

THE STATE OF AGRICULTURE IN AFRICA AND IMPLICATIONS FOR FOOD AND NUTRITION SECURITY

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1.0 Introduction

Agriculture plays a pivotal role in Africa, accompanied by a massive social and economic footprint. The sector accounts for 21% of annual Gross Domestic Product (GDP) in Sub-Saharan Africa, where more than 60% of the population derives its livelihoods from farming (Igbatayo, 2020). Yet, Africa's full agricultural potentials remain untapped, undermined by centuries of over exploitation and decades of underinvestment. From Angola, Ethiopia, Nigeria, Rwanda, Zimbabwe and several other countries in the region, agriculture remains one of the most important sectors of the economy. However, low productivity is a perennial challenge undermining Africa's agriculture. In 2003, African heads of states committed themselves to increase investment in agricultural productivity and rural development, an agenda that was enshrined in the Maputo Declaration on Agriculture and Food Security (which was adopted in 2003 during the African Union(AU) Summit in Maputo, Mozambique promoting agricultural development and food security across Africa) in Africa. This commitment was elaborated in the 2005 report of the United Nations Millennium Project, which advocated a "doubling or more of agricultural productivity" in Africa as a critical strategy to reducing the region's hunger and poverty (World Bank, 2023).

The target on Africa's agricultural productivity is also enshrined in the 2015 Sustainable Development Goals; both SDG1 and SDG2 link agricultural productivity, while SDG Target 2.3 categorically challenges the global community to "[b]y 2030, double the agricultural productivity and incomes of small-scale food producers". Arising from these public commitments, expenditure on agricultural research rose steadily in the early 2000s. Public sector research expenditure averaged more than US\$2 billion annually across Sub-Saharan Africa over the first fifteen years of the New Millennium. Despite increased expenditure on

agricultural productivity in Africa, the region lacks food and nutrition security, with a prevalence of undernourishment (PoU) estimated at 22.8% of the population in Sub-Saharan Africa, largely fuelled by an emergent demographic explosion. The region's population increases at an average growth rate of 2.55% per annum, driving increasing demand for food. Consequently, the region embarks on food importation to sustain food security at an average annual cost of US\$35billion in recent times. Yet, the state of food in Africa is sobering, undermining its ability to meet the 2030 agenda for Sustainable Development Goal (SDG) 2, aimed at ending hunger in all its ramifications. In 2022, an estimated 868 million people lived in moderate or severe food insecurity across Africa, while one-third of them – 342 million people – were food insecure (UNECA, 2023).

The major objective of this paper is to shed light on the state of agriculture in Africa and its implications for food and nutrition security. It examines the challenges and opportunities associated with improved agricultural productivity, as well as food and nutrition security.

2.0 Agricultural Productivity in Sub-Saharan Africa

Improved agricultural productivity is key to food and nutrition security. Low agricultural productivity in Africa is largely explained by the fact that more than half of the labour force work in agriculture, the majority (82%) of which are resource-poor farmers. Land use for crop production has increased slightly over the past decade, rising from 196.2million hectares in 2007-09 to 210.1million in 2017-19. However, anticipated yield growth is expected to develop from improved access to higher-yielding seeds and other key inputs like fertilizer, as well as optimized agronomic management and infrastructural development, including irrigation systems (Oxford Business Group, 2021). Despite these improvements, crop yields and productivity in Africa remain low, compared to the global average. For example, average yields for maize are about 2.5 times higher in Asia and South America, and sixfold higher in

North America. Also, African rice yields are roughly half the levels of those in Asia, while North American rice yields are close to four times higher. Available data also reveal that growth in average African yields for both maize and rice remained relatively stagnant between 2010 and 2020. However, the continent's wheat yield increased to global levels in 2011 before moderating below global average in the years that follow. Table 1 shows agricultural production trends in Sub-Saharan Africa for various commodities, covering the period, 2007 - 2019, and with projections for 2029.

