieved if inclusive growth is consistently achieved and sustained over a considerable period.

THE PRIME PLACE OF AGRICULTURE IN THE AFRICAN ECONOMY

Enhancing agricultural productivity and value chain is a prerequisite for reducing unemployment, poverty and food and nutrition security. Therefore, numerous opportunities exist within the agriculture sector that can help improve welfare and set Africa on the path of inclusive development. However, agriculture has not received sufficient attention across Africa. Hence, the dwindling contribution to economic development which was very high until the 1980s to very low in the 1990s. Given the abundance of human and natural resources that could position Africa for agricultural excellence, the sector remains a key instrument for sustainable development and poverty reduction [14].

Agriculture remains the mainstay of the African economy as it employs 60-70 percent of the labour force. The sector employs the majority of the vulnerable and rural poor across Africa. Agriculture contributed around 17 percent of sub-Saharan Africa's gross domestic product (GDP) in 2021. During the same period, Agriculture accounted for 10-60 percent of the GDP of 34 out of the 52 African countries that were assessed [15]. The sector provides raw materials for the industries across and beyond Africa.

Enhancing agricultural productivity and value addition is a prerequisite for reducing unemployment, poverty, associated food and nutrition insecurity. However, over the past four decades, the international consensus on the importance of agriculture in



economic development has varied from very high (until 1980s), to very low (1990s) to the current rediscovery. Now it has been increasingly recognized that in the 21st century, for the agriculture-based countries, agriculture continues to be a fundamental instrument for sustainable development and poverty reduction [14].

Generally, agriculture provides the following benefits:

- Source of food and nutrition security for the population
- Livelihood source for the rural population
- Market for the manufacturing industry (backward linkages) and raw material for agro-allied industries (forward linkages)
- Source of revenue to the government and exports

BARRIERS TO YOUTH TAKING UP AGRICULTURE AS A DREAM CAREER

Despite a growing demand for food worldwide, youth have shown reluctance to pursue careers in agriculture. This section explores the challenges that hinder their participation and assesses the potential solutions.

Youth perception about agriculture – These can be subdivided into three:

Outdated attitudes - Many young people see farming as an unattractive and low-paying job that requires hard labor, long hours, and little reward. The unattractive nature of agriculture makes it to be seen as a dirty profession meant for poor and vulnerable individuals as well as those unable to secure formal employment with government or private institutions.

Rural-urban divide in terms of infrastructure and cultural devaluation – Despite concerted effort made by governments in African countries to improve the infrastructural facilities in rural areas, many of the rural areas can only boast of dilapidated or complete lack of these important facilities that can be a booster to engender the interest of youth in the agricultural sector. For example, it will be difficult for the youth of today to consider taking up agriculture as a venture where access to internet connectivity would be a challenge in this age of information communication technology. Power outages and complete lack of access to electricity discourages the youth to consider farming especially in rural areas, where land needed for agriculture is readily available.

Also, some cultures look down on agriculture as an inferior profession and favor corporate jobs in urban settings. Some cultures in Africa perceive agriculture as being inferior or undervalued, going by the persistent rural-urban migration arising from the infrastructure divide both in terms of availability and access. In fact, the government in many of these countries have continued to make the city centres the focus of developmental programmes, with little or no opportunities to showcase thriving agricultural enterprises and reorientate the youth.



Lack of role models - Youth often lack access to successful farmers or mentors who can inspire and guide them into the field. Despite the several success stories of farmers and entrepreneurs practising agriculture as their main source of livelihood, many of these trailblazers are inaccessible or completely out of the reach of the youth. The lack of avenue or a platform for them to network or connect makes it difficult and discourages youth participation in agriculture.

Financial hurdles - There are three key issues regarding financial barriers faced by the youth, which often discourage them from taking up agriculture as a preferred profession.

