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Food Trade Deficits in West Africa: Is There Any Reason for Anxiety?

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Abstract

This study examined the food trade deficits in West Africa from 2000 to 2020. The aim of the study was to determine whether there is any reason for anxiety among the people of West Africa. The study found that West Africa has recorded cumulative positive food trade balance. However, it was also found that some countries within the region have consistently remained in the deficit region of food trade balance and this called for concern, especially that such countries account for over 50% of the region's total population. The study found that the food production and food trade in the West African region, according to the data from FAO and the World Bank, are indicative of sustained efforts and these have yielded positive results. The study recommends that to manage post-harvest losses, there should be development of knowledge and the capacity of food chain operators to apply safe food handling practices and storage hygiene. Provision should also be made for funds and loans to facilitate the diffusion of better storage containers. The study also recommends that road, energy and market infrastructure improvements will help stem the flood of post-harvest losses and the need to create a stronger investment climate to encourage private sector investment in the food business and to work more closely with farmers to address supply challenges.

Key terms: anxiety, food trade deficits, investment, trade balance, West Africa

JEL classification: Q18, Q56

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1. Introduction

Over the past two decades (now in 2023), around the world and on the African continent there has been renewed vigour in the conversation about food (in)security, which has grown and is intensified by different categories of stakeholders. There have also been a series of programmes, projects and interventions across these levels to tackle the issues that exacerbate food insecurity. The Sustainable Development Goals (SDGs) also reinforced the intention to achieve zero hunger levels by 2030; yet prospects for achieving this goal seem so bleak. Currently, there is still a lot of evidence that the problem of food insecurity persists and is worsening across the globe. Deepened by global, regional and economic and health shocks, rising levels of conflict and crisis, food insecurity has become a global emergency.

Africa certainly has a reputation for being a large producer of a wide range of agricultural and food products and, naturally, is central to some of the dynamics of food security globally. Food security is a function of food production, food accessibility, utilization and stability. Food production levels influence the major components of food security – availability and accessibility, which tend to ensure food stability through affordability, and the

last component – food utilization, which facilitates food quality and other non-food inputs, such as clean water, sanitation and health care. Therefore, food production affects food sustainability and trade.

There is no doubt that an economy (generally) produces in order to sell the surplus and earn revenue. When food production falls below demand, imperatively, imports rise. Rising imports indicate production shortages and propelling deficits. Enduring deficits are an unhealthy development for sustainable food security, as they reinforce insecurities. The Food and Agriculture Organization of the United Nations (FAO) (2011) reported that food imports are rising faster than agricultural and food exports. This global trend may also reflect the African experience.

On April 5, 2022, Action Contre la Faim, ALIMA and CARE (2022) reported that West Africa was hit by its worst food crisis in a decade, with 27 million people going hungry. This number was reported to rise to 38 million in June 2022 – a new historic level. Over the past decade, far from abating, food crises have been increasing across the West African region, including in Burkina Faso, Niger, Chad, Mali and Nigeria. Between 2015 and 2022, the number of people in need of emergency food assistance nearly quadrupled, from 7 to 27 million. This has caused a rise in food demand and food prices have increased by 20-30 percent over the past five years in West Africa. While food reserves are dwindling in the Sahel, the crisis in Ukraine is making the situation dangerously worse. According to the Food and Agriculture Organization (FAOSTAT, 2022), food prices could rise by another 20 percent worldwide, an unbearable increase for already fragile populations. This is expected to increase the volume of food imports to West Africa.

