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Mapping agricultural trade within the ECOWAS: structure and flow of agricultural products, barriers to trade, financing gaps and policy options

A research project in cooperation with GIZ on behalf of BMZ

Authors: Olayinka Idowu Kareem and Christine Wieck

Research team: Joseph Ejima, Rukayya Mahe, Dare Alaba,
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Executive Summary[1]

Although the statistics show that Intra-ECOWAS trade is low, calculated as 7% while the Intra-ECOWAS agri-food trade was 10% in 2019 (UNCTADStat, 2021), there is a lot of informal cross border trade taking place across all the formal and informal trade corridors. The informal intraregional trade is an important segment of the aggregated trade in West Africa, particularly in the agricultural sector, owing to its contribution to household food security and the standard of living.

About 70% of employment in sub-Saharan Africa is provided by informal trade (Koroma et al, 2017), which provides access to domestic goods that are not available in the formal economy. Given the porosity of the borders in the subregion, there has been an increasingly informal and/or illegal (smuggling) trade across the borders, especially in Nigeria where about 1500 illegal borders have been identified that allow informal and illegal trade activities (Kareem, 2014a). This indicates that there is more trade, especially in the agricultural and food commodities, taking place informally that are not in the official statistics. The informal trade corridors within the ECOWAS subregion are characterised by informal and illegal trade barriers that are detrimental to the regional integration and the documentation of the trading activities, which thereby impact the ECOWAS trade policy framework.

Thus, there is the need to take the stocks of the trade barriers of the formal and informal trade along the formal and informal trade corridors in the ECOWAS subregion to enable the Member states to tackle these challenges at both national and regional levels. This study broadly aims to map the status of agricultural and food trade, trade barriers and identify the gaps that exist in the agricultural trade finance and quality infrastructure.

The study conducted a literature review, analysis of secondary data, a field survey and experts' interviews to provide a broad perspective. The results show that agri-food trade flows in the ECOWAS are largely hampered by the heterogeneous trade policy measures across the Member states, which often are barriers to trade and tend to increase trade costs and the commodities prices, thereby constraining the trade benefits to the people while also making the trading countries uncompetitive.

The low intra-ECOWAS trade in agri-food commodities and/or products is due to the low production capacities, small agri-food trade extensive margin, inadequate finance, poor quality infrastructure – soft (trained inspectors, customs procedures digitalisation, certification, etc.) and hard (metrology facilities, roads, ports' facilities, testing and inspection laboratories, etc.) – which contribute to the outcomes. Agricultural trade finance has been identified as one of the key challenges inhibiting trade in agricultural commodities in this subregion.

The following conclusions emerge:

1. The **trade integration and interaction in ECOWAS is low** compared to some African economic groupings.
2. There has been a **proliferation of informal agri-food trade** along both the formal and informal trade corridors due to Nigeria's borders closure.

[1] The authors gratefully acknowledge helpful insights and comments on the interim results and draft report versions during the course of the project by GIZ colleagues and participants of the online workshop held on 5th of May 2021 and 7th of July 2021. The views expressed in this study are exclusively those of the authors and should not be attributed to the institution they represent.

3. The **most traded agri-food commodities** in the intra-ECOWAS trade are animals/livestock, sunflower seed oil, palm oil, cotton seed, nuts, cocoa beans, rice, maize, sorghum, cassava, fisheries, yam, tomato, cowpea and onion.
4. The ECOWAS top 10 agri-food imports from the globe accounted for about 81% of the subregion's total agri-food imports, while the top 10 agri-food exports to the globe contributed to about 84% of the total agri-food exports for the period from 2015 to 2019.
5. Livestock, maize and fresh tomato are frequently taken informally across the borders within ECOWAS.
6. Most of the traded agri-food commodities lack value addition and diversification of the agri-food base.
7. Having a **comparative advantage in the production of certain agri-food does not necessarily mean trading in such commodities**, e.g., Nigeria.
8. **Agri-food commodities are not trade facilitated and/or given a concession** of passage at the borders even though the commodities are perishables, especially those originated within the ECOWAS.
9. Member states have **heterogeneous "behind the border" measures**, especially **the axle/truck limit requirements, SPS inspection certification and produce inspection and clearance certificates** which impact the agri-food trade across the borders.
10. The **women agri-food traders**, most of whom are uneducated, were exploited and harassed by the borders' officials because of their inadequate awareness of the trading documentation and customs procedural requirements.
11. The number of accredited laboratories is rising, however, the current level of quality infrastructure is still insufficient for agri-food trade.
12. .
13. The interest rates, repayment schedules, collateral and availability of guarantors are hindrances to agri-food trade loans, besides the financial institutions inadequate understanding and knowledge of the food supply chains.

Out of the above findings and the stakeholders' workshops organised, the following **strategic options** to improve intra-ECOWAS agri-food trade have been derived:

I. Support ECOWAS and Members state trade facilitation through strengthening the advocacy, implementation, and enforcement capacity.
II. Invest in hard and soft quality infrastructure.
III. Facilitation of the ECOWAS informal trade regulatory support program
IV. Support women traders and sensitity by collaborating with women's organisations
V. Improve access to agri-food trade finance by supporting traders' associations

1 Introduction

1.1 Background

Regional trade is a veritable channel to enhance and deepen regional economic interaction and integration, which has the potential and propensity to boost sustainable growth and economic development. Besides, regional trade integration among countries provides an avenue for enhancing economic activities, increase production and specialisation, accelerate factor prices, reduce unemployment and food insecurity as well as improve the welfare of the citizenry of the region. Bouet et al. (2019) assert that trade integration has the potential of contributing to the acceleration of economic growth and poverty reduction. The benefits of regional trade integration can be fully achieved if Member states liberalise trade and allow unhindered trade flows based on the treaty establishing the regional trade. Given the potential benefits of regional trade integration, there have been more than 289 regional trade agreements (RTAs) across the globe (WTO, 2020). Out of these RTAs, Africa has 15 of which 8 are intra-Africa RTAs, and among which is the Economic Community of West African States (ECOWAS). IFPRI (2020) finds that the inadequate integration and low-income levels of African countries are key constraints to the volume of intraregional trade.

The ECOWAS was established in 1975 as the West Africa sub-regional economic bloc that will foster the free movement of production factors and trade among Member states, however, the coverage of the bloc was extended to socio-cultural, political and security cooperation in the revised treaty of 1993 (ECOWAS Commission, 2010). This Africa's oldest subregional bloc comprises 15 countries[2] with more than 5 million km^2 land areas and a combined gross domestic product (GDP) of US$689 billion as of 2020 (Malabo Montpellier Panel, 2020). To promote economic cooperation and the facilitation of market integration among Member states, the ECOWAS trade liberalisation scheme (ETLS) was introduced in 1979 to create a common market that will ensure the free flow of capital, labour, and trade, initially in agricultural commodities and handicrafts and later industrial goods (West Africa Trade Hub, 2009; ECOWAS Commission, 2010). The ETLS enables duty-free access of trade in goods and services for the approved products – especially those whose inputs are largely sourced and/or produced within the region – and uninterrupted supply chains, especially in agricultural commodities in line with the agreed treaty.

The trade flows in Africa's regional economic communities, especially at the intraregional levels, are largely hampered by the heterogeneous trade and other policy measures among the Member states, particularly at the subregional economic bloc levels such as the ECOWAS. AUC (2020) affirms the importance of other domestic policy measures such as producer and consumer-oriented measures, pricing policy, etc. to the intraregional flow of trade, particularly for the agri-food. The heterogeneity in the regulations and infrastructural capacity to engage in intraregional trade among Member states affect trade facilitation, particularly in the agri-food sector. The policy differentials among Member states often caused barriers to trade and tend to increase trade costs and the commodities prices, thereby constraining the intraregional trade benefits to the people while also making the trading countries uncompetitive. Among the trade

[2] Benin, Burkina Faso, Cabo Verde, Cote d'lvoire, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, and Togo.

barriers, the non-tariff measures (NTMs) have been acknowledged as the most important (see Fugazza, 2013; Kareem, 2011), out of which technical barriers to trade (TBT) and sanitary and phytosanitary measures are frequently applied (Kareem, 2016; Gourdon and Nicita, 2013; Kareem, 2014b). IFPRI (2020) report shows that the NTMs are the main challenges to the improvement of Africa's trade integration with the TBT, SPS, procurement, export measures and customs formalities playing significant parts.

Beyond the official NTMs, there are other unofficial and/or informal behind the border measures that are detrimental to market access and have impacted the small and medium scale enterprises (SMEs) in the agricultural sector (see also Karoff, 2021). This informed and aggravated the informal cross border trade, particularly in agri-food commodities. The informal cross-border agri-food traders, the bulk of which are women[3], bore the most burden of the informal cross-border trade barriers because of the small business sizes (Koroma et al., 2017; Malabo Montpellier Panel, 2020; Karoff, 2021; AUC, 2020). Furthermore, the prevalence of quality infrastructure has been acknowledged to impact the intensiveness of cross border trade (AUC, 2020; UNECA-AU, 2012; Odjo et al, 2020), particularly for agri-food given the nature of the commodities. Besides, the availability and access to agricultural trade credit or finance have been emphasised in the literature to be one of the main stumbling blocks or hurdles to intraregional agri-food trade in Africa (Koroma et al., 2017; UNECA-AU, 2012; AUC, 2020). These hindrances associated with intraregional trade are conspicuous in Intra-ECOWAS agricultural trade and contributed to the low volume of trade within the subregion, which is estimated at 7% in 2019 (UNCTADStat, 2021). To this end, the deepening of the Intra-ECOWAS trade, particularly the agri-food trade, has become imperative given its potential socio-economic benefits. To attain these benefits, a strategic policy framework and ambitious policy reforms that will enhance the agricultural trade flows are required.

Therefore, it has become imperative to review and reassess the agricultural trade flows within the ECOWAS subregional trade corridors to better understand and update the knowledge on the formal and informal trade barriers inhibiting the trade facilitation in the subregion. Besides, it is essential to identify the gaps in the agricultural trade finance and quality infrastructure in the subregion to stimulate informed strategic policy options that could be implemented to improve agricultural trade within the subregion. Although the comparative advantage that Africa has in agriculture continue to strengthen, this is only in unprocessed and semi-processed commodities and not in the processed products (IFPRI, 2020). Similarly, Torres and van Seters (2016) assert that there is little diversification in the ECOWAS trade profile but there is the potential to increase trade in line with ECOWS aspirations; This calls for the reengineering of the trade policy architecture and improvement in quality infrastructure to deliver high-graded and quality agricultural commodities, which will bring about the essential commodity diversification where the commodities are transformed to products.

1.2 Conceptual framework

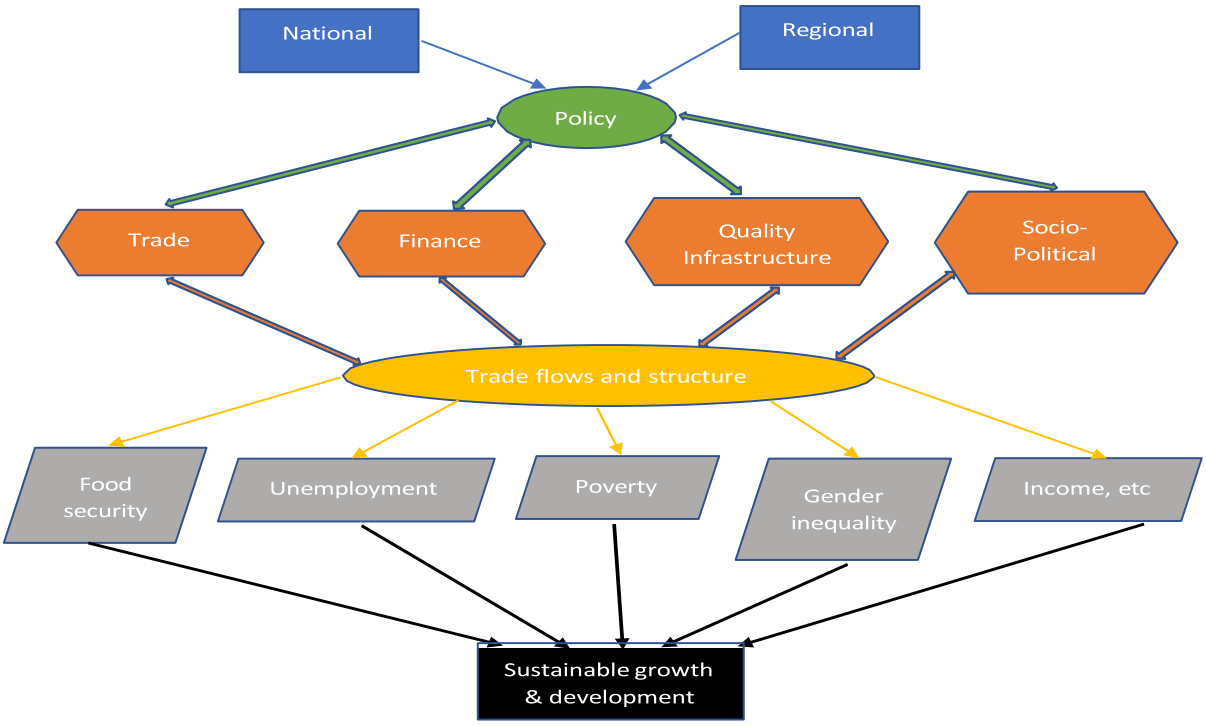
Figure 1 presents the conceptualised agricultural trade policy framework and its socio-economic impacts in the ECOWAS. The policies that impact regional trade flows are introduced

[3] Brenton and Soprano (2018) estimate more than 70% of women engaging in small scall agricultural trade across the border.

at the national and regional levels. In the ECOWAS, there are country-level cross border trade policies and regulations – tariffs and non-tariff measures – that are not in conformity with the subregional protocol, ETLS, and the revised treaty. The policies relate to trade, finance, socio-economic, infrastructure and socio-political which have an impact on the volume of trade flows. The channel of the interaction among policy measures, agri-food markets and trade, factors of production and socio-economic development is heterogeneous across countries and can be complex in certain circumstances.

The trade restrictiveness policies for the national treatment and/or protectionism, the trade finance policies that are not agricultural sector inclusive and gender bias, the inadequate provision of agri-food quality infrastructure and the uncertainty in the socio-political atmosphere that stimulates insecurity will serve as barriers to trade and impact directly on the trade structure and flows (figure 1). Moreover, it could be from figure 1 that the disruptions in the trade flow through trade barriers, particularly for the agri-food commodities will impact the food supply chain and could lead to food losses. This will affect the supply of food from the surplus countries to the food shortage/deficient countries or from the countries with comparative advantage to those that are not, thereby impacting food security and the integration of the subregion to regional value chains (RVC).

Figure 1: Conceptual framework for ECOWAS agricultural trade



Source: Own Illustration

Besides, the agri-food trade flows adverse effect of the trade barriers will affect the factors of production, which will reduce job (unemployment) and wealth creation in the sector and will aggravate the poverty level, especially among women (Kareem and Kareem, 2020). Hence, the protective cross border policy measures, especially as they relate to the agri-food trade, will have substantial effects on women – due to gender inequality – which constitute the larger proportion of agri-food traders at the informal level (UN Women, 2010).

Moreover, this will also affect the children, given that the women spend more money on their families. The unstable and tilted (ethnic/sectional bias) socio-political policies, especially relating to the social safety net, governance, agricultural sector lobbyist, etc., could breed and aggravate the insecurity, political impasse and volatile political environment that would impact directly on agri-food system and the food supply chains within and outside the region. The insecurity is often a challenge to agri-food trade flows, which has consequences on employment, food security and income generation, especially for the vulnerable group such as women.

AUC (2020) also find a complex channel of interaction between trade and food security, which is country-specific in terms of contextual experience and impact. The trade finance and quality infrastructure are directly linked with agricultural trade flows through the channel of supply and demand of food but are indirectly connected to factors of production and the returns to the factors through the local and regional markets. The continuous barriers to trade, the inadequate agricultural trade finance and the poor-quality infrastructure will adversely impact the agricultural trade flows and in turn food supply and demand at both the local and regional markets. The disruptions in agri-food trade flow owing to these identified challenges impact more on the vulnerable group, particularly the women that constitute a considerable proportion of labour in the sector and the bulk of the informal agri-food cross border traders. Hence, the food insecurity, unemployment, gender inequality, reduction in income and poverty challenges due to the disruption in trade flows which is induced by trade barriers will impact ECOWAS attainment of sustainable growth and development (figure 1).

1.3 Objectives of the study

This study broadly aims to map the status of agricultural and food trade, trade barriers and develop policy options to fostering agrifood trade in the ECOWAS. Specifically, this study shall: map the agricultural trade within ECOWAS; identify the barriers to agricultural trade at both the formal and informal trade corridors and differentiated by gender; provide the agricultural trade finance gaps and constraints (public and private) especially for SMEs in the trade sector; highlight the quality infrastructural (QI) gaps; and recommend strategic policy options and measures that can be implemented by national authorities and the donor community to improve agricultural trade within ECOWAS. Cross-cutting issues such as gender and youth are considered throughout the analysis.

This current project departs from the existing studies, especially Torres and van Seters (2016), Tondel et al. (2020), SWAC/OECD (2021) and Bouet et al. (2020) by reviewing and updating the existing agricultural trade flows information and/or data to the latest available data. Also, the informal Intra-ECOWAS agri-food trade flows are quantified for the most traded commodities. Besides, we have compiled information on all the formal and informal trade barriers along the formal and informal agricultural trade corridors in the ECOWAS subregion. Beyond this, this project identifies the gaps between the demand for agricultural trade finance and the supply and review the quality infrastructure deficiencies in the subregion which are yet to be explored in the previous studies. Given the importance of women in the intraregional cross-border trade in ECOWAS, this project mainstream gender into the analysis and in the provision of the strategic options to tackle the agricultural trade finance gaps.

1.4 Methodology of the study

To accomplish the objectives of this research project, a mixed-method approach – qualitative and quantitative methods – is adopted which comprises an extensive literature review, analysis of available statistical data on formal and informal trade and trade barriers, expert interviews and a field survey. The qualitative method enables an in-depth understanding and description of the issues under investigation and the information therefrom through extensive narratives of the experts and policymakers' views and/or opinions. Besides, the quantitative method employs descriptive and/or inference statistics in the analysis of the data. The experts' interviews and literature review were carried out within the purview of the qualitative approach while the quantitative method provides the basis for the primary (field survey) and secondary data analysis. The quantitative analysis provides empirical fortification for the qualitative approach.

This study conducts **desk research** in the review of extant, the state of the art and the mapping of the agricultural trade flows in the subregion and related factors hindering agri-food trade. This is presented in chapter two.

Expert interviews were conducted for relevant stakeholders/experts in the agri-food trade flows, trade barriers, agricultural financing, and QI. In total, 20 expert interviews were conducted with unstructured questions where 25% of the interviewees were trade barriers experts, 15% of the interview were with experts from the financial sector and 25% were experts from the QI sector and the rest from trade facilitation institutions. Women constitute 40% of the experts that were interviewed.

In addition, a **field survey** is implemented using hard copy and online survey instruments with open and close-ended questions (see questionnaire in the annexe) that are meant to elicit information from the respondents. The hard copy survey instrument involves administration through personal contact with respondents in Ghana, Mali, and Nigeria[4], while the online survey covers respondents from virtually all the Member states in ECOWAS.

In total, 86 responses were gathered where;

- 12% of the responses were from Ghana,
- 5% from Mali,
- 80% from Nigeria[5]
- the remaining 3% cut across the other ECOWAS countries.

Out of the 86 responses,

- 77% are male and 23% female[6],

[4] Given the prevailing COVID-19 pandemic, insecurity in the subregion and time constraints, we could only sent field enumerators to the three countries.

[5] The hard copy and online questionnaires were adopted to elicit more responses from stakeholders irrespective of their Member states but Nigerians responded the most.

[6] This low response by women may be due to the harassment and exploitation experienced by women from the security operatives and borders'agencies which made them sceptical and afraid of being surveyed. Besides, the field survey was conducted at the time when Nigeria is still closing some of its borders. The borders that were opened had small economic activities taking place.

- with most of them falling in the age bracket 31-50 years (67%), while 24% are above 50 years.

Although the bulk of the respondents that engaged in the agri-food cross border trade activities used the formal trade corridor (58%); the magnitude of the users of the informal trade corridors is high (42%), which implies the proliferation of trade along these trade routes. Most of the respondents that pass through the formal trade corridors often ply the;

- Lagos-Abidjan[7],
- Accra/Tema-Ouagadougou-Bamako[8],
- Niamey-Cotonou[9],
- Accra-Ouagadougou-Niamey[10],
- Kano-Bamako[11],
- Sokoto-Niamey[12],
- Dakar-Conakry-Lagos[13],
- Tema/Takoradi-Bobodioullasso-Bamako[14] routes.

The results of the qualitative and quantitative analysis are presented along with the thematic topics in the succeeding sections.

Moreover, the **trade barriers** that are discussed in the next sections are within the purview of the international classification of Non-Tariff Measures (NTMs) of the United Nations Conference on Trade and Development (UNCTAD) and fall within the three categories "technical measures", "non-technical measures" and "export measures" (UNCTAD, 2019), which are often applied as formal "behind the border" measures in the Intra-ECOWAS trade.

The **secondary trade data** used in this study is mainly sourced from UNCTAD trade statistics (UNCTADStat), Food and Agricultural Organisation (FAOSTAT) and International Food Policy Research Institute (IFPRI, 2019). **Agricultural commodities** are defined as the sum of agri-food commodities and agricultural raw materials. **Agri-food commodities** (the same as all food items in UNCTADStat) encompass, according to the UNCTAD statistics, the SITC codes 0 + 1 + 22 + 4. **Agricultural raw materials** encompass SITC 2 less 22, 27 and 28.

In addition, **subregional agricultural trade data that includes informal cross border trade**, which is also secondary data provided by CILSS has been analysed (http://www.eco-icbt.org/). The data is presented in the subsequent sections.

[7] The route involves five countries: Nigeria, Benin Republic, Togo, Ghana, and Cote d'Ivoire.
[8] It involves three countries: Ghana, Burkina Faso, and Mali.
[9] This is through two countries: Niger and Benin Republic.
[10] Ghana, Burkina Faso and Niger are the countries involved.
[11] Through Nigeria and Mali.
[12] Through Nigeria and Niger.
[13] It passes through Senegal, Guinea and Nigeria.
[14] Through Ghana, Burkina Faso and Mali.

2 Literature review and context

2.1 Evidence from formal and informal trade flows

Although intraregional trade has the potential of improving the economic development of Member states, the statistics show that the intra-ECOWAS trade is low, calculated as 7% while the Intra-ECOWAS agri-food trade was 10% in 2019 (UNCTADStat, 2021). However, Koroma et al. (2017) emphasise the importance of the informal trade that provides 70% of employment in sub-Saharan Africa and enables access to domestic goods that are not available in the formal economy. Given the porosity of the borders in the subregion, there has been an increasingly informal and/or illegal (smuggling) trade across the borders, especially in Nigeria where about 1500 illegal borders have been identified that allow informal and illegal trade activities (Kareem, 2014a). This indicates that there is more trade, especially in the agricultural and food commodities, taking place informally through formal and informal trade corridors that are not recorded in the official statistics.

The informal trade corridors[15] within the ECOWAS subregion are characterised by informal and illegal trade barriers (Torres and van Seters, 2016) that are detrimental to the regional integration and the documentation of the trading activities, which thereby impact the subregional trade policy framework. Thus, there is the need to take the stock of the trade barriers that characterised the formal and informal agri-food trade along the formal and informal trade corridors in the ECOWAS subregion to enable the Member states to tackle these challenges at both the national and subregional levels.

The intraregional agricultural trade has been linked to food security (AUC, 2020) and for the benefits to be fully realised, the supply- and demand- sides challenges must be jointly identified and addressed at the national and regional levels by the Member states (Engel and Jouanjean, 2013; Broomley et al., 2011). Intraregional agricultural trade could improve the socio-economic and livelihood of the people and be beneficial for the value chains' actors (Rudloff and Wieck, 2020; Kiratu and Roy, 2010; UNECA-AU-AfDB, 2010; Malabo Montpellier Panel, 2020). Given that the subregion's economies are agrarian where the agricultural sector employs and engages the bulk of the labour force[16]; the agricultural and food trade predominantly constitute a large proportion of the formal and informal trade along the formal and informal trade corridors.

While most of the agricultural and food trade in the subregion is extra-ECOWAS[17], many of the intra-ECOWAS agri-food trade passes through the informal transaction and is undocumented in the official statistics[18]. Torres and van Seters (2016) assert that the intra-

[15] These are trade corridors – either legal or illegal – that are not officially approved for cross border trade but used by some cross border traders to evade taxes and other documentation required for such trade.
[16] About 43% of the population is engaged in agricultural activities (see Malabo Montpellier Panel, 2020).
[17] The trade is mostly directed toward the European Union (EU), the United States of America (US); its traditional trade partners. The agri-food traded commodities include cocoa, cereals, fruits and vegetable, fish and fishery products, live animal, and vegetable fats oil, etc. (WITS, 2021).
[18] The traded agri-food commodities such as tomatoes, garlic, cucumber, potato, chilli, ginger, cabbage, dry chilli, onion, kolanut, okra, dry and red pepper, carrot, grains, etc. are mostly traded by women and many times underreported in the official statistics (see West African traders seek end to Nigerian border closure (oakmarkglobalvision.com)).

regional trade in ECOWAS is low, largely undocumented, informal-oriented and dominated by staple food.

The causes and implications of the informal cross border trade, particularly for Nigeria, has been enunciated by Ukaoha and Ukpe (2012), Karoff (2021). However, recent studies such as Torres and van Seters (2016) and Tondel et al. (2020) had mildly extended their investigation to the issues of informal agricultural trade and the corresponding trade barriers, particularly along the main formal trade corridors. While Torres and van Seters (2016) extensively focus on the political economy dynamics in agricultural and food trade in ECOWAS by profiling the trade activities mainly between 2010 and 2014, Tondel et al. (2020) examined the approach to enhance coherent policies on rice trade and the development of the value chain. Bouet et al. (2020) evaluate the issue of informal cross border trade, particularly the importance of the magnitude of informal trade and the difference between the official and informal trade statistics, in the African region.

However, the Koroma et al. (2017), Torres and van Seters (2016), West Africa Trade Hub (2009) and Tondel et al. (2020) studies only investigated the formal and informal agricultural trade and the barriers along the main trade corridors with no consideration for the informal trade corridors, in which several agricultural trade activities take place with buckets of trade barriers. Beyond this, fewer agricultural commodities trade was considered along the main trade corridor. Besides, Bouet et al. (2020) concentrate more on using the identified definition of informal cross border trade to show the discrepancies between the official and informal trade statistics, without really extending its searchlight on the extensiveness and structure of the trade barriers, finance, and quality infrastructural gaps in this type of trade. To this end, this study contributes to the literature by implementing the identified gaps.

Furthermore, the preponderance of informal agri-food cross border trade in ECOWAS is among others due to the historical antecedent, particularly religions and beliefs, traditions and norms, language and colonial affiliation as well as political and geographical proximity, of the trade partners. SWAC/OECD (2019) asserts the importance of cultural ties and traditional networks in West Africa to trade networks with a specific reference to the Dendi region's rice trade network that cut across three countries, vis a vis, Benin, Niger and Nigeria; where gender disparity in the network was conspicuous. The region was dominated by (informal) cross border trade for decades, and there, the cross border rice value chain has developed regardless of Nigerian import restrictions.

2.2 Evidence from trade barriers

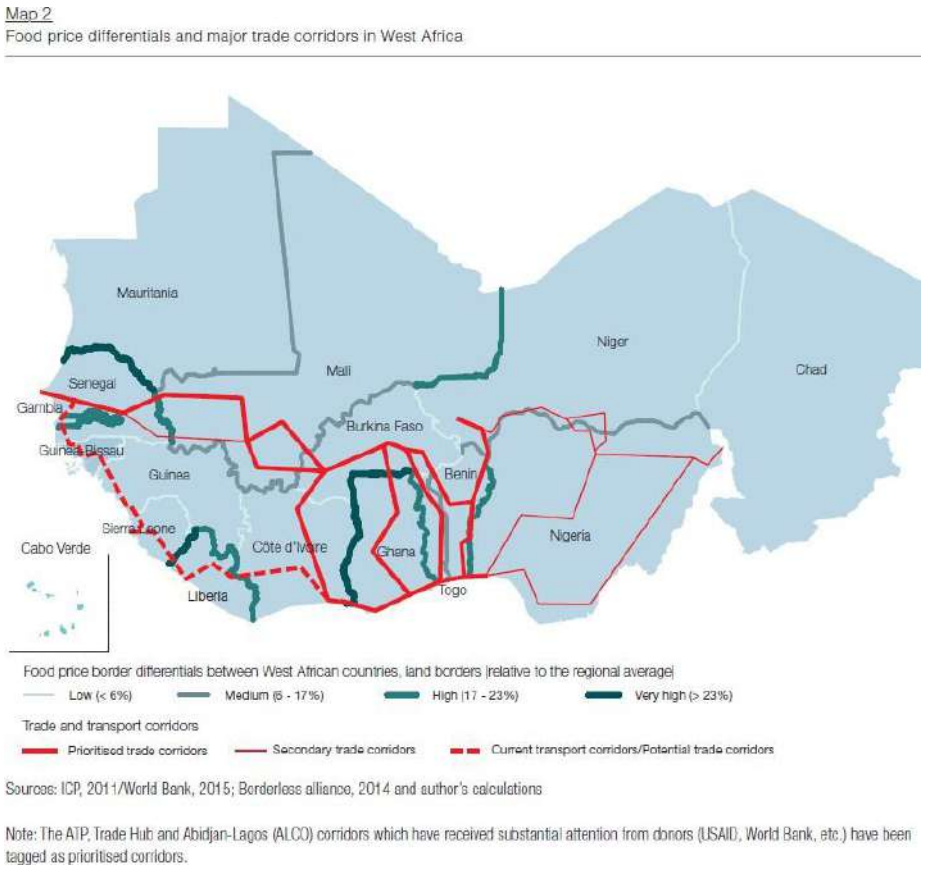
The adherence to the ETLS guidelines would enable tariff-free trade of agri-food, goods, and services whose inputs are produced within the subregion. The guidelines also provide the harmonised trade policy on third countries, prune down trade costs and time, enhance transparency and coherent trade policy which will improve the standard of living of its teeming citizens, especially the women and the youths. The ECOWAS population that is 397 million in 2019 is projected to double by 2050 to over 787 million with an average annual growth rate of 2.3% between 2018 and 2050 (UNCTADStat, 2021). The endowed human and natural resources in the subregion put it in a better position for potential economic development if all resources are adequately and effectively harnessed and put to productive use (GIZ, 2019). Besides, the population strength should be an avenue for a large market and a boost to the Intra-

ECOWAS trade if efficiently explored and utilised. However, this is not the case as there is underutilisation of the endowed resources, inefficient use of the potential subregional market, inadequate economic cooperation and different challenges to regional integration which impact the subregional inclusive economic development. More so, despite the benefits associated with the implementation of the ETLS; in practice, there are heterogenous trade policies across the Member states, which led to a bucket of challenges inhibiting trade flows, while in some cases there are extreme trade policies such as tariff peak and volatility, import bans, prohibitions and border closures (GIZ, 2019). Aside from the conspicuous and formal trade measures that serve as trade barriers, there are hidden and informal trade barriers that impact agricultural trade flows, which are predominant in the informal agri-food trade in the formal and informal trade corridors. The informal trade barriers adversely impact the traded product competitiveness and penetration in the subregion.

The effects of NTMs on agricultural trade were investigated by Cissokho et al. (2012) using a survey of truckers in Tambacounda, Senegal (a stop from Dakar to Kayes and Dakar to Bissau), to find that the bribery of law enforcement agencies inhibited agricultural trade flows. The West Africa Trade Hub (2009) presents a gap analysis of the difference between the protocols and the actual implementation of the ETLS measures in ECOWAS. Odjo et al. (2019), UNECA-AU (2012) opine that the essence of intraregional trade integration is to harmonised regulations and policies to reduce trade costs and enhance economies of scale as well as to propel diversification and competition.

A general consequence of trade barriers between trading countries is that the markets are less than fully integrated, which among other factors could sometimes result in price differentials across borders. SWAC (2017) presents the agri-food price differential across trade corridors (see figure 2). The dark and fat border lines indicate high price differentials between the neighbouring countries in 2011. For example, there were very high price differentials in the food markets between Cote d'Ivoire and Ghana while they were low between Burkina Faso and Niger. The price differentials are most times trade stimulating and beneficial but could also provide large incentives for smuggling and proliferation of informal trade when borders are closed and/or tariff peaks and mega tariffs are imposed.

Figure 2 Price differentials and trade corridors in West Africa.



