

Issue

Brief

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The Role of Women's Nutrition Literacy in Food Security: The Case of Africa

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Abstract

Women are vital to food security, especially in developing countries where food is more scarce to begin with. Women's productive and reproductive roles put them at the centre of food security more than any other group. This is true in Africa where, both as farmers and as home managers, women determine the feeding habits, dietary patterns, and nutritional and food security status of their household. This brief argues that promoting female nutritional literacy is an important policy strategy that African leaders and development partners should consider in framing and implementing interventions for food security.

Africa still lags behind much of the world in food security, which is vital to ending all forms of hunger and malnutrition by 2030—an ambition embodied in the second of the UN’s Sustainable Development Goals (SDGs). A March 2022 report from the Food and Agriculture Organization (FAO) noted that of the 44 countries in the world most in need of external food assistance, 33 were in Africa.¹ An analysis by the Global Hunger Index (GHI) in 2021 also revealed that eight of the 10 countries worst hit by severe food insecurity in the world that year were in Africa.² Current global supply chain issues and the war in Ukraine have compounded the challenges. In West and Central Africa for example, the number of people suffering from food and nutrition insecurity has risen from 10.7 million in 2019 to 41 million in 2022.³

Food security exists when all people at all times have physical and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life.⁴ The FAO identifies food availability, economic and physical access, stability, and nutritional utilisation as the four pillars of food security.⁵ Although it does not explicitly mention nutrition literacy, the FAO recognises that knowledge of nutrition and childcare, in conjunction with access to sanitation and healthcare, are indispensable to food security.

National food sufficiency and food security should be central to Africa’s development agenda. Food sufficiency will help reduce the continent’s dependence on food aid and food imports and prevent social and political instability. Nutritional security is key to children’s development: a well-fed child is likely to be better educated. Africa needs to mobilise its entire population and adopt a multi-sectoral approach to realise its food security goals. Key to this ambition is the role of women. For example, the UN-Women has noted that child nutrition and health, among others, improve when women are financially empowered.⁶ Their empowerment also includes nutrition literacy, and the acquisition of other skills that they require to be able to fully participate in all sectors of society.

Introduction

As the FAO has pointed out, a balanced diet and nutrition utilisation require nutritional intake, good food preparation, and proper feeding habits. In Africa, it is mostly the women who grow, buy, prepare, and serve food to their children and the family.⁷ Unfortunately, nutritional information on what an average household consumes is not readily available. Thus, investment in nutrition literacy for women is critical to reducing any gaps in balanced diet and nutritional utilisation. This brief is a desktop study of how food policies and programmes across the continent are addressing the issue of nutrition literacy among women.

“In 2021, eight of the 10 countries in the world worst hit by severe food insecurity were in Africa.”

Food Insecurity in Africa: An Overview

Food security is under threat globally due to disruptions caused by conflicts, the COVID-19 pandemic, and climate change. The situation in Sub-Saharan Africa (SSA) might be more alarming. While less than 10 percent of the global population faced severe food insecurity in 2018, the figure for the SSA was over 25 percent. Seven of the 10 countries ranked worst on the Global Hunger Index (GHI) 2021 were in SSA.⁸ The region has the biggest numbers of malnourished people and stunted children, as well as the highest under-five mortality rates in the world. Even prior to the pandemic, in 2019, Africa's^a undernourishment rate was 19.1 percent, while 31 percent of its under-five children were stunted.

Studies have warned that Africa will not be able to achieve the SDG-2 of zero hunger by 2030. The chances of the SSA nations doing so are even lower, considering that people's diets in the subregion are largely inadequate in proper nutrition. In West Africa, increase in adult obesity, hypertension and diabetes rates are also worrisome, the first having risen by 115 percent in 15 years since 2004. In the same period, the incidence of hypertension spiked to 38.7 percent in Cape Verde and 17.6 percent in Burkina Faso, while diabetes went up to 17.9 percent in Dakar, the capital of Senegal.⁹

Table 1 shows that in just one year, 2020, the population facing acute food insecurity across 15 SSA countries rose by 41.1 million (or 90 percent). The situation was particularly alarming in Chad, Mali, and Burundi, where the number has gone up by over 500 percent. The increased insecurity in turn has caused even more undernourishment (see Fig. 1) and impacted children's health. The Global Hunger Index 2021 reported that the under-5 mortality rate was 11.7 percent in Somalia, 11.4 percent in Chad, and 11 percent in Central African Republic, against the global average of less than 4 percent. At the same time, 32 percent, 35.1 percent and 40 percent of children, respectively, from these countries were stunted, compared to the global average of 22 percent. In 2017, more than one-third of stunted children in the world were in Africa, with SSA countries having a shade-higher prevalence rate of 33.9 percent.¹⁰

a Refers to the entire continent, including the North African states which are not part of Sub-Saharan Africa.

