



Why Achieving Sustainable Agriculture and Food Systems in East and Southern Africa is Problematic

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Preamble

Agriculture contributes significantly to livelihoods and economy of many African nations. In East and Southern Africa, agriculture is one of the major pillar of the economy, it among other things reduces poverty, create business and employment opportunities, provides raw materials for industries, aids economy development, creates wealth for farmers and balance import export trade in the regions.

However, in the purview of sustainable development, conventional agriculture has been etched to welcome sustainable agriculture. The goal of sustainable agriculture is to meet society's food and textile needs in the present without compromising the ability of future generations to meet their own needs. Sustainable agriculture seek to integrate three main objectives a healthy environment, economic profitability, and social and economic equity.

Conventional Agriculture versus Sustainable Agriculture

Conventional agriculture was developed to make farming more rewarding, but achieves the reward at the expense of the environment. It aims to get the most out of the possible outcome of crop cultivation through the use of chemicals cause soil and water pollution, reduce soil's microbiological diversity and facilitate environmental degradation and climate change. In East and Southern Africa, more than 70% of the population depends on conventional agriculture for livelihood, employment, regional and international trade, and GDP.

Sustainable agriculture on the other hand engages practices that place emphasis on producing diversified crops and livestock production targeted to improve the natural system and hence, ecological service giving performance. It tries to find a good balance between the need for food production and the preservation of the ecological system within the environment. Sustainable agriculture improves carbon sequestration, water retention and soil's microbiological diversity and reduce environmental degradation. Sustainable agriculture is promising to enhance food system and ensure food security in Africa.

Table 1: Differences between conventional and sustainable agriculture

Conventional Farming System	Sustainable Farming System
Extensive use of pesticides, fertilizers, herbicides, fossil driven machineries	Reduced use of pesticides fertilisers. Employs alternate sources of fertilisers, herbicides and natural cycles
Requires large capital investments for production and management	Requires small capital investment
Requires less labour and relies on migrant and seasonal labour	Requires more labour leading to higher labour costs
Relies on fossil driven transport means to grow and transport outputs	Relies on lower use of fossil in production, and emphasises on locally grown regional systems

Conventional farming is about rewarding increase productivity at the expense of the natural system

Conventional systems are inefficient at capturing carbon because of soil composition, constant production, and how much energy is being used to maintain the crops.

It relies on ecosystem services and is typically much less detrimental to the natural system and surrounding landscape

Sustainable agriculture has the ability to offset global greenhouse emissions at a greater rate than conventional agriculture because it is more permanent and does not require much input to produce food

and preparation of foods to consumption and disposal.

The 2020 Africa SDG index scorecard released by the Sustainable Development Solutions Network (SDSN) and Africa Centre for Sustainable Development shows that East Africa is generally not performing well in achieving food security and driving sustainable agriculture, eleven out of thirteen countries are stagnating in ending hunger. The situation is a bit different in southern Africa. More than half the countries in Southern African sub region is making moderate improvements on ending hunger through sustainable agriculture and vibrant food systems. However, Botswana, Malawi, Mozambique, Zambia and Zimbabwe are stagnant.

Food insecurity is still lingers in Africa, with 20.4 percent of the continent’s population – 257 million people – are undernourished, up from 19.7 percent – 241 million people – in 2016 (FAO). The greatest deterioration between 2015 and 2017 occurred in Central and Western Africa, and in the latter region has accelerated in 2016–17. While North and southern Africa are on track to reduce food insecurity to below 7.5% by 2030, more than 30% of East African population is food insecure.

Food System and Achieving Food Security in East and Southern Africa

Food system is dynamic and complex web of activities involving production, processing, transporting, and consumption of agricultural outputs. Food systems are the sum of actors and interactions along the food value chain — from input supply and production of crops, livestock, fish, and other agricultural commodities to transportation, processing, retailing, wholesaling,

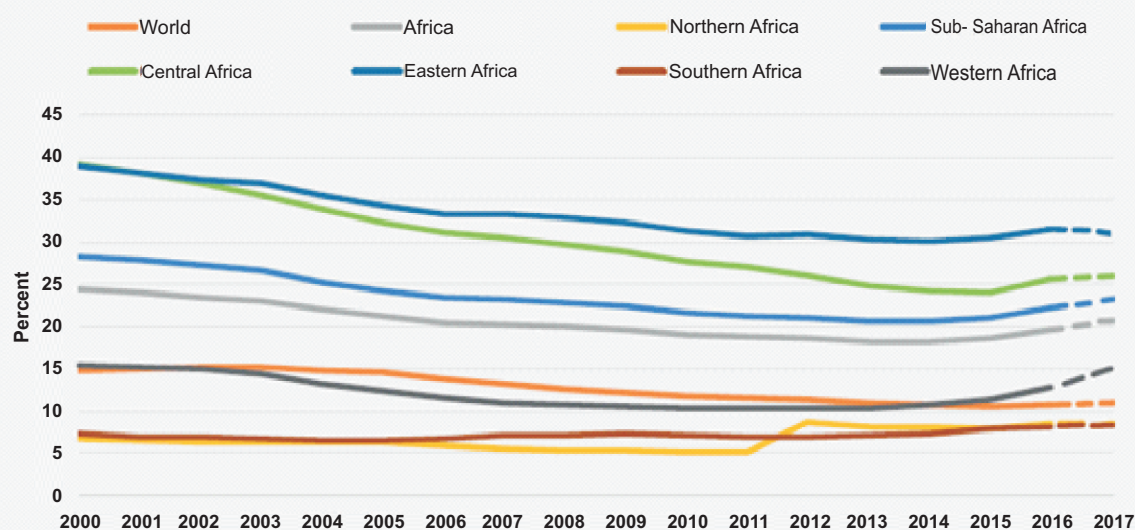
Summary measure of food security and Sustainable Agriculture in East and Southern Africa Countries