Source: SWAC (2017, p.21)

2.3 Evidence from agricultural finance gaps

Furthermore, the low Intra-ECOWAS trade in agricultural and food commodities is due to the low production capacities, which among others are due to inadequate finance, and poor-quality infrastructure[19]. Agricultural trade finance has been identified as one of the key challenges inhibiting trade in agricultural commodities in this subregion. Although, at the national level, some of the Member states have made frantic efforts to improve finance to the agricultural sector besides the ones made by the Central Bank. This includes the establishment of specialised banks such as agricultural banks, development banks, etc. to give credit facilities to farmers. However, the credit facilities and the finances have been inadequate to spur agricultural and food trade as expected. Similarly, the African Development Bank has also provided some financial facilities and windows to assist the regional farmers to increase the quantity and quality of their farm produce. Nevertheless, the agricultural credit facilities from both the national and the multilateral banks have been inadequate to cater for the finance requirements and challenges in the agricultural and food trade subsector. Hence, it is worthwhile to diagnose

[19] Soft infrastructure (customs procedures, digitalisation, certification, etc) and hard infrastructure (roads, ports, equipped laboratories, etc.).

the demand for agricultural trade finance and the supply to identifies the gaps – and the reasons for the gaps.

2.4 Evidence from quality infrastructure gaps

Moreover, it is essential to assess the extent of quality infrastructure in the subregion. This will enable us to know and take the stock of the agricultural trade quality infrastructure deficiencies along the ECOWAS cross-border trade corridors. The assessment of the quality infrastructure availability will inform the development of strategic policies within the subregion that can overcome the quality infrastructure deficiencies and the compliance challenges of the NTMs, specifically the SPS measures and the TBT (PAQI, 2017). The quality infrastructure deficiencies often impact the market access of agricultural and food commodities in the intra- and extra-ECOWAS trade. Besides, the quality infrastructure assessment will shed light on where technical assistance is needed and which capacity building programmes are essential to handle the quality infrastructure upgrade, which is necessary to boost not only intra- and extra-ECOWAS trade but also intra- and extra-Africa trade. Thus, adequate quality infrastructure is a vital ingredient to the production of quality and safe agricultural and food products. This is the reason that countries are enjoined to accept and implement the accreditation and standardisation systems which are the basis for the conformity assessment and certification for an internationally recognised quality agricultural and food products, processes, and system. The importance of enhancing agricultural trade within ECOWAS and the need to improve intraregional trade in agri-food through the strengthening of trade and quality infrastructure and standards institutions has been emphasised by Malabo Montpellier Panel (2020), Koroma et al. (2017), USAID (2016).

2.5 Evidence from gender trade effects

The socio-economic impact of trade and trade policies is heterogeneous across the economic agents, geographical and demographical axes. While the producers and income earners are more susceptible to the challenges and/or welfare effects of the trade policies (Kareem, 2014a), the vulnerable groups such as women – in turn, their children – and the elderly, especially in the rural areas, bore the most burden of trade policies in developing countries, and Africa in particular (Kareem and Kareem, 2020; UN Women, 2010; Afrika and Ajumbo, 2013; UNECA-AU-AfDB, 2010). Brenton and Soprano (2018) assert that women traders accounted for between 70% - 80% of the small-scale agri-food cross border trade. Besides, the women are vulnerable in this channel of interaction when the policy measures are detrimental to the flow of agricultural trade as they are engaged in the cross border trade, heavily involved in food production and are most affected by the socio-economic consequences of the adverse policy measures (Kiratu and Roy, 2010; Fofana et al., 2019; Kareem and Kareem, 2020). Studies such as Koroma et al. (2017)[20], IFPRI (2020), Afrika and Ajumbo (2013) found that women are often found to be predominant in informal intra-Africa cross border trade, especially in agri-food,

[20] Indicates that about 70% of employment in sub-Saharan Africa is provided by the informal cross border trade, which provides access to domestic goods that are not available in the formal economy.

and they constitute more than 60% of the informal Intra-ECOWAS trade corridors (UN Women, 2010).

Further, the inaccessibility to agricultural trade finance is mostly experienced by women owing to educational and socio-cultural inequality (AUC, 2020; UNECA-AU-AfDB, 2010; Kareem and Kareem, 2020), which inhibit their ability to trade and impact the trade size, intensity, and extensity, thereby making them trade informally and sometimes along informal trade corridors (Brenton and Soprano, 2018; UNECA-AU-AfDB, 2010; Kiratu and Roy, 2010). Besides, the inadequate, obsolete, and dilapidated trade-related infrastructures affect the women agri-food cross-border trade more due to the small size of their agribusinesses. Moreover, their inadequate trade-related training and capacity development, institutional bureaucracy, inaccessibility to digitalised traded, etc. have a consequence on the extent to which they can navigate the available quality infrastructures, especially as it relates SPS testing, customs procedures, certification, labelling, etc. of the trade agri-food commodities.

The extant studies on the implication of trade and other trade-related policies on the women agri-food traders in ECOWAS are scarce (UNECA-AU-AfDB, 2010; OED, 2019; Fofana, 2019), which might have contributed to the dearth of evidence-based policy measures to improve and expand the trade-based of cross border women traders. Hitherto that the scientific and positive economic analysis on the gender effects of trade and trade policies are emerging (Kareem and Kareem, 2020; Africa and Ajumbo, 2013); this area of research has been characterised by normative studies due to the dearth of data (UNECA-AU-AfDB, 2010; AUC, 2020). However, scientific analysis in this research area is still evolving given the new dimension to trade agreements, especially between the north and south countries, which are inclusive and entail the issues of child labour, gender, etc. UNECA-AU-AfDB (2010) evaluates the cross-border challenges to women in West Africa at the formal and informal cross-border levels and argues that both women and men are engaged in cross-border trade as traders and consumers but there are differential benefits them because of their position in the economies and societies of West Africa. The study concludes that the women cross-border agri-food traders in West Africa faced peculiar subregion and integration challenges, the long historical involvement in intensive trade, the specificities of the trade commodities and the pattern of involvement. The socio-cultural norms and socioeconomic challenges, as well as the legal barriers, have been identified by Fofana et al. (2019) as the key hindrances impacting women benefits in cross-border trade.

Furthermore, Kiratu and Roy (2010) investigate the effect of trade on women's welfare and shed light on the challenges and opportunities that the regional trade agreements offer for women. The study finds that trade policies tend to inhibit the policy space of the states, which adversely impacted the extent to which the states can make pro-gender policies. The distributional effects of trade reforms on gender were determined by Fofana et al. (2019); although the study finds positive outcomes for the gender – men and women – but the outcomes were heterogeneously distributed which increased the gender gap. The ITC (2017) identified access to credit, business registrations, patents, quality certifications and communication services, particularly the internet, as the main challenges to women entrepreneurship and trade participation. Similarly, OECD-SWAC (2019) emphasise the importance of women's contribution to the food economy in West Africa through the production, processing, marketing, and trading of agri-food commodities, which supports the subregional regional trade integration. However, despite women importance to the intraregional trade integration, their trade activities faced stumbling blocks in the form of socio-economic and institutional

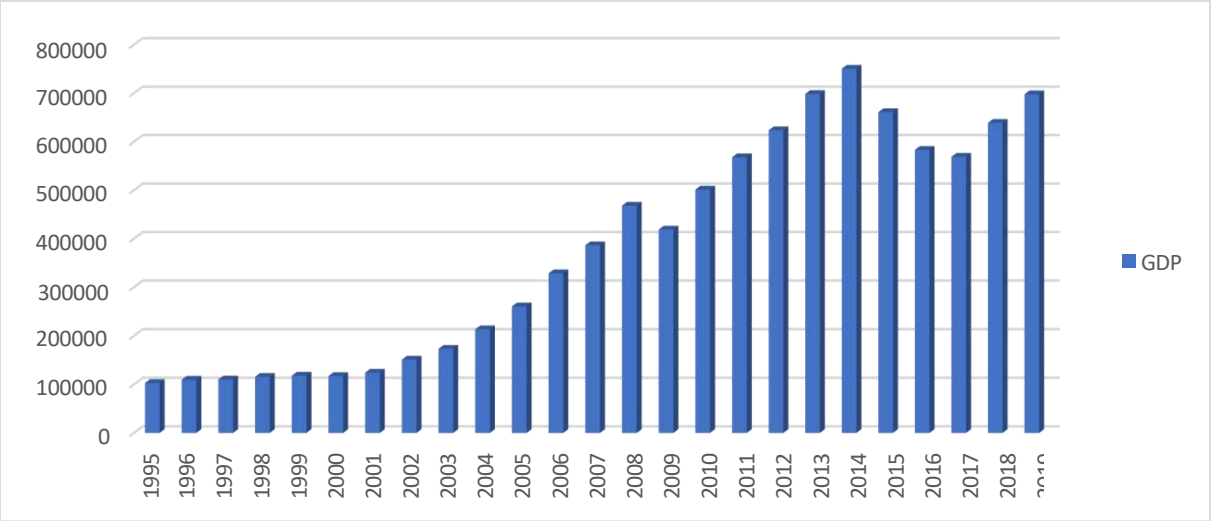
bottlenecks which restricted their inclusiveness in the intraregional trade. The study emphasizes the need for strategies that will reinforce women's social capital to mitigate economic marginalisation. Moreover, evidence has shown that there is an increase in women job opportunities with trade expansion, particularly in the export sector, but the full realisation of the benefits from trade for women are constraint by the education and training, societal norms, reproduction, etc. inequalities (World Bank, 2004). This informed UNCTAD (2018) assertion that the impact of regional trade policies is not gender-neutral because the trade patterns and volumes of a country occur with the purview of the economy and institutions which tend to be influenced by gender bias. Besides, there is a need for trade policy reforms that will tackle gender discrimination and inequalities before women could reap the benefits of trade in the region (World Bank-WTO, 2020).

Moreover, the burdens and/or consequences of trade policy measures have widely been acknowledged to be born mostly by women (UN Women, 2010; Kareem and Kareem, 2020), especially those in the rural and urban-rural areas. Empirical evidence has shown that owing to the inequality in education/training, tradition and norms, infrastructure, marriage, etc. women are at the disadvantage of competing and accessing the export market. A perusal of the effects of trade policy measures on gender, particularly in West Africa, indicates that there is an unequal distributional impact of trade policy. A summary of the output of the selected studies in this area is presented in table B in the appendix. Intraregional trade though is found to enhance productivity, employment, specialisation, access to varieties, raise income and reduce poverty; the distribution of the benefits depends on whether the economic agent is a producer/trader, consumer, and income earner. Women Intra-ECOWAS agri-food traders have been found to intensively and extensively engage in trading activities, however, because of their inadequate access to market information, harassment, poor knowledge of trade documentation and regulations, etc., the benefits are disproportionately accrued to them.

2.6 Economic context

Although there are opportunities and strengths in the economic community's production possibility frontier which has been largely under-explored, the macroeconomic performance in recent years has been oscillating, while the COVID-19 pandemic also has been aggravating the already volatile economic situation in the subregion. The ECOWAS had witnessed a consistent increase in nominal gross domestic products (GDP) from 1995 to 2008, from $103 billion to $468 billion, especially from 2002 to 2008 (see figure 3) owing to the favourable commodities' prices – particularly crude oil – and the relative stability in the business environment that spur economic activities during the period. However, due to the global economic crisis in 2008/2009, the GDP decreased to $419 billion in 2009, which later picked up in 2010 to 2014 before the glut in the global crude oil market from late 2015 which led to the drastic reduction in crude oil prices. Besides, some of the agri-food exports from the subregion were rejected due to food safety challenges. Also, there is the preponderance of terrorism activities, ethnic militias and the political impasse in Nigeria, Mali, Niger, Burkina Faso, the Gambia, Togo, etc., which affected economic activities and thus the GDP from 2015 to 2017. However, the subregional output level got better from 2018 to 2019.

Figure 3 ECOWAS gross domestic products ($' Million)



Source: computed from UNCTADStat (accessed in January 2021)

The average returns from agricultural production in the subregion have consistently increased throughout the periods under consideration except in the 2015-2019 period (table 1). This implies an increase in the agricultural outputs that were motivated by the consistent economic growth in the subregion, particularly in Nigeria, Ghana, and Cote d'Ivoire. Moreover, in terms of the contribution of agriculture to the GDP; the sector's share in GDP had plummeted because of the declining agricultural economic activities. This affected the number of employments generated in the sector as the share of agricultural employment in the total employment had continuously decreased.

Table 1 ECOWAS macroeconomic performance

Indicator (Average)	1995-1999	2000-2004	2005-2009	2010-2014	2015-2019
GDP Growth Rate (%)	2.96	6.91	6.20	6.16	2.47
GDP Per Capita ($)	517.87	631.78	1323.60	1951.23	1716.81
Population Growth Rate (%)	2.64	2.63	2.71	2.72	2.68
Agricultural Production ($' Million)	48143.92	60739.20	97896.95	113956.38	83537.91
Agriculture in GDP (%)	31.41	32.08	30.80	28.18	27.57
Agric Employment in Total Employment (%)	57.88	55.49	52.35	47.86	43.03
Total Trade ($' Million)	43728.04	59976.28	145948.86	246650.01	189795.40
Export in Total Trade (%)	53.93	59.01	56.95	57.89	49.94
Import in Total Trade (%)	46.07	40.99	43.05	42.11	50.06
Trade Balance ($' Million)	3436.10	10807.12	20288.73	38943.10	-209.81
Intragroup Trade ($' Million)	4279.28	6332.10	13907.89	21465.95	16257.53
Share of Intragroup Trade in the Total Trade (%)	10.23	12.56	11.04	10.18	8.86

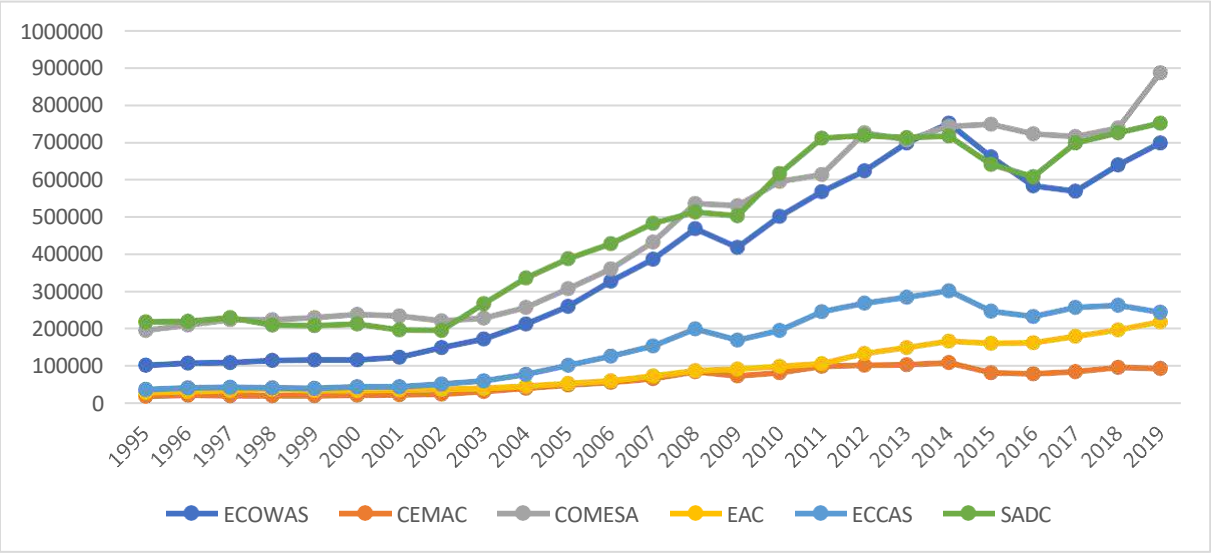
Source: computed from UNCTADStat (accessed in January 2021). Note: all the values are nominal

The intraregional trade value of ECOWAS has been increasing while the last reported period performed somewhat worse. Part of the reasons for this is due to the heterogeneity in the cross-border trade policies across the countries, the national treatment principle of the Member states, the prevalence of insecurity which has disrupted trade flows, inadequate trade statistics and reporting and the informality of the bulk of the trade.

Overall, the share of intra-ECOWAS trade in its total trade has been low – it plummeted from 13% to 9% in the periods 2000-2004 and 2015-2019, respectively – because of the relatively better commodities' prices at the global commodity market which traders, particularly exporters, want to exploit. International trade participation is integrated into the economy of ECOWAS, though at the primary trading and global value chain levels due to the prevailing developmental stage. Although the subregion had witnessed an increase in most of the periods, a diagnostic analysis of the trade base indicates that the economic community exports primary and low value-added commodities and imports advanced manufacturing and services. The driver of the subregional trade are the exports, which are less diversified, extensive, and value-added, and are largely driven by the extractive commodities – particularly crude oil. The subregional dependence on imported products is affirmed with the growth in the share of imports in total trade. In terms of the trade balance, ECOWAS has recorded a trade surplus in all the periods except 2015-2019.

Examining ECOWAS in the context of other economic groups in Africa; figure 4 indicates beside the Southern African Development Community (SADC) and Common Market for Eastern and Southern Africa (COMESA), ECOWAS is in the next line in terms of the GDP value.

Figure 4 Gross domestic products by Africa's economic groups ($' Million)

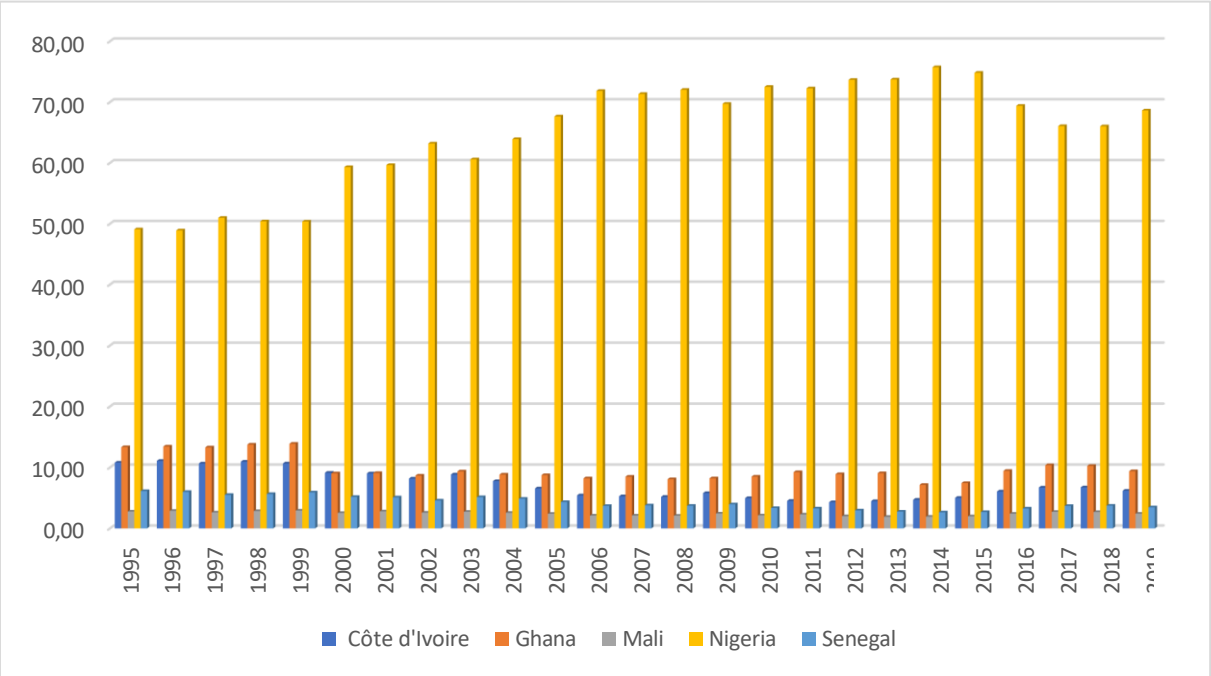


Source: computed from UNCTADStat (accessed in January 2021)

The share of the five largest economies in the total ECOWAS' GDP is presented in figure 5. Nigeria is the biggest economy in the subregion and has the largest share of the economic community's GDP. Its share grew from 49% in 1995 to a peak of about 76% in 2014 due to the boom in the global crude oil prices and growth in the services sector. However, it declined afterwards till 2018 when it had 66% owing to the glut in the global crude oil market and the insecurity in the macroeconomic environment; it later rose to about 69% in 2019.

Ghana had the second-largest economy in the subregion with an average share of 10% for the period from 1995 to 2019 followed by Cote d'Ivoire with a share of 7% for the same period. The share of Senegal and Mali are relatedly small compared to the three largest economies countries; while the former contributed 4% to the ECOWAS' GDP, the latter recorded 2% for the same period.

Figure 5 Shares of ECOWAS' largest economies in the subregion GDP (%)



Source: computed from UNCTADStat (accessed in January 2021)

2.7 Agricultural production and demand in ECOWAS

The geographical location of ECOWAS is naturally enriched with abundant resources which could be used to stimulate economic prosperity and transform the economies of the Member states from the Rostow (1991) preconditions for the take-off stage to the take-off stage in the quest for economic growth and development. The economy of this Africa's subregion is largely agrarian (table 1). The agricultural sector employs the bulk of the population, especially among the women in the rural and rural-urban areas. However, the sources of income and foreign exchange earnings are characterised by monoculturally export with little diversification and value addition of the export base. Although, the services sector contributed the largest value addition to the subregion's GDP (UNCTADStat, 2021) while the extractive industry is the dominant foreign exchange earner (Torres and van Seters, 2016); the ECOWAS economy is agrarian in terms of job creation and labour force participation rate. The agricultural sector is characterised by a feeble agro-industry with inadequate modern technology adoption. Many of the traded agri-food are primary and/or crude with little or no value addition, making the subregion to be poorly integrated into the regional and global value chains (World Bank Group, 2020).

2.7.1 Production

Figure 6 provides an insight into the spatial dimension of agri-food commodities' production in the ECOWAS member states. Depending on the climatic and agronomic conditions, the Member states have a comparative advantage in the production of selected agri-food commodities. The comparative advantage in production can hence be assessed by looking at

the production volume for different agri-food commodities in different Member states over certain periods[21].

Evidence has shown that having a comparative advantage in the production of certain agri-food does not necessarily mean trading in such commodities, which is also shown in this study. The countries with the largest amount of production of some agri-food commodities are shown in figure 6, where it could be seen that Nigeria stands out in the production of many of the selected commodities due to its agricultural land size but not necessary trading them.

[21] The capacity and strength of production is indeterminate in the short-run but in the long-run as some factors or constraints might inhibit for instance a key producer from producing at the maximum level, thereby given room moderate producers to record highest production in the short-run which cannot be sustained. However, a consideration of the production antecedent and path dependence as well as the future potentials are essential to determine the countries with agri-food production capacity and comparative advantage.

Figure 6: Selected agri-food commodities by producing countries (Millions of tonnes).

Products **Represented by geometric signs:**			**Colour code**	**Mio. tonnes**
Circle: Fish	**Triangle**: Cassava	**Rectangle**: Maize	Dark red	> 500
			Less dark	100 – 499
			Light red	51 – 99
			Very light	>0 – 50
			White	No data
Products			**Colour code**	**Mio. tonnes**
Circle: Sorghum	**Triangle**: Rice	**Rectangle**: Millet	Dark red	101 – 200
			Less dark	51 – 100
			Light red	21 – 50
			Very light	>0 – 20
			White	No data

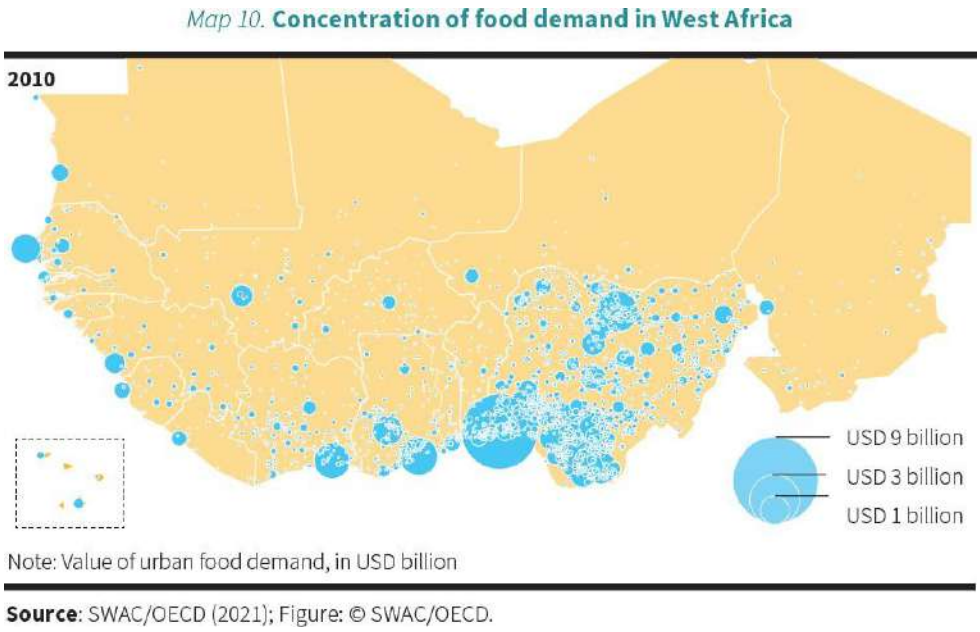
Products			Colour code	Mio. tonnes
Circle: Cotton	**Triangle**: Livestock	**Rectangle**: Cowpeas	Dark red	51 – 80
			Less dark	31 – 50
			Light red	11 – 30
			Very light	>0 – 10
			White	No data

Source: Own presentation based on FAOSTAT (accessed in May 2021).

2.7.2 Demand

Analogue to the supply side, it is important to understand where the concentration of demand is located. Population density, as presented in Figure 7, is a good indicator to understand spatial demand patterns.

Figure 7 Population centres and related food demand concentration



Source: SWAC 2021, p. 24.

The food demand in the subregion is highly concentrated in Nigeria, particularly in the southern part of the country, given its population density and the most populated. Cote d'Ivoire, Ghana and Senegal are other major population and food demand concentration centres. The urban food demand in these countries was high in 2010 owing to the increasing population and urbanisation (figure 7). Besides, the Abidjan-Lagos corridor arguably has the largest food demand concentration in value terms while the countries in the Sahel region had the lowest food demand concentration. Apart from the population that influence the food demand, the income level and the high level of urbanisation in the coastal countries is relatively better than the Sahel countries in the subregion, which informed the skewness of the food demand concentration to these countries.

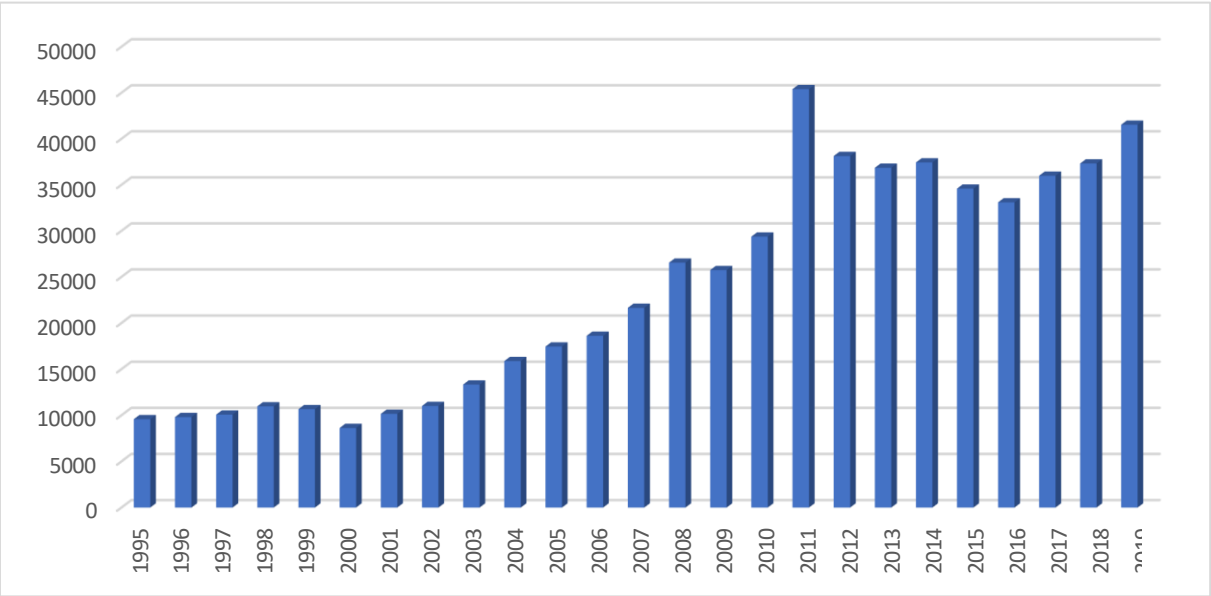
3 Global ECOWAS agri-food trade

This chapter provides an overview of current trends in ECOWAS total agri-food trade across the globe. A disaggregate of the agri-food trade into import and export is done by total and commodities' level with the trade balance.

3.1 Total agricultural trade and agricultural trade balance

The aggregate trend in the ECOWAS global agricultural trade is shown in figure 8, with an increasing trend in most of the years under consideration. For instance, the total value of agricultural trade increased by about fivefold to $45.4 billion in 2011 from $9.6 billion in 1995. This is due to the relative improvement in the supply side, especially the global large-scale land investment rush in Africa during the global economic and food crisis of 2007 which propel agricultural output and productivity (Kareem, 2018). Besides, the trade negotiations between the subregion and its trade partners, particularly the European Union (EU) and the United States of America (US) enhance market access at the demand side. Moreover, the peak of the total agricultural trade was also attained in 2011 but it plummeted afterwards up till 2016 when there was a crisis in the global commodity market with a trade value of $33.0 billion.

Figure 8 The trend in ECOWAS total global agricultural trade ($' Million)



Source: computed from UNCTADStat (assessed in January 2021)

Table 2 presents the ECOWAS global agricultural and food trade performance in averages per period. It indicates that agricultural export[22] consistently increased over the periods from $4.4 billion in 1995-1999 to about quadruple in 2015-2019 to $15.8 billion, while total global agricultural trade also continuously increased in the same periods. However, the share of agricultural export in total agricultural trade plummeted, which means a decline in the

[22] Agricultural export is total food export plus agricultural raw materials export. The total agricultural trade is defined as food trade plus agricultural raw materials (see Torres and van Seters, 2016)

performance of the sector that is partially due to the macroeconomic shocks and the supply challenges in the agricultural system.

The same trend surfaced for the periodic averages for the share of food export in the total food trade, however, the share of food trade in total agricultural trade increased during the periods. This shows the importance of the food system in the agricultural sector in the ECOWAS. Moreover, over the past decade, the subregion has become a net food importer because of the growth in food import due to the domestic food supply constraints induced by the national policy, fragility in the macroeconomic environment, quality infrastructure deficiency, and external shocks. Besides, the consumer behaviours also contributed to the growth in food import in the subregion, which among others are due to change in tastes – particularly for quality and processed imported foods – and preferences for finished food products. Furthermore, the increasing patronage of food-away-from-home such as restaurants, fast-food shops and food vendors due to westernisation and the rising urbanisation has contributed to the net food import.

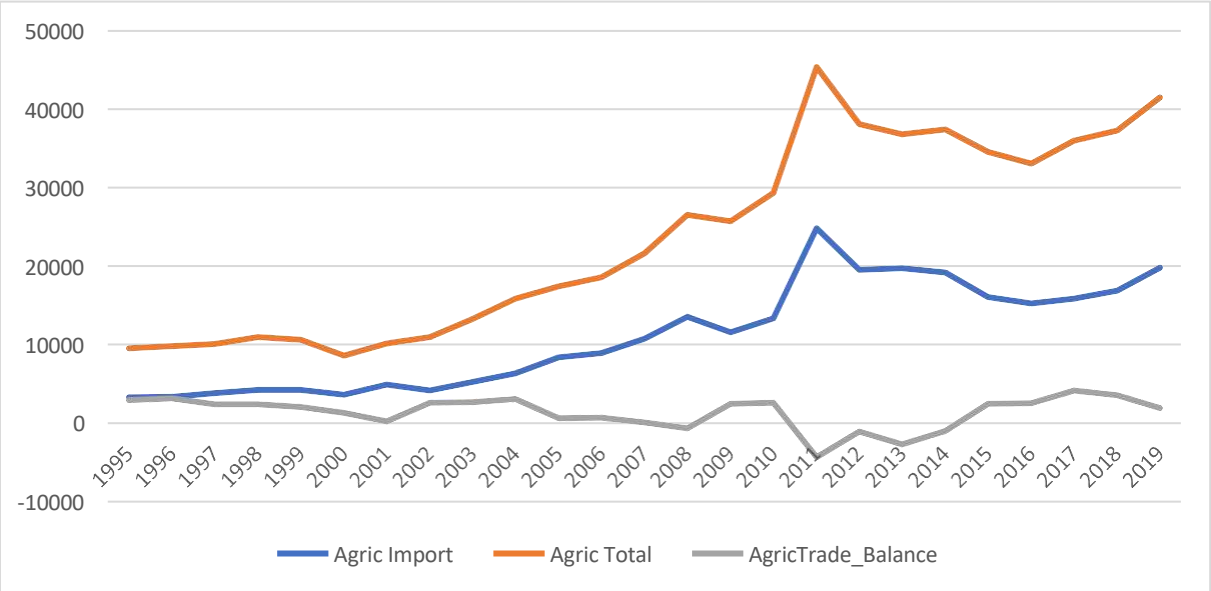
Table 2 The ECOWAS global agricultural trade performance (period averages)

Indicator	1995-1999	2000-2004	2005-2009	2010-2014	2015-2019
Food Exports ($' Million)	4418.16	5180.92	8808.03	13768.16	15841.51
Total Food Trade ($' Million)	7936.85	9731.00	18817.09	31912.01	31701.26
Food Trade Balance ($' Million)	899.47	630.85	-1201.04	-4375.69	-18.23
Food Export Share in Total Food Trade (%)	55.77	52.79	46.60	43.59	50.05
Food Trade Share in Total Agricultural Trade (%)	77.62	82.36	85.30	85.44	86.94
Agric Exports ($' Million)	6408.64	6902.55	11338.77	18074.04	19716.25
Total Agric Trade ($'Million)	10215.35	11798.62	21995.99	37435.33	36501.38
Agric Export Share in Total Agric Trade (%)	62.84	58.17	51.58	48.67	54.06

Source: computed from UNCTADStat (assessed in January 2021). Note: the figures are in nominal terms.

