



*Resource Management in Africa:  
Food Security as a Model*

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Received : 08/07/2023

Accepted : 31/08/2023

*Abstract*

African countries are among the poorest countries in the world. Despite the resources available to these countries, they still present a bad image, and this is due to the absence of rational management of these resources, which resulted in the number of poor increasing every year. Natural resources to achieve economic security, but also extends to food management and food security.

In this article, we will examine the implications of resource management in Africa through the food security model, which represents the biggest challenge not only in Africa but even in developed countries. The difference lies in the fact that developed countries require good management in order to achieve food security, while we find countries Africa does not improve the management of food security, and the result, of course, is the disappearance of food crises in developed countries, in exchange for the increase in the poverty rate and the exacerbation of the food crisis in African countries.

✓ Resource Management. Africa. Food Security.

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## 1. Introduction:

Global food security remains a challenge, not only for developing countries but also for the developed world. The difference between the two worlds lies in the magnitude of the problem, in terms of its severity and the proportion of affected populations. The issue is alleviated in advanced countries through targeted interventions for food security, including direct food relief aid or indirectly through support for food production. These efforts have significantly reduced food insecurity in these regions. In the developing world, we find a significant difference, especially in the African continent. Projections indicate that there will be an increase in this trend unless preventative measures are taken. Many thinkers and global policymakers have identified numerous contributing factors leading to this situation, extending beyond it to the spread of diseases and epidemics such as the Human Immunodeficiency Virus (HIV/AIDS), civil wars, poor governance, frequent droughts, and famine.

Food security in the African continent has worsened since the late 20th century until today, with the percentage of the population suffering from malnutrition remaining within the range of 33% to 35% across the continent. These percentages vary across regions, with lower rates in North Africa (4%) and higher rates in Central Africa (40%). Based on this, this research paper presents the most significant challenges facing food security in Africa, posing the following problematic: What are the main challenges confronting food security in Africa? And in the context of addressing this issue: What are the most important initiatives and policies that can contribute to tackling the problem of food insecurity in the African continent?

To answer the above-mentioned problem, this research paper will rely on the following hypotheses:

- The challenges of food security in Africa are linked to the failure of governmental and regional policies and programs.

- The challenges of food security in Africa are connected to environmental factors such as climate change and environmental scarcity.
- Civil wars have contributed to the increase in food insecurity.

- **The methodology of the study:**

To address the topic, the analytical approach was employed through analysing various literature and publications related to food security. These were found through online research and websites of non-governmental organizations and international agencies. Additionally, the statistical method was utilized by relying on different numbers provided by countries, governmental and non-governmental organizations, concerning the issue of food security in Africa.

- **The plan of the study:**

In order to address the aforementioned problem and test the proposed hypotheses, the study was organized into a work plan consisting of an introduction, three main sections, and a conclusion. The introduction served as an entry point to the study's topic. The first section was dedicated to exploring various concepts of food security, while the second section examined the current state of food security in Africa. The third section was allocated to presenting various mechanisms that can contribute to achieving food security in Africa. Finally, the conclusion serves to answer the initial problem on one hand and to summarize the contents of the research paper on the other hand. It also serves to confirm or refute the aforementioned hypotheses.

## **2. Concepts of Food Security:**

The evolution of food security concepts reflects changes in global policy thinking. The term emerged for the first time in the mid-1970s during the World Food Conference in 1974. At that time, food security was viewed as a process of ensuring the continuous flow of food supplies and guaranteeing the availability and stability of

prices for essential food commodities at both the international and national levels. It was defined as the availability of sufficient global food supplies of essential commodities at all times, with the aim of sustaining continual growth in food consumption and compensating for fluctuations in production and price (Selatenia & Araour, 2009, p16).

In 1983, the Food and Agriculture Organization's analysis of food security focused on access to food. This perspective led to the definition being based on the concept of need, which hinges on the balance between supply and demand in the equation of food security. Subsequently, the definition was revised to encompass the individual and household levels, in addition to the regional and national levels. In 1986, the World Bank's report on food security focused on its negative impacts, centering on poverty and hunger. The report made a distinction between chronic food insecurity (associated with ongoing or structural poverty and income reduction) on one hand, and transitory food insecurity on the other hand (encompassing periods of extreme pressure caused by natural disasters, economic collapse, or civil conflicts). The report also highlighted the effect of personal entitlements on food access, which include factors like production, labour, trade, and reliance on transfer sources (khelalfa, 2015. P12).