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**Table 1:
African Countries Suffering Heightened
Food Insecurity**

Country	Key drivers		Population facing acute insecurity (in millions)		2020 Increases	Change recorded
	Conflict	<input checked="" type="checkbox"/> Climate change	2019	2020	In Millions	%
DRC	√		15.6	21.8	6.2	40
Mali	√	<input checked="" type="checkbox"/>	0.6	6.8	6.2	1,033
Chad	√	<input checked="" type="checkbox"/>	0.6	5.9	5.3	883
Ethiopia	√	<input checked="" type="checkbox"/>	8.0	12.9	4.9	61
Sudan	√	<input checked="" type="checkbox"/>	5.9	9.6	3.7	63
Cameroon	√		1.4	4.9	3.5	250
Zimbabwe		<input checked="" type="checkbox"/>	3.6	6.0	2.6	72
Burkina Faso	√	<input checked="" type="checkbox"/>	1.2	3.4	2.2	183
Niger	√	<input checked="" type="checkbox"/>	1.4	2.7	1.3	93
Burundi	√	<input checked="" type="checkbox"/>	0.2	1.4	1.2	600
Uganda		<input checked="" type="checkbox"/>	1.5	2.6	1.1	73
Sierra Leone		<input checked="" type="checkbox"/>	0.3	1.3	1.0	333
Mozambique	√	<input checked="" type="checkbox"/>	1.7	2.6	0.9	55
Somalia	√	<input checked="" type="checkbox"/>	2.1	2.6	0.6	29
CAR	√	<input checked="" type="checkbox"/>	1.8	2.4	0.6	33
Total			45.9	87.0	41.1	90

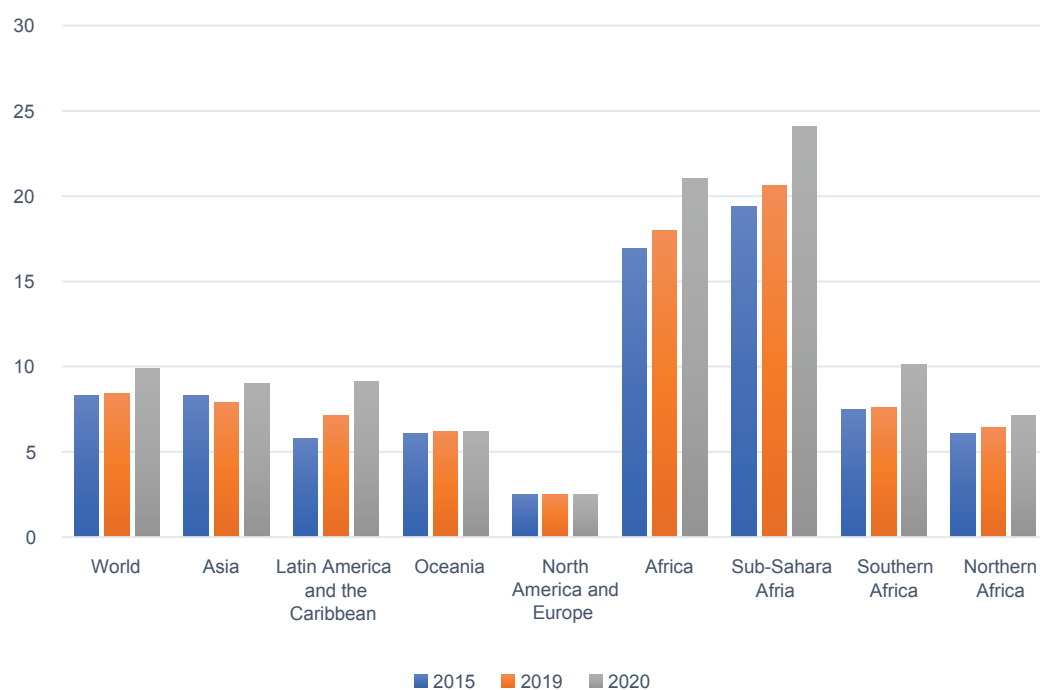
Source: <https://www.fao.org/3/cb4474en/online/cb4474en.html>