Firstly, agriculture requires high capital. The start-up costs for agricultural businesses are steep, which limits access to credit and resources for most youth. These are people with no strong financial base, so getting enough capital to take off is always a challenge. Secondly, the volatility and risky nature of agriculture is another serious consideration. Agriculture is subject to unpredictable factors such as natural disasters, climate change, disease, and market fluctuations, which make returns on investments uncertain. Thirdly, lack or inadequate market is also a serious challenge discouraging youth participation in agriculture. Agricultural markets are often underdeveloped, fragmented, unfair, and inaccessible to youth, which reduces profitability and limits growth. These are some of the financial hurdles that the youth have to cross in order to thrive in the agriculture space.

Education and training – This is also a critical factor obstructing youth's interest in agriculture. For instance, most schools do not offer comprehensive agriculture education, and this leads to a knowledge gap and a shortage of skilled workers. Again, the youth face difficulties in learning agricultural skills from traditional sources, such as their parents, who may use outdated techniques and lack access to modern tools. More so, advanced technologies, such as precision agriculture, big data analytics, and robotics, require expensive equipment, software, and training are often out of reach for young farmers. All this makes engendering youth interest in agriculture a herculean task considering the dynamic nature of the world we live in today.

Social and environmental issues – Young people are concerned about the social and environmental impacts of agriculture, especially in the face of climate change and biodiversity loss. They want to make sure that agriculture can contribute to sustainable development, reduce poverty, and improve the quality of life. Agriculture can create employment and alleviate poverty, especially in rural areas, where young people face limited job opportunities. Climate change poses a serious challenge to agriculture, as it affects crop productivity, water availability, and soil fertility.



Biodiversity loss is a threat to food security and livelihoods, as it reduces the resilience of ecosystems and human communities.

Opportunities and Solutions to Youth's Drudgery in Agriculture

Despite the several barriers preventing youth from taking up agriculture as a profession, there are inherent few opportunities and feasible solutions to this problem. These include:

- **Entrepreneurship programs:** Encourage youth to start their own businesses, provide them with training, mentorship, and financial assistance. This can be done by capacitating the youth through regular training and assisting them with the needed funds, especially the start-up capital, and monitor their progress over time for sustainability.
- **Policy measures:** Support smallholder farmers and youth by providing them with credit, insurance, land, and input subsidies; improve infrastructure, marketing, and research capabilities; promote value addition and agro-processing; and strengthen the legal and regulatory framework to encourage and engender interest of youth especially women.
- **Technological innovations:** Develop affordable and accessible technologies; create online platforms for market information, e-commerce, and agricultural extension services; and use social media and mobile phones to connect young farmers and consumers.
- **Social awareness:** Educate youth about the benefits and opportunities of agriculture, showcase successful stories and role models, foster a culture of innovation and creativity, and promote the image of agriculture as a high-tech, dynamic, and rewarding career. This can be done through agricultural shows, farmers' days, seminars, exhibitions and giving awards and recognition to thriving/successful agricultural enterprises as a motivation for youth and other interested stakeholders.

WHY SHOULD AGRICULTURE AND GROWING YOUTH POPULATION DRIVE AFRICANS' INCLUSIVENESS?

Africa's untapped comparative advantages lie in agriculture, presenting why Africa must invest heavily in this sector, and surmises agriculture as an instrument to bring development to the doorstep of most Africans by engendering food security, reducing poverty and inequality, and expanding job opportunities. Odusola [16] proposes options to rethink agriculture's role as a multiplier for rural and national development and achieve the Sustainable Development Goals in a way that fosters people-prosperity-planet linkages. It is, however, noted that this link is not automatic but complex and multidimensional with productivity as the transmission mechanism. The author concludes that despite a high potential for food sufficiency, the current reality where food imports disproportionately drain scarce foreign reserves and



outpace Official Development Assistance (ODA) in Africa is synonymous with economic recklessness.

Abundant arable land and vegetation

Africa had around 1,119 million hectares of agricultural land in 2019, which was about 40 percent of the continent's total land area [17]. The land resources have been at the centre of land grabbing in the last few years. Despite the land grabbing that is estimated at 2.5 million hectares in five African countries [18], the continent has a vast agricultural land that can be harnessed for food and nutrition security. Agriculture accounted for about 17 percent of sub-Saharan Africa's gross domestic product in 2021 [19]. In addition, the continent has relatively favourable weather for agricultural activities. Therefore, the reason Africa is a leading producer of cassava, maize, yams, sorghum, sweet potatoes, plantains, millet and cocoa among others is not far-fetched (see table 1).