Table 1: Agricultural Production in Sub-Saharan Africa

	2007-09 Average (0.00) tonnes	2017-19 Average 1000 tonnes; base	2029 Projection (Kt)	Growth from base to 202.9 (%)	2010-19 average growth (%)	2020-29 Projected average growth (%)
Cereals	109,695	141,025	169,397	20.12	2.42	1.66
Roots & Tubers	56,740	86,825	112,016	29.01	3.67	2.28
Pulses	12,350	17,788	19,758	11.08	2.83	0.93
Meat	9,080	11,715	14,675	25.27	2.36	2.21
Oilseeds	8,044	11,149	13,288	19.18	2.26	1.58
Sugar	6,445	7,635	10,174	33.31	1.56	2.53
Fish	5,626	7,695	8,291	7.75	2.84	1.07
Vegetable Oil	4,657	6,855	8,106	18.24	2.82	1.37

Source: OECD-FAO, 2020

It is noteworthy that crop yields in sub-Saharan Africa have lagged behind world averages, at the cost of natural habitat. Increased food production in the region has been largely driven by agricultural extensification, by bringing more land into production. This is in sharp contrast to other regions, which have recorded increased yields through efficient allocation of resources. Figure 1 illustrates the production of cereals in 2018 in both South Asia and Sub-

Saharan Africa. While production increased by 133% in the former, it tripled in the latter since 1980.

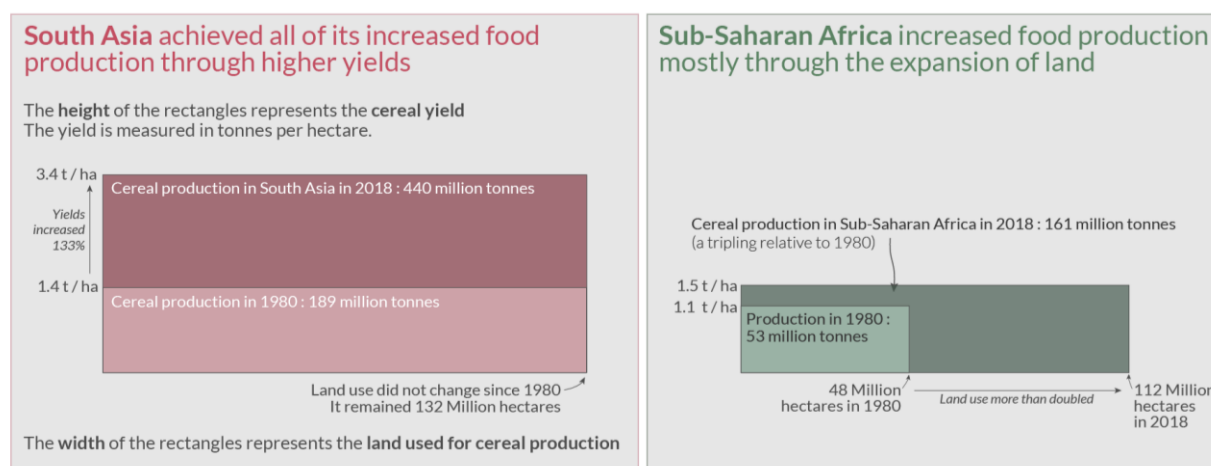


Figure 1: Production of Cereals in both South Asia and Sub-Saharan Africa, 1980-2018

Source: Ritchie, 2022

Figure 1 reveals the disparity in increased cereal production in South Asia and Sub-Saharan Africa between 1980 and 2018. While all the growth in South Asia is attributed to higher yields; in Sub-Saharan Africa, yield improvement is relatively small, estimated at 30%. Thus, nearly all of the growth in the region came from more land use, which more than doubled from 48 million to 112 million hectares. Converting more land for agricultural activity has come at the cost of the loss of natural habitat.

In a study on agricultural productivity in sub-Saharan Africa, Goedde *et al.*, 2019 reveal that only a few countries in the region account for the bulk in yield growth. Analysing productivity potential across 44 countries in Sub-Saharan Africa reveals that nine countries make up 60% of the total potential, with three – Ethiopia, Nigeria, and Tanzania – comprising half of the total. However, there is considerable regional disparity in agricultural productivity across the African continent. In North and Southern Africa, improved irrigation and a high degree of mechanization ensured greater productivity in certain segments – significantly exceeding regional average and on a par with South – East Asia and Latin America.