The 1996 World Food Summit further strengthened the definition of food security, which is widely accepted, by focusing on its multi-dimensional nature. This definition centers on the dimensions of food security, including access to food, its availability, utilization, and stability. The summit also emphasized various responses through diverse policies aimed at enhancing livelihood options and recovery. More recently, the ethical dimension and human rights to food security have gained prominence, despite the fact that the concept of the right to food is not a new one (Abo douh, 2023).

Through the previous definitions of food security, we can arrive at a procedural definition of food security based on its three dimensions:

- **Food availability:** Achieved through the presence of sufficient quantities of food with appropriate quality. This food is made available through local production or imports (including food aid).
- **Access to food:** This occurs when individuals obtain adequate resources to acquire suitable foods for a nutritious dietary system.
- **Utilization:** This refers to making use of food through adequate dietary patterns, clean water, sanitation and healthcare, aiming to achieve a state of nutritional well-being where everyone can meet their various physiological needs.
- **Stability:** To achieve food security, populations, households, or individuals should have access to sufficient food at all times. They should also avoid jeopardizing their access to food due to sudden shocks (such as economic or climate crises) or recurring events (such as seasonal food insecurity) (khelalfa, 2015, pp 18-19).

In the same context, Anderson argues that it is appropriate to distinguish between national, community, and household-level food security. This distinction is important for assessing food security at these levels as they are not the same; national-level food security refers to the state in which a nation and a state are capable of manufacturing, importing, preserving, and maintaining the necessary food supplies for their population. At the community level, food security is defined as a condition where the residents of a community are able to access culturally acceptable, safe, and nutritionally adequate food systems through a sustainable approach that enhances the community's self-reliance. At the household level, food security refers to the availability of food in the household that individuals can access. In this case, a

household is food secure when its members do not experience hunger, fear, or famine (Peng & M Berry, 2018, p7).

### **3. The Reality of Food Security in Africa:**

Firstly, it's worth mentioning that food insecurity is a multidimensional problem as it's linked to healthcare, political conflicts, leadership, strategic vision, commercial and economic interests, agricultural production, dietary systems, global food industry trade policies, and the environment. Looking back at Africa, we find that all these dimensions are present. Therefore, the state of food insecurity there, compared to other regions of the world, is concerning at all levels. This concern does not only affect African populations and their political leaders, but it extends to international organizations, United Nations bodies, civil society, and global media as well (Fawole & Ilbasimis & Ozkan, 2015, p5).

According to the UN's 2021 report on the global food security situation, Africa records poor results across all indicators related to food security and nutrition goals. For instance, only 18 out of 54 African countries are able to secure food. Furthermore, the rates of improvement in food security are the slowest in Africa. Approximately 6.28% of Africans suffer from undernourishment, compared to about 9.14% in developing countries as a whole. The percentage of the population facing undernourishment ranges from 8.32% to 26.8%. For instance, in the Democratic Republic of Congo, around 69% of the population suffers from food deficiency. Regarding malnutrition, more than 200 million Africans are affected, and this is evident in the fact that the majority of sub-Saharan Africans suffer from weight loss (UN, 2021, pp 14-15).

In the same aforementioned context the UN's 2021 Report indicated that more than one in four people in Africa suffer from malnutrition. This places the continent among the regions with the highest levels of food insecurity in the world. In the Sahel region alone, millions of residents are at risk of famine. Similarly, an equal number of individuals in the Horn of Africa are exposed to the threat of famine, especially with the succession of crises in countries like Ethiopia, Kenya, and Somalia (UN, 2021, p 11).