Consequently, African Development Bank (AfDB) (2017) reports that Africa's annual food import bill of 35 billion USD in 2017, estimated to rise to 110 billion USD by 2025, weakens African economies, decimates its agriculture and exports jobs from the continent. Sub-Saharan Africa's spiraling food import bill – which stood at 43 billion USD in 2019 – has attracted mounting attention as a worrisome trend. For years, many pundits have wondered why Africa seems increasingly unable to feed itself and eliminate the tendency for anxiety over food insecurity related issues, despite having much of the world's remaining unutilized arable land which should be a great potential in enhancing output growth in agriculture and food production. According to the Mo Ibrahim Foundation (2011, p. 47), "over 23 African countries are net importers of agricultural products, while just 14 are net exporters: Burundi, Cameroon, Côte d'Ivoire, Ethiopia, Ghana, Guinea-Bissau, Kenya, Malawi, Rwanda, South Africa, Swaziland, Tanzania, Uganda, and Zambia. Between 2000 and 2005, the continent's yearly food trade bill was 17.3 billion USD in exports and 24 billion USD in imports, resulting in a 6.6 billion USD annual imbalance".

According to Fox and Jayne (2020, p. 1), however, this alarming narrative is largely inaccurate. Their research disaggregated Sub-Saharan Africa's (SSA) agricultural trade performance by country and type, and found that four countries – Nigeria, Angola, the Democratic Republic of the Congo and Somalia – account for most of SSA's net agricultural import position. The rest of the countries in the region were actually net agricultural exporters. What then seems to be the cause of anxiety in Africa, Sub-Saharan and, indeed, Western Africa? Do stylized facts show signs of a bleak future in food production and supply in this region?

According to Mo Ibrahim Foundation (2011), Africa has the largest share of arable land in the world, nearing 1,200 million hectares (16%) and the largest share of uncultivated land (79%). About 874 million hectares of Africa's arable land is considered suitable for agricultural production. It thus implies that agricultural growth is more important for Africa than any other continent in the world. About 70% of people in Africa and roughly 80% of the continent's poor live in rural areas. These people predominantly depend on agriculture and in a few cases non-farm rural enterprises for their livelihoods (Odoh *et al.*, 2019). West Africa has the largest share of the arable land, as a percentage of the continental arable land with Nigeria only occupies 16.8% (Mo Ibrahim Foundation, 2011). This is huge potential for agricultural development in West Africa that remains untapped on the continent and which could be diligently explored.

With this potential, Africans are reported to have been increasingly unable to meet their basic food needs, as population pressure on land grows, land and water resources become scarce or degrade and agricultural productivity stagnates. Although inherent fragility of African soils is reported, as well as the continent's climate variability of both surface and subsurface water resources, there is substantial untapped potential for the development of the continent's water and land resources for increased agricultural production (Food and Agriculture Organization of the United Nations (FAO) & World Health Organization (WHO), 2003).

FAO and WHO (2003) also estimates that between 1995/1997 and 2030, about 75% of the projected growth in crop production in Sub-Saharan Africa will come from intensification in the form of yield increases (62%) and higher cropping intensities (13%), with the remaining 25% coming from arable land expansion. On the other hand, the West Africa Agricultural Productivity Program (WAAPP) has boosted research and extension services in the area of agricultural technologies that has benefited over 253,000 farmers and improved about 177,000 hectares of land in the region (World Bank, 2013).

With just eight years left to the deadline of the forecast horizon by FAO and WHO (2003) and two years left for AfDB (2017) forecast deadline on continuous increasing food import bills, is West Africa indeed on its path of exploiting this potential to meet the food needs of the region, Africa and indeed the entire world? Are there conflicting facts and story lines on net importation and exportation of food trade bills in West Africa, and should West Africa have a reason to be anxious about meeting the food needs of its own people in the future, in the face of her brazen advantage in agricultural potentials on the African continent? An in-depth enquiry into the dynamics of food trade deficits in West Africa will provide the information to support good actions.

Thus, this paper examined the structure of food production, food imports and exports, as well as trade balances in West Africa to ascertain whether the global trend is similar to that in West Africa. The rest of the paper deals with the methodology, results and discussions, and conclusion and recommendations.

2. Methodology

The paper used data from the Food and Agriculture Organisation and the World Bank on food production, total trade, import and exports values, as well as the food production index from 2000 to 2020. Simple descriptive statistical tools – charts and graphs have been used to present the data that have been summarized in several ways by using percentages and proportions.