East Africa			Southern Africa		
Country	Current State	Trend	Country	Current State	Trend
Burundi	●	→	Angola	●	↗
Comoros	●	→	Botswana	●	→
Djibouti	●	→	Eswatini	●	↗
Eritrea	●	→	Lesotho	●	↗
Ethiopia	●	↗	Malawi	●	→
Kenya	●	→	Manuritius	●	↗
Rwanda	●	→	Mozambique	●	→
Seychelles	●	↗	Namibia	●	↗
Somalia	●	→	Sao Tome and Principe	●	↗
South Sudan	●	→	South Africa	●	↗
Sudan	●	→	Zambia	●	→
Tanzania	●	→	Zimbabwe	●	→
Uganda	●	→			

Source: Africa SDG Index and Dashboards Report 2020

- Major challenges remain
- Significant challenges remain
- ↗ Moderately Increasing
- Stagnating

PREVALENCE OF UNDERNOURISHMENT IN THE WORLD, AFRICA AND ITS SUBREGIONS, 2005 - 2017



Source: FAO

Fig 1: Africa and World undernourishment prevalence 2005-2017

Transforming Agriculture and Food Systems in East and Southern Africa

Farming in East Africa and Southern Africa are mainly rain-fed and highly susceptible to climate change extremes and land degradation. Over the years, government policies and programmes have aimed to provide protection for producers, consumers, and the government itself. Specifically, governments in these regions have tried to increase production expanding cultivated land, stabilize market to reduce food insecurity and undernourishment challenges.

The immediate concerns of protecting the health of citizens took the centre stage during the COVID-19 pandemic. However, there is need to transforming the food systems and ensuring food security for the citizens after the outbreak of the coronavirus pandemic. Stakeholders need to take the bull of agricultural transformation by the horn to achieve food security in the regions.

Overall, efforts to transform and ensure sustainable agriculture and food systems in the regions should ensure that the process is

1. Systematically inclusive: Sustainable agriculture and food systems must be positioned to solve achieve food security,

hunger problems, environmental dilapidation and biodiversity loss. It must reduce the burdens on smallholder livelihoods, cultural erosion and labour exploitation.

2. Trans-disciplinary and Power-sensitive: All relevant players in the agricultural and food system sectors who hold unique understanding of sustainable agriculture and food systems must be co-opted. Also, food systems must not disregard the differential power of relevant stakeholders to make informed decisions to that contributes to sustainable agriculture and food systems.

3. Sustainable in all dimensions: Sustainable agriculture and food systems must include environmental, health, social, cultural and economic dimensions of sustainable development. Sustainable food systems must deliver diets that are nutritious, affordable and culturally acceptable, and meet people's food and fibre needs without compromising the ability of future generations to do so.

4. Socially & technologically innovative: The transition to sustainable food systems must incorporate social and technological innovativeness to across the agricultural value chain.

5. **Adequately measured:** There should be targets and indicators to monitor and measure progress and evaluate the impacts of sustainable agriculture and food system.

Conclusion and Recommendations

East and Southern Africa countries account for more than 500 million people in Africa, and approximately 4% of the global population. This is expected to double by 2050, while undernourishment and food insecurity remains a lingering challenge. Sustainable agriculture and strengthening food systems remain the most vital approach to navigating the challenge and ensuring the food and fibre needs of the alarming population growth. Each stakeholder across the food system i.e. farmers, processors, distributors, retailers, consumers, and waste managers all have a significant role to play in ensuring a sustainable agricultural and food systems.

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CITATION

Olaomo, G., Ayal, D., Olayide, O. & Obisesan, O. 2020. Why Achieving Sustainable Agriculture and Food Systems in East and Southern Africa is Problematic. Policy Digest, Volume 2 Issue 1, October 2020. Interconnections for Making Africa Great Empowered and Sustainable (IMAGES) Initiative. Ibadan, Nigeria.