The global economic crisis impacted negatively on the subregion's global agricultural trade with a trade deficit of $646.7 million in 2008; besides, there was a deficit between 2010 to 2014 (see figure 9). The shocks in the global commodity market for which Nigeria and other resource-dependent countries depend on earning the largest share of its foreign exchange and the trade and exchange policy on cereal and other agri-food trade as well as the farmers- herdsmen crisis and terrorism impacted the performance of the sectoral trade.

Figure 9 ECOWAS global agricultural trade balance ($' Million)



Source: computed from UNCTADStat (assessed in January 2021)

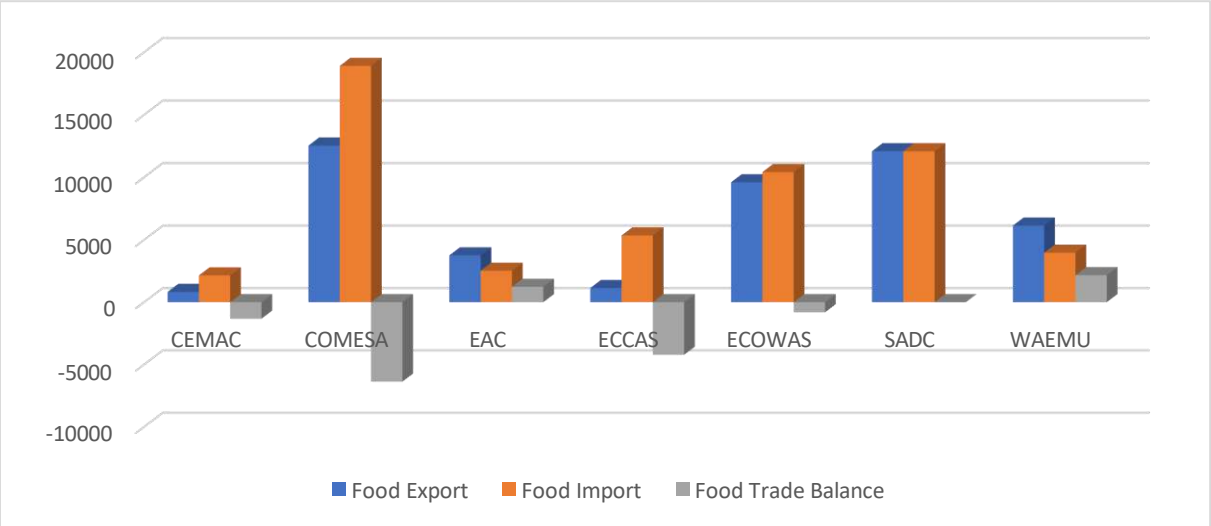
Furthermore, the ECOWAS has recorded a relatively consistent increase in food export for most of the years, especially from 1998-2011 but an oscillatory trend surfaced from 2012 to 2019 where the increasing food exports were sometimes truncated, particularly from 2011 and 2014 (figure 10). Food insecurity in the subregion became obvious in 2005 because of the negative food balance, which was over $1 billion, however, the situation became worse in 2011 when it had over $8 billion food trade deficit, though, by 2019, the food trade deficit had decreased to about $2 billion. This implies that domestic demand for food has increased because of the growing population and urbanisation as well as the rising income which reduced food export and propel food import to supplement the domestic food supply. Besides, the expansion of the spatial dwelling areas had impacted agricultural land availability and the continuous farmers-herders clashes are propelling the food crisis and spiking the food prices.

Figure 10 Trend in ECOWAS global agri-food Trade ($' Million)

Source: computed from UNCTADStat (assessed in January 2021)

Cross-examining ECOWAS in the context of other Africa's economic groupings for the average pool period between 1995-2019 indicates that the Common Market for Eastern and Southern Africa (COMESA) had the highest food trade but a net food importer (figure 11). The Southern African Development Community (SADC) slightly had net food import but had the second-largest food export among the economic groups, which was followed by ECOWAS. However, it was the West Africa Economic and Monetary Union (WAEMU) and the Eastern African Community (EAC) that were net food exporters in the period under review. The implication of this is that WAEMU is currently the indisputable net food exporter in Africa, while the entire West Africa subregion is potentially endowed to contribute to food security on the continent.

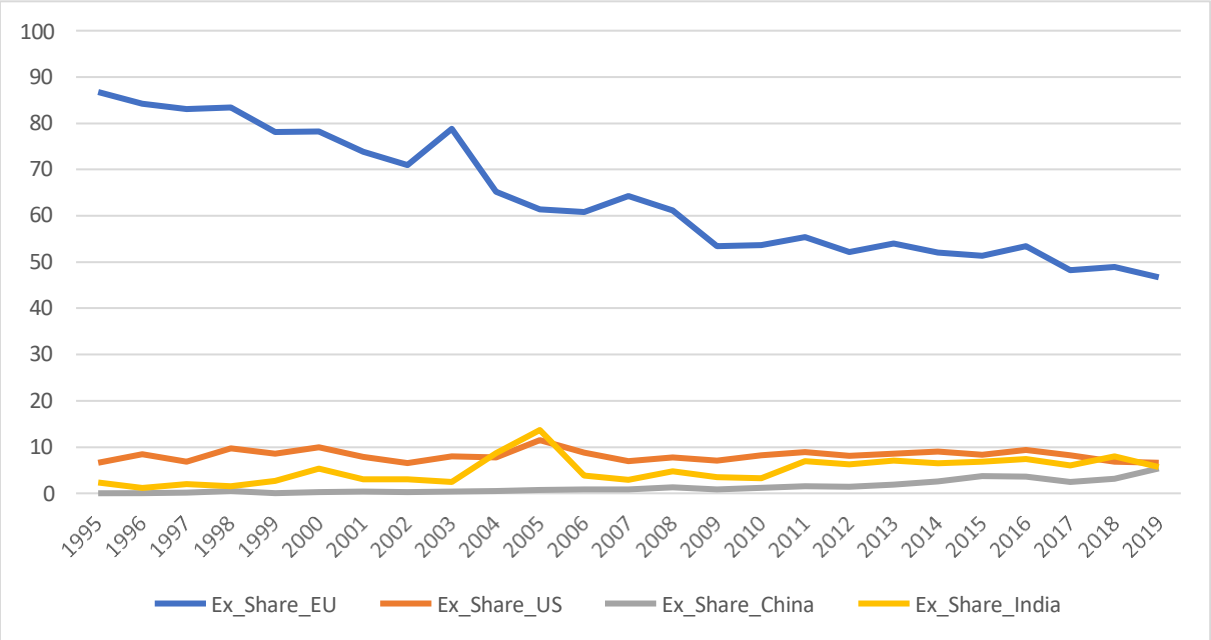
Figure 11 Africa's Extraregional Agri-Food Trade, 1995-2019 ($' Million)



Source: computed from UNCTADStat (assessed in January 2021)

The food export trend for the economic groups also affirms the dominance of CEMAC, SADC, ECOWAS and WAEMU, as they had the highest food export values in Africa. However, the bulk of the food export was traded with the third countries, extra-ECOWAS food export, particularly with the EU, US and India (see figure 12).

Figure 12 Share of ECOWAS trade partners in ECOWAS total food export (%)



Source: computed from UNCTADStat (assessed in January 2021)

3.2 Disaggregated agri-food exports and imports

The traded agri-food commodities at the HS 2-digit and HS 6-digit levels are presented in this subsection. The commodity disaggregations show the most traded – import and export – agri-food commodities by the ECOWAS across the globe.

3.2.1 Traded agri-food commodities at the HS 2-digit

The available information on the ECOWAS global agri-food exports indicates that the cash crop, cocoa, had the highest export values and volumes; this is not surprising given that the subregion is endowed with abundant land areas and topography that is conducive for cocoa farming and make it the largest global producer of cocoa. Ghana and Cote d'Ivoire accounted for 63% of the world production of cocoa[23], while Nigeria had 5%. Table 3 shows that more than $4 billion worth of cocoa was exported to the world from ECOWAS in the period 2005-2009 and by 2015-2019, it had almost doubled as it had over $8 billion. Cocoa is distantly followed by fruits export with an export value of $2 billion in 2015-2019 from $482 million in 2005-2009 period. Other top 10 global exported commodities are animal and vegetable fats and

[23] Cocoa facts and figures - Kakaoplattform

oils, oilseeds and Oleaginuous fruits, fish and fisheries, miscellaneous edible preparations, etc. (see table 3).

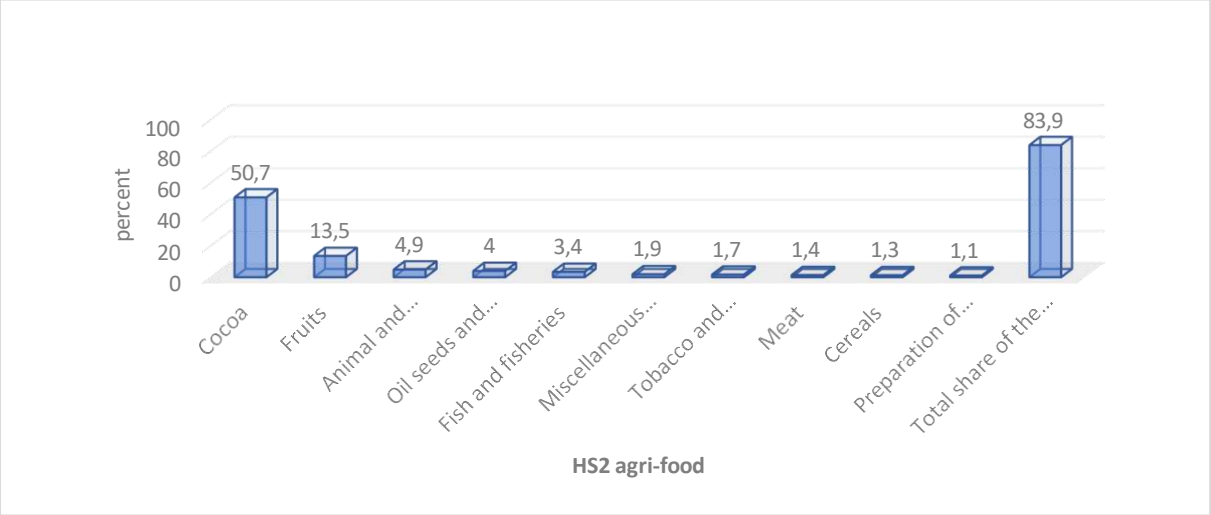
Table 3 The top ten ECOWAS global agri-food exports (in average values, $' Million and %)

	Commodity	**2005 – 2009**		**2010 – 2014**		**2015 – 2019**	
		$' Mil	share	$' Mil	share	$' Mil	share
1	Cocoa	4193.2	47.6	7753.5	56.3	8024.0	50.7
2	Fruits	482.1	5.5	1262.2	9.2	2133.2	13.5
3	Animal and vegetable fats and oils	255.2	2.9	538.1	3.9	774.7	4.9
4	Oilseeds and Oleaginous fruits	206.2	2.3	838.5	6.1	635.7	4.0
5	Fish and fisheries	410.5	4.7	681.5	4.9	536.6	3.4
6	Miscellaneous edible preparations	166.2	1.9	263.1	1.9	304.3	1.9
7	Tobacco and tobacco substitute	164.6	1.9	366.3	2.7	276.7	1.7
8	Meat	183.8	2.1	70.0	0.5	222.8	1.4
9	Cereals	66.9	0.8	164.3	1.2	207.0	1.3
10	Preparation of cereals, flour, starch or milk	58.6	0.7	158.1	1.1	180.0	1.1
	Total Share (%)		**70.2**		**87.9**		**83.9**

Source: computed from World Integrated Trade Solution (assessed in February 2021)

In terms of the share of the commodities' export in the total global ECOWAS agri-food export in the period 2015-2019: cocoa accounted for about 51% of the total agri-food exports; fruits exports had 14%, animal and vegetable fats and oils constituted 5% while oil seeds and oleaginous fruits have a share of 4% (see figure 13). Fish and fishery products, miscellaneous edible preparations, tobacco and tobacco substitute and meat had shares of 3%, 2%, 2% and 1%, respectively. Other agri-food exports for the period were cereals and the preparation of cereals, flour, starch, or milk which had 1% of total global agri-food export, a piece. The agri-food commodities are the 10 main agri-food exports of the subregion to the globe which have an accumulated share of 84% in this period.

Figure 13 ECOWAS top 10 agri-food exports to the World, 2015-2019 (%)



Source: computed from World Integrated Trade Solution (assessed in February 2021)

However, the cereals import was the largest in the subregion during the period under review. This is not least expected because the Central and West African – particularly in Nigeria, Benin, Senegal, Cote d'Ivoire, Ghana – countries are the highest consumers of rice in the world apart from Asia[24], even though rice is produced domestically, but the taste and preference for foreign rice are high. Besides, wheat, maize and other coarse grains are well consumed in the West Africa subregion. In table 4, cereals were the most imported food in ECOWAS, in which its export value rose from $3 billion to about $5 billion in 2005-2009 and 2015-2019 periods, respectively. Although the subregion can and produce fish, the import of fish is still unprecedented.

[24] See Staff (2016): Rice is king in west and central Africa | World-grain.com | January 25, 2016 14:18 (world-grain.com)

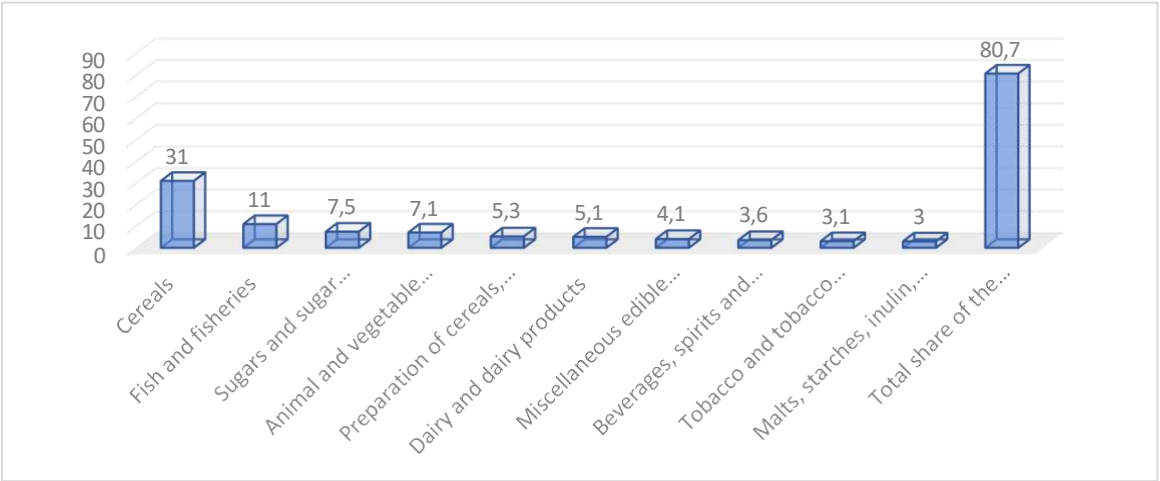
Table 4 The top ten ECOWAS global agri-food imports (in average values, $' Million and %)

	Commodity	2005 – 2009		2010 – 2014		2015 – 2019	
		$' Mil	share	$' Mil	share	$' Mil	share
1	Cereals	3205.3	32.0	5866.6	32.3	4912.8	31.0
2	Fish and fisheries	1105.0	11.0	2025.1	11.2	1752.0	11.0
3	Sugars and sugar confectionery	489.9	4.9	1539.0	8.5	1186.4	7.5
4	Animal and vegetable fats and oils	542.1	5.4	1052.4	5.8	1118.9	7.1
5	Preparation of cereals, flour, starch or milk	392.7	3.9	1664.9	9.2	832.9	5.3
6	Dairy and dairy products	841.4	8.4	1226.8	6.8	811.1	5.1
7	Miscellaneousedible preparations	332.7	3.3	671.7	3.7	647.5	4.1
8	Beverages, spirits and vinegar	334.5	3.3	640.7	3.5	576.6	3.6
9	Tobacco and tobacco substitute	325.2	3.2	724.8	4.0	484.1	3.1
10	Malt, starches, inulin, wheat gluten	256.3	2.6	398.0	2.2	475.9	3.0
	Total Share (%)		**78.2**		**87.1**		**80.7**

Source: computed from World Integrated Trade Solution (assessed in February 2021)

Furthermore, in terms of the share of these imports in the total food import in the subregion: cereals came on top with 31%; fish and fishery products had 11%; sugar and sugar confectionery constituted 8%; while the animal and vegetable fats and oils amounted to about 7% (figure 14). The preparation of cereals, flour, starch or milk and dairy and dairy products got a share 5% apiece of the total food import; the miscellaneous and edible preparations had 4%; while beverages, spirits, and vinegar; tobacco and tobacco substitute and as well as malts, starches, inulin, wheat gluten had a shared of about 4%, 3% and 3%, respectively. The total joint share of these top ten agri-food imports from the globe was about 81% of the subregion's total agri-food imports.

Figure 14 ECOOWAS top 10 agri-food imports from the World, 2015-2019 (%)



Source: computed from World Integrated Trade Solution (assessed in February 2021)

3.2.2 **Traded agri-food commodities at the HS 6-digit**

A thorough evaluation of the ECOWAS export to the world indicates that there had been a preponderance of cashew nut/coconut (HS 0801) export. The increment in this export has been tremendous over the periods under consideration, such that it rose sevenfold to about $1.8 billion in the 2015-2019 period from $253 million in the period 2005-2009 (see table 5). The expansion and the need to diversify the export base in many of the Member states, especially in Cote d'Ivoire – the largest producer – Ghana, Nigeria, Burkina Faso, Benin, and Senegal, had led to this extensive export margin. The share of cashew nut, coconut and/or Brazil nut in the total agri-food export to the world had quadrupled to 11% in 2015-2019 period from 2.9% in 2005-2009 (see figure 13). The export of fish and fisheries products (HS 0303) had oscillated over the periods such that its shares in the total agri-food export rose to over 2.2% in the period 2010-2014 from 1% in the 2005-2009 period and later decreased to 1.8% in 2015-2019 period. Other agri-food commodities also had their share plummeted during 2015-2019 except rice (HS 1006) and mango (HS 080450).

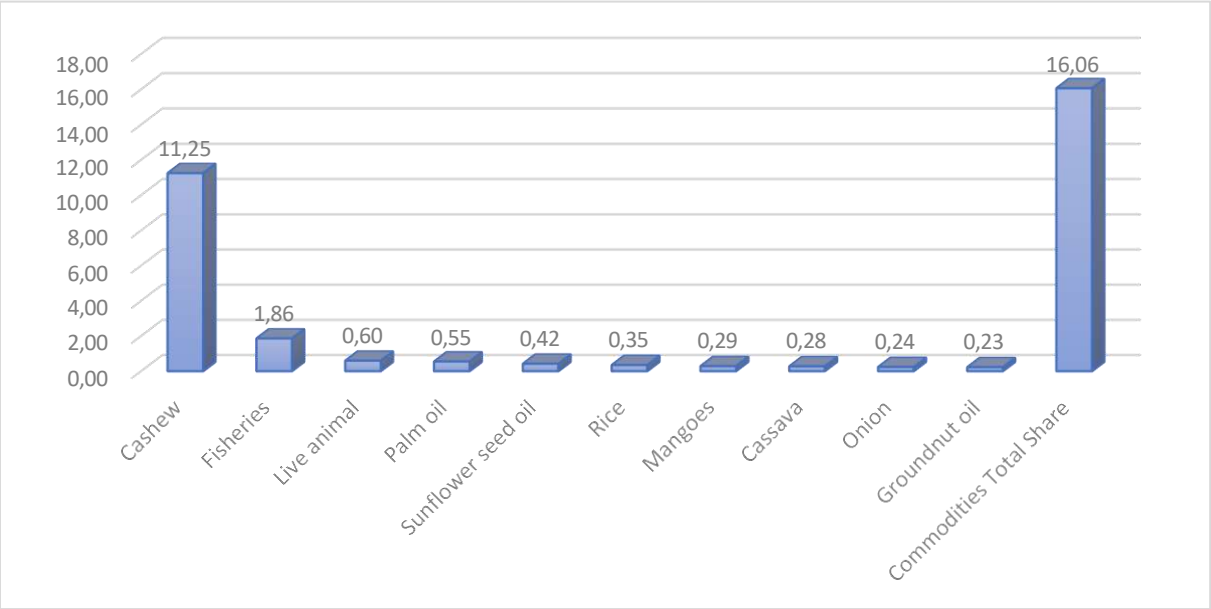
Table 5 The top 10 ECOWAS global agri-food exports (in average values, $' Million)

	Commodity	**2005 – 2009**	**2010 – 2014**	**2015 – 2019**
1	Cashew	252.61	995.11	1782.85
2	Fish and fisheries products	119.72	301.26	294.66
3	Live animal	207.87	107.22	94.46
4	Palm oil	0.00	0.34	87.11
5	Sunflower seed oil	263.92	500.66	66.98
6	Rice	20.72	10.03	55.31
7	Mangoes	37.40	15.64	45.73
8	Cassava	41.28	58.29	44.16
9	Onion	33.79	96.94	37.81
10	Groundnut oil	2.79	1.15	35.85

Source: computed from World Integrated Trade Solution (assessed in February 2021)

The live animal (HS 01) export to the globe had declined by more than 50% from $204 million to $94 million in the period 2005-2009 and 2015-2019, respectively, while palm oil (HS 1511) export had risen tremendously in the same period from the level to $87 million. Sunflower seed oil (HS 1512) export had been one of the most exported commodities to the world, but its export value had decreased over the periods, while rice, mango and groundnut oil (HS 1202) had witnessed an increase in exports. The interesting thing is that cocoa bean (HS 180100) is not among the top 10 exported commodities in the subregion, although it accounted for the largest cocoa exporters in the world (figure 15). This could be due to the reduction in cocoa export propensity.

Figure 15 The share of the top 10 extra-ECOWAS export to the World, 2015-2019 (%)



Source: computed from World Integrated Trade Solution (assessed in February 2021)

In terms of the ECOWAS import from the world; before the 2015-2019 period, fisheries were the highest commodities imported with its peak at $1.8 billion in 2010-2014; however, the import of rice got the highest value of $1.7 billion in the 2015-2019 period (table 6). The rice import situation conforms with the consumption theory, specifically the hypothesis of the marginal propensity to consume which is always higher for low-income earners. Hence, table 6 indicates that the rice importation becomes higher when the subregion's GDP growth declines. Besides, this implies that rice importation is still on the increase despite some initiatives and policies in some Member states to prohibit or ban its importation; its value is increased more than fifteenfold. Interestingly, while ECOWAS produces and still have the potentials to produce a lot of sorghum (HS 1007), it continues to import the commodity, though the trend of the import has reduced drastically from $3 billion to $357 million in the period 2005-2009 and 2015-2019, respectively; a declined of over 89%. A similar trend occurs for cassava (HS 01410), even though ECOWAS is the highest producer of the commodity in the world – Nigeria accounted for 20% of the global cassava production[25]. Contrary, onion (HS 070310) import has risen more than fivefold from $62 million in the 2005-2009 period to $340 million in the period 2015-2019.

[25] See Cassava (iita.org)

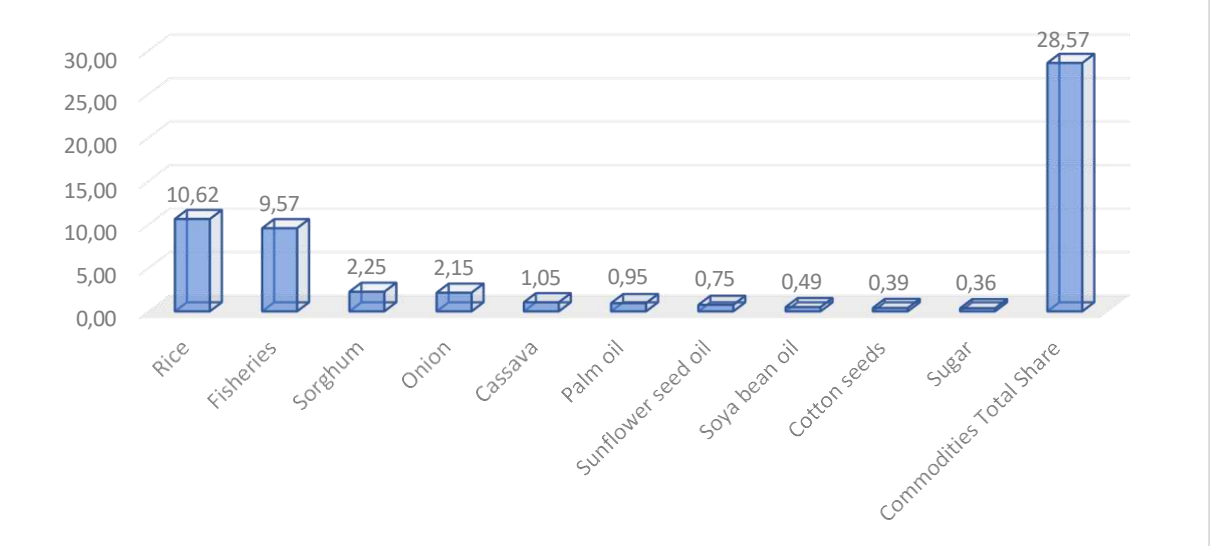
Table 6 The top 10 ECOWAS global agri-food imports (in average values, $' Million)

	Commodity	2005 – 2009	2010 – 2014	2015 – 2019
1	Rice	108.10	152.36	1685.06
2	Fish and fisheries products	1014.07	1772.83	1517.08
3	Sorghum	3344.13	3110.64	356.92
4	Onion	62.17	42.25	340.25
5	Cassava	1264.59	1116.07	165.98
6	Palm oil	0.31	1.26	150.35
7	Sunflower seed oil	531.27	868.83	118.82
8	Soya bean oil	1.06	0.80	77.82
9	Cotton seeds	2.37	1.60	62.35
10	Sugar	0.43	1.10	57.04

Source: computed from World Integrated Trade Solution (assessed in February 2021)

The share of sorghum import in the total ECOWAS global food import had tremendously decreased from more than 33% to 2%, cassava plummets from 13% to 1% while sunflower seed oil declined from 5% to less than 1% for the 2005-2009 and 2015-2019, respectively (see figure 16). The decline in the importation of these commodities shows that some of the agricultural production policies of the Member states have started yielding, given that the subregion has the potentials to produce the commodities. However, the continuous increase in tastes and preferences for imported rice and the inadequate capacity to produce quality domestic rice had led to the rise in its importation with the share in total food import rose by tenfold from a per cent to more than 11%.

Figure 16 The Share of the Top 10 Extra-ECOWAS Import from the World, 2015-2019 (%)

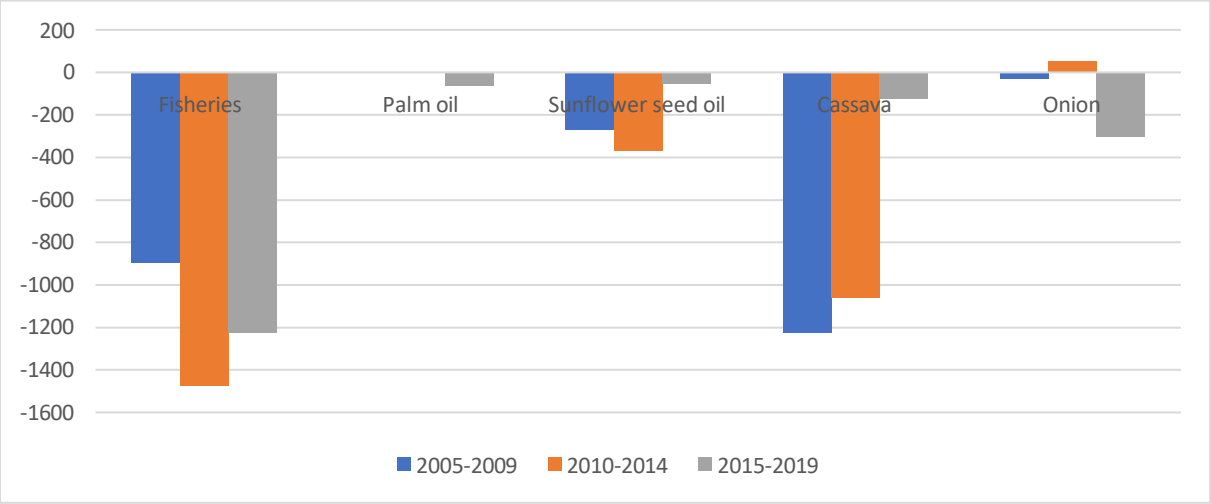


Source: computed from World Integrated Trade Solution (assessed in February 2021)

3.3 Disaggregated agri-food trade balance at HS 6-digit

The disaggregated agri-food commodities' trade balance as shown in figure 17 indicates that out of the 5 ECOWAS global agri-food export and import intersection (common to both) commodities for the periods, trade surplus was only recorded for onions in 2010-2014. Other agri-food intersection commodities had a trade deficit for the periods. Out of the agri-food intersection commodities, fish and fisheries products had the largest trade deficit, followed by cassava. This implies that the import bills and the foreign exchange spent on these commodities would be much owing to the tastes and preferences for the commodities' imports. This is one of the reasons Nigeria discouraged and/or stopped the official foreign exchange transaction for some of the agri-food commodities, especially staple food.

Figure 17 ECOWAS Global agri-food commodity trade balance ($' Million)



Source: computed

4 Intra-ECOWAS agri-food trade

This chapter focuses on the agri-food trade dynamics within the ECOWAS countries. First, it is looked at agri-food exports within ECOWAS countries at the more aggregate and dis-aggregate commodity classification levels and second; the view is directed towards agri-food imports within ECOWAS countries. In theory, exports reported by the exporting country should correspond to imports reported by the commodity's importing country, however, in practice – mainly due to statistics documentation and/or reporting issues, smuggling activities, heterogenous currency exchange rates as trade mostly take place through local currencies – lack of symmetry is observed. Hence, additional insight is offered by looking at imports and exports. Third, a focus is laid on national agri-food trade balances and afterwards, an attempt is made to present agri-food trade according to trade corridors. The chapter is concluded by listing findings from the field survey on agri-food commodities mostly traded by women.