3. Results and discussions

■ Food production and rising food imports in West Africa

The analysis begins with an examination of the trend of West African food production as food production index (FPI), as well as the monetary value of food production. These have maintained an upward trajectory during the period 2000-2020. This trend is similar to the dynamics on the continent, as it appears that Africa has realized the importance of food security and the global conversation about it as indicators of food production in Africa have risen over time and has remained on an increasing trend for the past two decades according to FAO.

Figures 1a and 1b depict the food production index and food production in West Africa and there is unanimity in their trends, as they are increasing at an increasing rate. It will be safe to assume that the trend portends good news for West Africa. However, the story does not end here.

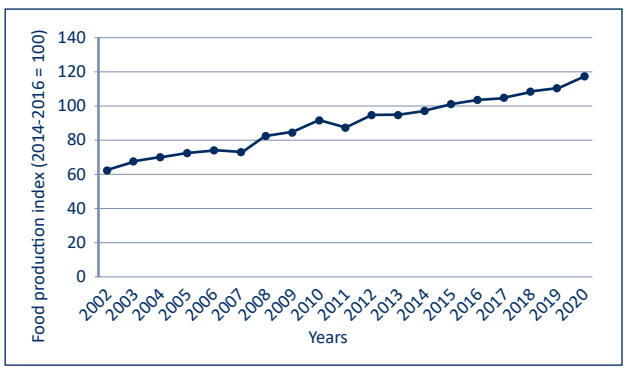

Figure 1a. West African food production index

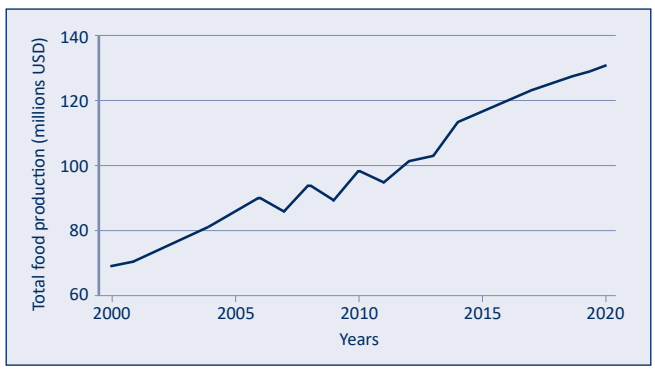

Figure 1b. West African food production (value)

Source: The World Bank (1a); Food and Agriculture Organization (1b).

■ Food trade in West Africa and the world

Recall that food production is expected to cater for the population and also be exported to generate revenue for nations. It is important to see whether these rising levels of food production have been able to support trade in this way.

Figure 2 shows that world food exports and imports have both trended in nearly the same proportions. Reviewing the contribution of West and Central Africa, as well as Sub-Saharan Africa to the global dynamics, there is an interesting discovery. While West and Central African exports have remained largely similar, West and Central African imports have surpassed that of Sub-Saharan Africa. The question then arises about the capacity of rising food production to support the people, as import proportions are also rising.