Human capital and demographic dividend

Abundant human capital considering the growing youth population to work in agriculture and other sectors' value chain. In 2015, the population of young Africans between 15 and 24 years was estimated at 229.6 million, making up 19.4 per cent of the total population, with children under 15 years (486 million) forming another 40.9 percent [22]. Moreover, compared to other regions of the world where the youth proportion in the population has reached a plateau or is in decline, the growth rate of the African youth population is rising. By 2030, the numbers of young people between 15 and 24 years will have increased to 331.4 million or 19.7 percent of the continent's population (see figure 1). It is clear then that by sheer numbers alone, the choices, opportunities and constraints of young people will play a major role in shaping Africa's development.



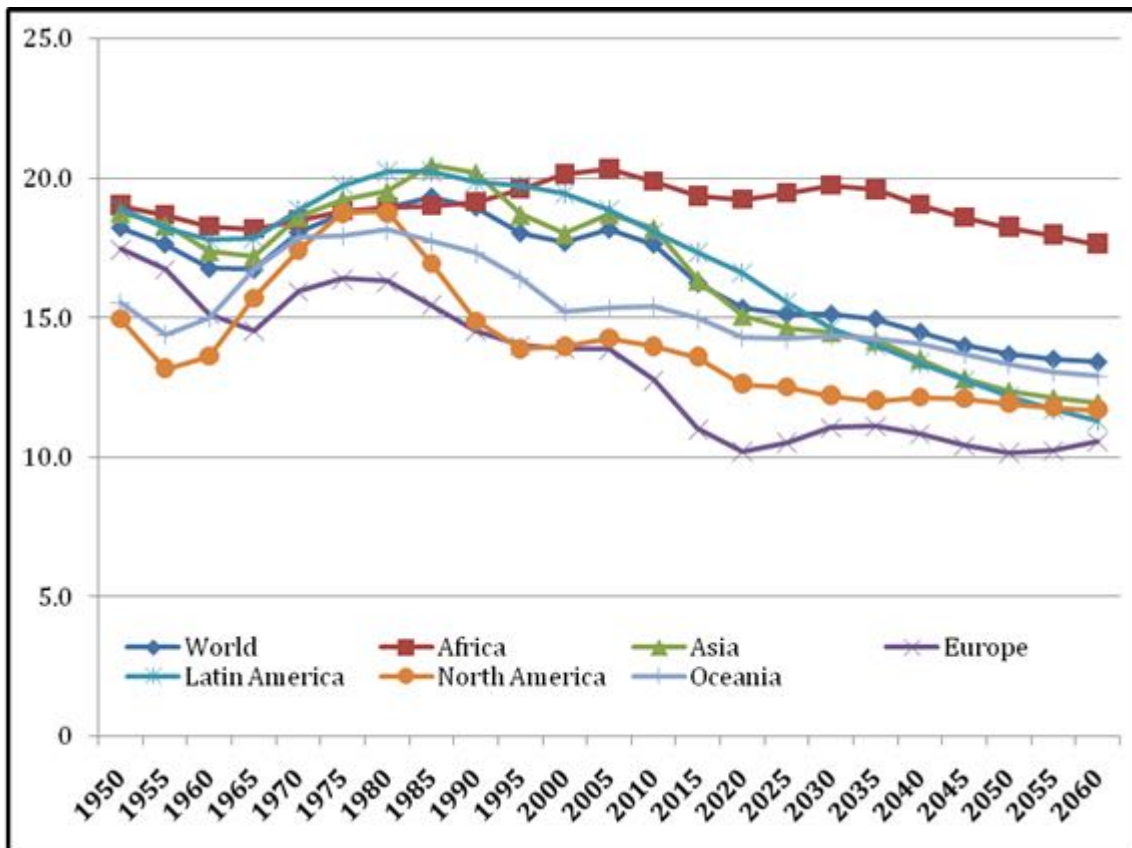


Figure 1: Distribution of the youth population (14–24 years) by region

Source: United Nations Department of Economic and Social Affairs [21]