4.1 Disaggregated intra-ECOWAS agri-food exports

4.1.1 Traded agri-food commodities at HS 2-digit

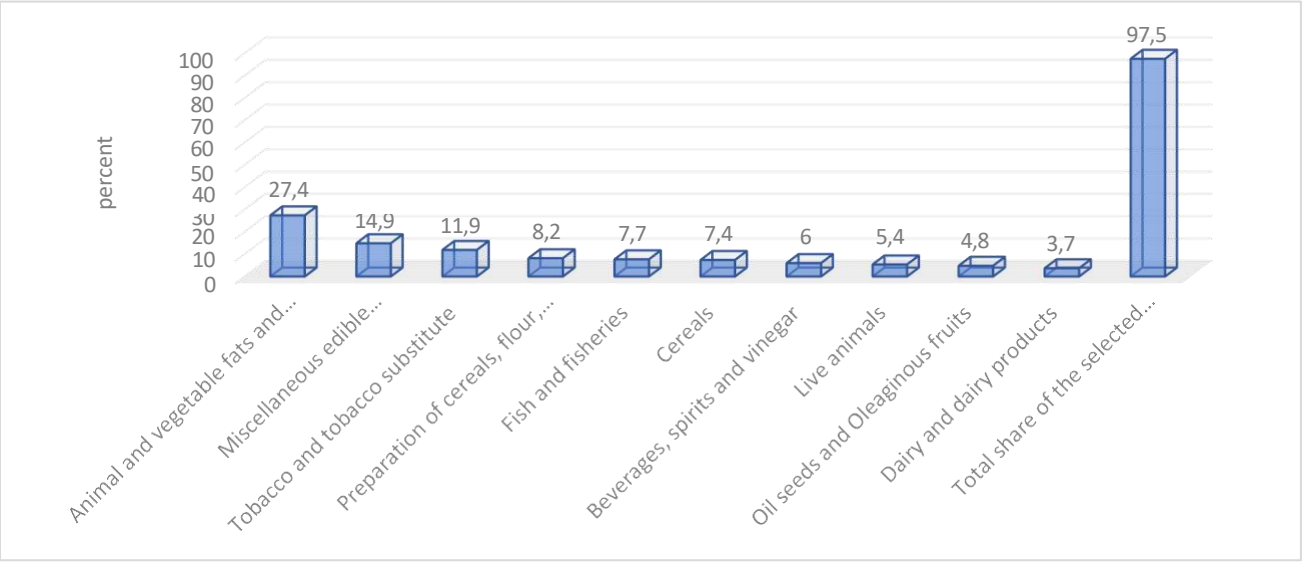
A diagnostic of the agri-food strata in the HS 2-digit products classification for ECOWAS is carried out to distil the most traded food classifications in the period under review. The overall evidence from the HS 2-digit food trade flows within the subregion for three periods, 2005-2009; 2010-2014 and 2015-2019, is presented in table 7. The trade statistics shed light on the fact that the most traded food commodities within the subregion in the current period from 2015 to 2019 were animals and vegetable fats and oils ($706 million), miscellaneous edibles preparation ($411 million), tobacco and tobacco substitute ($371 million), preparation of cereals, flour, starch, or milk ($195 million), fish and fishery products ($189 million), beverage, spirits, and vinegar ($144 million) and dairy and dairy products ($89 million). The same agri-food commodities were also the most traded in the 2005-2009 and 2010-2014 periods (see table 7 and table 8).

Table 7 The top 10 Intra- ECOWAS agri-food exports (in average values, $' Million and %)

	Commodity	**2005 – 2009**		**2010 – 2014**		**2015 – 2019**	
		$' Mil	share	$' Mil	share	$' Mil	share
1	Animal and vegetable fats and oils	122.3	12.5	301.8	18.2	475.8	27.4
2	Miscellaneous edible preparations	120.0	12.3	210.8	12.7	258.6	14.9
3	Tobacco and tobacco substitute	109.2	11.2	221.7	13.4	206.8	11.9
4	Preparation of cereals, flour, starch or milk	47.8	4.9	121.1	7.3	142.3	8.2
5	Fish and fisheries	51.0	5.2	63.1	3.8	132.8	7.7
6	Cereals	56.0	5.7	100.8	6.1	127.8	7.4
7	Beverages, spirits and vinegar	21.1	2.2	92.1	5.6	103.8	6.0
8	Live animal	146.0	14.9	95.3	5.8	93.5	5.4
9	Oilseeds and Oleaginous fruits	33.8	3.5	62.9	3.8	83.7	4.8
10	Dairy and dairy products	34.1	3.4	105.4	6.4	64.2	3.7
	Total Share (%)		**75.8**		**83.1**		**97.5**

Source: computed from World Integrated Trade Solution (assessed in February 2021)

Figure 18 The Top 10 Intra-ECOWAS agri-food exports, 2015-2019 (%)



Source: computed from World Integrated Trade Solution (assessed in February 2021)

The Intra-ECOWAS agri-food commodity export's statistics show that the animals and vegetable fats and oils constituted the most exported within the subregion as the value moves from $122 million to $476 million with its share in the total food export increasing from about 13% to 27% in the periods 2005-2009 and 2015-2019, respectively (see table 7). Other top commodities exported within the subregion are miscellaneous edibles preparation, tobacco and tobacco substitute, preparation of cereals, flour, starch, or milk, etc. The total share of the top 10 most exported food commodities in total food export within the subregion is 98% (figure 18) which means that these agri-food commodities are relevant and the main food export baskets.

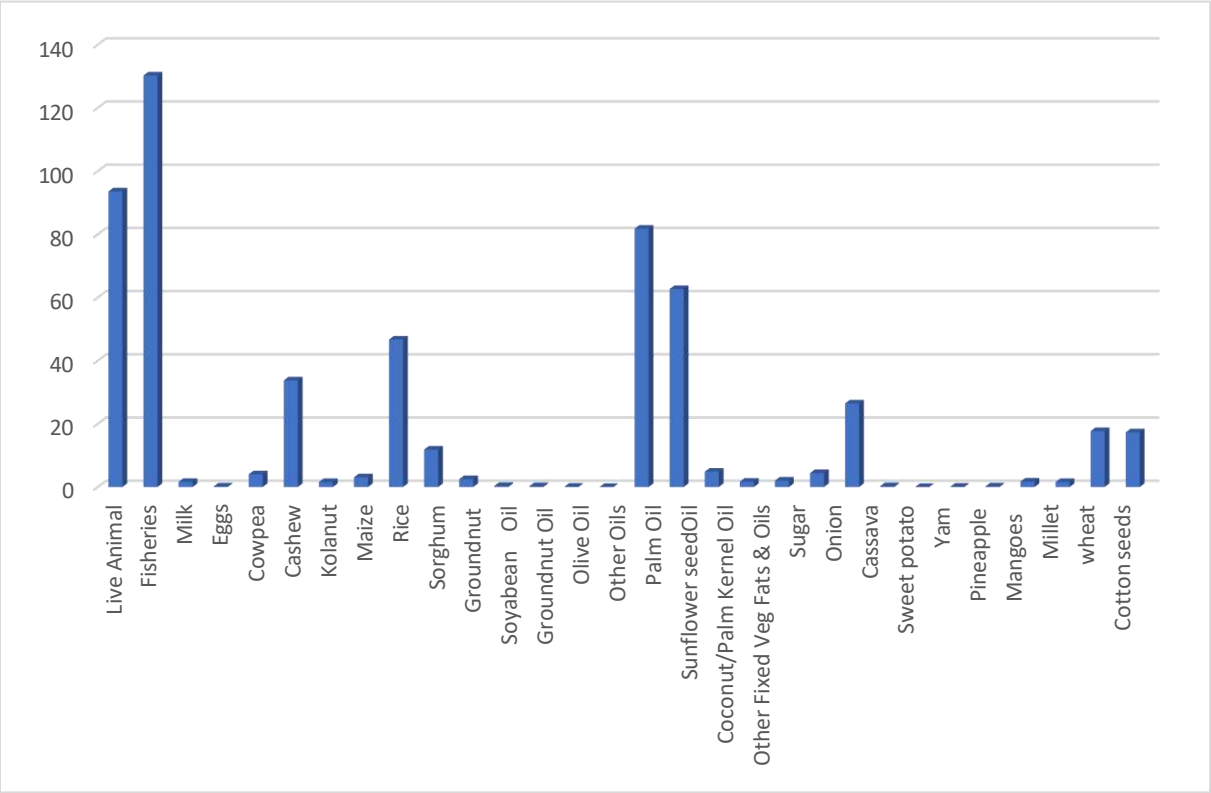
4.1.2 Traded agri-food commodities at HS 6-digit

In practice, trade takes place at the disaggregated commodities/products levels, but they could be pooled at the different aggregated levels. Based on the trade analysis of the agri-food classification at the HS 2 in the previous subsection, the terms of reference for this study and the review of the extant literature on ECOWAS agri-food trade, a selection of 30 frequently traded food commodities[26] is made, therein the analysis in this subsection is situated.

Evidence has shown that different categories of agri-food commodities are traded within ECOWAS; while some are often traded given the tastes and preferences of the consumers and higher returns to producers/traders, others are less traded owing to among others: the relative better prices outside the subregion, low living standards and purchasing power, inadequate processing technology and/or infrastructure, etc.

[26] The commodities are cocoa beans, cotton seeds, wheat, millet, mangoes, pineapple, yam, sweet potato, cassava, onion, sugar,other fixed vegetable fats and oils, coconut/palm kernel oil, sunflower seed oil, palm oil, other oils, olive oil, groundnut oil, soyabean oil, groundnut, sorghum, rice, maize, kolanut, cashew, cowpea, eggs, milk, fisheries and live animal.

Figure 19 intra-ECOWAS agri-food commodity exports, 2015-2019 ($' Million)



Source: computed from World Integrated Trade Solution (assessed in February 2021)

Figure 19 presents the trend and the value of the agri-food commodities' export within the subregion in the period 2015-2019. Therein it could be seen that some commodities such as fish and fisheries products (HS 0303), live animals (HS 01), palm oil (HS 1511), etc., are more exported within the subregion than others. It is in this context that the top 10 Intra-ECOWAS agri-food commodities export are identified for deeper diagnosis, which is shown in table 8.

Table 8 The average value of the intragroup Top 10 agri-food exports within ECOWAS ($' Million)

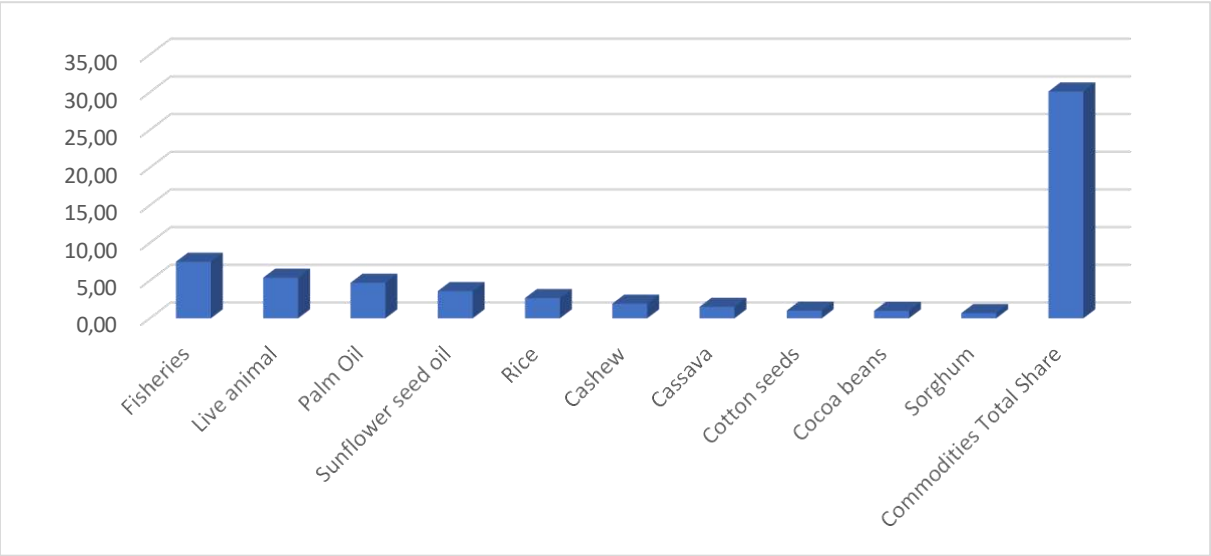
	Commodity	2005 – 2009	2010 – 2014	2015 – 2019
1	Fish and fisheries products	45.50	59.82	130.23
2	Live animal	145.95	95.29	93.54
3	Palm oil	0.00	0.01	81.75
4	Sunflower seed oil	215.28	401.58	62.65
5	Rice	17.98	9.87	46.66
6	Cashew nut/coconut	2.67	15.97	33.72
7	Cassava	18.46	34.83	26.44
8	Cotton seeds	0.45	0.66	17.69
9	Cocoa beans	38.27	53.30	17.30
10	Sorghum	75.44	107.00	11.84

Source: computed from World Integrated Trade Solution (assessed in February 2021)

The most exported agri-food commodity is the fish and fisheries products at the HS code 0303 for the period 2015-2019 with a value of over $130 million. The intensity of the fish (0303) export – high-value commodity – has been accelerating over the periods. This is due to the need to improve the consumption of protein in the staple food and the fact that it is a substitute for meat which has become expensive owing to the prevalence of drought. This is conspicuous in the value of export of live animals which decreased from about $146 million to $94 million in the period 2005-2009 and 2015-2019, respectively. Palm oil (HS 1511) export within the subregion had risen from a very low level that is indistinguishable from zero to about $82 million in the period 2015-2019, which is due to the other uses of the commodity besides the household consumption. While the intensity of sunflower seed oil (HS 1512) export has been decreasing that of rice (HS 1006) is increasing such that in the period 2015-2019, rice export value rose to $47 million from $18 million in the 2005-2009 period, whereas sunflower seeds oil decreased by 37% in the same periods, respectively.

Until recent period, the sunflower seed oil was the most exported agri-food commodity in the intra-ECOWAS trade because it is also used for medicine but rice export increased owing to the Member states' policy, particularly in Nigeria where domestic rice production is being incentivized while rice import is banned. Cashew nut/coconut (HS 0801), cassava (HS 071410) and cotton seeds (HS 120720) are other frequently exported agri-food commodities in the period 2015-2019. Cocoa beans (HS 180100) and sorghum (HS 1007) are often exported but both values had declined over the period, while cocoa beans decreasing from $38 million to $17 million that of sorghum was from $75 million to $12 million in the period 2005-2009 and 2015-2019, respectively. The cocoa export often takes between Ghana and Cote d'Ivoire, while Nigeria produced the highest sorghum in the subregion. The drought due to climate change and frequent farmers-herders clashes contributed to a decrease in sorghum export. The share of the most exported commodities within the subregion is shown in figure 20; where fisheries, live animals and palm oil got 8%, 5% and 4%, respectively, while the 10 commodities recorded 30% of the total intra-ECOWAS agri-food export.

Figure 20 The share of the top 10 exported commodities in total agri-food exports within ECOWAS, 2015-2019 (%)



Source: computed from World Integrated Trade Solution (assessed in February 2021)

4.2 Disaggregated intra-ECOWAS agri-food imports

4.2.1 Traded agri-food commodities at HS 2-digit

The data for the Intra-ECOWAS agri-food imports indicates that animal and vegetable fats and oils (13%); tobacco and tobacco substitute (9%); fish and fishery products (about 9%) and miscellaneous edible preparation (about 9%) had the largest shares in total agri-food imports within the subregion in the period from 2015-2019. Besides, the preparation of cereals, flour, starch, or milk accounted for 3%; malt, starches, inulin, wheat gluten recorded about 3%; beverages, spirits and vinegar had 2%; vegetables shared about 2%; while sugar and sugar confectionery and dairy and dairy products got 1% apiece (see table 9).

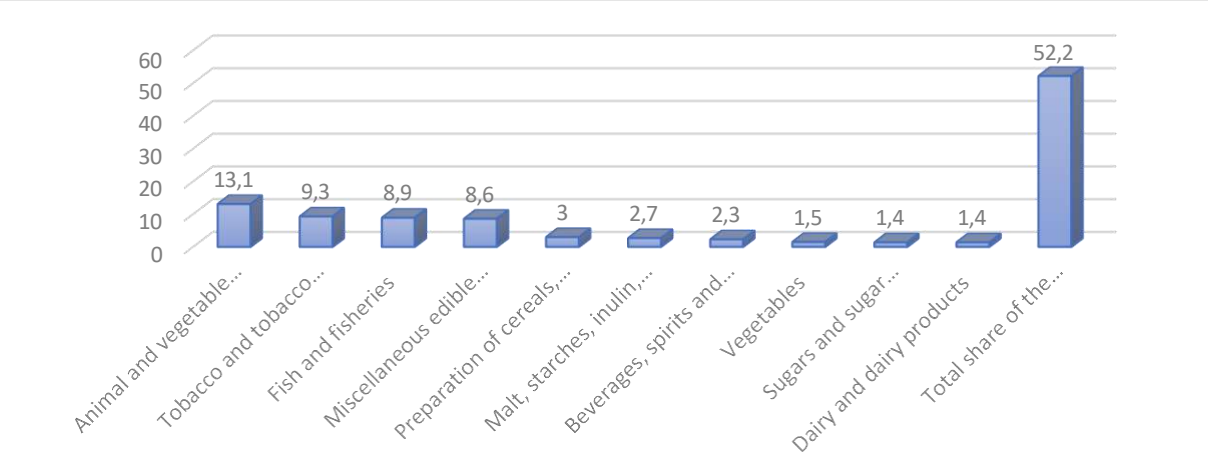
Table 9 The top ten Intra- ECOWAS agri-food imports (in average values, $' Million and %)

	Commodity	2005 – 2009		2010 – 2014		2015 – 2019	
		$' Mil	share	$' Mil	share	$' Mil	share
1	Animal and vegetable fats and oils	78.7	10.2	196.8	13.1	230.8	13.1
2	Tobacco and tobacco substitute	82.9	10.7	405.8	27.0	164.5	9.3
3	Fish and fisheries	72.9	9.4	127.9	8.5	156.4	8.9
4	Miscellaneous edible preparations	67.9	8.8	129.9	8.6	152.6	8.6
5	Preparation of cereals, flour, starch or milk	21.1	2.7	52.8	3.5	53.3	3.0
6	Malt, starches, inulin, wheat gluten	18.3	2.4	32.8	2.2	47.5	2.7
7	Beverages, spirits and vinegar	12.7	1.6	44.3	2.9	41.0	2.3
8	Vegetables	7.5	1.0	24.5	1.6	26.6	1.5
9	Sugars and sugar confectionery	12.5	1.6	22.8	1.5	24.6	1.4
10	Dairy and dairy products	17.1	2.2	25.3	1.7	24.6	1.4
	Total Share		**50.7**		**70.7**		**52.2**

Source: computed from World Integrated Trade Solution (assessed in February 2021)

These were the top ten agri-food intragroup imports in the period, and they jointly accounted for 52% of the total intragroup agri-food imports (figure 21). It is worthwhile to note that the intra-ECOWAS agri-food exports and imports did not correspond mainly due to statistics documentation and/or reporting issues, smuggling activities, heterogenous currency exchange rates – trade takes place through local currencies – and lastly, the data is not based on mirror-image trade flows whereby exports equal imports as there are leakages in the process.

Figure 21 The top 10 agri-food imports within ECOWAS, 2015-2019 (%)



Source: computed from World Integrated Trade Solution (assessed in February 2021)

4.2.2 Traded agri-food commodities at HS 6-digit

Concerning intra-ECOWAS import, virtually similar agri-food commodities are transacted with the export except for kolanut (HS 0802), onion (HS 070310) and cowpea. Fisheries are the most imported with the subregion, its export value more than doubles in the 2015-2019 period to its 2005-2009 value; however, its share in total food export decreased to 0.1% from 9% in the same period (see table 10). Palm oil imports got a boost in the 2015-2019 period than the previous periods, but the reverse is the case for sunflower seed oil whose import demand has been plummeting. The rice import had marginally increased across the periods owing to the aggressive domestic production drive of some Member states to reduce the foreign rice import bills, while cotton seeds and kolanut import had relatively increased substantially. Table 10 indicates that fewer cocoa beans and cassava have been demanded across the periods because of the inadequate processing plants and poor agro-industry investment towards processing. The shares of the agri-food commodities intra-subregional import in the total subregional food import decreased for all the commodities in the 2015-2019 period. This is because of a decrease in import demand for the commodities that were among others influenced by the decline in the purchasing power and/or the standard of living, while poor trade statistics and documentation, as well as illegal trading of the commodities, might have contributed to the decline. Besides, there might have been a change in tastes and preferences of the consumers towards extra-ECOWAS agri-food imported commodities.

Table 10 The average value of the 10 most agri-food imports within ECOWAS ($' Million)

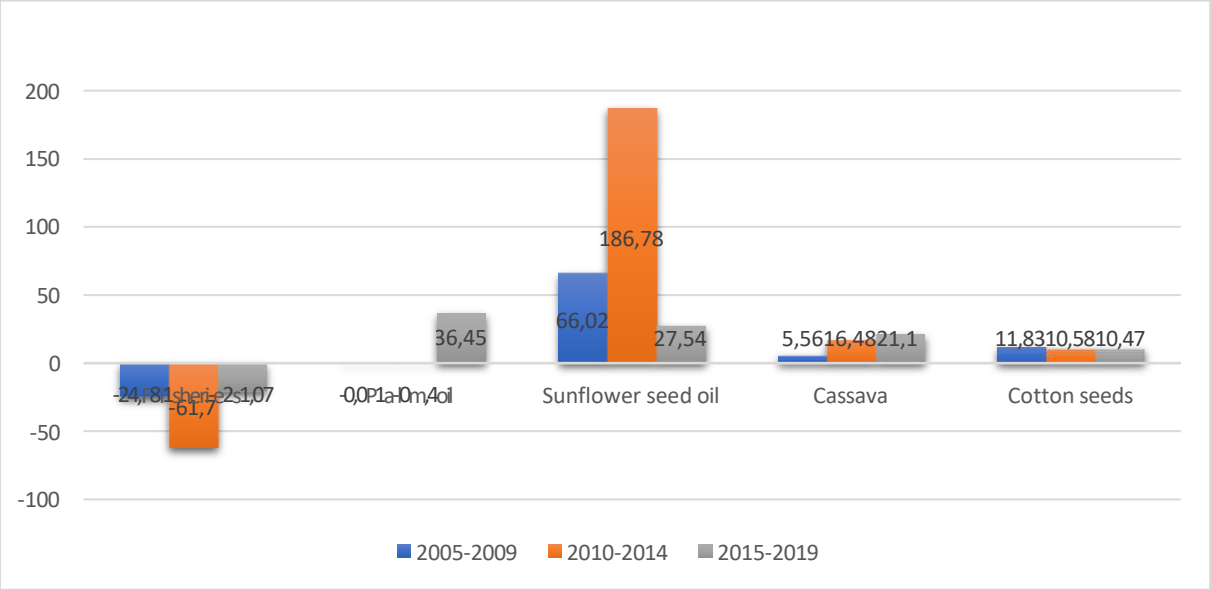
	Commodity	**2005 – 2009**		**2010 – 2014**		**2015 – 2019**	
		$' Mil	share	$' Mil	share	$' Mil	Share
1	Fisheries	70.31	9.10	121.52	8.08	151.30	0.09
2	Palm oil	0.01	0.00	0.41	0.03	45.30	0.03
3	Sunflower seed oil	149.26	19.32	214.80	14.29	35.11	0.02
4	Rice	11.71	1.52	5.98	0.40	14.23	0.01
5	Cotton seeds	2.17	0.28	0.93	0.06	13.45	0.01
6	Kolanut	1.70	0.22	1.38	0.09	11.32	0.01
7	Cocoa beans	26.44	3.42	42.72	2.84	6.83	0.00
8	Cassava	12.90	1.67	18.35	1.22	5.34	0.00
9	Onion	5.15	0.67	1.24	0.08	4.72	0.00
10	Cowpea	0.56	0.07	3.13	0.21	3.01	0.00
	Total Share (%)		**36.28**		**27.31**		**0.16**

Source: computed from World Integrated Trade Solution (assessed in February 2021)

4.3 Intra-ECOWAS agri-food trade balance at HS 6-digit

The intra-ECOWAS disaggregated agri-food commodity trade balance is shown in figure 22. There are 5 commodities intersection[27] among the top 10 traded agri-food as indicated in the figure. The subregion had a trade deficit in fish and fisheries products throughout the periods, owing to the high import demand of the commodities exceeding the export. Also, palm oil had the same trade deficit trend except for the 2015-2019 period, which could be due to the decrease in the economic activities in this period that reduce the demand for the commodities, especially for industrial purposes. However, trade surpluses are recorded in sunflower seeds oil, cassava, and cotton seeds. The magnitude of the trade surplus in sunflower seeds oil was drastically reduced in 2015-2019 owing to a decrease in the total output of the subregion.

Figure 22 Intra-ECOWAS Agri-food Commodity Trade Balance ($' Million)



Source: computed

4.4 National intra-ECOWAS agri-food trade

4.4.1 Intra- ECOWAS agri-food export commodities by Member states

The countries with the largest export of some selected agri-food commodities for the period 2005-2019 are shown in figure 23, where it is found that Cote d'Ivoire export most of cocoa and cotton seeds, while the Benin Republic exports the most of sunflower seed oil. Interestingly, virtually all the Member states export sorghum in considerable quantities, however, cashew export is predominantly done by Burkina Faso, while Senegal has the comparative advantage in fisheries (see figure 23).

[27] This are the commodities that are common to the intra-ECOWAS agri-food export and import.

Figure 23 Intra- ECOWAS agri-food export commodities by Member states ($' Million).

Products			Colour code	Mio. tonnes
Circle: Live animals	**Triangle**: Rice	**Rectangle**: Palm oil	Dark blue	2114
			Less dark	936
			Light blue	561 – 646
			Very light	100 – 325
			White	>0 – <40
			No filling	Zero/ No data

Products			Colour code	Mio. tonnes
Circle: Sorghum	**Triangle**: Cassava	**Rectangle**: Sunflower seed oil	Dark blue	138
			Less dark	12 – 35
			Light blue	3 – 11
			Very light	1,1 – 2
			White	>0 – 1
			No filling	Zero/ No data

Products				Colour code	Mio. tonnes
Circle: Fisheries	**Triangle**: Cotton seeds	**Rectangle**: Cocoa	**Diamond:** Cashew nut	Dark blue	995
				Less dark	100 – 210
				Light blue	21– 68
				Very light	11 – 20
				White	>0 – 10
				No filling	Zero/ No data

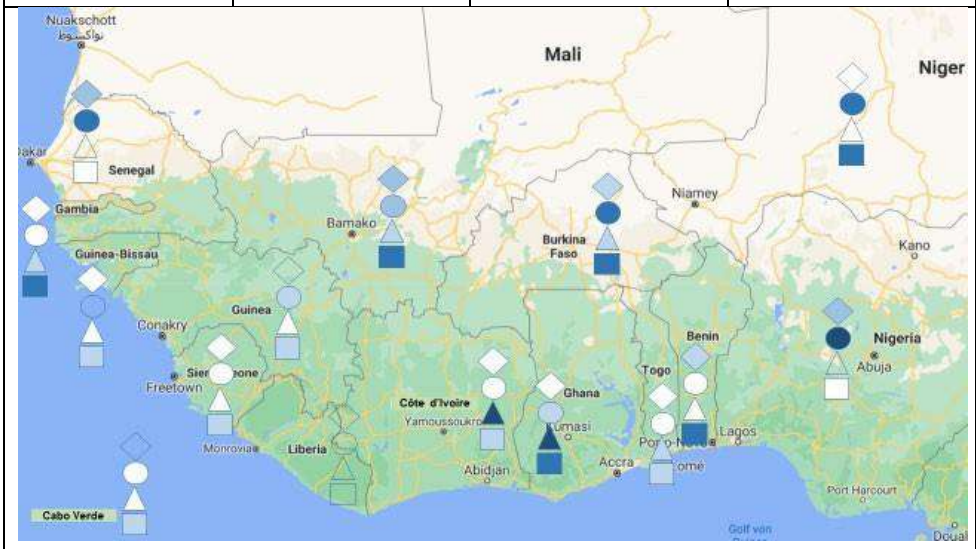
Source: Own presentation from the UNCTADStat (accessed in March 2021).

4.4.2 Intra- ECOWAS agri-food import commodities by Member state

In terms of the spatial distribution and/or dimension of the agri-food imports within ECOWAS for the period 2005-2019; Nigeria is the main importer of kolanut followed by Burkina Faso, while the sunflower seed oil, cowpea and rice is imported by all the countries. Nigeria, the Benin Republic, Liberia, Sierra Leone, and Guinea-Bissau remain non-importers of cassava in the subregion (see figure 24).

Figure 24 Intra- ECOWAS agri-food import commodities by Member states ($' Million)

Imports				Colour code	Mio. tonnes
Circle: Cowpeas	**Triangle**: Cassava	**Rectangle**: Cotton seeds	**Diamond:** Cocoa	Dark blue	18 – 29
				Less dark	3,6 – 8,5
				Light blue	1,1 – 3,5
				Very light	>0 – 1
				White	Zero/ No data

Products				Colour code	Mio. tonnes
Circle: Kolanut	**Triangle**: Onion	**Rectangle**: Rice	**Diamond:** Sunflower seed oil	Dark blue	100 – 260
				Less dark	21 – 55
				Light blue	11 – 20
				Very light	1,1 – 10
				White	>0 – 1
				No filling	Zero/ No data

Products		Colour code	Mio. tonnes
Triangle: Fisheries	**Rectangle**: Palm oil	Dark blue	662 – 1167
		Less dark	220 – 400
		Light blue	77 –170
		Very light	21 – 30
		White	>0 – 20
		No filling	Zero/ No data

Source: Own presentation from the UNCTADStat (accessed in March 2021).

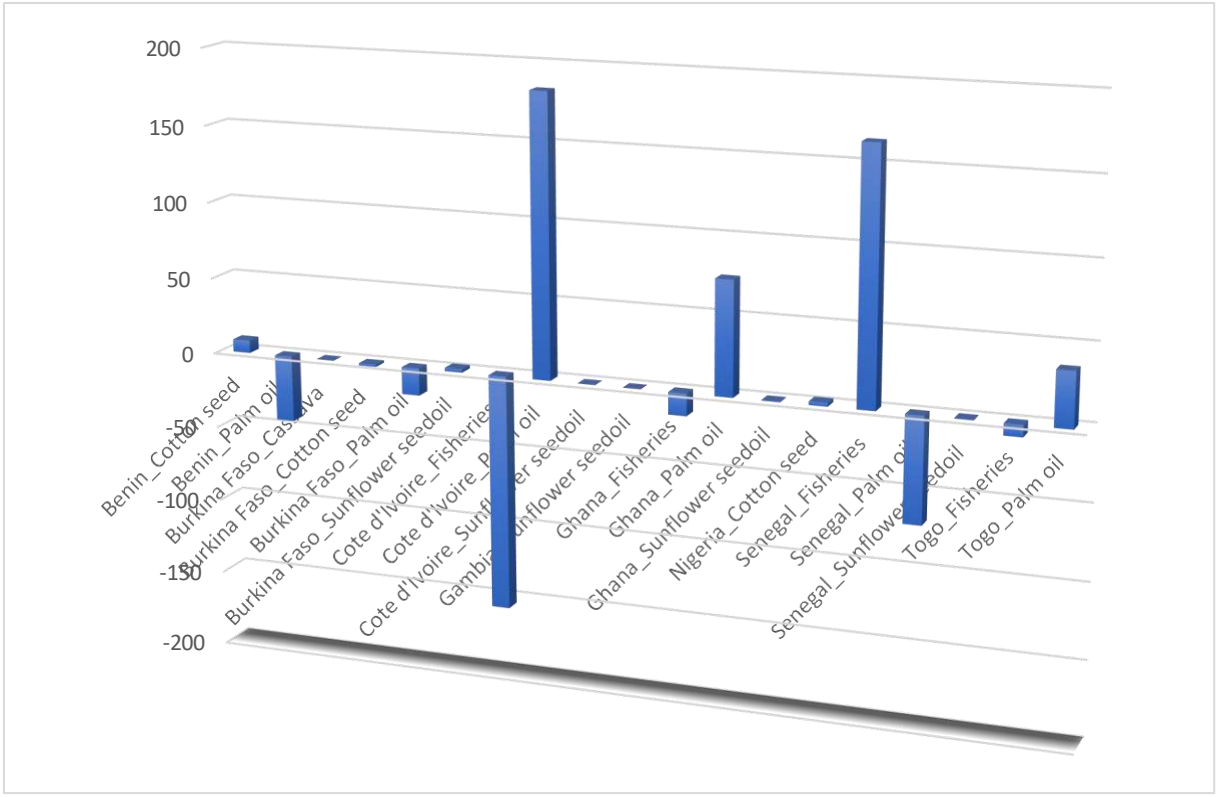
4.4.3 National net-trade balance for the intra-ECOWAS agri-food traded commodities

The Member states' intra-ECOWAS agri-food commodities trade balance is analysed for the top commodities traded in 2019[28]. There are different trade balance outcomes across the Member states and the agri-food commodities traded (see figure 25). The largest trade surpluses were recorded by Cote d'Ivoire in palm oil ($183 million), Senegal in fisheries ($164 million)

[28] The analysis considers only the Members state that import from and export to the ECOWAS, the agri-food commodities and it is not bilateral trade relations. The Member states without corresponding import and export statistics are omitted.

and Ghana in palm oil ($ 74 million). However, the highest net importers of any of the agri-food commodities were Cote d'Ivoire, which was in fisheries ($154 million), Senegal and Benin in palm oil with trade deficit values of $69 million and $43 million, respectively. The deduction from this figure is that Cote d'Ivoire, Ghana and Senegal are the leading intra-ECOWAS trading countries and net exporters of these agri-food commodities. Although Benin and Togo's trade balances of some of the agri-food commodities were relatively impressive[29], the magnitudes of the trade balances were incomparable with the leading Member states.