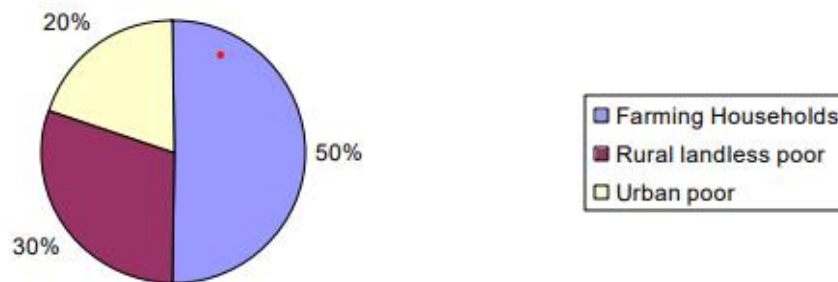
Returning to the reasons that hinder food security in the African continent, we find two main factors. The first is the ongoing political instability, and the second is the persisting conflicts and civil wars that often do not come to an end. In this point, James Morris (Executive Director of the World Food Programme) highlights in his report presented to the United Nations Security Council the causes of acute hunger in Africa. These include adverse weather conditions, the outbreak of civil unrest leading to significant numbers of refugees and internally displaced persons, governance issues and macroeconomic policies, and finally, the epidemics and health crises resulting in millions of orphans and thousands of widows (Burchi & Scarlato & D'Adostino, 2018, p8).

For example, one can directly observe a connection between food insecurity, malnutrition, and a global pandemic like the COVID-19 outbreak. The family of a patient will automatically lose their breadwinner and primary source of income. The individual affected by the disease won't be able to engage in any income-generating physical activity for themselves or third parties, thus not contributing financially to their family's well-being. This situation results in the family not being able to generate any income at all. Consequently, the affected patient's family will start consuming less food, causing the individual's body to weaken, diminishing their ability to participate in any profit-generating activities. As a result, food insecurity starts to manifest, leading to a cycle of poverty affecting every member of that family (Abu Hatab, 2022, pp 41-42).

Returning to the two main reasons mentioned above and their impact on food insecurity, during the same aforementioned session on security, most speakers expressed concern about the gravity of the situation in Southern Africa and the Horn of Africa. The representative of the United Kingdom emphasized the importance of addressing the link between conflict and food insecurity. In their view, each of these factors can either cause or exacerbate the other. Similarly, the Russian representative noted that overcoming food crises in African countries presents a comprehensive multi-faceted challenge. Regardless, it requires addressing armed conflicts across the

continent in order to achieve sustainable development. For a better understanding of this relationship, let us provide the following example: Farmers cannot bring their essential crops to the markets due to the lack of security, even if they wanted to and when they wanted to. Simply put, conflicts disrupt markets and impact development policies aimed at assisting the most vulnerable populations. Because of conflicts and wars, food prices rise, making it impossible for poor families and their children to access healthy and balanced nutrition (Abu Hatab, 2022, p 43-44).

**Figure -1- the percentage of food insecurity in Africa:**



**Source:** Food and Agriculture Organization, 2023. On:

<https://www.fao.org/statistics/ar/>

On the other hand, conflicts not only affect the delivery of food to markets but also lead to a decrease in its production. No one would risk their life to work in the fields and bring food to markets during outbreaks of violence. For example, in the Central African Republic, the short-term war in 2017 and its aftermath led to a sharp decline in food production and a rise in food prices. As a result, poor families were deprived of access to food in the markets, which simply meant living in poverty. Thousands of citizens in the Central African Republic faced food challenges, as the available food clearly did not meet their needs. Food insecurity and food shortages have become the daily reality for many families in Central Africa. Additionally, this added existential threat has resulted in a desperate and already deteriorating economic



situation due to years of prolonged conflicts, poor political and economic governance (Burchi & Scarlato & D'Adostino, 2018, p10).