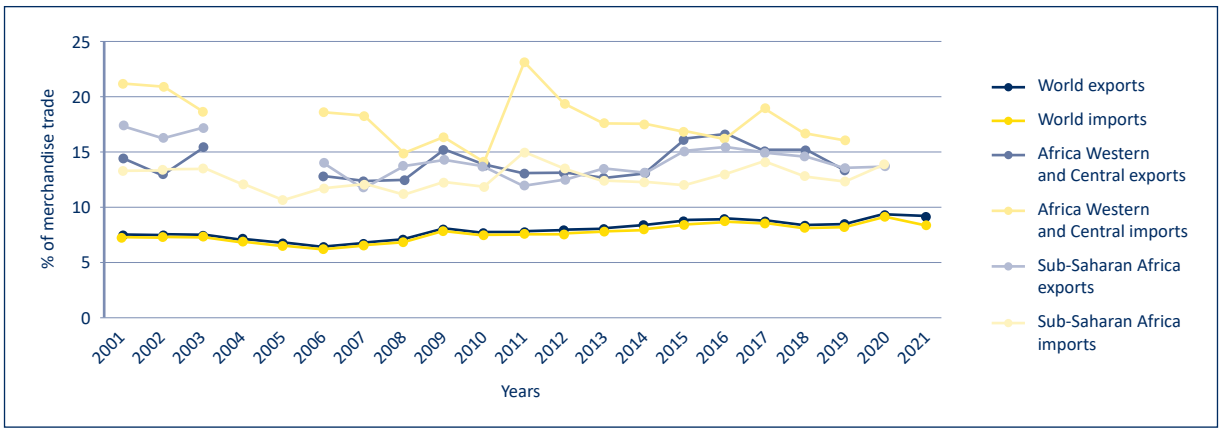

Figure 2. West African food trade and the rest of the world

Source: The World Bank.

In another development, the food trade component in total merchandise for West Arica is presented in Figures 3a and 3b. Food exports as a percentage of total merchandise in West Africa are above the level of imports. This does not suggest a scenario of food deficits, but indicates a positive link between food production and food trade balances within the region.

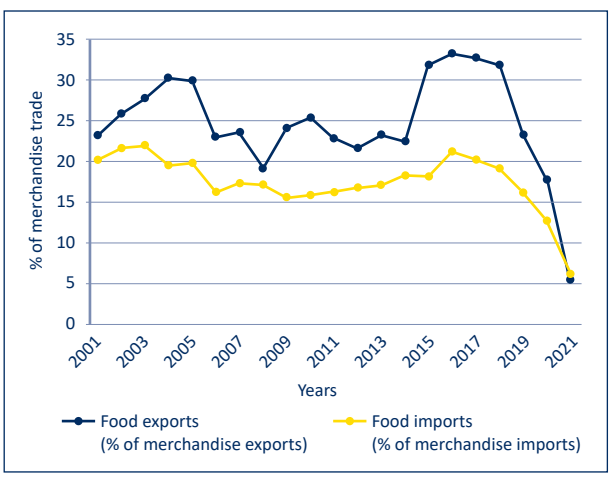

Figure 3a. West African food trade (%)

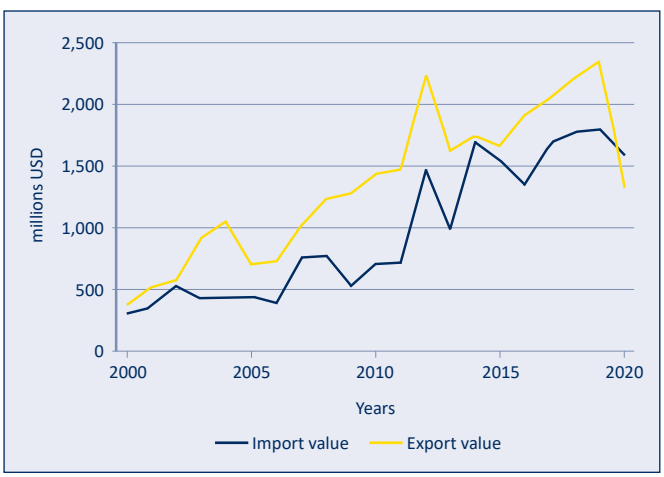

Figure 3b. West African food trade (value)

Source: The World Bank (3a); Food and Agriculture Organization (3b).

The proportion of food trade as a percentage of total merchandise is investigated next to ascertain the strength of agriculture in international trade in the region. This has trended south in the period under study, as seen in Figures 3a and 3b. How is it that rising food production results in rising imports and a falling proportion of merchandise trade? This is an indication that commodities other than food products dominate the trading space.