In the 16 West African countries, the proportion was 30.9 percent. The incidence of ‘wasting’ among West African children was 6.9 percent, 2 percent higher than the global figure.¹¹

Food Insecurity in Africa: An Overview

The causes of this precarious food situation are similar – conflict and climate change. Somalia has experienced conflict for over 30 years and Sierra Leone for 11. Mali, Chad, and the countries in the Horn of Africa have all suffered from weather extremes (droughts and cyclones) due to climate change. They tell the story of the food security situation of Africa – a story of poor governance that fuels conflicts, and sometimes neglects the role of women.

Fig. 1:
Undernourishment Rates, Africa and the World (2015-2020, in %)



Source: *The state of food security and nutrition in the world 2021*(fao.org)

Food Insecurity in Africa: An Overview

In the wake of COVID-19, the FAO has pushed for national investments across the globe to start social protection programmes, maintain global food trade, sustain domestic supply chains, and help smallholder farmers raise food production.¹² Other agencies have advocated synergies that integrate peace-building into food systems, especially in regions like Africa. However, it is known that food availability and access do not necessarily assure food security; as the World Bank has noted, the relationship between availability and access, and nutrition outcomes, is complex.¹³

Achieving food security requires a holistic approach that also integrates women and nutrition literacy. Nutrition is an integral part of food security, and nutrition literacy can be a useful predictor of adherence to healthy diet patterns;¹⁴ women are important vectors in this domain.¹⁵

“Food availability and access do not necessarily assure food security.”

Nutrition Literacy and Food Security Policies in Africa

For long, efforts to fight malnutrition in poor countries have focused on improving food availability and affordability.¹⁶ Only recently have they begun looking at other aspects including nutrition literacy and dietary diversity. Newer studies indicate that nutritional education improves nutritional outcomes.^{b,17} While everyone in Africa needs nutrition literacy, women need it most, given their position as food providers and caregivers in their households.

The goal of nutrition literacy is either to reinforce existing nutritional practices and habits, or advocate changes in behaviours and habits that adversely impact health.¹⁸ Knowledge about how food is produced, processed, handled, sold, prepared, shared, eaten, and what happens to it in the body—how it is digested, absorbed, and used¹⁹—should be widely disseminated. The West Africa Brief—a body of eminent experts of the region and backed by leading development finance institutions—argues that in Nigeria, for example, more than income poverty, poor food choices are responsible for nutritional disorders and malnutrition.²⁰ Nutritional disorders can translate into various health concerns. In West Africa, for example, in 2021, while 15.2 percent of infants were underweight, 5.6 percent of men and 15.6 percent of women were found obese.²¹ When women are educated about good nutrition and how to prepare healthy food, the dietary habits,²² health, and capacity for food preservation of their families, are likely to improve.

Women as Caregivers

The FAO believes that as caregivers, women influence nutritional security through feeding practices (breastfeeding and food preparation), and health and hygiene practices.²³ In some instances, households that can afford quality food still suffer from undernourishment because of poor nutritional knowledge. Women's nutritional knowledge is important to avoiding vitamin deficiency as it will enable them to provide their families with the right foods even with limited resources. Pre-pregnancy nutrition, and nutrition during the lactation period, affects the quality of breast milk, and the weight of the newborn and their chances of survival.²⁴

b 'Nutrition literacy' is defined as the degree to which individuals have the capacity to obtain, process, and understand nutrition information and skills needed in order to make appropriate nutrition decisions. Food literacy and nutrition literacy go together: they describe the set of knowledge and skills which enable people to make appropriate nutrition decisions and plan, manage, select, prepare, and eat foods.