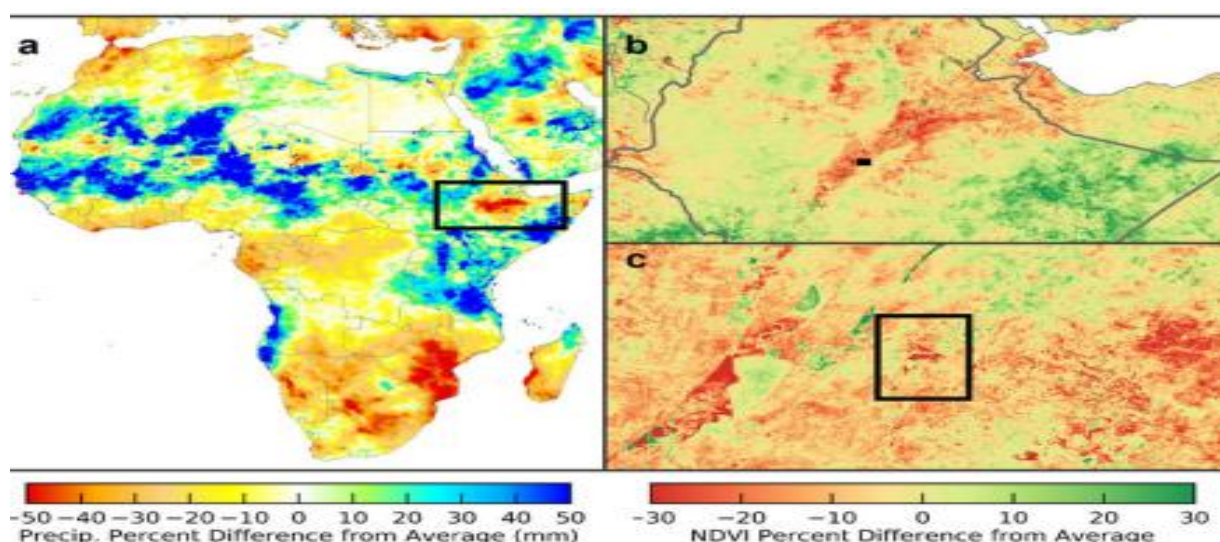
Furthermore, the high population growth rate in Africa contributes to the increasing demand for food on one hand, while agricultural production capabilities remain limited on the other hand. This situation creates pressure on agricultural resources, leading to decreased productivity. In addition to this, the inefficiency of food distribution systems and policies adds to the challenge. This inefficiency is linked to the inability of the population to access the necessary food items even when they have the financial means to do so. This could be due to ineffective distribution policies or the deterioration of infrastructure, and sometimes, the state might struggle to accurately identify the most affected groups (Baptisa and Others, 2022, p 19).

Climate factors are crucial for food security, as they encompass rising temperatures, global warming, climate change, and more. It is expected that these factors will impact various aspects and pillars of food security (see Figure-2-). Climate-related factors relevant to food production and availability can be categorized as typical climate variations (such as shifts in climatic conditions causing changes in cultivated crop varieties), seasonal changes (including warming trends extending into growing seasons), extreme phenomena (such as high temperatures affecting critical growth periods, floods, and droughts), and atmospheric conditions (encompassing concentrations of carbon dioxide, short-lived climate pollutants, and dust).

These factors -whether collectively or individually- impact the essential water resources required for food production by altering precipitation rates, evaporation, and groundwater levels. They can also have wide-ranging effects, such as those observed during late 2020 and early 2021 when the strong El Niño phenomenon contributed to regional shifts in rainfall patterns in the coastal area. Additionally, the severe drought across Ethiopia led to widespread crop failure, negatively affecting

over 10 million people in the country. Furthermore, extreme climate events can result in both inland and coastal floods, affecting people's ability to access and prepare food (Baptisa and Others, 2022, pp 20-21).

**Figure - 2 - Represents the Percentage of Precipitation in Africa 2020-2021**



**Source:** Food and Agriculture Organization, 2023. On:

<https://www.fao.org/statistics/ar/>

The second figure shows that there is a deviation in rainfall across Africa compared to the average. Large areas of Ethiopia received less than half of the normal rainfall, which had wide-ranging impacts on agricultural productivity, especially in pastoral areas throughout Ethiopia. Additionally, there is a noticeable decrease in vegetation greenness.