These figures show the clear disparity between import and export values, specifically in West Africa. In the period under study, the export values were generally higher than import values until somewhere around 2018 and this has continued through to 2020. The resulting deficit was about 277 million USD in 2020. This development may have been occasioned by the impact of the coronavirus disease (COVID-19), which resulted in global lockdowns for most part of the year 2020 and the production of both agricultural and industrial commodities nearly came to a halt. This may have necessitated a huge food trade deficit in the region.

To find a basis for the explanation of emerging trends, Figure 4 clarifies the structure of food trade globally.

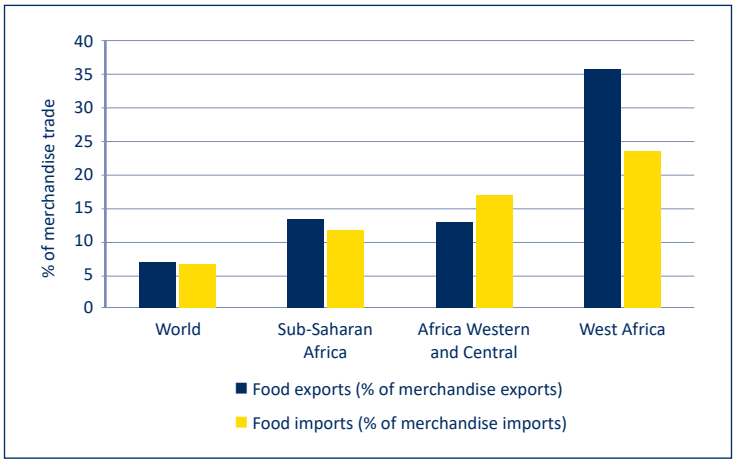

Figure 4. West African average food trade and the rest of the world (%)

Source: The World Bank.

From the presentation of Figure 4, the world food trade in terms of food exports and food imports as a percentage of merchandise trade shows little variation, on average. However, the average percentage of food exports exceeded the percentage of food imports trade between 2001 and 2020. A slightly different scenario is seen in the case of average exports and average imports as a percentage of merchandise trade in West African countries, when removed from the West and Central African block. There is need to examine the trade composition of country-specific food exports and imports to check the level of trade deficits among the West African countries. Figures 5a and 5b show these dynamics which are discussed next.

From the chart of the food exports and food imports of the West African countries in terms of the food trade as a percent of merchandise trade, Benin, Guinea, Mali and Nigeria recorded an average percentage of food imports higher than that of food exports between 2001 and 2022, making them weak links in West African food trade. However, the variations between the food exports as a percent of merchandise exports and food imports as a percent of merchandise imports turn out to be the highest in Nigeria, making it the weakest link. The information on the graphs below also shows Côte d'Ivoire, Cabo Verde, Gambia, Ghana, Guinea-Bissau, Senegal and Sierra Leone had recorded averages for food exports above their respective average food imports, as a percent of merchandise imports and, as such, are the largest contributors to the rising export revenues. What differentiates the weak and the strong links? From obvious factors like population size, climate change

effects and socioeconomic catastrophes and growing conflict, corruption and other institutional bottlenecks may be factors responsible for this trend.

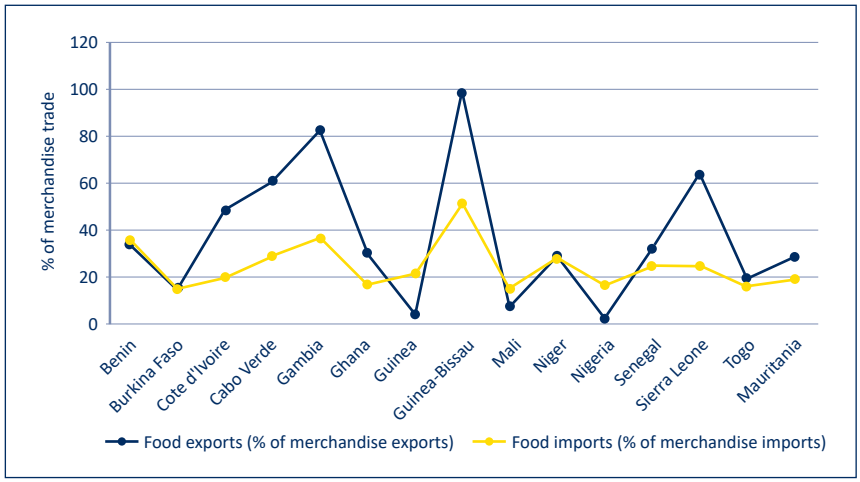

Figure 5a. Average food trade among West African countries (%)

Source: The World Bank.