Nutrition Literacy and Food Security Policies in Africa

A study of 300 children under five years in Northeast Nigeria shows the importance of literacy to child nutritional status. It found that with 65 percent of the mothers/caregivers lacking formal education, 67 percent of the children were underweight, wasted or stunted.²⁵ Another study from Liberia reported that when mothers had better income and literacy, and breastfed their babies exclusively for the first six months, the latter were unlikely to suffer from severe malnutrition.²⁶ In South Africa too, it has been observed that socio-economic status, nutritional knowledge, and attitude of caregivers all have an influence on dietary style.²⁷

Gender Inequality and Food Security

Global gender inequality in food security is well-documented. During COVID-19, for example, food insecurity among women was 10-percent higher than among men,²⁸ and even more so in developing countries. Nutritional problems in Africa result from insufficient intake relative to nutritional needs.²⁹ Much of the food consumed in SSA are produced by small farmers³⁰ who themselves are highly vulnerable to food insecurity and poverty,³¹ and who are also largely women. Another factor is that thousands of African rural women have been displaced from their farms by corporate investors, largely from the global North.³²

The 1996 Rome Declaration on food security³³ underscored the role of women in achieving the goals. A much-cited 2000 study by Lisa C. Smith and Lawrence J. Haddad on child nutrition³⁴ attributed the decrease in hunger between 1970 and 1995 in developing countries to improvements in women's status. Yet gender food discrimination has persisted. In some rural households, girls are more vulnerable to food insecurity than boys because of norms and practices that restrict their access to certain foods. Where food is scarce, women eat last or eat leftovers, and may not eat some types of food at all because of gender food taboos. Such bias in food allocation between boys and girls has been reported from other countries such as India.³⁵ It is common to find rural areas in Africa where girls are given less to eat than boys, or are denied nutritious foods such as legumes, eggs, chicken, and meat.

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A survey of 25 African countries showed that those with low gender inequality, such as South Africa and Tanzania, also have low food insecurity, while such insecurity is high in countries with high inequality such as Burkina Faso, Mali, and Chad. In Ethiopia, in households with severe food insecurity, girls were found to be more food insecure than boys.³⁶ In Kenya, girls had lower energy consumption.³⁷ And even in low-inequality South Africa, boys were likely to be more food secure than girls in poorer families. However, in families with adequate economic resources,³⁸ girls were found less food insecure than boys. Similarly, a study in Northeast Nigeria showed that where gender occupational differentials existed, male children were more prone to malnutrition in rural female-headed homes.³⁹

“The goal of nutrition literacy is either to reinforce existing nutritional practices and habits, or advocate changes in behaviours and habits that adversely impact health.”

The Impact of Women's Nutrition Literacy

It is important to understand the correlation between women's literacy—which determines their access to agricultural information—and food security.⁴⁰ Women's illiteracy limits their ability to access and implement agricultural information effectively. Lack of education and agricultural training, poor farming methods and poor post-harvest management impact food security, among other factors. The success of food security projects is influenced by women's nutrition literacy alongside supply of inputs, improved seeds, credit, and land availability.⁴¹

The following points explain how female nutrition literacy can affect food security in Sub-Saharan Africa:

- Nutritional knowledge makes mothers pay attention to nutrition information that can lead to changes in household food preferences.⁴²
- Nutritional knowledge is vital for behavioural changes, communication interventions in dietary quality, and nutrition outcomes.⁴³
- When pregnant women know about good nutrition and how to prepare healthy food, they are likely to improve their dietary habits.⁴⁴
- Nutrition education enhances an individual's ability to attain nutritional and food security.
- A Senegal study reported that literacy improves dietary intake and nutrition behaviours of female adolescents. About 35 percent of the girls surveyed were found undernourished and 56 percent anaemic.⁴⁵
- Research from Ethiopia found a strong relationship between women's empowerment, improvement in children's diets, and reduction in stunting. It noted that child nutrition cannot improve without women's nutritional knowledge and empowerment.⁴⁶
- In Malawi, a study of 257 women found that supplementary nutrition education and counselling significantly improved nutrition knowledge, dietary diversity, and nutrition behaviour among participants who witnessed positive behaviour changes to diversified foods.⁴⁷
- In Kenya, between 2016 and 2020, an FAO study found that investing in women's nutrition literacy leads to improved consumption of nutritional food.⁴⁸

Fostering Women's Nutrition Literacy in Africa

1. Promote women's empowerment.

Investments in agricultural technology, food production and availability do not necessarily lead to enhanced nutrition, particularly that of women, because gender power dynamics define who has access to, and control of, their benefits. Thus, rights, power, and access to land resources are crucial to food security in Africa.⁴⁹ Women's empowerment is central to the convergence between agriculture and household nutrition security.⁵⁰ But how well women make strategic decisions will depend on their education, their access to information and control over resources, among other factors.