#### **4. Mechanisms For Achieving Food Security in Africa :**

To begin with, governments in Africa are under pressure to improve their performance in combating food insecurity. While progress has been made towards achieving the goals of the World Food Summit and the new Millennium Development Goals, differences persist across sub-regions and African countries. Countries that have achieved success over the past two decades have found effective ways to

manage the complex processes involved in addressing malnutrition. Despite the absence of a specific formula for achieving sustainable improvements in addressing malnutrition, tangible impact often requires translating political commitments into high-level leadership and sound governance. It also involves partnerships between the public and private sectors and comprehensive integrated approaches aimed at creating a conducive environment. The following provides further detail on these three points:

As for **high-level leadership and sound governance**, the processes of the World Food Summit and the Millennium Development Goals explicitly recognized the need for the necessary political will to bring about fundamental changes in the social values to reduce poverty and hunger. This is achieved through local initiatives and projects. It is unlikely that any national-level policy or program will succeed without strong leadership and commitment from the highest levels of government. Given the nature of food security and nutrition programs, they require the involvement of various institutions in their design and implementation, following new institutional arrangements that bring together the various actors within the government, private sector, and civil society.

To ensure effective leadership and coordination in addressing the long-term dimensions of food insecurity and malnutrition, it is necessary to establish a national institutional body that serves as an advisory structure. This body should be overseen by the highest level of government (such as the Prime Minister or President) to set priorities, provide advice on policies and programs, and monitor their progress. Additionally, this structure should be well funded, either through adequate human resources (by providing staff) that contribute to improving food security and nutrition, as seen in Ethiopia and Niger. For instance, the Ethiopian government established the Agricultural Transformation Agency (ATA) under the leadership of the Prime Minister, in accordance with the federal regulation issued in December 2010. Where ATA seeks to promote transformation through enhanced support to governmental structures, the private sector, and other non-governmental partners to

address structural constraints in the system, ATA aims to provide a prioritized national agenda to achieve comprehensive agricultural transformation and food security. Similarly, in Niger, which adopted a presidential initiative called "3N" in April 2012 to improve food security, the priority of this institution lies in determining the mechanism of national coordination, in conjunction with the Niger Council of Ministers, and under the direct supervision of the President's office. (World Bank, 2018, p64-65).

When it comes to **improving food security through transparency and accountability mechanisms**, there is no doubt that there is a significant connection between improving food security and nutrition on one hand, and the performance of the state in terms of government effectiveness and accountability on the other hand. Estimates from the World Bank through global governance indicators have indicated that most countries that have achieved or made progress towards the goals of the World Food Summit and the new Millennium Development Goals have also improved their performance in terms of corruption control and government effectiveness. There are several examples in this regard, such as Benin, Ethiopia, Ghana, Kenya, Lesotho, Malawi, Mauritius, and Rwanda. Moreover, the effectiveness scores of governments in other African countries were much higher, as was the case in Niger. In the latter, in 2008, an agreement was reached among partners to establish a framework of mutual accountability to assist the government and donors in holding each other accountable for achieving development outcomes. This framework relies on the Common Performance Assessment Framework (CPAF), the Donor Performance Assessment Framework (DPAF), and the Joint Performance Assessment Framework (World Bank, 2018, p66).

As for **the partnership between the public and private sectors**, it is considered one of the most important mechanisms for improving and achieving food security in Africa. Several African countries have entered into partnerships with the private sector as a key partner in financing and implementing various policies and programs

related to food security. For example, the government of Ghana has partnered with the private sector and civil society in implementing and reviewing policies and programs to develop the agricultural sector. Partnerships between the public and private sectors have been targeted in the field of advisory services, agricultural research and innovation, and agricultural mechanization. Arrangements for partnerships between the public and private sectors have been initiated to rehabilitate rubber farms in the country, increase palm oil and cocoa production, as well as develop new supplies for high-yielding maize.

In Kenya, partnerships between the public and private sectors have been incorporated into the field of agribusiness through agricultural processing, technology transfer, marketing, contracting, and storage. The main objectives in Kenya include increasing employment, improving rural income, and reducing poverty. The BIOFIX project is an example of a public-private partnership in Kenya, which focuses on spreading new technologies developed by public research institutions. Partnerships between the public and private sectors in Kenya are considered sophisticated tools with significant potential to stimulate the development of agribusiness, drive growth in the agricultural sector, and thereby achieve food security (FAO, 2020, p24).