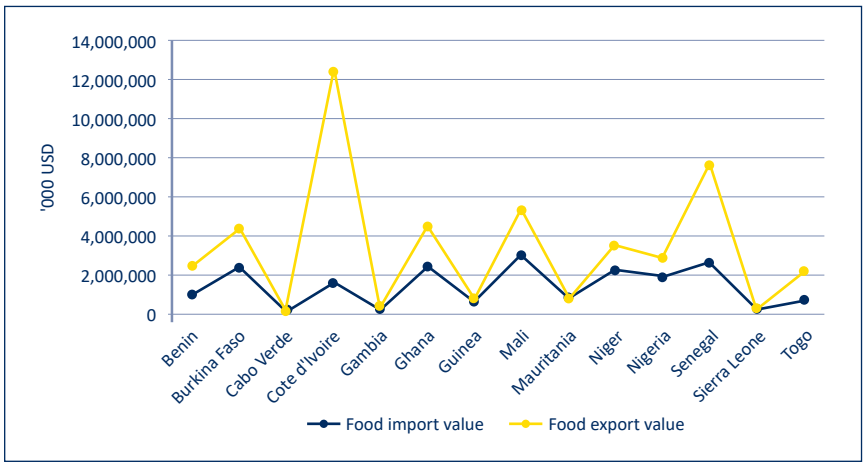

Figure 5b. Average food trade among West African countries (value)

Source: Food and Agriculture Organization.

West Africa as a region seems to have performed relatively well in food trade for the cumulative period of two decades, it is also has become necessary to split the study period into two distinct periods, to see whether the success story is only a result of cumulative effect or actual innovative progress in agriculture. Thus, the study examined the West African economies under study for the period 2000 to 2010 and 2011 to 2020. These are Figures 6a and 6b. The two time periods have witnessed both the Millennium Development Goals (MDGs) and SDGs, with deliberate efforts towards increased food production and elimination of hunger. Each of the periods, too, has witnessed serious negative economic shock – global economic financial crises 2008/2009 in the first period and COVID-19 pandemic and global lockdowns in the second period. Decomposing this performance into two ten-year periods, 2000 to 2010, and 2011 to 2020 reveals that there are a few more weak links to inspect.

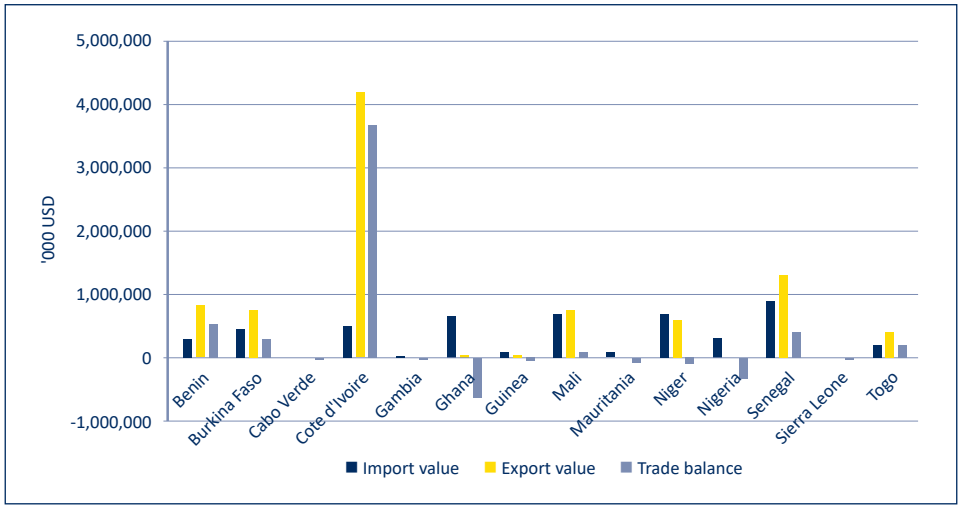

Figure 6a. Average food trade among West African countries (value) (2000-2010)

Source: Food and Agriculture Organization.