Women often desire to make household diets more nutritious, particularly for the vulnerable, but fall short because of lack of empowerment⁵¹ and lack of information.⁵²

2. Recognise the role of women as caregivers.

The FAO has noted that as caregivers, women influence nutritional security through feeding (breastfeeding and food preparation) practices, and health and hygiene practices.⁵³ As caregivers, women's nutrition knowledge helps avoid vitamin deficiency by providing the family with the right kind of food rich in minerals and vitamins, even with limited resources. It also depends, however, on the woman's age. In Cote d'Ivoire, for example, older mothers are believed to have more experience and better knowledge of food and the nutritional needs of the family than their younger counterparts.⁵⁴

3. Mainstream women into the Zero Hunger Challenge (ZHC) Initiative.

In 2012, then UN Secretary General Ban Ki-moon launched the Zero Hunger Challenge (ZHC) to promote an integrated response among UN agencies to the interconnected problems of hunger and malnutrition.⁵⁵ There are many examples in Africa where UN agencies are collaborating with the government under the ZHC initiative to develop guidelines on healthy, nutritious, and sustainable diets for children, provide humanitarian food assistance, promote nutrition sensitive agriculture, and build skills for small rural farmers.⁵⁶ These collaborations should be gender-inclusive at all levels. Projects such as those by the International Fund for Agricultural Development (IFAD) to finance rural women or UNDP's Rain4Sahara to promote agricultural diversity⁵⁷ should be

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encouraged and replicated. However, these should also provide women the means to increase production by focusing on nutrition literacy, helping them make crop and food choices that are nutritious.

In Ghana and Kenya, education at the primary and secondary levels includes basic nutrition education. Government sectors, non-government and civil society organisations should design and implement broader initiatives to improve women/caregivers' literacy on diet diversity and food production and utilisation.

4. Invest in research for development.


A study in Ghana showed that nutrition literacy programmes have a positive correlation with diet choices and dietary behaviour.⁵⁸ Another in Kenya carried out by the FAO between 2016 and 2020 that combined nutritional education with rural livelihood support, showed that over 80 percent of female participants were able to improve on the quality of their diets.⁵⁹ Studies of this nature should be encouraged in other countries and at regional and continental levels. They can provide vital information on how investing in women's nutrition literacy leads to increased consumption of nutritious food.

Ultimately, female nutrition literacy in Africa is only one part of a comprehensive solution that will enable women's equal access to resources and women's empowerment. This in turn will:

- Improve women's efficiency in making food choices;
- Prevent the serving of food whose nutritional value has expired;
- Diversify the quantity and quality of rural food production. The bulk of the food consumed in SSA comes directly from farm and forest activities of rural folk, most of whom do not have literacy. Nutrition literacy can show them how to diversify production to get a balanced diet;
- Reduce the demand for maternal healthcare because women's empowerment and income parity across genders improve women's ability to make their own reproductive decisions;
- Minimise disease and health risk from food consumption following improvements in hygiene, food handling, and breastfeeding;
- Maintain nutrition levels for all even during scarcity, because preparing nutritional diets when food is rationed calls for exceptional skills.

As women-headed households grow in number, lack of women's nutrition literacy—and the absence of empowerment, overall—makes their families more vulnerable to natural and socio-economic adversities. The future of food security in Africa depends on various factors that are intricately linked to good governance and effective policies. Good governance can reduce instability and conflict in the continent and focus public attention on combating climate change, overcoming poverty, and developing social and economic infrastructure that are required to improve living standards.

Nutrition literacy is part of social capital development that can only be achieved through inclusive, broad-based programmes and strategies to promote dietary diversification, positive changes in feeding habits, and balanced diets. Such literacy for women is non-negotiable for a region like Africa where there are food taboos, cultural beliefs and practices that decrease women's intake of certain nutrient-rich foods and affect the nutritional status of pregnant women.

Sound food policies alone do not always translate into food security for individuals or households. Economic policies pursued by many African countries in the 1970s and 1980s brought about food security at the national level but not at individual households. The effectiveness of national food security policies requires interventions at the household level. This is where the empowerment of women who are both home managers and caregivers, has a crucial role to play. The success of food security policies will depend upon the extent to which local communities are involved in them. Women should be tasked with the leadership of community nutrition programmes, and they must be empowered to do so. 

Dr. Lotsmart Fonjong is a multidisciplinary scholar and consultant whose work focuses on natural resources, gender, food security, and development issues in Africa.

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