The food and Agriculture Organization of the United Nation (FAO), in a recent report, reveals considerable improvements in the quantity of agricultural crops produced across the continent, with the net value of crops rising by 2.86% during the period 2010-19. The production of roots and tubers witnessed an annual growth of 3.67% between 2010 and 2019, translating into an average annual yield of 86.8million tonnes in 2017-19, up from 56.7 million tonnes in 2007-09, with projections revealing an annual growth rate of 2.25% between 2020 and 2029, accompanied by a yearly production rise to 192 million tonnes by the end of the period. Cereals, the most widely grown crop in Africa, also reveals a similar increase in productivity, rising from an average of 109.7 million tonnes in 2007-09 to 141 million tonnes in 2017-19. Projections also show an annual growth rate of 1.66% between 2020 and 2029, accompanied by a yield of 169.4 million tonnes in 2029.

3.0 The Performance of Africa's Food Systems

Africa's food system is failing to deliver a healthy diet for all, in a development attributable to a combination of low productivity, conflict, economic instability, climate change as well as the impacts of the COVID-19 pandemic. With more than 20% of the region's population, or 257 million people undernourished, Africa bears the heaviest burden of malnutrition (Braun *et al.*, 2023). Across the region, the share of the population with nutritional deficiencies rose from 19.1% to 20.4% from 2010 to 2017. In North Africa, the scourge increased from 5% to 8.5% during the period (World Bank, 2021).

A report by the International Institute for Environment and Development (IIED) (2023) identified key drives of food systems in Africa. They are as follows; (i) Population growth – increasing food demand exerts pressure on natural resources, particularly land, water and energy; (ii) Urbanization – this is linked to dietary changes, driven by increasing consumption of processed foods, and food of animal origin, but also changes in employment patterns, away from agriculture - based livelihoods; (iii) A growing middle class – with rising incomes, driving

dietary shift and changing food distribution away from informal to more formal outlets; (iv) Increasing regional trade within Africa – this enables countries that are unable to meet their food demand from domestic production in access food through regional, rather than global imports (v) Climate change – it reduces agricultural productivity, while increasing the risk of crop and livestock production, and accelerating further agricultural expansion (vi) Technological innovation and change in all sectors – including information and communication technology (ICT) and agricultural value chains – providing opportunities to monitor and mitigate environmental impacts; (vii) Sources of capital and investment – with an increase in the share of foreign direct investment in Africa, compared to development aid; (viii) Government factors – (policies, institution, markets) – determining the willingness and ability to regulate the sector effectively; and (ix) Global disruptions (conflicts, pandemics, etc) – determining supply chains and forcing people into unsustainable, environmentally harmful livelihoods.

Unsustainable food systems in Africa have forced the continent to rely on food imports to augment domestic production. In addition to food aid donated to conflict - prone countries as part of global humanitarian assistance to several countries facing severe hunger, the region has embarked on food imports over the past several decades. The cost of food importation has increased steadily, currently averaging about US\$35 billion annually. This places a burden on scarce foreign exchange across the region.

4.0 Food and Nutrition Security in Africa

Food and nutrition security is a perennial challenge, particularly in Sub-Saharan Africa. A UNECA (2023) report reveals the sobering trends of food and nutrition security in Africa. It reveals that in 2022, about 282 million people in Africa were malnourished, an increase of 57 million people since the COVID-19 pandemic. An estimated 868 million people across the region were moderately or severely food insecure, with more than two-thirds of the population

in Central Africa, Eastern Africa and Western Africa facing moderate or severe food insecurity. Consequently, Africa is not on track to meet the food and nutrition targets of the 2030 Sustainable Development Goal (SDG) 2 – and the Malabo targets, which stem from the 2014 Malabo Declaration aimed at ending hunger and agricultural transformation across Africa by 2025.

5.0 Conclusion

Agriculture is an important sector in the African economy, critical for the provision of food and nutrition security. While it accounts for about 20% of annual GDP in Sub-Saharan Africa, it also provides livelihoods for the majority of the region's population, who are engaged as small-scale farmers. However, most of Africa's small holder farmers are resource – poor, a development that undermines agricultural productivity in the region. Low agricultural productivity is largely blamed for Africa's food and nutrition insecurity. Insufficient food production in several African countries has forced the region to rely on food imports at exorbitant costs, against the backdrop of scarce foreign exchange earnings. The high prevalence of undernourishment in the region is undermining its ability to meet critical development targets, particularly the 2030 SDG 2, as well as the Malabo accord of ending hunger.

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