These changes in the youth population are occurring in tandem with other demographic dynamics, such as a decline in fertility rates and a rapid growth in the active working-age group (24–64 years) as young people join this segment of the population. As a result, a demographic window of opportunity is projected at the intersection of a growing working-age population and a decreasing dependency ratio, mainly as a result of significant declines in child dependency. This is described as the “demographic dividend”, which has the potential to yield positive economic and social benefits for the continent, primarily by promoting savings and investment as the burden of dependents is reduced [23].

While economic growth on the continent has been robust over the past decade with infrastructure and technology improving across the continent, this has not translated into improved outcomes for young people. Instead, they face numerous and varied challenges in the areas of employment, education, health, housing, safety, protection, and political participation, with marginalized groups (such as females, young people with disabilities, and those in rural areas) particularly affected. The African continent is also experiencing unprecedented urban growth, with projections that more than half of Africa’s population will live in its cities by 2040, many of whom

will be young people who make up the majority of those who migrate in search of opportunities that may not exist.

Agriculture and rural development

The bulk of the households involved in agriculture live in rural communities [23, 24]. In addition, the poorest people are those who depend on natural resources including land, water, fish and forest for their livelihoods [10]. The agricultural households which are mostly subsistent rely on traditional technology and rainfall for their production. This exposes the resource- poor farmers to the adverse impacts of climate change which consistently minimise income and increase food insecurity thus resulting in welfare losses [24]. Therefore, the reason an average African farmer produces about 50 percent of the yield generated by their counterparts in Asia and Latin America [25]. Despite the relatively low productivity and other challenges inherent in the African agriculture landscape, there are several potentials that can be fully harnessed. The African agriculture and agribusiness landscape were estimated to be a US\$ 1 trillion industry by 2030 [26].

There is documented evidence in literature indicating a direct relationship between advancement in agriculture and rural development [26, 27, 28]. Specifically, significant agricultural productivity improvement will help raise the demand for agricultural inputs such as fertilizers, improved varieties of crops and strains of livestock, pesticides and herbicides among others [29]. The increased demand will incentivise agro-allied companies to set up offices or outlets within rural and peri-urban areas thus raising economic activities. In addition, increased productivity will free up labour for use in non-farm sectors within rural communities given the corresponding increase in the demand for non-food goods and services [30]. Similarly, significant agricultural productivity growth will attract the attention of financial institutions and development agencies to rural communities such that farmers can benefit from tailored services and interventions, respectively.

Agricultural development, poverty and inequality

Agricultural development is a key requirement for the reduction of income inequality and poverty in Africa [31]. The sector which accounts for the bulk of the labour force could improve the income earning potentials of farming households. The welfare gains can be consolidated by diversification into non-farm and off-farm activities. Improved income is crucial to improving access to nutritious food, to end hunger and to reduce inequality both within and between economies. Significant reduction in social inequality through the empowerment of women and marginalised groups will increase access to critical productive resources and services towards farm-level productivity improvements [32].



It has been documented in literature that agricultural development can significantly reduce poverty and inequality. Specifically, agricultural growth is estimated to be two to three times as effective in reducing poverty as growth in other sectors and benefits mainly the poorest in society [33]. The advantages of prioritising inclusive agricultural development can be both direct, through increased incomes and food security, and indirect, through increased investment in health and education [34]. However, households that are involved in non-farm and off-farm activities have a higher tendency of escaping poverty and reducing inequality [35, 36]. This implies that significant reduction in poverty and inequality can be achieved if agriculture and agribusinesses are fully developed and commercialised.