Figure 25 The Members state intra-ECOWAS agri-food commodities' trade balances in 2019 ($' Million)



Source: computed

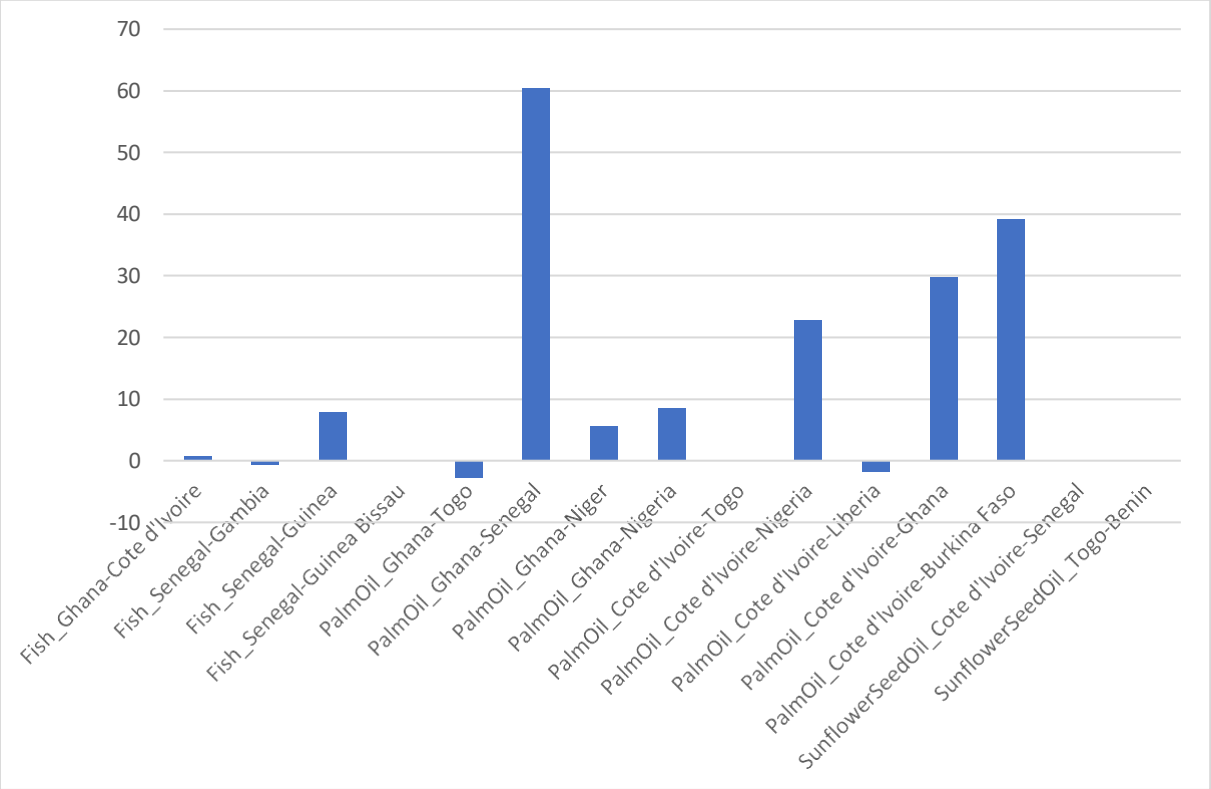
Furthermore, a detailed and critical examination of the intra-ECOWAS trade data shows that there is little bilateral intra-agri-food commodity trade[30] between or among the Members state in 2019. However, three agri-food commodities, fish, palm oil and sunflower seed oil, had this information in the dataset (see figure 26). For the fish trade, Senegal is conspicuous, whereby it traded this commodity with the Gambia, Guinea and Guinea Bissau, however, it was a net importer in the fish trade with the Gambia with about $0.7 million. Another trade relation for fish was between Ghana and Cote d'Ivoire where Ghana had a $0.7 million trade surplus. This implies that Gambia, Ghana and Senegal are the main net fish exporters. In terms of palm oil, Cote d'Ivoire and Ghana were prominent; while Cote d'Ivoire traded in intra-commodity with

[29] Irrespective of the trade balance outcomes, it indicates that the countries engaged in intra-ECOWAS agri-food trade.

[30] Intra-agri-food commodity trade is the trade between trade partners countries whereby the same commodity is exchange and/or traded, i.e. a trade partner export and import the same commodity from its trade partner.

5 Members state (figure 26), Ghana had the trade with 4 Members states. Cote d'Ivoire had trade surpluses in all except with Liberia and Togo (with the highest trade surplus of $39 million with Burkina Faso), However, Ghana was only a net importer of the commodity with Togo ($2 million) and had its largest trade surplus with Senegal with over $60 billion. The implication of this is that Cote d'Ivoire and Ghana got some of the traded palm oil from Togo[31]. The sunflower seed oil flows bilaterally between Cote d'Ivoire and Senegal, whereby Cote d'Ivoire was the net exporter. However, Benin was the net exporter in this commodity trade between Togo and Benin.

Figure 26 Members state bilateral intra-ECOWAS trade balance by agri-food in 2019 ($' Million)



Source: computed

4.5 Intra-ECOWAS bilateral agri-food trade

4.5.1 Trade corridors

The Intra-ECOWAS agri-food trade takes place between or among cities in the Member states through certain trade routes/corridors that cut across different borders, which have been formally established by the trading countries. However, the agri-food trade also takes place along the informal trade corridors owing to the porosity of the land borders and the spill-over of the culture and tradition of land borders' communities across the trading countries. The main trade corridors in the subregion are:

[31] Although there is no data to back the fact that it could be a case of entreport to their trade partners within ECOWAS.

- Lagos-Abidjan (982.13 km)
- Dakar-Abidjan (1804. km)
- Tema-Ouagadougou-Bamako (1534.4 km)
- Cotonou-Niamey-Ouagadougou (1,597.25 km)
- Accra-Ouagadougou-Niamey (1,506.41 km)
- Abidjan-Bamako-Dakar (2,433.91 km)
- Abidjan-Ouagadougou-Niamey (1,669.02 km)
- Dakar-Bamako-Ouagadougou (2157.54 km)
- Kano-Bamako (2289 km)
- Sokoto-Niamey (467 km)
- Dakar-Conakry-Lagos (2454.25 km)
- Tema/Takoradi-Bobodioullasso-Bamako (1605.3 km) routes.

However, the Dakar-Abidjan-Lagos and Dakar-Bamako-Ouagadougou trade corridors have the largest traffic of economic activities (Torres, van Seters, 2016 and JICA, 2012).

Figure 27 presents some of the formal trade channels within ECOWAS. The existing formal trade corridors are limited owing to the inadequate city connectivity and bad road and rail networks within the Member states that can connect to the regional road and rail transport hubs. The inadequacies in the ECOWAS road and rail connectivity impacted the intensity of the food supply chains and food losses and waste as some of the trade corridors are characterised by bad roads. For instance, many of the agri-food cross border traders prefer to take a long trade corridor (Tema-Ouagadougou-Bamako) than the short Tema/Takoradi-Bobodioullasso-Bamako route because the former has a road network that is better than the latter.

Figure 27 The ECOWAS trade corridors

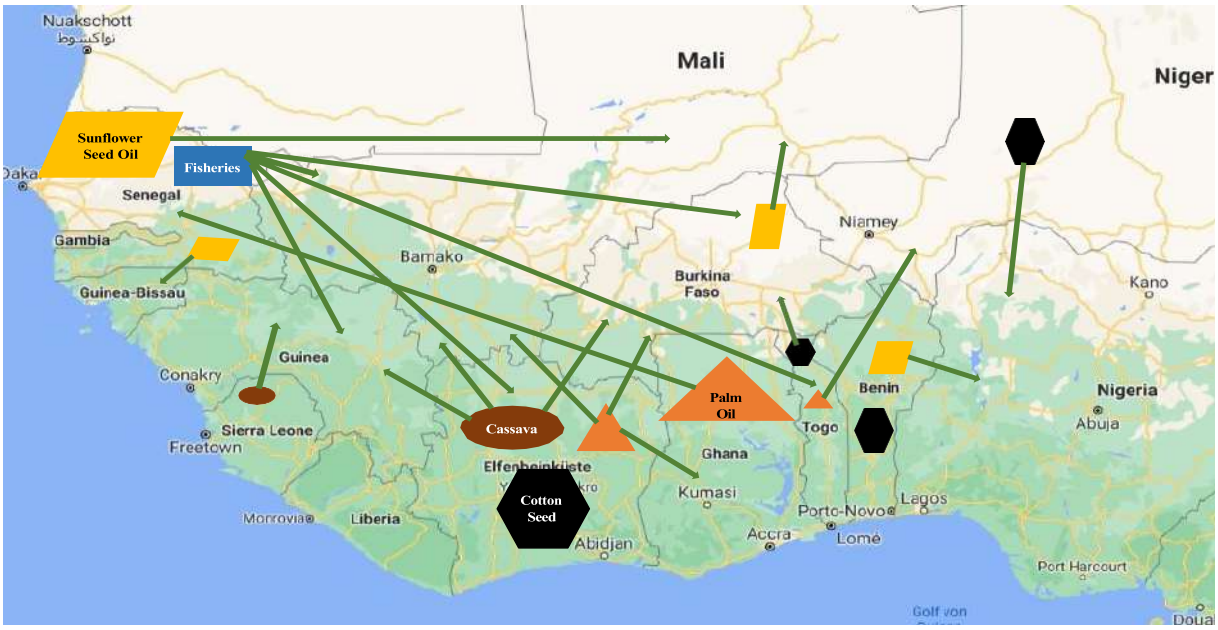
Source: Computed

4.5.2 Map of intra-ECOWAS bilateral agri-food trade direction

The spatial intra-ECOWAS export relations in 2019 are shown in figure 28. The export destinations of the main agri-food intersection commodities'[32] exporters in the subregion indicate that there is somewhat trade interaction among Member states, though might be at a low level as stated earlier. However, the Gambia and Guinea Bissau are not the main export destinations of agri-food commodities in 2019. The main origin of fisheries (0303) export is Senegal, which is largely destined to Cote d'Ivoire, Guinea, Mali, Niger and Togo. The top intra-ECOWAS exporters of sunflower seed oil in 2019 are the Benin Republic, Burkina Faso and Senegal; while the destination of Benin's sunflower seed oil was Nigeria and that of Burkina Faso and Senegal were to Mali. The cotton seeds are largely exported by the Benin Republic, Cote d'Ivoire, Niger and Togo; while the export destination of the bulk of the agri-food commodity was Burkina Faso. The main exporters of palm oil in the subregion were Cote d'Ivoire and Ghana but interestingly, despite Ghana's export of palm oil, it was one of Cote d'Ivoire palm oil export's destinations aside Mali (figure 28).

[32] The agri-food intersection commodities are depicted in figure 20.

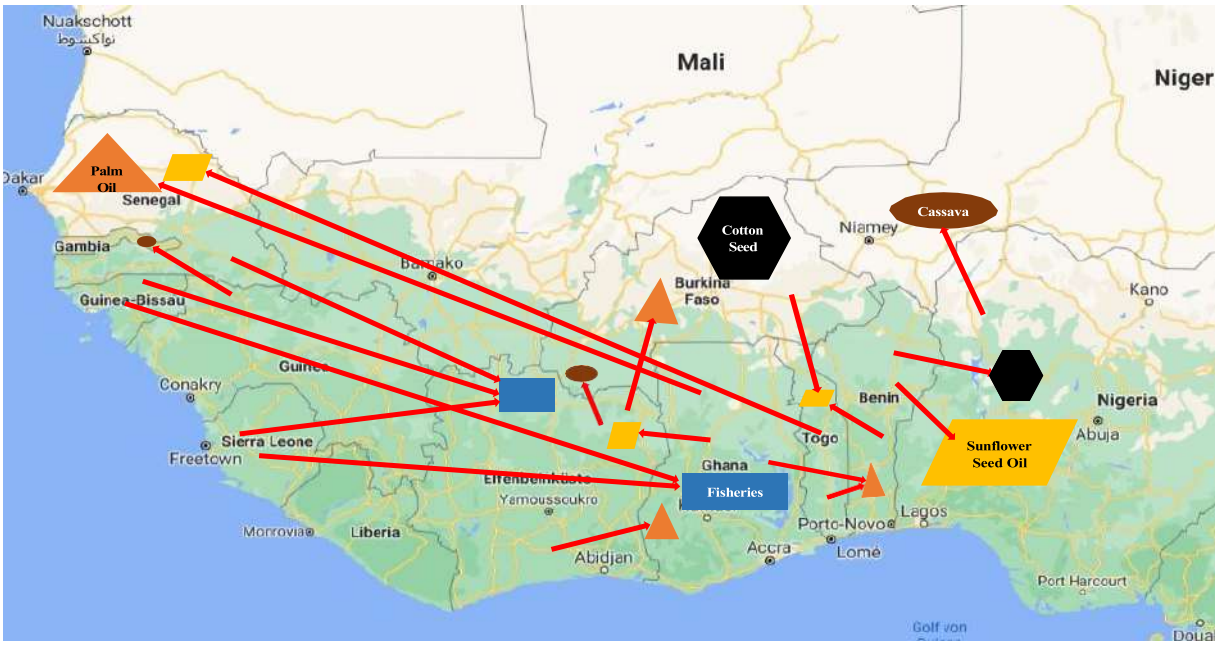
Figure 28 Intra-ECOWAS bilateral agri-food exports for 2019



Source: Own presentation

In terms of the spatial dimension of the intra-ECOWAS agri-food commodities' importers, as shown in figure 29, the main importer of cotton seeds in the subregion was Burkina Faso, in which the commodity imports originated from the Benin Republic, Cote d'Ivoire, Ghana and Togo. Nigeria was another key importer of cotton seeds in 2019 and the origin of the commodity was the Benin Republic. Most of the fisheries' imports (HS 0303) within the subregion were directed towards Cote d'Ivoire and Ghana; while both Member states import fisheries from Guinea Bissau and Sierra Leone. However, Cote d'Ivoire also import from Senegal, which was acknowledged in figure 28 as the largest exporter of fish and fisheries. Furthermore, Cote d'Ivoire, Nigeria and Togo were the highest importers of sunflower seed oil, whereby Nigeria and Togo import the commodity from the Benin Republic while Cote d'Ivoire imports from Ghana. It is interesting to know that while Ghana was one of the main importers of palm oil which was from Cote d'Ivoire, simultaneously the Benin Republic and Senegal imported palm oil from Ghana. Other top importers of palm oil in the subregion are Burkina Faso and Senegal which were originated from Cote d'Ivoire and Ghana, respectively.

Figure 29 Intra-ECOWAS bilateral agri-food import for 2019



Source: Own presentation

4.5.3 Matrix of intra-ECOWAS national bilateral trade agri-food trade

Trade often occurs bilaterally between economic agents. The regional and international exchange of commodities often occurs between trade partners at the intra- and inter-industry levels. The agri-food trade is also bilaterally-oriented with most of the commodities exchanged between the trade partners being heterogeneous based on their comparative advantage, especially for the partners that are differentiated in terms of geographic location, climatic condition, land composition and arability, technology adoption, etc. However, intra-commodity exchange of agri-food commodities also occurs between trade partners such that the same commodities are traded between the countries. In the intra-ECOWAS agri-food trade, much of the bilateral trade takes place at the inter-commodities level, while the occurrence of intra-commodity trade occurred marginally.

Table 11 presents the bilateral agri-food import matrix for the top 3 importing Member states for the agri-food intersection commodities. The destinations of the intra-ECOWAS imports of cassava were largely for Burkina Faso, the Gambia and Niger in 2019. These three main cassava importers to a large extent import from Cote d'Ivoire, Guinea and Nigeria. Burkina Faso mainly imports from Cote d'Ivoire, the Gambia imports cassava from Guinea while the origin of Niger's cassava import was Nigeria. In the case of cotton seeds, Burkina Faso was the highest importer in 2019 and its import mainly originated from Togo with a worth of $0.72 million in 2019; followed by Nigeria with imports of over $0.1 million from Benin, while Benin imports from Togo. The largest fish and fisheries importer was Cote d'Ivoire, followed by Ghana and Togo in 2019. The highest fish and fisheries import of Cote d'Ivoire was from Senegal, which was over $126 million in this traded year; Ghana main import of fish and fisheries came from Guinea Bissau with a worth of about $7 million; however, Togo imported its highest amount of fish and fisheries commodities (about $6 million) from Guinea Bissau. In terms of palm oil import within ECOWAS in 2019, Senegal had the highest import value of over $53 million from Ghana, $9 million from Cote d'Ivoire and $3 million worth of import from Togo. The Benin Republic had the second-largest import of palm oil which originated from Togo and

Ghana with values of $30 million and $19 million, respectively. Ghana was another major importer of palm oil which was largely from Cote d'Ivoire ($18 million) and Togo ($3 million). The sunflower seed oil was mainly imported by Cote d'Ivoire, Nigeria and Togo in 2019.

Table 11 Agri-food commodity import matrix ($' Million)

	Partner	**Cote d'Ivoire**			**Guinea**			**Nigeria**		
	Importer	2011	2015	2019	2011	2015	2019	2011	2015	2019
Cassava	Burkina Faso	0.003	-	0.09	-	-	-	-	-	-
	Gambia	-	-	-	0.001	0.013	0.0001	-	-	-
	Niger	-	-	-	-	-	-	-	0.0001	0.01
	Partner	**Togo**			**Benin**			**Cote d'Ivoire**		
	Importer	2011	2015	2019	2011	2015	2019	2011	2015	2019
Cotton Seed	Burkina Faso	0.002	1.11	0.72	-	0.55	0.55	0.35	0.07	0.21
	Nigeria	-	-	-	-	0.15	0.1	-	-	-
	Benin		0.34	0.000192	-	-	-	-	-	-
	Partner	**Senegal**			**Guinea-Bissau**			**Sierra Leone**		
	Importer	2011	2015	2019	2011	2015	2019	2011	2015	2019
Fisheries	Cote d'Ivoire	36.53	79	126.23	1.53	2.24	20.92	0.30	2.04	7.32
	Ghana	21.73	2.48	0.92	-	12.64	6.92	0.03	2.20	6.66
	Togo	0.17	1.70	1.87	9.39	13.93	5.76	-	-	-
	Partner	**Ghana**			**Togo**			**Cote d'Ivoire**		
	Importer	2011	2015	2019	2011	2015	2019	2011	2015	2019
Palm Oil	Senegal	0.12	10.24	53.60	-	3.60	3.00	61.96	-	8.72
	Benin	-	0.03	19.46	0.36	4.16	29.58	7.90	-	-
	Ghana	-	-	-	-	4.71	3.44	-	0.65	18.25
	Partner	**Benin**			**Burkina Faso**			**Ghana**		
	Importer	2011	2015	2019	2011	2015	2019	2011	2015	2019
Sunflower Seed Oil	Cote d'Ivoire	-	-	-	-	-	-	-	-	0.12
	Nigeria	-	-	1.43	-	-	-	-	-	-
	Togo	-	-	0.10	-	-	0.11	-	0.006	-

Source: Computed from the World Integrated Trade Solution (assessed in May 2021).

The bilateral agri-food export matrix of the agri-food intersection commodities for the top 3 exporting Member states is shown in table 12. Cote d'Ivoire and Sierra Leone are the main exporters of cassava in the subregion in 2019; while the destinations of Cote d'Ivoire cassava

export are Burkina Faso, Guinea and Mali. The destination of Sierra Leone's export of these commodities were large to Guinea.

Table 12 Agri-food commodity export matrix ($' Million)

	Partner	**Burkina Faso**			**Guinea**			**Mali**		
	Exporter	2011	2015	2019	2011	2015	2019	2011	2015	2019
Cassava	Cote d'Ivoire	-	-	0.0002	-	-	0.001	-	-	0.001
	Sierra Leone	-	-	-	-	-	0.004	-	-	-
	Partner	**Burkina Faso**			**Nigeria**			**Mali**		
	Exporter	2011	2015	2019	2011	2015	2019	2011	2015	2019
Cotton seeds	Cote d'Ivoire	0.87	0.29	3.44	0.0025	0.67	-	0.19	8.53	19.58
	Benin	-	-	7.86	-	-	-	-	-	-
	Niger	-	-	-	0.0023	-	2.43	-	-	-
	Partner	**Cote d'Ivoire**			**Burkina Faso**			**Mali**		
	Exporter	2011	2015	2019	2011	2015	2019	2011	2015	2019
Fisheries	Senegal	24.41	73.80	118.25	0.17	5.62	19.89	8.36	10.29	11.59
	Ghana	3.12	4.14	0.77	-	-	-	-	-	-
	Cote d'Ivoire	-	-	-	0.002	0.05	0.002	-	0.31	0.32
	Partner	**Burkina Faso**			**Mali**			**Senegal**		
	Exporter	2011	2015	2019	2011	2015	2019	2011	2015	2019
Palm Oil	Cote d'Ivoire	16.61	20.42	39.12	35.78	40.35	58.75	62.76	31.36	-
	Ghana	-	1.45	-	-	0.02	-	0.20	12.45	60.45
	Togo	-	8.73	-	-	0.14	0.30	-	-	3.41
	Partner	**Mali**			**Nigeria**			**Senegal**		
	Exporter	2011	2015	2019	2011	2015	2019	2011	2015	2019
Sunflower Seed Oil	Benin	-	-	-	9.04	4.49	16.53	-	0.4	-
	Burkina Faso	0.44	3.57	2.15	-	-	-	-	0.36	-
	Ghana	-	-	-	-	-	-	-	-	0.4

Source: own presentation from WITS (accessed in March 2021).

For the cotton seeds, the main exporters are Benin, Cote d'Ivoire and Niger. In 2019, Benin export about $8 million worth of cotton seeds to Burkina Faso, however, Cote d'Ivoire export more than $ 3 million and $19 million of the commodity to Burkina Faso and Mali, respectively. This implies that Cote d'Ivoire was the largest exporter of cotton seeds in the subregion. Fish

and fisheries commodities were extensively exported within the subregion by Senegal, in which the main destination of the exports was Cote d'Ivoire with a worth of $118 million, $20 million to Burkina Faso and $12 million to Mali. Although Senegal is a coastal country like some others in the subregion, the prioritisation of this commodity for support and promotion led to its comparative advantage. Cote d'Ivoire and Ghana were other fish and fisheries' exporters in 2019 but the magnitude of their exports was little compared to Senegal. Furthermore, Cote d'Ivoire was the largest exporter of palm oil in this traded year with the export targeted Burkina Faso, Mali and Senegal markets, however, no export was recorded for the latter market in 2019. Ghana was another palm oil exporter with over $60 million worth of the commodity exported to Senegal in 2019, while Togo exported its palm oil to Mali. In terms of the sunflower oil seed, Benin, Burkina Faso and Ghana were the main exporters of the commodities which were largely directed to Mali, Nigeria and Senegal.

Figure 30 Bilateral Member states' agri-food commodity trade balance, 2019 ($' Million)

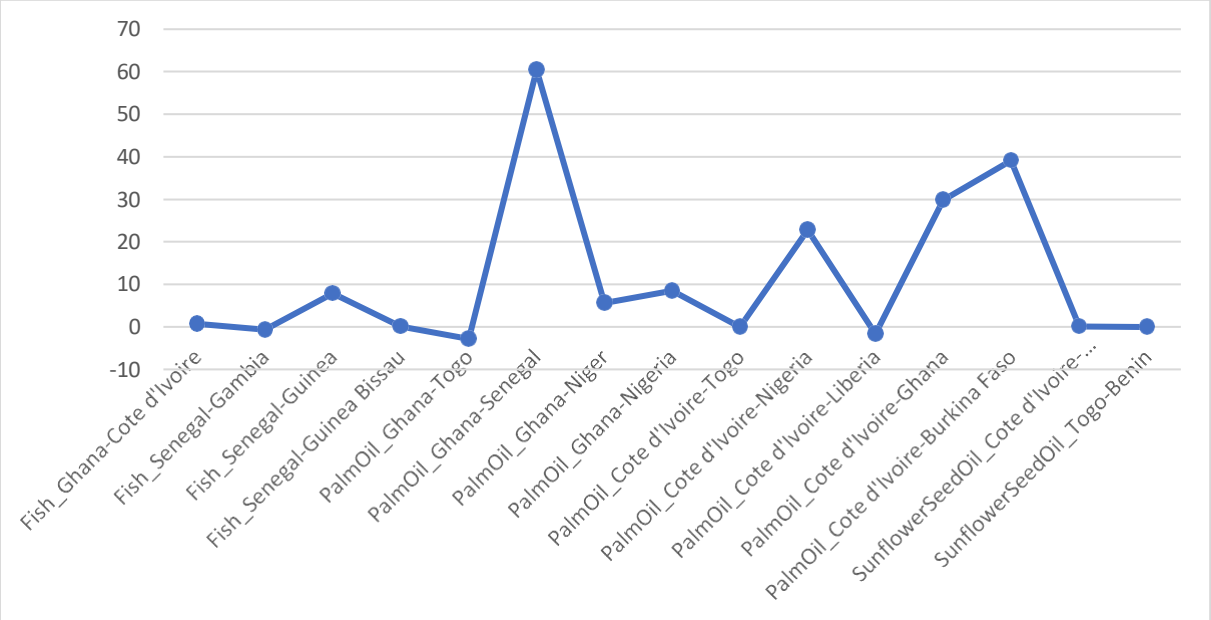


Figure 30 presents the agri-food commodity exchange trade balance between the Member states that bilaterally traded[33]. Three agri-food commodities – fish, palm oil and sunflower seed oil – are identified to have bilateral trade exchanges between some trade partners. In terms of fish trade, as could be seen from this figure, Ghana recorded a net export with Cote d'Ivoire of about $0.7 million in 2019. Also, Senegal had a positive fish trade balance with Guinea and Guinea Bissau of over $7 million and $0.1 million, respectively but it was a net importer of the commodity with the Gambia of about $0.7 million. The emerging scenario is that though Senegal is the largest exporter of fish within the subregion, some of the fish export could be reexporting from the Gambia owing to Senegal's membership in WAEMU and its easy market

[33] The selection of the agri-food commodities and trade partners is based on the bilateral trade flow (that a country simultaneously export to and import from its trade partner the same agri-food commodity). Out of the ten most traded agri-food commodities only three of them possess the information to compute figure 26.

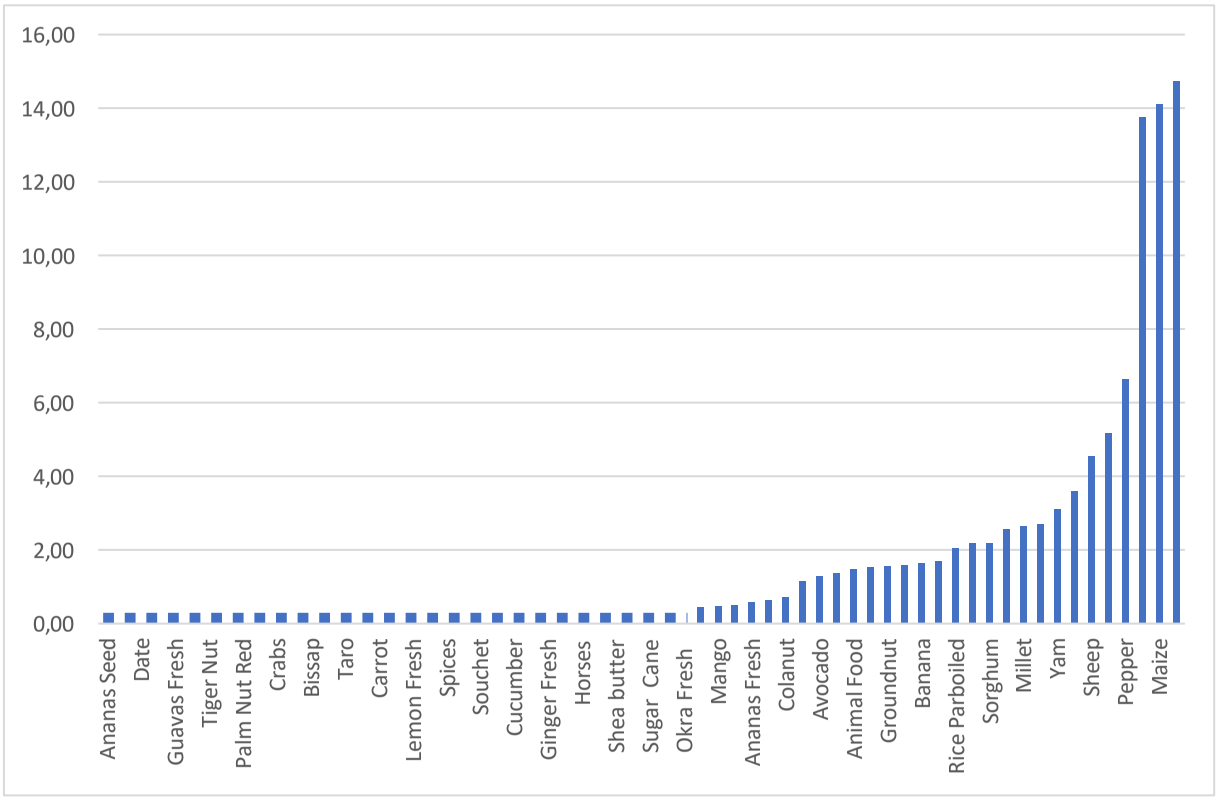
access to these Francophone countries[34]. Ghana and Cote d'Ivoire are the main players in the palm oil trade within the subregion. Ghana had its largest palm oil trade surplus with Senegal of over $60 million, followed with Nigeria and Niger of about $9 million and $6 million, respectively, but it was a net import with Togo of about $3 million[35]. Furthermore, Cote d'Ivoire recorded its highest trade surplus in palm oil trade within the subregion with Ghana and Nigeria of about $30 million and $22 million, respectively. However, it became the net import of palm oil in the trade relations with Liberia and Togo. For the sunflower seed oil trade, Cote d'Ivoire had a positive trade balance with Senegal while Benin was a net exporter of this commodity with Togo in 2019.

4.5.4 Informal cross border trade

The importance and the preponderance of informal agri-food trade within West Africa have been established (Karkare, et al., 2021; Bouet, et al., 2020). The exchange and the distribution of agri-food commodities often take place across the major cities in the subregion, in which some of the traded volumes and values are undocumented. Besides, there is a lot of informal cross border agri-food trade taking place among the borders' communities that are mostly at the subsistence and/or small scale level, which are preponderantly among the women. Several agri-food commodities are informally traded along the trade corridors within ECOWAS, many of which are unprocessed and most livestock, fruit and vegetable and fisheries. The CILSS (2021) statistics indicate that 64 agri-food commodities were informally traded across the borders of ECOWAS in 2020. The share of the frequency of occurrence of the top 10 informal agri-food commodities traded across the borders in the intra-ECOWAS trade was about 72% in 2020 (figure 31). It shows that cattle which had about 15% were the most traded followed by maize (14%), fresh tomato (14%), pepper (7%), smoked fish (5%), sheep (5%), cassava (4%), yam (3%), potato (3%) and millet (2%).

[34] Senegal mainly exported fish to Burkina Faso, Cote d'Ivoire and Mali (all Francophone countries).
[35] There is also tendency that Ghana gets some of the exported palm oil from Togo – reexporting.

Figure 31 Intra-ECOWAS informal agri-food traded and the frequency share in total traded (%)

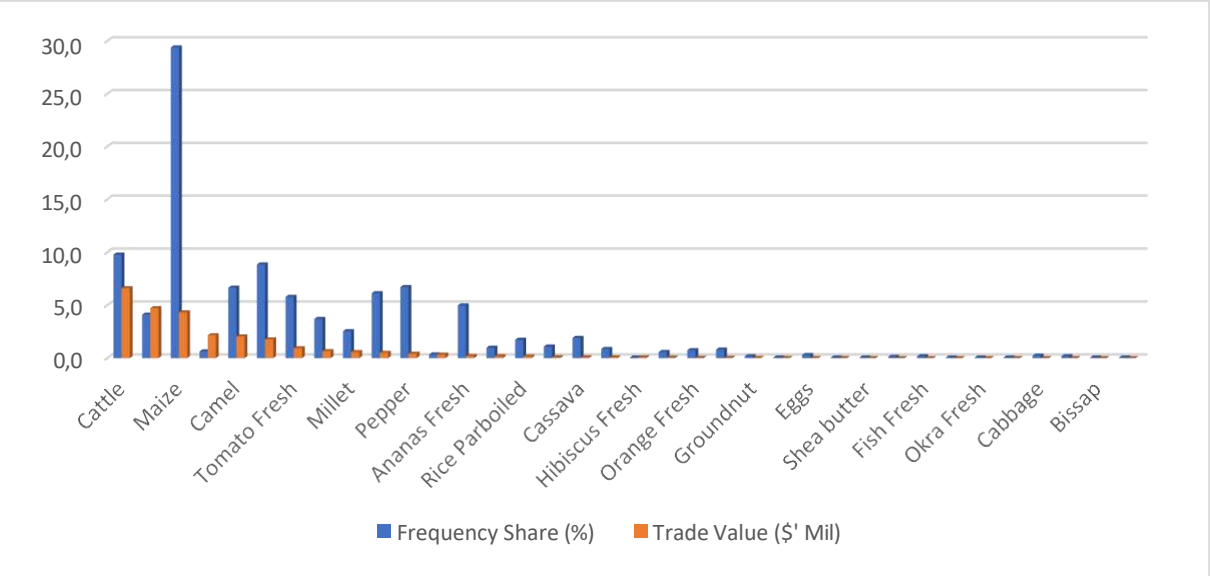


Source: CILSS (assessed in April 2021)

4.5.5 Informal agri-food commodities along the trade corridors

The informal agri-food cross border trade is heterogenous along the ECOWAS trade corridors by the commodities traded. A perusal of the CILSS (2021) 'informal'[36] intra-ECOWAS agri-food trade statistics indicates that out of the 17663 informal agri-food commodities' cross border trade incidences/frequencies in 2020, the Abidjan-Lagos trade corridor accounted for about 40% of the incidences. This implies that the agri-food commodity trade traffic in the Abidjan-Lagos trade corridor is the highest in the subregion. A total of 37 agri-food commodities were exported along the Abidjan-Lagos trade corridor in 2020 which is worth $26 million (figure 32).