In terms of **regional initiatives to achieve food security in Africa**, several initiatives have been developed at both the continental and sub-regional levels. At the continental level, the Malabo Declaration was adopted in June 2014 on "Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods." The declaration was built upon the achievements and lessons learned from the first decade of the Comprehensive Africa Agriculture Development Programme. Furthermore, a strategy for implementation and a roadmap have been developed and adopted to facilitate and achieve the objectives of the Malabo Declaration and materialize them into tangible results by 2025. This roadmap targets both governmental and non-governmental entities that are engaged in the implementation or support of the Comprehensive Africa Agriculture Development

Programme at all levels. This strategy consists of a set of actions aimed at achieving transformative agriculture and sustainable inclusive growth on one hand, and enhancing systemic capacity for implementation and delivery on the other hand. This strategy has identified 11 thematic areas to facilitate and guide the selection of practical actions that will yield results and impact to support the vision and goals of 2025.

The African Union and its partners have also developed the African Regional Nutrition Strategy (ARNS) (2016-2025), aiming to achieve consensus and a shared commitment through an effective approach based on "nutrition governance". ARNS proposes a series of institutional provisions to ensure governance mechanisms that eliminate hunger and child malnutrition by 2025. In addition to that, the NEPAD nutritional capacity initiative has been operational within the Comprehensive Africa Agriculture Development Programme since 2011. African countries have implemented it with the aim of developing and executing nutrition-sensitive agricultural policies and programs (World Bank, 2018, p68).

These regional African initiatives have been supported by a range of sub-initiatives within various regional blocs, including the Economic Community of West African States (ECOWAS), the West African Economic and Monetary Union (WAEMU), and the Permanent Inter-State Committee for Drought Control in the Sahel (CILSS). The plan is realized through collaboration between the three main regional international governmental organizations, as well as key non-governmental actors. This initiative aims to eradicate hunger in West Africa and goes further by implementing unified initiatives that encourage all stakeholders to identify their unique and preferred areas of contribution. Through these initiatives, they can actively contribute to the goals of food security in the region.

In southern Africa, the Southern African Development Community (SADC) has formulated the "Food and Nutrition" strategy for the period from 2015 to 2025.

Member states of the organization approved of this strategy in 2014. The strategy aims to enhance food availability by improving production, productivity, and competitiveness through better access to sufficient and appropriate quantities of quality food. Additionally, it aims to improve the utilization of healthy, diverse, and safe nutrients. In the Horn of Africa region, the Initiative (IDDRSI) has provided a roadmap to address drought-related emergencies and build resilient production in the African Sahel and the Horn of Africa. They achieve this through a comprehensive approach that combats chronic food and nutrition insecurity, addresses food insecurity, tackles declining livelihoods, improves crop production systems, and conserves natural resources (FAO, 2020, p28)

## **5. Conclusion**

Ensuring food security is one of the greatest challenges facing the global community, and it is considered the most critical challenge in low-income countries. Among the 86 countries identified as low-income and food-deficient, 43 are located in Africa. Despite overall gains in food production and food security on a global scale, many countries and regions have failed to make progress in recent decades. As mentioned in this article, Africa, for instance, produces less food per capita than it did three decades ago and has seen a significant increase in the number of people suffering from chronic malnutrition.

The World Food Summit, organized by the United Nations' Food and Agriculture Organization (FAO) in Rome in 1996, reiterated the right of every individual to safe and nutritious food. During this summit, heads of states and governments committed to eradicating hunger in all countries by reducing the number of people suffering from malnutrition by half by the year 2025. They achieve this by confronting numerous significant political, economic, social, and environmental constraints to increasing food production in countries worldwide, and particularly in African countries. Many challenges of agricultural and rural development in Africa

are linked to misguided policies, institutional weaknesses, and a shortage of well-trained human resources.

Despite that, Africans are making some progress in improving food security through the attainment of democracy and political stability in certain countries, as well as the development of human resources through knowledge building and information exchange. The latter is crucial in this process since these mechanisms aim to enhance the prospects for food production renewal.

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