CONCLUSION AND RECOMMENDATIONS FOR DEVELOPMENT

The challenges facing youth in agriculture are diverse and complex, but the opportunities for change are rich and promising. Providing young people with access to education, financing, technology, and mentorship, while involving them in policymaking and entrepreneurship, can create a generation of vibrant, resilient, and sustainable farmers who will feed the world and shape its future. In conclusion, the youth population and agriculture are key ingredients for inclusive development in Africa. The need to develop multiple sectors of the economy towards improving welfare and economic outcomes of the Africans cannot be overemphasized. This is particularly relevant to the post-COVID-19 economic recovery of Africa given that previous economic growth has been reversed. Therefore, there is a need to widen the discourse on the future of agriculture and inclusive development in Africa. This could include collaborations across disciplines and countries to ensure far-reaching and impactful design and implementation of appropriate programs and policy varieties towards productivity improvement, poverty reduction and food security in Africa.



Table 1: Top agricultural commodities produced in Africa

Crop	Tonnes produced (millions)	Share of global production (%)
Cassava	192.1	63
Maize	81.9	7
Yams	72.4	97
Sorghum	28.6	49
Sweet potatoes	27.9	30
Plantains	26.7	64
Millet	13.7	48
Cocoa	3.5	76

Source: [20, 21]



REFERENCES

1. **African Development Bank (AfDB).** African Economic Outlook 2020, Developing Africa's Workforce for the Future, 2020, 206p.
2. **Moshi HPB** Sustainable and Inclusive Growth in Africa: Industrialization a Must. *African Journal of Economic Review*. 2014; **2(2)**: 19-38.
3. **United Nations Conference on Trade and Development (UNCTAD).** Economic Development in Africa report, 2017, available at: https://unctad.org/system/files/official-document/aldcafrica2017_en.pdf Accessed February 2023.
4. **Mukasa AN, Woldemichael AD, Salami AO and AM Simpasa** Africa's Agricultural Transformation: Identifying Priority Areas and Overcoming Challenges. *AFDB Africa Economic Brief*. 2017; **8(3)**: 1-16.
5. **Mulikita JJ** Young People's Potential, the Key to Africa's Sustainable Development, United Nations Youth Envoy, 2022.
6. **Food and Agriculture Organisation (FAO).** The Future of Food and Agriculture: Trends and challenges, FAO, Rome, Italy, 2017, 180p.
7. **Lewis A** Economic development with unlimited supplies of labor. Manchester School of Economic and Social Studies. 1954; **22**: 139–191.
8. **Chenery H and H Syrquin** Patterns of development: 1950–1970. London: Oxford University Press, 1975.
9. **van Gent S** Beyond buzz words: What is "Inclusive Development". A synthesis report of the Knowledge Platform on Inclusive Development Policies, 2017, 1-23. <https://includeplatform.net/wp-content/uploads/2017/09/Beyond-buzzwords.pdf> Accessed November 2022.
10. **Pouw N and J Gupta** Inclusive Development: a Multi-disciplinary Approach. *Current opinion in environmental sustainability*. 2017; **24**: 104-108.
11. **Oluwatayo IB and AO Ojo** Walking through a tightrope: The challenge of economic growth and poverty in Africa. *The Journal of Developing Areas*. 2018; **52(1)**: 59-69.



12. **Kanbur R and G Rauniyar** Conceptualizing Inclusive Development: With Applications to Rural Infrastructure and Development Assistance. *ADB Occasional Paper 7*. 2009; pp1-24.
13. **Reinders S** Inclusive Development in Africa: Synthesis report series, INCLUDE Knowledge Platform on Inclusive Development Policies, 2019, 60p.
14. **World Development Report.** Agriculture for Development. Open Knowledge Repository, 2008, The World Bank Group, Washington DC, USA.
15. **Saleh M** Agriculture Sector as a Share of GDP in Africa 2021 by Country. 2022. <https://www.statista.com/statistics/1265139/agriculture-as-a-share-of-gdp-in-africa-by-country/> Accessed February 2023.
16. **Odusola A** Agriculture as the Fulcrum of Inclusive Development in Africa Springer Books, in: Africa's Agricultural Renaissance, chapter 10, 2021, pp 15-54.
17. **Kamer L** Agricultural Land in Africa 2010-2019, 2022. <https://www.statista.com/statistics/1287280/agricultural-land-in-africa/> Accessed January 2023.
18. **Aryeetey E and Z Lewis** African Land Grabbing: Whose Interests are Served, 2010. <https://www.brookings.edu/articles/african-land-grabbing-whose-interests-are-served/> Accessed August 2022.
19. **Ayodimeji Z** What are the most produced cash crops in Africa? 2022 <https://www.visualcapitalist.com/cp/what-are-the-most-produced-cash-crops-in-africa/> Accessed May 2023.
20. **Statista.** Cocoa bean production 2020/2021-2022/2023. 2023 Retrieved from <https://www.statista.com/statistics/263855/cocoa-bean-production-worldwide-by-region/#:~:text=The%20Ivory%20Coast%20and%20Ghana,metric%20tons%20of%20cocoa%20beans> Accessed May 2023.
21. **United Nations Department of Economic and Social Affairs (UNDESA).** Youth population trends and sustainable development, Population Facts Sheet No 2015/1. 4p.
22. **Majid N** Reaching Millennium Goals: How well does agricultural productivity growth reduce poverty? ILO Employment Strategy Papers 2004/12, pp1-38.