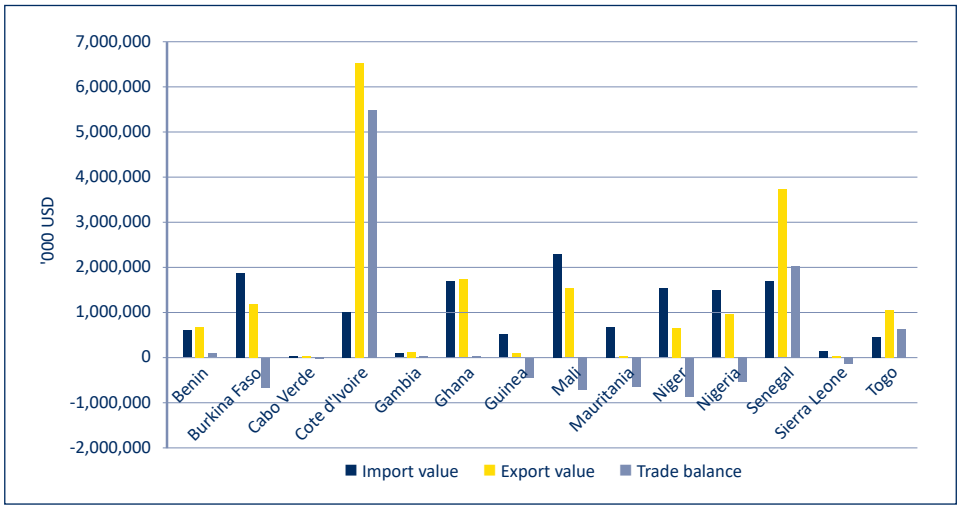

Figure 6b. Average food trade among West African countries (value) (2011-2020)

Source: Food and Agriculture Organization.

Figure 6a represents the time period 2000 to 2010 and Figure 6b represents that time period 2011 to 2020.

It can be observed from the two charts that West Africa achieved a cumulative positive food trade balance in both periods. However, while food exports increased by about 100% between 2011 and 2020 compared to the period 2000 to 2010, food imports increased during the same period by almost 300%. This may be due to several factors identified earlier on, such as political crises, insurgency and even pandemics, such as Ebola and COVID-19 viruses.

However, a closer look into country specific cases indicate that Nigeria, Niger, Cabo Verde, Sierra Leone, Mauritania, Guinea-Bissau and Burkina Faso actually witnessed the most deteriorating cases of food trade balance, running from lower levels of food trade deficits in the earlier period to higher levels of food trade deficits over time. These countries also account for more than half of the population of the West African region and this calls for concern. Of course, Mali, which had a positive food trade balance in the earlier period, is shown

to have plunged into deficit food trade balance and this may be due largely to the lingering political crises ravaging the country.

It can also be observed that Gambia and Ghana have launched themselves into cumulatively positive trade balances from their previous deficit situations, which is commendable and a feat that must be sustained for their individual good and that of the entire region of West Africa.

Finally, it can be observed that Togo, Senegal and Cote d'Ivoire have remained on the side of positive food trade balance, even with some serious improvements over time. Benin Republic too has recorded positive food trade balance for the two periods, although there appears to be a decrease in efforts and hence the need for the country to refocus its efforts towards increased food exports over imports.