Figure 32 Informal agri-food exports along Abidjan-Lagos trade corridors in 2020

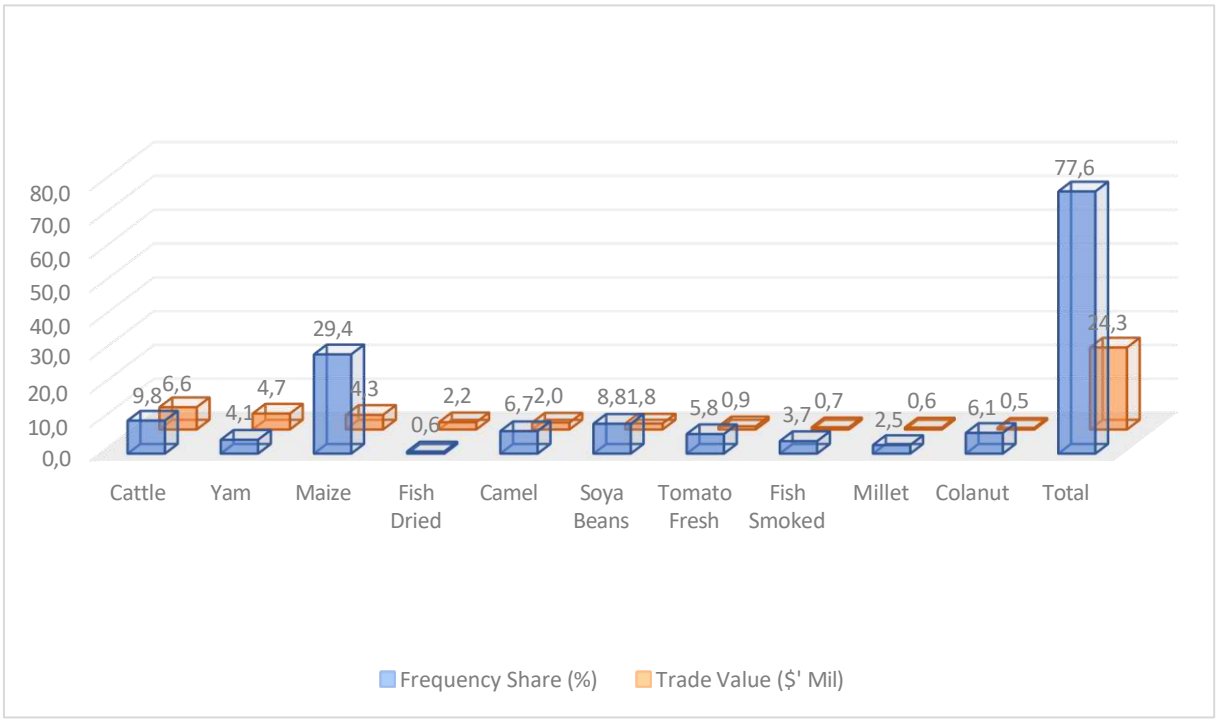


Source: CILSS (assessed in April 2021)

The top 10 informally exported agri-food commodities along this trade corridor are shown in figure 33 and they jointly accounted for about 78% of the total frequency of the exported commodities across this corridor with an export value of $24 million.

[36] We acknowledged the fact that the CILSS informal agri-food trade statistics could be criticized based on how the data is collected and presented as well as the fact the it does not describe the data. Nevertheless, this is the only informal agri-food trade statistics that is available in ECOWAS, which we clean-up and modified in this study.

Figure 33 Top 10 informal agri-food exports along the Abidjan-Lagos trade corridor in 2020

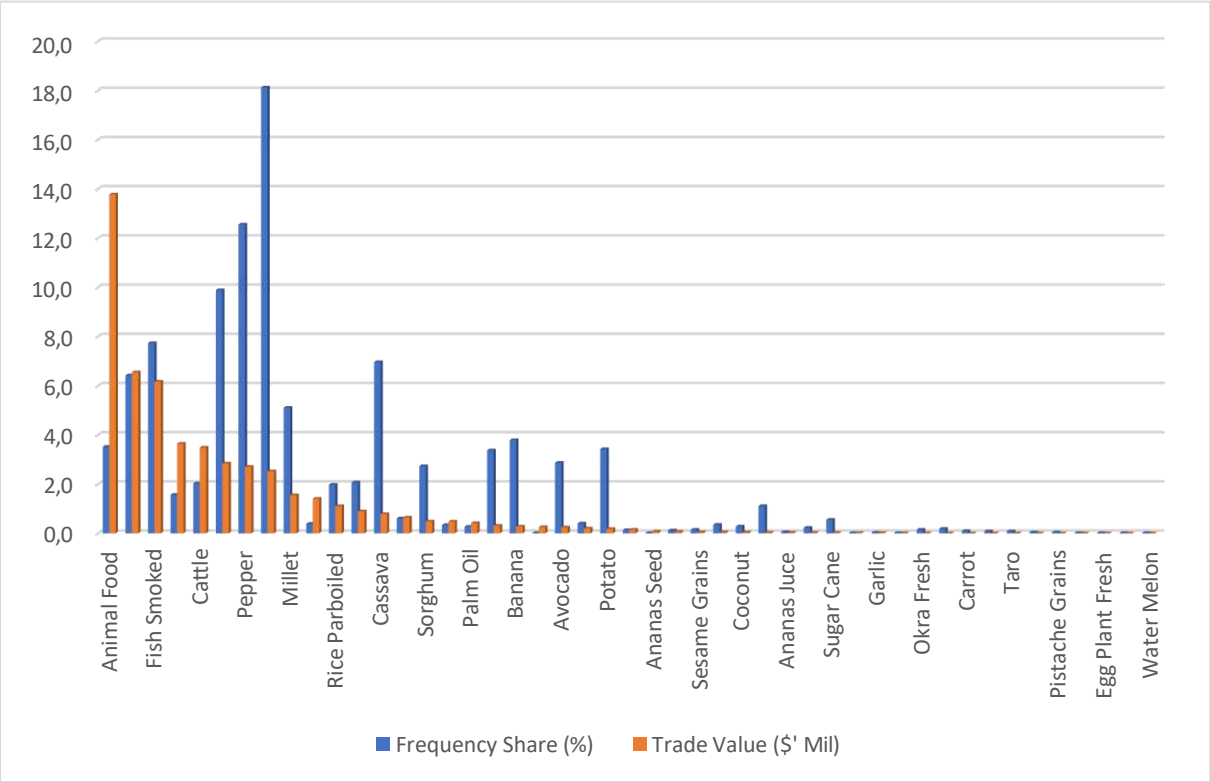


Source: CILSS (assessed in April 2021)

Figure 34 presents the informal agri-food imports along the Abidjan-Lagos corridor, where it could be seen that 48 agri-food commodities were imported by the countries along the trade corridors[37] with a worth of $52 million. Many of the imported agri-food commodities along this trade corridor were livestock, cereal, fruits and vegetable. Other prominent imported agri- food commodities were nuts, seed oil, fisheries, yam and cassava.

[37] From Cote d'Ivoire, Ghana, Togo, Benin to Nigeria.

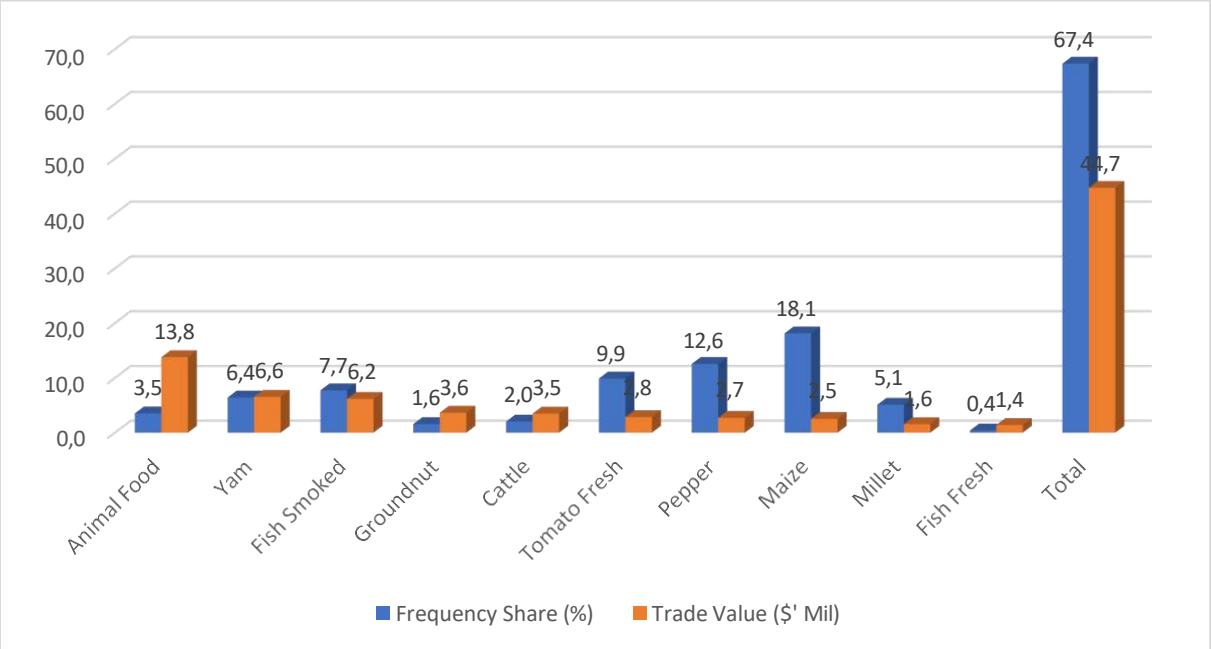
Figure 34 Informal agri-food imports along Abidjan-Lagos trade corridors in 2020



Source: CILSS (assessed in April 2021)

The top 10 informal agri-food imports are shown in figure 35. They contributed to more than 67% of the total frequency of the imports along this trade corridor with a total import value of about $45 million in 2020.

Figure 35 Top 10 informal agri-food imports along the Abidjan-Lagos trade corridor in 2020



Source: CILSS (assessed in April 2021)

4.6 Evidence from the field survey on relevant traded commodities

The intensity and the trade-base of the agri-food businesses have been impacted by the behind borders' measures (see chapter 5 for details). Given the potentials and the endowment of the Member states, the number of the traded agri-food commodities ought to be higher than its current figure and transform into higher valued commodities. Table 13 shows the traded agri-food commodities not covered in the literature as frequently traded commodities within ECOWAS but identified by the field survey respondents; we have excluded those listed among the regularly traded commodities in the literature as depicted in figure 19.

Table 13 The traded agri-food not covered in the literature as frequently traded

Traded commodity			
	Groundnut		Custard
	Corn flour		Beverages
	Irish/sweet potato		Semovita
	Ginger		Beans
	Garlic		Guinea corn
	Watermelon		Cassava flour
	Sesame seeds		Carrot
	Shea nuts		Yam flour
	Tomato		Gum Arabia
	Pineapple		Oranges
	Barley		Soya beans
	Pepper		Banana
	Vegetable oil		Plantain
	Milk		Cabbage
	Poultry products		Cucumber

Source: Field Survey (2021)

In addition to the commodities in figure 19, the agri-food commodities highlighted in table 13 are traded by the agri-businesses and/or firms across the Member states. It could be seen that it includes both foods and foodstuffs which are largely produced and originated within the subregion, except for some products such as milk, poultry, custard, and beverages.

4.7 Agri-food traded by women across ECOWAS borders

The outputs of this study's field survey indicate that the agri-food cross border traders within ECOWAS mostly traded on fruits and vegetable commodities that are basically at the micro and small enterprise levels. The report from the field shows that some of the women agri-food traders operate at the subsistence level such that their commodities are transported through motorcycles, bicycles and even sometimes use their heads for those who live close to the borders. The closure of Nigerian land borders has increased the number of agri-food traders using heads, bicycles and/or motorcycles to transport their wares across borders. The kind of agri-food commodities traded across the borders is shown in table 14. Many of them are crude agri-food but some processed agri-food products such as dried fish, yam flour, canned tomato, etc.

Table 14 Agri-food traded by the women across the ECOWAS borders.

	Commodity		
	Fish - processed		Watermelon
	Local rice		Canned tomato
	Beans		Poultry
	Coconut		Apple
	Cowpea		Yam
	Palm oil		Maize
	Orange		Groundnuts
	Cabbage		Carrot
	Onion		Lettuce
	Pepper		Banana
	Plantain		Garlic

Source: Field survey (2021)

5 Factors hindering Intra-ECOWAS trade

In this chapter, information on factors hindering intra-ECOWAS trade is collected. Starting with providing information on the importance of factors that hinder intra-ECOWAS trade, the subsequent sections then deals with tariff barriers, non-tariff measures and trade costs along formal and informal trade corridors. This is then followed by a look at agricultural trade finance gaps and issues of common ECOWAS quality standards and quality infrastructure.

5.1 Importance of factors that hinder intra-ECOWAS market access

The scoping of the trade barriers that are associated with the Intra-ECOWAS trade shed light on the intricacies in the trade policy across the Member states and the economic group. An evaluation of the trade policy measures across the countries and across the formal and informal trade corridors that inhibit the flow of agri-food trade within the subregion is carried out in this study. The review presents a complex situation of the behind the border measures where the Member states deviate from the ETLS protocol to entrench the national treatment for the protection of national firms.

Table 15 The intra-ECOWAS market access hindrances to the agri-food sector, by importance

	Market access hindrances in the agri-food sector		
1.	Protective Tariffs	2.	Heterogeneous Standards Requirements
3.	Burdensome Customs Procedures	4.	Inadequate Application of Equivalent Principle
5.	Weak Institutional Enforcement	6.	Rules of Origin
7.	Agencies Duplication of Functions	8.	Trade Licenses
9.	Homogeneity of agricultural export commodities	10.	Non-existence of Dispute Settlement
11.	Poor Infrastructure	12.	The preponderance of Safeguard Measures
13.	Compliance Certification Difficulties	14.	Incidences of Anti-dumping and Countervailing Measures

Source: Kareem (2019a)

Table 15, based on Kareem (2019a), represent a generic behind borders' challenges to agri-food trade that impact the magnitude of the intraregional agri-food trade. It shows, that tariffs were still imposed on some agri-food, despite the regional trade liberalisation agreement(s) among the countries. Besides, the agri-food trade had been inhibited by the disparity in the SPS requirements and application of the equivalent principle, duplication of duties of the agri-food regulatory agencies, burdensome customs procedures, etc., (table 15).

Some concerns are often raised, and disputes occur in some circumstances across Member states in the implementation of trade policy measures, i.e., in late 2019, Nigeria shut its land borders against neighbouring countries in the north – Niger, Mali – and in the south – Benin, Togo and Ghana. The non-existence of dispute settlement institutions prolonged the problem, although four of the land borders have been reopened because of the diplomatic discussions among the

countries. The negotiations continue; however, the border closures have been impacting agri-food trade among the countries,[38] particularly for the women agro-business and farmers that constitute the bulk of the traders.

5.2 Tariffs in intra-ECOWAS trade

In principle, by the provision of the ECOWAS treaty, revised treaty and ETLS, the agri-food commodities' trade within the subregion should be duty-free. However, this rests on the assumption that the agri-food commodities traded are originated and/or produced within the subregion. In practice, some of the traded agri-food commodities within the subregion were imported from third countries[39]. The non-compliance to the ETLS protocol and the revised ECOWAS treaty on the agri-food origin and the national treatment in the Member states have made the imposition of tariffs unavoidable and in contradiction to the ECOWAS agricultural policy (ECOWAP) that tends to harmonise the Member States' agricultural policies.

Table 16 presents the bilateral tariffs on the traded agri-food intersection commodities (as shown in figure 22) for the top 3 importers and their trade partners.

[38] See West African traders seek end to Nigerian border closure (oakmarkglobalvision.com)
[39] See Kareem (2019b), Torres and van Seters (2016).

Table 16 The bilateral agri-food trade tariffs matrix

Product	Exporter	Cote d'Ivoire			Ghana			Nigeria		
	Importer	**2003**	**2013**	**2019**	**2003**	**2013**	**2019**	**2003**	**2013**	**2019**
Cassava	B/Faso	-	-	0	-	-	-	-	-	-
	Gambia	-	-	-	18	-	-	-	-	-
	Niger	-	-	-	20	-	-	20	20	-
Product	**Exporter**	**Ghana**			**Guinea Bissau**			**Senegal**		
	Importer	**2003**	**2013**	**2019**	**2003**	**2013**	**2019**	**2003**	**2013**	**2019**
Fish	B/Faso	-	10	-	-	-	-	-	-	0
	CIV	10	-	0	10	0	0	10	0	0
	Togo	10	10	0	-	0	0	10	0	0
Product	**Exporter**	**Cote d'Ivoire**			**Ghana**			**Togo**		
	Importer	**2003**	**2013**	**2019**	**2003**	**2013**	**2019**	**2003**	**2013**	**2019**
Palm oil	B/Faso	-	0	0	-	12.08	0	-	0	-
	Mali	-	-	0	-	-	0	-	-	0
	Senegal	13.75	0	0	7.5	12.08	0	20	0	0
Product	**Exporter**	**Cote d'Ivoire**			**Ghana**			**Togo**		
	Importer	**2003**	**2013**	**2019**	**2003**	**2013**	**2019**	**2003**	**2013**	**2019**
Sunflower seed oil	Benin	-	-	-	-	20	-	-	0	-
	B/Faso	-	0	0	-	-	-	-	-	-
	Mali	-	-	0	-	-	-	-	-	-

Source: computed from the World Integrated Trade Solution (assessed in January 2021).

Agri-food trade tariffs were imposed in some bilateral trade relations in the subregion as could be seen in table 16. For instance, Niger imposed 20% tariff rates on cassava imports from Ghana and Nigeria in 2003 and 2013, while the Gambia imposed 18% tariffs on Ghanian cassava imports in 2003. A perusal of the larger bilateral agri-food trade tariffs data[40] indicates that there was a prevalence of tariffs on some traded agri-food commodities in the subregion despite the provision of the ETLS. It is also discovered that the bilateral agri-food trade within the context of WAEMU often was tariff-less, while the non-WAEMU countries got tariffs. However, the post-2016 trade period shows that agri-food trade tariffs for the bilateral trade relations in all the agri-food commodities in figure 22 were duty-free. The implication of the recent duty-free among the Member states is that the ETLS protocol is being assimilated and comply with, which among other factors is due to the global commodities crisis since 2016, food insecurity and pressure from the commission for the domestication of ECOWAP.

[40] This is not shown in the report but be assessed on demand.

5.3 Non-tariff measures in intra-ECOWAS trade

The ETLS protocols and regulations made provisions for the harmonization of certain documents' requirements for the trade within the economic group, especially as provided in section II which deals with the protocols and regulations. Table 17 provides a summary of the harmonised trade documentation for trading activities within the economic community.

Table 17 Summary of the Required Documents for ECOWAS Trade

Purpose	Required Documents For Regional Trade
For movement of persons	Residence card
	Immigration/emigration forms
	Passport
For transportation	Inter-state road transit (ISRT)/transport permit
	Haulage/vehicle/truck roadworthiness
	ISRT convention guarantee – surety or bond – multiple or single transit
	Road transit vehicle agreement certificate
	Road transit container agreement certificate
	Transportation size requirement
	Bond guarantee
	Licence plate
	Drivers' licence
	Brown card
	Vehicle Inspection Certificate
	ISRT Logbook Carnet TRIE
	Container seal
	Container Certificate
	Axle/load limit requirements
	Vehicle Standard/ Haulage/truck roadworthiness
	Customs clearance booklet/importation or exportation voucher
	License plate – front and rear, ISRT, national or ECOWAS plates
Products	Certificate of origin
	Customs and statistics nomenclature
	Sanitary and Phytosanitary inspections

Source: own compilation based on ECOWAS (several publications)

The traders and transporters that are citizens and operating their trading business within ECOWAS need to possess travelling documents as stated in table 17. The transportation of agri-food across the Member states requires the inter-state road transit (ISRT)/transport permit to be able to pass through; haulage/vehicle/truck roadworthiness that shows the fitness of the haulage; the road transit container agreement certificate; the transportation size requirement, i.e. the breadth, length and height; the axle or load limit of 11.5 tonnes; the license plates and logbook; the ISRT convention guarantee that could be either multiple or single transits. The haulage insurance is required in the form of the 'Brown Card', in case of any risks associated with goods transportation. The main documents required for the movement of agri-food across the borders are the certificate of origin if the commodities do not comply with the provision of Article 6 and 10, section II of the ETLS protocols; the certification of SPS inspection that confirm the food safety of the commodities.

Furthermore, the ETLS protocol allows the Member states to apply national rules, particularly on norms and quality, together with the trading documents agreed upon within the purview of ETLS. The country-specific trade policy measures that are imposed or required to trade agri-

food in the Member states over the requirements in table 17 is presented in appendix 9.2. It could be seen that there are sometimes differentials in the documents required to trade across Member states, especially in the specificities of the documents, i.e., the axle/haulage tonnes limit, the roadworthiness of the means of transportation, etc. Moreover, Burkina Faso, Ghana, and Nigeria have the most documents requirement, while many of the Francophone countries have similar and stringent requirements.

5.3.1 Evidence from ITC NTM Business Survey

The procedural and regulatory bottlenecks caused by the NTMs to the trade intensiveness and extensiveness of the Agri-business community had been surveyed by the International Trade Centre[41], which currently covers 4 countries in ECOWAS[42]. Besides, the primary data provides information on the occurrence and the extent of the burden of the NTMs.

The survey for **Burkina Faso** was conducted in 2010 and it covers 107 trading firms, out of which 51.4% are agri-food businesses (ITC, 2011). About 64% of the 55 agri-food exporters were affected by NTMs, while 44% of the 18 agri-food importers reported NTMs as challenges. More than 27% and 8% of the 62 export NTMs as well as 7% and 87% of the 15 import NTMs originated from the ECOWAS and the home country, respectively. Among the export NTMs hindrances to agri-food trade, the conformity assessment contributed about 65%, charges and taxes got 11%, the technical requirement had 10%, the export-related measures and rules of origin recorded 8% and 6%, respectively. However, the pre-shipment inspection and other entry formalities, as well as the conformity assessment, accounted for 40% and 33% of the import NTMs, respectively, while technical regulations were 7%. In terms of the export NTMs compliance challenges; regulatory delay or time constraints contributed 35%, the administrative bottlenecks had 24%, while the informal regulatory barriers such as unusually high charges and officials' behaviour accounted for 27%. However, the informal regulatory obstacles contributed to the bulk of import NTMs compliance problems with 40%, while the time constraints and the administrative barriers had 20% and 30%, respectively.

The ITC (2014a) reported an NTMs survey in **Cote d'Ivoire** 2012 that covers 587 firms, out of which about 43% are agri-food businesses – 129 exporters and 61 importers. About 63% of the agri-food exporters are impacted by the NTMs-related obstacles, while it was 72% for the agri-food importers. ECOWAS and the national export NTMs challenges accounted for 11% and 28%, respectively, while the national import NTMs contributed to all obstacles. The agri-food exporters largely faced SPS-related challenges such as the conformity assessment (30%), pre-shipment inspection (20%), certificate and rules of origin (14%); while the export-related measures had 28%. The agri-food importers faced the NTMs burden mainly from the pre-shipment inspection (57%), conformity assessment (15%) – SPS-related barriers – others such as quantity control, taxes and charges, financial measures, etc. These trade barriers to the agri-food traders were due to the restrictiveness of the NTMs and procedural bottlenecks – 99% and 97% of which nationally caused for exporters and importers, respectively. Time constraints and informal payment contributed more than 70% of the NTMs procedural bottlenecks for the agri-businesses.

[41] See NTM Survey Data | NTM BUSINESS SURVEYS (intracen.org)
[42] The countries covered are Burkina Faso, Cote d'Ivoire, Guinea and Senegal.

In the field survey conducted to ascertain the effects of NTMs on Guinean agri-food traders by ITC (2015a), a total of 331 firms were covered, out of which 138 were trading firms. Over 96% of the 138 trading firms were agri-food businesses – 82 agri-food exporters and 52 importers. Almost all the trading firms of agri-food products (96%) had adverse effects of NTMs. There were 253 incidences of export NTMs that were largely imposed by the ECOWAS trade partners (42%) and at the domestic level (35%), while 57 incidences of import NTMs were recorded that were almost domestically impose, 98%, which implies that the agri-food products faced more market access restrictions at national and subregional levels. The agri-food exporting firms were confronted with the challenges of conformity assessment (32% of the NTMs incidences), exported-related measures (35%), taxes and charges (17%), pre-shipment inspection (9%), technical requirements (6%), etc. For the importing agri-food firms, the NTMs incidences came from taxes and charges (47%), pre-shipment inspection (30%), technical requirements (7%), etc. The firms reported the stringency and the procedural bottlenecks of these NTMs had adverse effects on their trading intensity and potentials. About 89% of the procedural bottlenecks were from the national level for the exporters, while it was 100% for the importers.

The **Senegalese** NTMs field survey included 116 exporting firms from the 260 firms covered, while more than half the exporting firms were engaged in agri-food businesses (ITC, 2014b). More than 59% of the 59 agri-food exporting firms and 51% of the 43 of the importers have encountered market access restriction due to the NTMs, which were 252 incidences for the exporting firms imposed by the OECD countries (67%), more than 23% imposed at the domestic level and 4% from the ECOWAS trade partners. All the NTMs incidences (93) to importing agri-food products were imposed by the Senegalese government, which came from the pre-shipment inspection requirements (31%), taxes and charges (33%), the conformity assessment and technical requirements had 11% and 8%, respectively, etc. However, for the export, NTMs were largely related to food safety requirements – the conformity assessment and technical requirements contributed 47% and 22% of the NTMs incidences, respectively; were restrictive and had procedural bottlenecks to comply with.

The main information from the survey of agri-food trading firms in the four Francophone countries is that the technical measures – SPS-related requirements - of the NTMs are trade barriers that hinder agri-food trade flows. The challenges of the SPS measures were due to the inadequate quality infrastructure and the high costs of obtaining NTMs information in the subregion. Besides, in the process of complying with these measures, the compliance procedures involve some difficulties that are induced by official and unofficial bottlenecks.

5.3.2 Evidence from the field survey

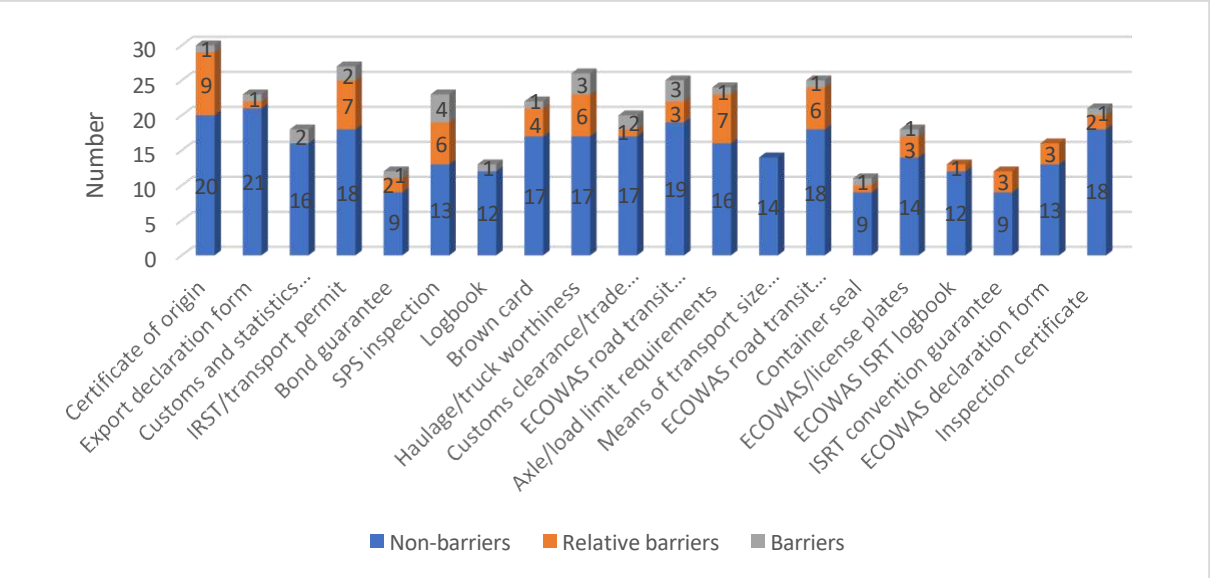
The traders and transporters plying these formal trade corridors are required to present the necessary documents, especially those harmonised at the ECOWAS level, (see table 17). However, the documentation in table 17 might not be sufficient to access the destination markets because each Member state also has its national requirements that must adhere to before accessing the market. Section 9.2 in the appendix presents country-specific Intra-ECOWAS required documents and/or market access measures that the agri-food traders/transporters are expected to possess in addition to those in table 17.

The extra-layers document requirements and measures for compliance often serve as hurdles for agri-food crossing many borders with the heterogenous trade policy measures. However,

beyond the measures required in tables 17 and section 9.2 in the appendix; the responses from the field survey indicate that more measures must be complied with before the agri-food access the market.

The field responses show that compliance with the required trade documentation in table 17 does not constitute a barrier to the responding (about 67%) agri-food intra-ECOWAS traders/transporters (see figure 36). This implies that though the harmonised trade policy measures for the intraregional trade within the economic group are difficult to comply with for some agri-food traders/transporters, the access to information on the requirements had made compliance easier for many cross-border operators/actors. However, complying with these measures or regulations is a necessary condition. They do not guarantee market access without compliance to Member states norms and quality requirements as entrenched in the ECOWAS TLS protocols and regulations, especially as provided in Articles 6 and 10 therein.

Figure 36 Responses on the impact of the trade documentations



Source: Field survey (2021)

Furthermore, the country-specific additional trade policy measures and regulations are sufficient conditions for the market access, but it involves high compliance costs, extortions – especially for the uneducated agri-food women traders – delays, harassment, etc. that impact the perishability of the agri-food. Moreover, the perishable commodities are not given concession at the borders considering the nature of commodities. The extra-layer measures and trade documentation that the agri-food traders and/or transporters faced are highlighted in table 18. Although the respondents listed all applicable cross border agri-food trade policy measures, we excluded those that were stated earlier in the previous review in tables 17 and section 9.2. in the appendix and include the applicable regulations that are different from those reviewed. Hence, table 18 presents the measures that excluded the agri-food trade documentation earlier mentioned.

Table 18 Additional agri-food trade-related documents required in Intra-ECOWAS trade from respondents' perspective.

Purpose	Required Documentation
Trader	Trading certificate
	Merchant card
	Declaration to the Chamber of Commerce
	Repatriation form
	ETLS certificate
	Fisherman card
	Forestry certificate
	Vaccination certificate
	Fitness certificate
	Health Yellow Card
	Business certificate
Transportation/Logistics	ECOWAS load agreement certificate
	Bond guarantee
	Vaccination certificate
	Vehicle registration
	Consignment notes
	Waybill
	Transporter insurance
	Logbook
Agri-food	Phytosanitary certificate
	Invoice
	SPS certificate
	Customs clearance permit
	Produce clearance certificate – quarantine
	Quarantine administration
	Produce inspection certificate
	Export declaration form
	Import declaration form
	Export license
	Import license
	Health certificate
	Fumigation certificate
	Packaging and labelling
	Food supply safety precaution
	Import processing documents

Source: Field survey (2021)

Aside from the agri-food traders/transporters' identification documents requirement covered in the section that reviewed the trade documentation, the surveyed agri-food traders/transporters listed 11 more documents that are required from them before they could do any transaction and/or cross the borders. The implication of this is that holding an ECOWAS passport is not sufficient to engage in agri-food across the Member states, though the cross-border movement is guaranteed. Prominent among the documents that can ensure agri-food trade is the permission to trade which is infused in the trading certificate, merchant card and ETLS certificate. However, the validation of the health status of traders/transporters is also required through the yellow card and vaccination certificate. Besides, the transporters requested to hold an insurance policy certificate, especially against accident, the truck/haulage must be registered, show the

logbook and waybill. The traded agri-food commodities must comply with some heterogeneous measures in the Member states trade corridors before getting to the destination, particularly the food quality and health measures such as the sanitary and phytosanitary certificate, quarantine administration, produce inspection certificate and fumigation certificate. The imposition of these measures is at the discretion of the Member states and mostly they add to costs of trading and compliance; hence, they are trade inhibiting and/or barriers.