23. **Davis B, Lipper L and P Winter** Do not transform food systems on the backs of the rural poor. *Food Security*. 2022; **14**: 729–740.
<https://doi.org/10.1007/s12571-021-01214-3>
24. **Nguea SM** Improving human development through urbanization, demographic dividend and biomass energy consumption. *Sustainable Development*. 2023. 1-7.
25. **Suttie D and RS Benfica** Fostering inclusive outcomes in African Agriculture: Improving Agricultural Productivity and Expanding Agribusiness Opportunities through better policies and investments, 2016 pp1-12.
<http://dx.doi.org/10.2139/ssrn.3305053>
26. **World Bank**. Growing Africa: Unlocking the potential to agribusiness. 2013. The World Bank, Washington, D.C, USA.
27. **Knickel K, Redman M, Darnhofer I, Ashkenazy A, Chebach TC, Šūmane S and E Rogge** Between aspirations and reality: Making farming, food systems and rural areas more resilient, sustainable and equitable. *Journal of Rural Studies*. 2018; **59**: 197-210.
28. **Koopmans ME, Rogge E, Mettepenningen E, Knickel K and S Šūmane** The role of multi-actor governance in aligning farm modernization and sustainable rural development. *Journal of Rural Studies*. 2018; **59**: 252-262.
29. **Veldwisch GJ and P Woodhouse** Formal and informal contract farming in Mozambique: Socially embedded relations of agricultural intensification. *Journal of Agrarian Change*. 2022; **22(1)**: 162-178.
30. **Loizou E, Karelakis C, Galanopoulos K and K Mattas** The role of agriculture as a development tool for a regional economy. *Agricultural Systems*. 2019; **173**: 482-490.
31. **Imai KS, Cheng W and R Gaiha** Agricultural Growth, Poverty and Inequality in Developing Countries. *Development*. 2015; **58**: 230–236.
<https://doi.org/10.1057/s41301-016-0009-1>
32. **Abraham M and P Pingali** Transforming Smallholder Agriculture to Achieve the SDGs. In: Gomez y Paloma, S., Riesgo, L., Louhichi, K. (eds) *The Role of Smallholder Farms in Food and Nutrition Security*, 2020 Springer, Cham.
https://doi.org/10.1007/978-3-030-42148-9_9



33. **Christiaensen L and W Martin** Agriculture, structural transformation and poverty reduction: Eight new insights. *World Development*. 2018; **109**: 413-416.
34. **Lee YF and M Kind** Reducing Poverty and Inequality in Rural Areas: Key to inclusive development. A Policy brief of the UNDESA, 2021. <https://www.un.org/development/desa/dspd/2021/06/poverty-and-inequality-rural-areas/> Accessed December 2022.
35. **Mesfin E** The Effect of Nonfarm Income on Poverty and Inequality in Rural Ethiopia, A Master of Science dissertation submitted to the Department of Economics, College of Business and Economics, Bahir Dar University. 2022; 89p.
36. **Mapanje O and RK Mushongachware** The Role of Youth in Transforming Food Systems in Africa. *Global dev*. 2022 10p.