African trade tariffs are among the world's highest, averaging 50% higher than comparable levies in South America and Asia. Intra-African commerce remains minimal, accounting for around 12% of total African exports and imports. This is less than half of what other emerging market regions is seeing. More than half of Africa's intra-regional trade takes place within the Southern African Development Community (SADC). These tariffs are anti-competitive and impede food trade across the region, especially West Africa.

4. Post-harvest losses in West Africa

Although it was fairly difficult to isolate data on processed food exports and imports in West Africa within the study period, it could be reported that West Africa's food exports are predominantly raw food items and its imports are predominantly processed food items. Available data show that Nigeria in West Africa is ranked as the 2nd largest importer of food processing technology in Sub-Saharan Africa (Torres & van Seters, 2016) and this trend is likely to increase, yet there is also a deficit balance in processed food imports. These food processing technologies include food equipment, bakery equipment, beverage equipment, confectionary equipment and bottling equipment. According to data, more than 40% of food losses in developing nations occur during the post-harvest and processing stages. Food cereal post-harvest losses in Sub-Saharan Africa are estimated to be 25% of total crop harvested. Prior to processing, physical grain losses might range from 10% to 20%. Sub-Saharan Africa's post-harvest grain losses could amount to 4 billion USD per year. This lost food could cover at least 48 million people's annual food requirements and is comparable to the value of annual grain imports. It is projected that a 1% reduction in post-harvest losses might result in yearly gains of 40 million USD (Mo Ibrahim Foundation, 2011).

The following are the reasons of post-harvest losses in West Africa: a lack of infrastructure for sufficient transportation, storage, chilling and selling of fresh products such as fruits, vegetables, meat and fish that are at risk of spoiling due to climatic conditions; inadequate facilities for processing and preserving fresh farm food; insufficient market mechanisms, as well as a scarcity of wholesale, supermarket, and retail facilities capable of storing and selling food products.

5. Conclusion and recommendations

On the basis of the findings of this research, it can be concluded that although West Africa has recorded cumulative positive food trade balance, the fact that some countries within the region have consistently remained in the deficit region of food trade balance calls for concern, especially that such countries account for over 50% of the region's total population. If there are situations of anxiety and worry over food insecurity among West African households, then such worries are justifiable and hence all hands must be on deck to tame the tide of this menace – food insecurity.

It is therefore necessary that the rising tides of political, religious, communal and tribal crises be controlled with alacrity. This will pave the way for peace and provide the enabling environment for increased participation in the agricultural production process to enhance food and agricultural output.

The food production and food trade in the West African region according to the data from FAO and the World Bank are indicative of sustained efforts and these have yielded results. These results are not a reflection of the painted background pictures, but that is a question about the data. Regardless of this, the FAO and the World Bank have remained credible sources of information.

Again, the World Bank (2013) posited that over 65% of West African population are employed in agriculture. Therefore, to have such a high number of employments in agriculture and still suffer threats of food insecurity portends that per capita productivity is low and hence the need to improve the agricultural practices in the region. This may be by way of improved research and development and extension services, real time use of modern tools and technology, use of hybrid crops and varieties that cause higher yield than the current trend.

Furthermore, to manage post-harvest losses, there should be development of knowledge and the capacity of food chain operators to apply safe food handling practices and storage hygiene. Provision should be made for funds and loans to facilitate the diffusion of better storage containers. Road, energy and market infrastructure improvements will help stem the flood of post-harvest losses. Private sector investments can help improve storage, cold chain facilities and transportation. Creating a stronger investment climate to encourage private sector investment in the food business and to work more closely with farmers in order to address supply challenges. More marketing cooperatives should be established to serve as a hub for gathering products from small farmers and preparing commodities for shipment to markets and other distribution channels.

Should households in West Africa be anxious about meeting their food needs? **Most certainly!** The anxiety is heightened by prevailing socio-economic catastrophes and the growing effects of climate change and other factors such as drought and famine reported in Kenya, Nigeria and other West African countries. Even those countries seemingly in good standing should work harder to keep the pace of maintaining food security.

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