Moreover, the respondents also identified official and unofficial price trade policy measures that are trade-restrictive to their agri-food Intra-ECOWAS trade. There is still the prevalence of levies and customs duties on the traded agri-food commodities across the Member states, while non-originated agri-food attracted between 20%-35% tariffs. This among others is due to the non-compliance of most of the traded agri-food commodities to Article 2, 3, 6 and 10 of the ETLS protocols and regulations. The value-added and income taxes are also paid by the traders/transporters and some other charges as deduced from the survey responses. This output affirmed the findings of the ITC (2011), ITC (2014a), ITC (2015a) that gave credence to the prevalence of taxes and other charges on agri-food commodities across some selected countries. More so, the respondents reported unofficial payment to obtain the necessary documents for agri-food trading. The survey outputs indicate that there are quantitative restrictions for some commodities such as livestock, cassava, poultry, and many commodities on transit. There is the outright ban of rice, poultry – in Nigeria – vegetable oil, canned tomato, raw coffee; voluntary export restrictions for palm oil, maize, and the subsidised agri-food commodities. Also, the proliferation of armed groups, militias, kidnappers, and Boko Haram has led to additional costs to the traders because these groups extort and force them to part with their money before they could transport the commodities through their domain. Sometimes, the traders/transporters are kidnapped, for which they paid the ransom; and for the livestock dealers, they often got their herds rustled. Thus, insecurity has become one of the main concerns and barriers confronting agri-food traders/transporters in the subregion.

Therefore, the evidence from the trade barriers mapping indicates that insecurity has become a major threat to agri-food trade in the trade corridors[43], specifically those among Nigeria (northern part), Niger and Mali. Besides, there are the challenges of **heterogeneous regulations** concerning the axle/vehicle/haulage load weight limit, ISRT/Carnet TRIE, road transit permit and authorisation, export license permit, exporters' registration, etcetera[44], all of which add to the cross-borders food supply costs and lead to food wastes. Also, there are trade barriers such as the outright ban and/or import prohibitions of some agri-food commodities and export restrictions, particularly in Nigeria. More so, there are quantitative and seasonal restrictions for some agri-food trade, especially on cotton import to Ghana, Mali, and Niger. Furthermore, the **certification requirements** of phytosanitary, conformity assessment, fumigation, pre-shipment

[43] The affected trade corridors are Kano-Niamey; Kano-Bamako; Abidjan-Ouagadougou-Niamey; Dakar-Abidjan; Lomé-Niamey and Niamey-Ouagadougou – where there are the nefarious intensive activities of kidnappers, herds rustlers, bandits, ethnic and religion militias such as Boko Haram, ISIS/ISIL, etc. Similar evidence was shown in Torres, C. and J. van Seters (2016). Overview of trade and barriers to trade in West Africa: insights in political economy dynamics, with particular focus on agricultural and food trade. European Centre for Development Policy Management Discussion Paper No. 195, July.

[44] See also West Africa Trade Hub (2009). ECOWAS market integration: Gap analysis. West Africa Trade Hub Technical Series No.33.

inspection, import quality, plant quarantine, veterinary, laboratory test and health[45]; serve as trade hindrances in some borders – particularly in Burkina Faso, Ghana, Nigeria and Togo – in the subregion. Also, there is harassment at some trade corridors by the representative of the institutions at the borders, law enforcement agencies and rent-seeking individuals which are impacting the agri-food cross-border trade. Finally, agri-food trade tariffs are still predominant in some agri-food[46] such as millet, palm oil, olive oil, other fixed vegetable fats and oils, groundnut oil, etc. in the Intra-ECOWAS and the world agri-food trade.

5.3.3 Womens' mainstreaming

There is no discrimination against women on the trading documentation required based on the responses from the field survey, however, the interview report indicates that the women were often fidgeting at the point of presenting trade documents at the borders mainly due to their non-conversant/acquaintance with the ETLS, low level of education and training. This creates an avenue for exploitation by the trade regulations enforcement agencies such as the customs, quarantine administration, inspection, and certification officials, etc. and sometimes the women were harassed, part with their money as graft, make unnecessary and informal/unofficial payments. The exploitations through the formal and informal avenues have caused trade barriers that limit the intensity of the women agri-food trade and the number of Member states markets they can cover.

5.4 Additional Trade costs along formal and informal trade corridors

The informality of many of the intraregional trade in Africa has been established (see Malabo Montpellier Panel, 2020; AUC, 2020; Koroma et al., 2017; Bouet et al., 2020). Evidence has shown that most of the intraregional trade is not appropriately recorded in the official trade statistics, given credence to the fact that most of the intraregional trade takes through the informal avenue. The proliferation of informal trade could be traced to the difficulties in doing business due to the stress to obtain trading documentation and compliance with the trading regulations. The difficulties of intraregional trading, especially regarding the burden of obtaining the required documents made the use of informal trade corridors to some traders inevitable, especially the women. There are several informal trading routes in ECOWAS; Nigerian alone has about 1500 illegal borders (Kareem, 2014a). The illegal trade corridors that some agri-food traders/transports ply provide an avenue for exploitation by law enforcement agencies and self/group-oriented rent-seekers. The informal trade corridors are often characterised by insecurity induced by the rent-seekers and the corridors are also used the terrorists, militias and bandits to kidnap and raise funds. The agri-food trade-impeding effect of the informal trade barriers was found by the ITC (2011), ITC (2014b) and ITC (2015a). The studies conducted field surveys in Burkina Faso, Cote d'Ivoire, Guinea, and Senegal to found that the agri-food trading firms often incurred informal payment in the course of trading across

[45] See also Country analysis | NTM BUSINESS SURVEYS (intracen.org) and Torres, C. and J. van Seters (2016). Overview of trade and barriers to trade in West Africa: insights in political economy dynamics, with particular focus on agricultural and food trade. European Centre for Development Policy Management Discussion Paper No. 195, July.

[46] See also the World Bank's World Integrated Trade Solution database, assessed in January 2021. https://wits.worldbank.org.

the borders. In these surveyed countries, there was an informal and unusual payment request from the agri-food traders and discriminating behaviours of the NTMs regulatory officials.

The findings from this study's field survey and the experts' interviews conducted show that there had been the proliferation of informal agri-food trade across the ECOWAS Member states owing to the inability of the agri-food trading enterprises to obtain the necessary trading documents to facilitate intraregional trade. However, the Intra-ECOWAS agri-food trading activities is at the lowest level in Nigeria because of the closure of the borders, given room for the preponderance of the informal agri-food trading across the informal trade corridors and sometimes some formal cross border traders take the informal trade corridors. Although the informal trade corridors ought to be devoid of government trade regulations enforcement agencies, this is not the case as some of the officials of the agencies are there to collect unauthorised charges.

Besides, there are several risks involved in trading along the corridors, among them are insecurity, harassment, and abuse – particularly for women – extortions, bad roads and communication networks, etc.; all these aggravate the trade barriers along the informal trade corridors. Table 19 shows the additional formal and informal trade barriers to the agri-food traders and transporters along the ECOWAS formal and informal trade corridors.

Table 19 Formal and informal additional agri-food trading costs

Cost bearer	Cost burden	
	Formal Trade Corridors	**Formal and Informal Trade Corridors**
Trader	SPS fees	Local council levy
	Income tax	Bribe between $20-100 to obtain documentation
	VAT	Bribe $20-100/perishable food truck
	Inspection charges/fees	
	Customs duties	
	Certification charges	
Transporter	License purchase from agents	Union fees
	offloading/loading hiring costs	Levies and duties at least $100/truck
	Transit fees	Penalty charges/outright seizure
	Union fees	Many barricades
	$100/truck Levies and duties	
	Penalty charges/outright seizure/bribe for exceeding the load limit	
	10-150 checkpoints	

Source: Field survey (2021)

The agri-food traders incurred extra charges in the form of sanitary and phytosanitary fees, certification, and inspection costs at the borders. Moreover, the field outputs and the follow-up interviews indicate that traders pay a certain levy for the locals, make unofficial payments for the traded agri-food per haulage, etc., which are not budgeted and often add to the costs of the transaction. Also, the transporters incurred additional costs – many a time informal payment – especially for exceeding the axle/truckload limit in some Member states, thereby exacerbating their trade barriers.

The findings from the field survey indicate that there are agri-food smuggling activities taking place across the illegal trade corridors, especially in Nigeria due to the land borders' closure, which involves both traders and transporters. According to the field survey done at the beginning of 2021, there is the smuggling of rice and frozen food – banned agri-food commodities – through an informal trade route whose name was not disclosed but called '*no man's land*', which is few kilometres away from the Idiroko border, in Ogun State, Nigeria. The agri-food smuggling is taking place in the identified informal trade route through motorcycles known as '*Okada*' and paid human-head carrier; besides, despite the low trading activities at the Idiroko border at the time of visitation[47], the informal agri-food trade still takes place mainly by transporting the commodities through human-head and '*Okada*'. Also, there

[47] The border was just reopened, and the coronavirus pandemic (COVID-19) measures have also limited economic activities.

are informal rice, vegetable oil and canned tomato trading between Paraku, a village in the Benin Republic, and Irawo, a neighbouring town to Saki, Nigeria. The cars and motorcycles are used as means of transportation for the agri-food commodities in the informal trade between Paraku and Irawo informal trade routes, from which the commodities are distributed across the major Nigerian Southwest' cities. It is also discovered that due to the Nigerian borders' closure and the COVID-19, the informal agri-food trade has sprung in the Lagos-Abidjan trade corridors. This is because the commodities cannot be transported directly from Lagos to Abidjan[48] but to have a stop at the Elubu border in Ghana, from which will be a transition that is an informal arrangement to offload the commodities to another truck going to Abidjan. This has increased the trading time (from 48 hours to 5-7 days), the freights (from < $300 to > $800) and the overall costs of trading. (Source: field survey 2021).

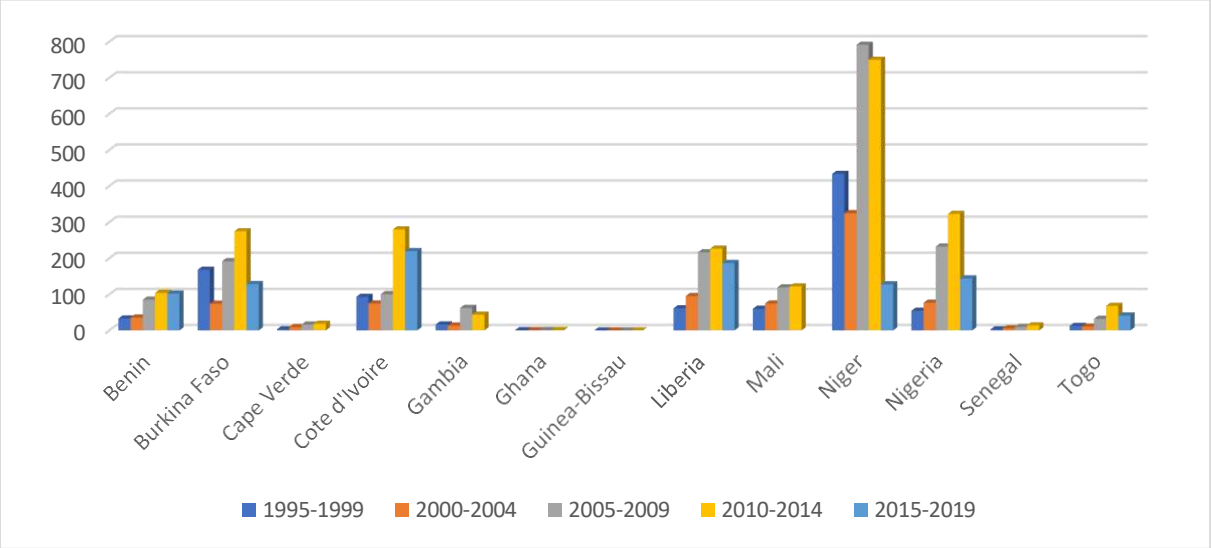
5.5 Agricultural trade finance gaps

5.5.1 Development financing

As the importance of credit to investments and innovations cannot be overemphasised in developed countries, especially in the trading sector, so also the issue of development financing of underdevelopment to developing countries. The issue of agricultural financing has become germane given that the ECOWAS' economy is agrarian. This development financing is essential to stimulate agricultural sector outputs, particularly in the food subsector, for sustainable food production and food security. However, the government expenditure, financing and credit facilities to the agricultural sector are grossly inadequate to expand the frontier of the sector's performance, particularly in agri-food trade. The private agricultural financing portfolios, i.e., the money and capital markets; matching grants and aid are also low and insufficient to enhance the production possibility frontier of agri-food trade in the subregion.

[48] This is because Cote d'Ivoire banned products entering from Nigeria.

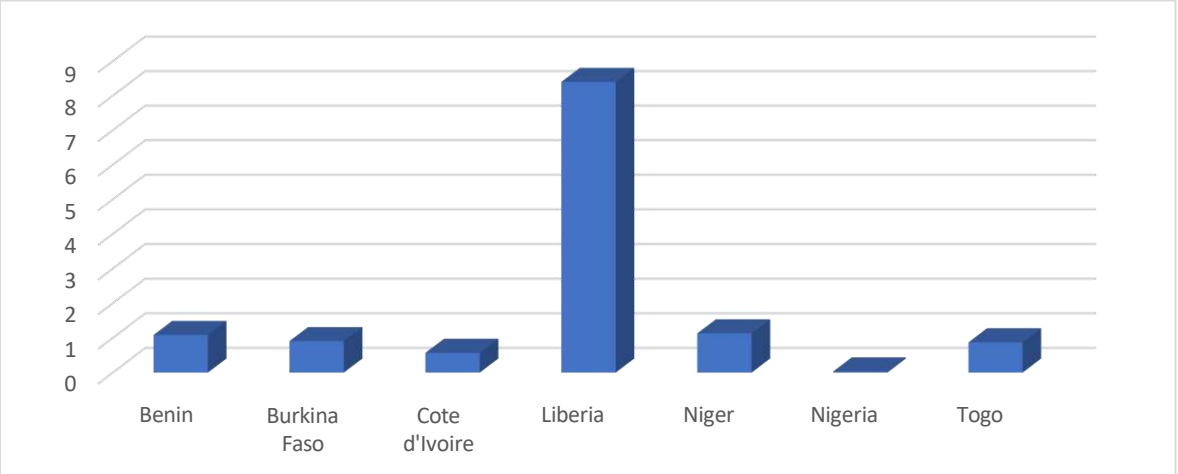
Figure 37 The average government agriculture expenditure ($' Million)



Source: computed from IFPRI (2019)

Figure 37 presents the periodic average of the countries' agricultural expenditure[49] where it is shown that Niger had the largest agricultural expenditure except for 2015-2019. However, for the 2015-2019 period, Cote d'Ivoire had the largest agricultural expenditure with a value of $ 220 million and followed by Liberia with $187 million. It could be seen that the countries had been disbursing a little amount of money to the agricultural sector and this is one of the reasons for the low outputs and commodity diversification. The share of agricultural expenditure in the GDP[50] is the largest for Liberia (8%) and the lowest for Nigeria (0.03%), which implies the poor performance of the agricultural sector in many of the countries (see figure 38).

Figure 38 The share of government agricultural expenditure in the GDP, 2015-2019 (%)

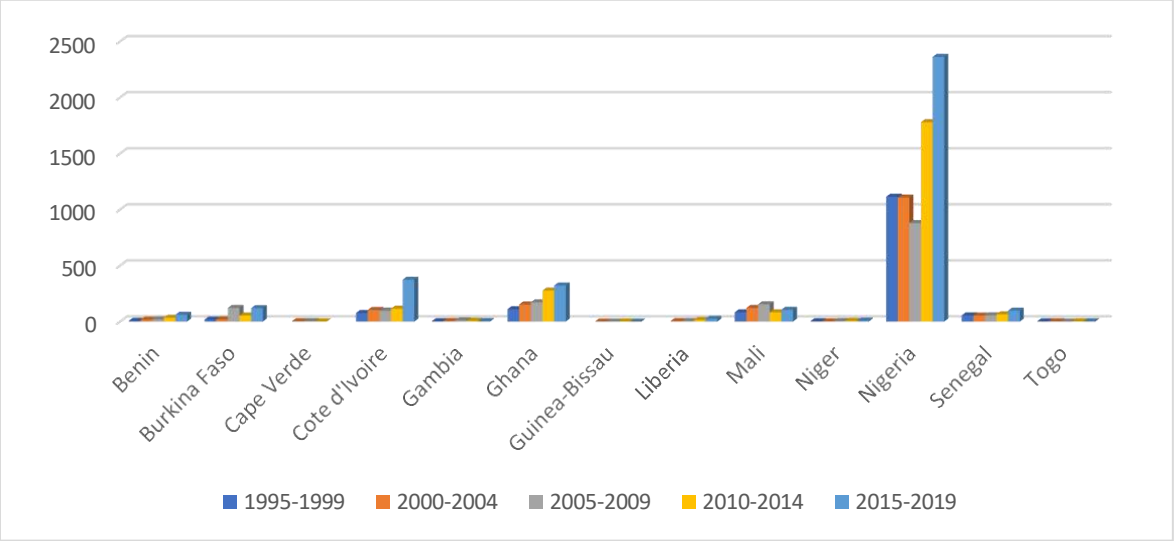


Source: computed from IFPRI (2019) and UNCTADStat (assessed in January 2021)

[49] There is no information for Guinea and Sierra Leone.
[50] Only the countries in figure 25 have information for the period.

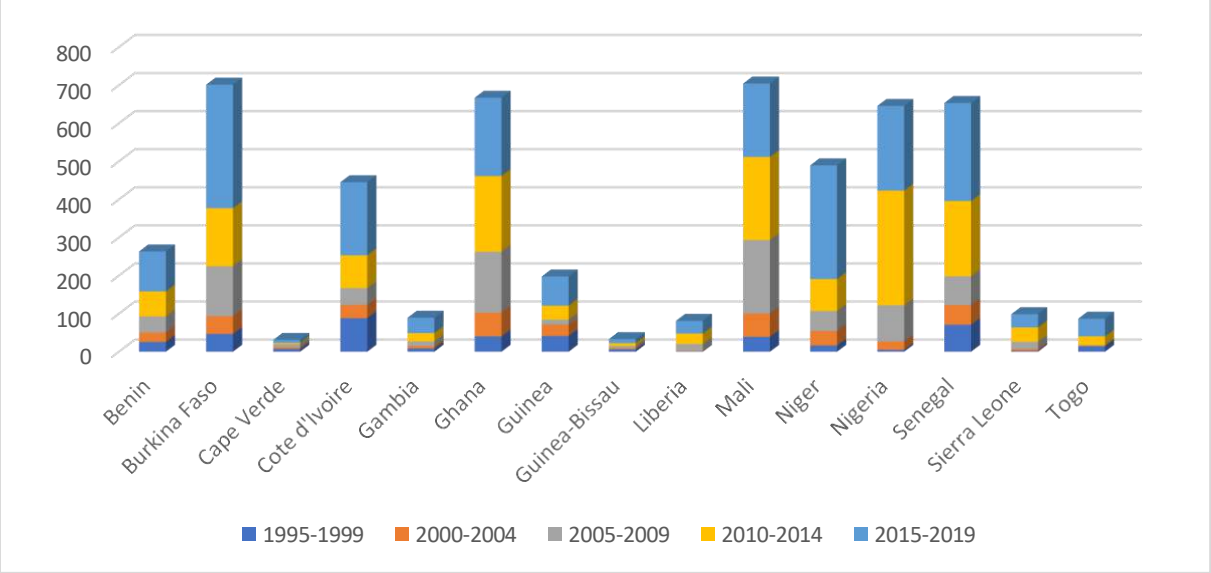
In terms of the credit to the agricultural sector, the Nigerian economy had the highest all through the periods under investigation (figure 39), which could be due to the size of the economy and the more deepening of the financial sector. The other Member states have very limited credit to the agricultural sector. However, a considerable number of the countries received overseas development assistance in these periods; while Mali got the highest in 2005-2009 with $193 million, Nigeria received $301 million – the highest – in 2010-2014 and Burkina Faso had the highest in 2015-2019 with $325 million (figure 40). Although the agricultural sector in this subregion received some ODAs, the destination of the majority is not directly for the food supply chains and/or the agro-traders/enterprises but for the research institutions.

Figure 39 The Average Agricultural Credit ($' Million)



Source: computed from FAOSTAT (assessed in March 2021)

Figure 40 The Average Overseas Development Assistance to the Agricultural Sector ($' Million)



Source: computed from FAOSTAT (assessed in March 2021)

At the ECOWAS level, the economic community has recognised the importance of development financing and has initiated *ab initio* the Fund for Cooperation, Compensation and Development, which later metamorphosed into an international development bank known as the ECOWAS Bank for Investment and Development (EBID). One of the aims of this financial institution is to promote intraregional trade through the support for trade activities and agriculture to ensure food security in the subregion. Malabo Montpellier Panel (2020) report indicates that a Nigerian firm got the sum of $3 million in 2012 to revitalised and upgrade its flour mills. Besides, the Regional Agency for Agriculture and Food (RAAF) was established in 2013 by ECOWAS to finance sustainable agricultural development through the implementation of ECOWAS agricultural policy (ECOWAP) and the Regional Agricultural Investment Policy (RAIP). RAAF is strengthening the capacity of agricultural institutions on strategic direction and intelligence, monitoring and evaluation, and trade laws and regulations in Member states. The economic community agricultural financing institutions are meant to stimulate and enhance the food system productivities to reduce food insecurity and increase earnings and employment. The financing initiatives have supported the expansion of food productivities in Member states, which were driven by the cereals subsector's production in rice and maize (Malabo Montpellier Panel, 2020).

5.5.2 Evidence from the field survey

Evidence from the field survey indicates that there have been efforts across the countries in ECOWAS to enhance the development financing of agricultural production and trade. The agricultural finance supply initiatives tend towards increasing funding for agricultural activities, especially food production and trade.

5.5.2.1 Supply-side

The development finance department has been established in Nigeria's Central Bank to finance agricultural and food production and trade. Many countries such as Ghana, Nigeria, etc. have established export and import banks, development banks and agricultural banks to support the agri-food system and create jobs in the sector. Efforts have also been put towards stimulating the agri-food SME loans to many value chains, besides, the Central Banks have made concerted efforts to persuade the money market institutions to direct a certain proportion of their credit/loan portfolios to the agriculturalists, while international institutions such as IFAD and the World Bank have facilities/interventions in this subregion for the agri-food sector. The field report indicates that the agricultural financing efforts have yielded as some finance/loan packages directed towards the SME in the agricultural value chains (see table 20). The Central Bank of Nigeria has introduced the Anchor Borrowers Programme (ABP) in addition to the existing Agricultural Credit Guarantee Scheme; the Ghanaian Export and Import Bank have instituted the CAPEX and agri-trade facilities and guarantee the performance of the agri-food sector. In some of the countries, specific agri-food value chains loans are initiated such as poultry loans, commercial agriculture loans, agri-food processing loans, etc.

Table 20 Efforts and finance packages to improve agricultural trade financing.

Agricultural Financing Efforts	SME finance package
Establishment of the development finance department to finance agri-food.	Trading finance
Grant and aid	Anchor borrowers programme – CBN
Incentives and subsidies	Agricultural credit guarantee scheme - CBN
Ease of accessing loans – lower interest rates and collateral, loan payment period	Agribusiness small and medium enterprises investment scheme
Establishment of specialised finance institutions – EXIM banks, development banks, agricultural banks, etc.	GEXIM's CAPEX facilities, trade finance facilities and guarantee.
SME loans for agricultural value chains	Poultry loans, agro-processing loans, agribusiness, and marketing loans.
Central Banks' regulations of the banks' agricultural loans.	Commercial agri-food loans – CBN
Agricultural interventions' roll-out	Nigerian incentives-based risk sharing on agricultural lending – CBN
IFAD facilities	Millennium Development Authority loans facilities
Banks and microfinance facilities	Banks and microfinance loans

Source: Field survey (2021)

Furthermore, the findings from the field show that there have been some special agricultural finance packages and/or guarantee loans to agribusinesses and marketing. Most of the respondents' report that there is support such as the agricultural insurance provided for the actors in the food system. The findings also show that the financial institutions allocated between 35%-65% of their loan's portfolios to agribusinesses and marketing but they are always not exhausted every financial year[51]. The expert interviews and the responses from the field identified some of the factors that always influence the approval of loans to the recipients (see table 21). Although the report from the field shows that there is no gender bias concerning the recipients of the agri-food financing/loan packages and there were many women loans recipients[52], it is discovered that some factors such as stated in figure 41 inhibit women access to the loans. For instance, the availability of collateral and/or inappropriately fixed assets has been a major hurdle for women to obtain a loan. Given the hindrances to women's loans approval, there are specific agricultural financial facilities targeted at women. Responses from the field survey indicate that the financial facilities are accessible for women either through individual or joint/group application with relative flexible terms and conditions. The conditions require no fixed assets as collateral, personal or group guarantees not needed, the loan protection insurance is at low premiums, however, only a government guarantee is required.

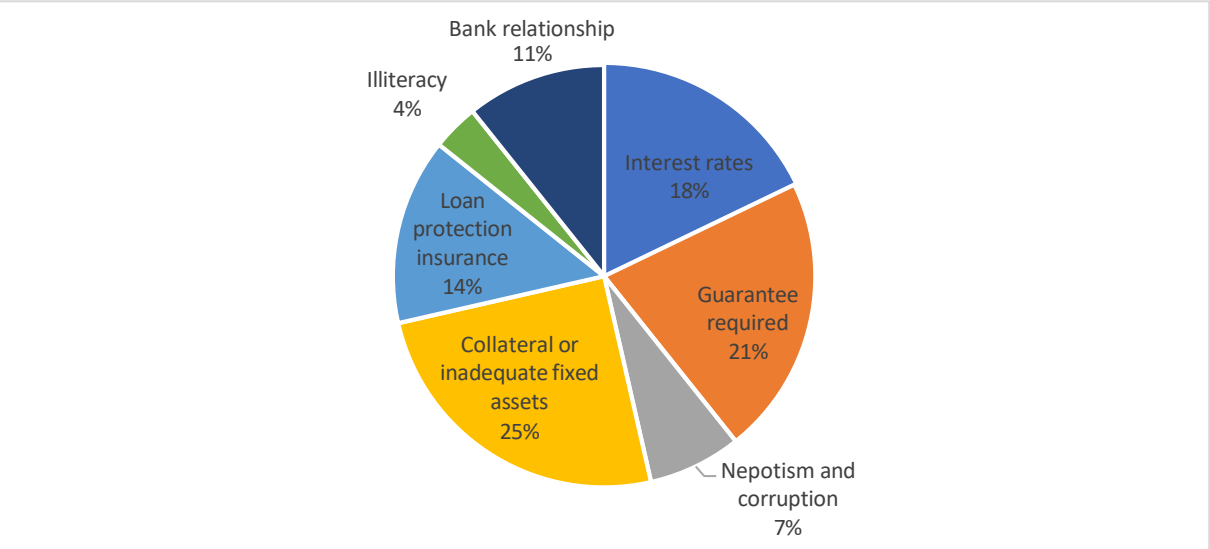
[51] This is due to lack of or inadequate collateral security, poor loans' proposal/business viability, etc.
[52] They are in the 31-50 age bracket. We find that age is a determining factor to access agri-food loans for women as majority of the women applicants above 50 years are rejected.

Table 21 Agricultural loans' determinants by importance (in descending order)

No.	Requirements
1	Creditworthiness
2	Bank account
3	Guarantor/collateral
4	Business viability
5	Agricultural insurance
6	Miscellaneous factors – character, capacity, capital contribution
7	Credit history
8	Age

Source: Field survey (2021)

Figure 41 Factors Inhibiting Women Access to Loan Facilities



Source: Field survey (2021)

5.5.2.2 Demand-side

The findings from the demand side of agri-food loans indicate that about 67% of the applicants did not possess the required collateral but still largely believe they possessed the necessary loans documentations. However, their applications are rejected on the account of lack of collateral, guarantors[53], the need to apply as a group of farmers; other non-technical reasons emerge such as the applicants not the banks' customers, inability to give gratification/bribe and poor administrative procedures.

Thus, despite the initiatives and the evolution of some agricultural finance supply portfolios, gaps still exist between the demand and supply of agri-food trade finance/loans. Although some

[53] Two guarantors – who must be government workers – are needed to obtain a loan to purchase a truck.

of the countries such as Cote d'Ivoire, Ghana, Nigeria have made efforts to increase the supply of development finance to the agri-food sector through the establishment of the development bank, agricultural bank, export and import bank, etc., the initiatives are still lacking in countries such as the Gambia, Benin Republic, etc. There have been some improvements in the supply of this development financing, but the key challenge is the accessibility to the credit facilities owing to some of the attached conditions. The gaps between the demand and supply of the agri-food business and marketing loans are largely due to the applicants' inability to secure the appropriate loan guarantors and/or collateral securities and other factors listed in table 21.

5.6 Issues of common quality standards and quality infrastructure

5.6.1 National and regional efforts

Generally, the infrastructure deficiencies have been the bane of sustainable development in the ECOWAS, while the availability of quality infrastructure[54] that can propel international standard products and the facilitation of trade, particularly in the agri-food sector, is conspicuously limited. To overcome the deficiencies in quality infrastructure, the economic community has intervened in the form of the introduction of the West Africa Quality System Programme (WAQSP) in 2014 to support its Quality Policy (ECOQUAL) and the West Africa Common Investment Policy (WACIP). This structured programme is designed to implement the ECOWAS' quality infrastructure system by employing the international traded product policies, standards, regulations, and technical know-how to ensure the production of quality outputs for the intraregional and global trade markets. Its main technical function is to support the implementation of technical regulations, standardisation, conformity assessment, accreditation, certification, metrology and quality promotion policies and the framework for implementation[55]. The WAQSP has since 2018 metamorphosed into the ECOWAS quality agency (ECOWAQ).

Although much still needs to be desired in terms of the provision of quality infrastructure in ECOWAS, the WAQSP/ECOWAQ initiative has moved the subregion from the 'traditional infrastructural level' to a 'take-off stage'. This is due to the platform provided in collaboration with the Nigerian Quality Infrastructure Programme (NQIP) for the regional and international membership and the recognition of Ghana National Accreditation System, Nigeria National Accreditation System, West African Accreditation System, and the ECOWAS Regional Accreditation System. The accreditation bodies have made efforts to enhance the testing and certification of laboratories – accredited institutions – for an increase in product testing and quality assurance to the consumers. The number of accredited laboratories and trained experts is increasing across some countries, particularly in Cote d'Ivoire, Nigeria, and Ghana, which might stimulate healthy and quality products for the consumers. Besides, the national quality policies formulation and official adoption have been supported in 8 Member states by WAQSP to improve the quality product standards, especially for the agri-food commodities. Also, it has stimulated the improvement of food safety infrastructure for testing and inspection laboratories as well as the capacity development of all quality infrastructure actors in the subregion. The

[54] This refers to the relevance and adequacy of the infrastructure that is essential for development of quality traded products.
[55] See Context | ECOWAQ (waqsp.org)

food security monitoring system and enforcement of the SPS measures have been strengthened by the WAQSP under the implementation United Nations Industrial Development Organisation (UNIDO).

5.6.2 Evidence from the field survey

Despite the improvement recorded in the quality infrastructure initiative efforts of ECOWAS through WAQSP, evidence has shown that there are a lot of gaps between the actual and the required infrastructure which necessitate quality upgrading of the agri-food commodities for better access to the markets of its trade partners, particularly the EU and the US. Information from experts' interviews conducted on the quality infrastructure for the agri-food commodities upgrading and market access shows that ECOWAS lacks infrastructure calibration agencies that can produce and/or provide the metrology infrastructure such as humidity, pressure, weight, temperature, volume, etc., needed to ensure and enforce food safety.

Besides, there are a limited number of adequate and well-equipped laboratories to test and inspect the safety of agri-food, thereby encouraging testing and certification abroad that often takes time, i.e., sometimes a year to accomplished. For the few available food safety laboratories, they are entangled with the problem of equipment repairs which are not nationally and regionally feasible, except with little repair capacities in Nigeria and Ghana, while many repairs are taken abroad to the EU and the US. Hence, the more complex the laboratories the less their capacity to do the repairs because it entails the need for quality managers and management to handle the repair effectively. To have quality agri-food outputs for trade, ECOWAS needs metrology infrastructure facilities which can be attained through national or regional calibration or heavy investments in importing the facilities to measure and test the temperature, content and quality of the soil, seeds, water, etc. Although limited metrology laboratories are available that are internationally recognised, their certifications are not internationally recognised. Furthermore, the few accreditation institutions in ECOWAS and the African region are not internationally recognised owing to among others the poor capacity development and inadequate access to quality manpower for the assessment of the testing and inspection laboratories.

The findings from the survey respondents alluded to the experts' interview that the current level quality infrastructure in ECOWAS insufficient for agri-food trade with more than 71% of the responses agreed to it. The top 10 necessary and sufficient infrastructures for quality agri-food trade are identified in table 22, which are classified into soft and hard quality infrastructure requirements.

Table 22 The top 10 agri-food trade quality infrastructure gaps (in descending order).

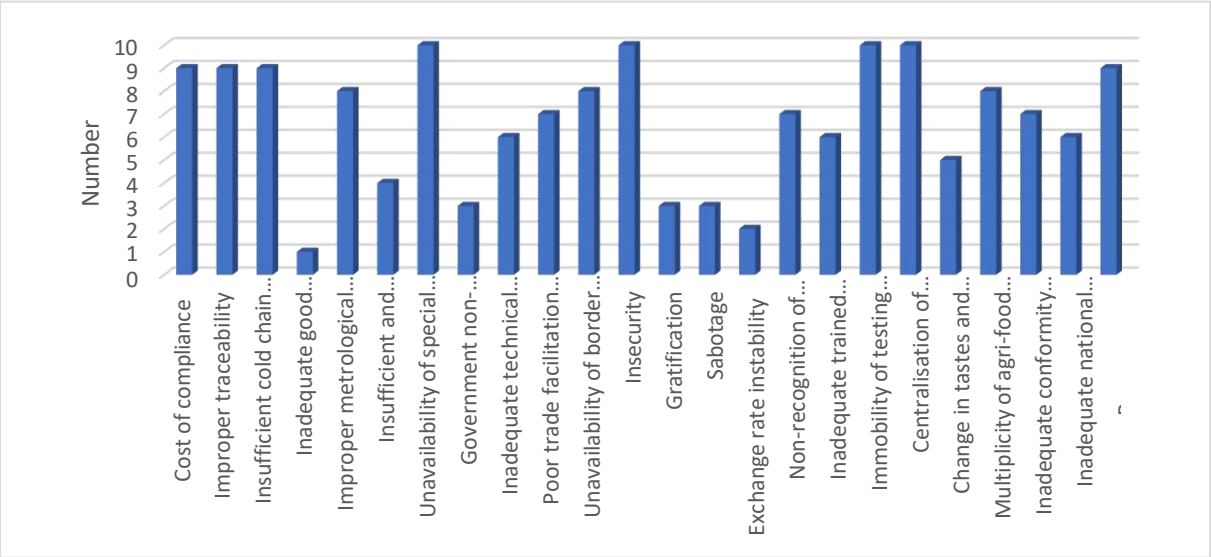
Soft Quality Infrastructure	Hard Quality Infrastructure
Efficient regulatory regime	Accredited SPS laboratories
Accessible standards' regulations	Calibration check facilities
SPS awareness, education, and communication	Metrological laboratories
Traceability facilities	Standard processing unit
National quality policy	Inspection facilities
Capacity development	Process traceability technology
Pesticides/herbicides accessibility	Weighing scale and bridge
Licensed inspectors	Borders' agri-food warehouse
Operationalisation of accreditation bodies	Regional reference laboratories
Trained SPS service providers	Scanners

Source: Field survey (2021)

The hard quality infrastructures require heavy investments that could run into millions of US dollars, which might be expensive for many of the countries. The respondents show that the development of conformity assessment services such as the accredited testing laboratories and the licensed inspectors as well as the legal framework and metrology infrastructure is needed in Cote d'Ivoire, Ghana, and Senegal. More so, the operationalisation of the national quality infrastructure in many of the Member states is facing difficulties, while the main quality infrastructures that are provided at the regional level has not been operationalised, thereby making it difficult to upgrade the quality of the traded agri-food commodities.

Although efforts are being made to overcome the identified gaps in the quality infrastructure for the traded agri-food commodities at the national and regional levels, several hurdles still need to be passed that require government commitments and heavy infrastructural investments. Some of the hurdles or challenges require administrative, governance and/or policy reform for the short-term mitigation, while others could only be overcome in the long run because of development financing involved. The ranking of the importance of the challenges to attaining quality infrastructure is presented in figure 42.

Figure 42 Ranking of the Quality Infrastructure Challenges



Source: Field survey (2021)

The quality infrastructure services are ranked the most challenging for the actors in the agri-food trade in Intra-ECOWAS, particularly for the traders and conformity assessment experts. Besides, the high compliance costs of the conformity assessment service, limited cold chains to the agri-food traders are major challenges, while traceability difficulties and the inadequate technology for the traceability process are issued bordering the regulation enforcement agencies. Poor governance, sabotage and inadequate borders' trade facilitation infrastructures have been identified as challenges to quality infrastructure for agri-food trade. Thus, to overcome the challenges to quality infrastructure, the items in figure 42 must be accomplished stepwise in the short, medium, and long terms.

Furthermore, although there is non-excludability in the provision of quality infrastructure, particularly the hard infrastructure, the inadequate educational level of women put them at the disadvantage for optimal utilisation of the available agri-food quality infrastructure. This impacted the quality of their agri-food commodities traded and the inability to comply with the required regulations, thereby tilting them towards informal trade and inhibiting their trade intensity and the benefits from the Intra-ECOWAS trade. Besides, the inadequate awareness of many traders, particularly women agri-food traders, about the behind borders' measures and the cross-border trade required documentation, affect their market access and exploitation and harassment at the borders. Also, evidence from the experts' interview indicates that most of the technical accreditation accessors, licensed inspectors and SPS service providers are men. Many of the women are putting themselves forward for the economic activities and those that did might be side-lined in the selection processes.

6 Strategic options derived from report findings and stakeholders' workshops

The strategic options are developed to improve agricultural trade and trade policy, quality infrastructure and agricultural trade finance in ECOWAS. The options are targeted towards national policy-makers and the donor community. The strategic options are based on the assumption that either sufficient products to be traded are available or there are trading potentials. The issues of improving domestic processing and value-added are excluded because they are out of the scope of this study but we assume that this is the role of value chain projects. Besides, a central aspect of the strategic options is the role of informal trade.

Overall, the following recommendations for support have been developed:

1. Support the strengthening, implementation and enforcement capacity of ECOWAS Commission and the Member States trade facilitation.
2. Invest in hard and soft quality infrastructure.
3. Support informal trade and traders by facilitating the implementation of the ECOWAS informal trade regulatory support program.
4. Support for gender sensitivity programs and women traders.
5. Improve access to agri-food trade finance, especially for women.

For each of the strategic options, based on the workshops' discourse and the experts' interviews, specific areas of attention have been identified that may be addressed. They are presented in the table below. Furthermore, the following commodities were identified as those that have great potential for trade intensification: Fruits and vegetables, fish, nuts, sunflower seed oil, palm oil, cassava, fisheries, onions, cowpea, cotton seeds, sorghum and rice. Moreover, these commodities are highly relevant for formal and informal trade as well as for women who are involved in the production, processing and/or trading of these products.

Table 23 Elaboration of strategic options

Recommendation/strategic option	Applicable strategic area				Rationale
	Trade facilitation	Informal trade	Quality infrastructure	Agricultural finance	
Strengthen the advocacy, implementation and enforcement capacity of ECOWAS Commission and the Member States: Focus on trade facilitation and norms Specific areas of action that may be addressed: • Transparency of trade rules and regimes as well as sensitisation of cross borders' traders about extant trade regulations and the reporting of change in trade regimes to ECOWAS; • Promote Member states compliance to ETLS protocols, particularly Article 6 & 10 of section II; • Work on concessions and/or less delay for traded agri-food commodities at the borders ("green lanes"); • Improve the Commission's reconciliatory capacity of Member state's regulatory differentials • Encourage digitalisation of trade and customs procedures; • Develop homogenous axle/load limit regulations; • Harmonise and/or increase mutual recognition of SPS standards; • Streamline national norm and quality requirements.	**X**	**X**			Streamline/simplify implementation of rules. Reduce food loss and waiting time at border. Enhance food supply and reduce food insecurity.
Invest into hard and soft quality infrastructure Specific areas of action that may be addressed (in cooperation with PTB): • Provision of agri-food warehouses at the borders; • Address the food supply chains' issues, especially around the marketing of the products: market infrastructure (certification, quality standards, warehouse, testing facilities, etc.), price transparency; • Development and the implementation of the Members state national policy on QI in line with the ECOWAS QI; • Improve human capacities and technical know-how to provide QI services; • Develop professional training curriculum for quality auditors/inspectors; • Support the attainment of more accreditation assessors; • Provide training to border officials to improve the speed of clearance of perishable agri-food.	**X**	**X**	**X**	**X**	Addresses important aspects of trade facilitation and consider the perishable nature of agri-food products

Recommendation/strategic option	Applicable strategic area				Rationale
	Trade facilitation	Informal trade	Quality infrastructure	Agricultural finance	
Support the implementation of the ECOWAS informal trade regulatory support program Specific areas of action that may be addressed: • Improve the database on informal trade; • Facilitate the ease of movement of the subsistence agri-food traders across borders, especially for women; • Consider subsistence agri-food traders in official trade regulations and statistics; • Implement trade policies that allow the recognition of subsistence agri-food cross border traders;		**X**			Improve lives and business of informal traders/women
Support women traders and sensitivity (collaborate with women organisations, for example the ECOWAS Women and Children Centre based in Dakar) Specific areas of action that may be addressed: • Work with women groups (with respect to education, training, information sessions, knowledge on marketing and quality issues); • Promote women-related agri-food trade facilitation regulations; • Train border officials on implementation of rules and sensibilise them of the relevance/facilitation of gender-sensitive cross-border trade.	**X**	**X**	**X**	**X**	Improve lives and business of women traders Recognises importance of women in agri-food trade
Improve access to finance (collaborate with trader associations, for example the West African Assoociation of Cross-Border Trade AOCTAH-WACTAF) Specific areas of action that may be addressed: • Develop and implement a special development financing option for the intra-ECOWAS agri-food cross border trade; • Banking sector's strengthening: safe money transfer; • Member states should incorporate agricultural finance into capital markets; • Better address special needs regarding collaterals, e.g. seasonality of harvests; • Develop microfinance groups for women (in cooperation with KfW?); • Develop special finance instruments for women traders (in cooperation with KfW?).				**X**	Improves life and business of informal traders/women

Source: own compilation.

7 Conclusion

The importance of the issue of intraregional trade, especially in agri-food, to the development aspirations of Member states, particularly in ECOWAS, cannot be overemphasised. Besides, intra-ECOWAS trade in agri-food could reduce food insecurity, poverty and unemployment as well as expand the frontier of the food system. The disruption to agri-food trade flows through the implementation of trade and domestic policies that are detrimental to the trade flows will inhibit the benefits associated with the intraregional agri-food trade.

The intra-ECOWAS agri-food trade is increasing and will continue to increase 'subsistently' and/or at the micro and small enterprise levels, though the official trade statistics indicate it is low, however, more of the agri-food trade takes place informally and undocumented. The proliferation of informal agri-food trade within ECOWAS is due to the preponderance and the heterogeneity of the Member states' trade policy measures on traders/transporters and the traded agri-food commodities. Besides, the inadequate capital, food safety and quality challenges, difficulty in trading document compliance and doing business, etc., are other reasons for the informal cross border agri-food trade proliferation. To expand, improve and support intra-ECOWAS agri-food trade and trade policies, the ECOWAS Commission, Member states and development partners/donor community need to reexamine the trade pattern and structure, update their understanding of the agri-food trade flows and the associated trade barriers. Moreover, it is essential to know the agricultural finance gaps that are hindering this trade flows and the quality infrastructural gaps that impacted the traded food safety.

The strategic options to enhance intra-ECOWAS agri-food trade that emerged from this study are: first, implementing, strengthening and enhancing the ECOWAS and Member states trade facilitation through harmonisation of the axle/tuckload limit regulations, haulage/truck roadworthiness, transportation size requirements and permit, vehicle inspection certificate, customs and statistics nomenclature, sanitary and phytosanitary certificates which are applicable to the trade facilitation and informal trade strategic areas; second, investment in the soft (such as accredited accessors, licensed inspectors/trained SPS service providers, national quality infrvstructure policy, facilities for traceability and the operationalisation of the accredited bodies) and hard quality infrastructure (such as accredited SPS laboratories, calibration, metrology laboratories, regional reference laboratories and inspection facilities) that are applicable to the strategic areas of trade facilitation, informal trade, quality infrastructure and agricultural finance; third, the implementation of the ECOWAS informal trade regulatory support programme; fourth, support for the women traders and sensitivity – cross cutting issue for trade facilitation, informal trade, quality infrastructure and agriculture finance – finally, the improvement in the access to agricultural finance.

The ongoing Covid-19 pandemic has shown not only the importance of regional trade but also the problems that result from globalised and closely integrated societies. Nevertheless, isolating economies from each other cannot be the path for the future. Functional regional trade serves as a tool for risk reduction because the options to buy and sell supplies become more available and to generate income. This is an important feature in an uncertain future with climate change where the probability of natural disaster and multiple types of crises is likely to increases. Regional integration and collaboration may support to overcome this uncertainty and enhance

agri-trade flows, promote economic recovery, and contribute to food security and livelihood of many people.

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9 Appendix

9.1 Questionnaire of the field survey

Important Instruction

Please note that some sections of the questionnaire might not apply to you. Section 1 applies to all respondents. If you are an expert from the international, regional or national institution, please fill in sections 2.1 and 4. However, if you're a trader or transporter of agri-food commodities, please fill 2.2, 3.3 and 4.0, while if your financial expert is from the international, regional or national institution, please fill section 3.1; financial expert from a private financial institution, please fill section 3.2. The quality infrastructural expert should fill section 4.

1. Basic information of Respondents

Name of respondent……

The organisation of respondents……...

Contact email of respondent……

	Information	Applicable	Check (X) as appropriate
1	Gender	Male	
		Female	
2	Age bracket/group	18 – 30	
		31 – 50	
		>51	
3	Type of trade corridor	Formal	
		Informal	
4	Name of the trade corridor		
5	Name of countries in question no.4		
6	Border post and country		
7	Job description (the type of economic activity)	Trader	
		Transporter	
		Institution	
		Finance expert	
		QI expert	

2. Mapping Trade Barriers

2.1 Institutions/Regulatory Agency

- What trading documents are required for agri-food traded commodities across the borders?
- What are the requirements from the transporters of agri-food commodities across the border?
- Which documents do the agri-food traders need to produce before being allowed to cross the borders?
- What are the regulatory measures – in terms of food safety standards – that the traded agri-food commodities need to comply with?
- Which other behind the border measures are required for the traded agri-food commodities?
- How long does it take to complete customs procedures at the border?
- Is there any concession or consideration for transporters and traders of agri-food due to the nature of the commodities?
- What are the tariffs on agri-food commodities?
- Are there additional duties and/or border prices paid by agri-food traders besides tariffs?
- If yes, what are they?
- Are there any existing quantitative restrictions or quotas on any agri-food commodities?
- If yes, in which agri-food commodity?
- Are there any voluntary agri-food export restrictions?
- If yes, in which agri-food commodity?
- Which of the agri-food products are banned?
- What are the main traded agri-food products across the borders?
- Which agri-food commodities are often traded by women across this border?

2.2 Traders/Transporters

- What kind of traders are you? Small, medium, large?
- What are the main traded agri-food products across the borders?
- Are your traded agri-food commodities subject to tariffs?
- Are there quantitative restrictions/quotas to the traded agri-food? If yes, then state……
- How long does it take to complete customs and immigration procedures at the border?
- Which agri-food commodity do you trade and/or transport across the borders?
- Are there any banned or restricted agri-food commodities? If yes, in which agri-food commodity?.....
- Do you still trade or transport the banned or restricted agri-food commodities?
- Which of the following non-tariff/behind the border measures are imposed on or required for agri-food at the border?

Tick as appropriate and rank according to importance (1=the most important, …., to the end).

		Tick	Importance	Restrictive
1	Certificate of origin			
2	Export declaration form			
3	Customs and statistics nomenclature			
4	Inter-state road transit/transport permit			
5	Bond guarantee			
6	Sanitary and phytosanitary inspections			
7	Logbook			
8	Brown card			
9	Haulage/truck roadworthiness			
10	Customs clearance booklet/importation or exportation voucher			
11	Ecowas road transit vehicle agreement certificate			
12	Axle/load limit of11.5 tonnes requirement			
13	Means of transportation size requirement – length, breadth and height			
14	ECOWAS road transit container agreement certificate			
15	Container seal			
16	License plate – front and rear, ISRT, national or ECOWAS plates			
17	ECOWAS ISRT log book – carnet TRIE			
18	ISRT convention guarantee – surety or bond – multiple or single transit			
19	ECOWAS declaration form			
20	Proof of inspection			
21	Others…….			

- Which of these measures do you find as trade barriers and difficult to comply with (please rank according to non-restrictive, relatively restrictive and restrictive in the last column of the above table)?
- Are there specific gender-specific trade barriers? If yes, what are they?
- Are there any seasonal restrictions to any traded agri-food?
- Is the permissible truck load limit the same across the member states? If no, state the limit per member state? ……..

- If no, state the limit in your trade corridor……
- What happens in cases of truck overload/overweight in a member state? Any associated costs?
- What is the time required to complete all documentation/procedures at the border?
- Are there any costs associated with the documentation? If yes, how much?
- Were you confronted with checkpoints on the road to the border? If yes, how many?
- Do you pay unofficial fees at the border to allow your products to pass through?
- If yes, how often do you pay? Sometime…. Always…….
- Is the 6 months proof of inspection adhered to in the member states traded with?
- Are there movement restrictions owing to any other documents than the ECOWAS passport/travel certificate as required?
- Is language a barrier?

3. Trade Finance Gap

Instruction: Section 3.1 is to be completed by international/public financial institutions. Section 3.2 is to be completed by the private financial institution. Section 3.3 is to be completed by agricultural traders/transporters.

3.1 National/Regional or International Financial Institutions

- What are the efforts to improve agricultural trade finance?
- Are there development bank's funds meant for the agri-food trading sector?
- Which finance package/platform is available to finance agri-food SMEs and other actors?
- Are the loans package accessible to vulnerable groups such as women? If no, what are the hindrances or barriers to accessing the loans?
- Is there a special agricultural finance package or guarantee loans to agribusiness and marketing?
- Are there specific agricultural loan portfolios targeted at these vulnerable groups - women?
- What are the efforts of the Central Banks to finance agricultural business and marketing?
- What credit facilities and financial windows are at the disposal of the Development Bank for agricultural business and marketing?
- Is there any agricultural insurance for actors in the agri-food supply value chains?
- Is there any special support for the actors in this sector to boost output and trade?

3.2 Financial/Micro/Cooperative Bank and Thrift and Cooperative Societies

- What are the requirements for obtaining an agricultural loan facility?
- What factors determine agricultural loan issuance?
- What percentage of the Bank liquidity is assigned to load?
- Agricultural loans contributed to what percentage of the total load facility?

- Are there any specific agricultural financing facilities targeted at women, youths, other vulnerable actors? If yes, how accessible are the loans to them?
- What are the conditions associated with women-specific loans?
- How many are recipients of women-specific loans per year? Which age group do they fall into?
- How many agricultural trade finances are made per year?
- How many applied for the loans?
- How many are recipients of the loan per year?
- How many loans' recipients are women? What is their age bracket?
- How many are rejected?
- How many of them are women?..... What is their age bracket?.....
- What are the reasons for the agricultural loan rejections?
- Every year, does the Bank exhaust the allocated agricultural loan capital?

- If no, why? is it due to the following (tick as appropriate):

	Reason for non-exhaustibility of Bank loans	Tick as appropriate
1	Lack of or inadequate collateral security.	
2	Poor load proposals.	
3	The agricultural commodity traded is not lucrative.	
4	The agricultural trader is not a customer of the Bank.	
5	The Bank policy is not to exhaust the allocated funds.	
6	The majority of the applicants are women and may default.	
7	Women need to present male guarantors.	
8	Others…….	

3.3 Agricultural Trader/Transporter

- Do you have collateral for the loan application?
- Do you think you have the necessary documents for the loan?
- Were you able to obtain the actual loan requested? If no, why? is it due to the following:

	Loan constraint	**Tick as appropriate**
1	Inadequate bank agricultural credits.	
2	A large number of loan applicants.	
3	Because you are not a customer of the bank.	
4	Unable to give gratification to Bank officials.	
5	Poor administrative procedure.	
6	Insufficient collateral.	

7	Due to your gender.	
8	Older applicants are often considered.	
9	agricultural commodity group or group of farmers are preferred.	
10	Others……..	

- Do you apply for the loan alone or as a commodity group?

4. Infrastructural Quality Interview

- Is the current quality of infrastructure sufficient for the trading of agriculture and food commodities across the border? (Strongly disagree, disagree, neutral, agree, strongly agree).
- What are the infrastructures needed for a successful agri-food trade?
- What are the costs implications of the required infrastructures?
- What are your country's quality standards operations and procedures for agri-food?
- What are the challenges to quality agri-food trade infrastructure?
- How sufficient are these agri-food safety quality infrastructures? The options are sufficient, relative sufficient and not sufficient.

	Food safety quality infrastructures	**Level of sufficiency**
1	Laboratory	
2	Testing of food quality/quality control	
3	Certification	
4	Inspection and accreditation of quality compliance	
5	Labelling	
6	Conformity assessment	
7	Others……	

- How sufficient are these quality infrastructures in your country? (option: sufficient; relative sufficient and not sufficient)

	Availability of quality infrastructure	**Level of sufficiency**
1	Facilities for enforcing food safety at the border	
2	Basic food quarantine facilities	
3	Agri-food quality inspection facilities	
4	Labelling inspection	
5	Laboratory	

6	Testing and certification facilities	
7	Customs automation and procedure	
8	Facilities to test haulage/lorry roadworthiness and weights	
9	Axle/load limit measurement and certification	
10	Customs procedure automation facilities	
11	ICT to process trading documents, e.g. certificate of origin, forms, trading registrations etc.	
12	Import monitoring and surveillance and other automatic licensing facilities	
13	Appropriate personnel for quality inspection	

- Is there any need for capacity development in product standards and certification?
- Do the institutions/traders need capacity development? If yes, in which areas?

	Capacity development requirement	**Check as appropriate**
	Technical support on inspection and quality enforcement	
	Facility and equipment	
	ICT/trade digitalisation	
	Laboratory fortification	
	Conformity assessment and certification	
	Technical measures – production, processing, marketing standards	
	Food handlings	
	Human/personnel development	

- What are the challenges to attaining quality infrastructure?
- What is the required institutional support for quality infrastructure?
- What professional and technical expertise are needed to enhance the subregional agri-food trade?
- The appropriate personnel remuneration could be a challenge in many institutions, what is your take on this?

9.2 The Intra-ECOWAS trade policy measures by the Member states

Country	Import requirement	Export requirement
Benin	Brown Card[56]	ISRT bond
	Phytosanitary Certificate	Certificate of Declaration
	Yellow Card	Inspection Certificate
	Certificate of Origin	Pre-shipment inspection
	Inspection Certificate	
	Inter-state transport permit	
	Original Commercial Invoice	
	ISRT logbook/Carnet TRIE	
	Advance import declaration (DAI)	
	Import certificate	
	Cargo tracking note	
	Pro-forma Invoice	
	Insurance Certificate	
	Bill of Lading	
	Container Seal	
Burkina Faso	National Certificate of conformity[57]	Export license
	Driver's License	Export certificate
	ECOWAS declaration form	Export Declaration Form
	Pre-requisite Import Declaration (DPI)[58]	Notice of Debit Account of Foreign Correspondent[59]
	Phytosanitary Certificate[60]	Certificate of Origin
	Special Import Authorization (ASI)[61]	Bill of exchange
	Insurance certificate	Pro forma Invoice
	Commercial Invoice cum packing list	Export contract
	Inspection Certificate	Notice of Transfer received by BCEAO
	Verification Certificate (AV)	Transit titles
	Commercial contract/Invoice	Certificate of Liability
	Summary Declaration (includes road map)	Purchase order/letter of credit
	Fisheries Certificate	Electronic export information
	Certificate of Origin (ECOWAS)	
	Brown Card	
	COTECNA Inspection	
	Halal Certificate	
	Tax Certificate	
	Freight Note (LTA)	
	Detail Slip and Obligatory Declaration of Value (DV)	
	Bond (acquits-à-caution)	
	ISRT Carnet Trie	

[56] The document is to ensuring fair compensation for interstate road accident victims. https://www.ecowas.int/speciali.zed-agencies/ecowas-brown-card/.
[57] Mandatory for milk, edible oils, cereals, rice, tea, sugar, etc. https://www.wto.org/english/tratop_e/tpr_e/tp462_crc_e.htm.
[58] For goods with value equal or greater than 500.000 FCFA. https://www.wto.org/english/tratop_e/tpr_e/tp462_crc_e.htm
[59] Specific for international trade but could be required for transit goods. See more information (ECOWAS, 2004).
[60] For unprocessed vegetable product (WTO Review, 2017).
[61] For e.g., flour (1000 ton minimum), sugar (2000 ton minimum). https://www.wto.org/english/tratop_e/tpr_e/tp462_crc_e.htm.

Country	Import requirement	Export requirement
	Fumigation Certificate	
Cote d'Ivoire	Import declaration (DAI)	Export registration number
	Import registration number	Export License
	Import license[62]	Commercial Invoice cum packing list
	Original Commercial Invoice	Certificate of Origin
	Certificate of Origin	Certificates of Inspection
	Insurance Certificate	Weight Certificate[63]
	Road Map	Fisheries Certificate
	Original freight invoice/TRIE carnet	Consular Invoice
	Insurance Certificate	
	Road Map	
	Original freight invoice/TRIE carnet	
	Packing List	
	Bill of Lading	
	Pro-forma Invoice	
	Cargo tracking note	
	Webb Fontaine Inspection Certificate	
The Gambia	Import declaration certificate	Export declaration certificate
	Commercial invoice	Inspection certificate
	Customs inspection	Customs duties and import taxes
	Health certificate [64]	
	Certificate of Origin	
	Consignment-specific import permit[65]	
	Phytosanitary Certificate	
	Custom import duty duties	
	Payment of VAT	
	Import levy	
	Bill of lading	
Ghana	Form C. 59[66]	Bank of Ghana exchange control Form A2
	Certificate of Origin	Electronic declaration form
	Original Bill of Lading	Certificate of Origin
	Import Permits/license	Proforma invoice
	Packing List	Inspection Certificates[67]
	Phytosanitary Certificate	Export Permit
	Veterinary Certificate	ISRT Bond
	Pro forma invoice	Brown card
	Passport	Non-traditional Export Forms
	Transit declaration	Vat and NHIL Invoice
	Inspection certificate (FCVR)	Waybill
	Insurance certificate[68]	
	Import Quality Certificate[69]	
	Plant Quarantine Certificate	
	Attested Invoice (C.61)	
	Import Declaration Form (IDF)	
	Certificate of Fumigation	

[62] For cotton and 100% cotton products. https://www.wto.org/english/tratop_e/tpr_e/tp462_crc_e.htm
[63] https://howtoexportimport.com/Documents-required-for-exporting--9255.aspx.
[64] https://www.privacyshield.gov/article?id=Gambia-Import-Requirements-and-Documentation
[65] Specific for pre-packaged fresh or frozen meat and meat products (including offal) (WTO, 2017).
[66] Information is based on Gap Analysis on ECOWAS Free Trade Area (West Africa Trade Hub, 2009).
[67] https://howtoexportimport.com/Customs-process-for-export-9254.aspx
[68] https://howtoexportimport.com/Documents-required-for-import-customs-clearance-159.aspx
[69] Specific or Fresh/Processed Fish. https://www.wto.org/english/tratop_e/tpr_e/tp462_crc_e.htm

Country	Import requirement	Export requirement
	Tax clearance certificate (TCC)	
	Tax Identification Number certificate (TIN) or Shippers Council Card	
	Final Classification and Valuation Report (FCVR)	
	International Customs Carnet	
	Matriculation Certification (Ownership card) or Logbook	
	Re-importation Certificate	
	Letter of credit	
	Bank of Ghana Form AI	
	Import permit by Forestry Commission (TIDD)	
	Carnet or Tryptique	
Guinea Bissau	Import declaration	Export declaration
	Import inspection	Pro forma invoice
	Phytosanitary certificate	Export permit[70]
	Import permit	Certificate of Origin
	Bond (ISRT Convention Guarantee)	Proof of registration
	Advance import declaration (DAI)	Clearance credit
	Veterinary Inspection Certificate	
	Original commercial invoice	
	Carnet TRIE, ECOWAS ISRT logbook	
	Road Map	
	Special import tax (TCI) in Côte d'Ivoire	
	Digressive protection tax (TDP)	
	Cargo tracking note (BESC)	
	Custom clearance with ASYCUDA	
Mali	Detailed declaration form	Export permits
	Inspection certificate (AV)	Bond (acquits-a-caution)
	Certificate of Origin	Phytosanitary Certificate
	Veterinary certificate	Export Declaration
	Phytosanitary certificate	Export permit
	Brown card	Certificate of Origin
	ECOWAS Declaration form	Brown card
	Importer/drivers must present: -Grey card -Vehicle insurance certificate -Documents proving applicant's foreign residence	
	Summary declaration form	
	ISRT Carnet TRIE	
Niger	Import permits	ISRT Carnet TRIE
	Certificate of Origin	Phytosanitary Certificate
	Phytosanitary Certificate	Brown Card
	Veterinary certificate	ECOWAS Road transit Certificate
	Temporary vehicles import permits	Summary declaration form
	Summary declaration	Certificate of origin
	Detailed declaration	Certificate of Agreement

[70] Specific for groundnut seeds, hides and skins. https://www.wto.org/english/tratop_e/tpr_e/tp462_crc_e.htm.

Country	Import requirement	Export requirement
	Vehicle Inspection certificate	ISRT bond
	Grey card (carte grise)	
	Container Seals	
Nigeria	e-Form M	Registration with Nigeria Export Promotion Council (NEPC)
	ISRT Logbook	Form-1 (where applicable)
	NEXIM bond (transit bond)[71]	Pro-forma invoice
	Form A.1	Certificate of Quality
	Pro-forma Invoice	Phytosanitary Certificate
	Certificate of Registration with NAFDAC[72]	Sales contract agreement (where applicable)
	Certificate of Registration with SONCAP[73]	Bill of Lading
	Risk Assessment Report	Bill of exit
	Single Goods Declaration Form	Other shipping documents
	Certificate of Insurance	Export levy of $5 per tonne
	ECOWAS Certificate/Certificate of origin[74]	
	Letter of Credit	
	Combined Certificate of Value and Origin (CCVO).	
	Packing list	
	Comprehensive Import Supervision Scheme (CISS) fees	
	Bill of Lading	
	Copy of Carrier Certificate.	
	Import duty payment receipt	
	Laboratory test certificate[75]	
	Tally sheet/Gate pass	
	Pre-Arrival Assessment Report (PAAR)	
Senegal	Trader's permit issued in Dakar	Certificates of origin
	Importer permit	Road transport authorization
	Phytosanitary certificate	Inter-State license
	Certificate of origin	Phytosanitary Certificate
	Special import tax (TCI)	Export carriers
	Import duty and tax	Payment of a tax
	Payment of VAT	Customs declaration or certificate of origin
	Electronic cargo tracking note (BESC)	Physical escort
	Electronic cargo tracking note (BESC)	
	Import inspection by Cotecna	
	Import declaration (DIPA)	

[71] The Nigerian Export-Import Bank offers short- and medium-term loans as well as short term guarantees for loans granted by Nigerian Banks to Nigerian exporters. It also provides credit insurance - https://neximbank.com.ng/about-us/.
[72] Certificate of registration issued by National Agency for Food and Drug Administration and Control (NAFDAC) in Nigeria. https://www.wto.org/english/tratop_e/tpr_e/tp456_e.htm.
[73] All imported products must be issued with a registration Certificate by the Standard Organization of Nigeria (SON). https://www.wto.org/english/tratop_e/tpr_e/tp456_e.htm.
[74] Certificate is not required for agricultural, livestock products (WTO Trade Review, 2017).
[75] Applicable to chemicals, food, beverages, etc. https://www.wto.org/english/tratop_e/tpr_e/tp456_e.htm.

Country	Import requirement	Export requirement
	TCI on some food product[76]	
	Automobile liability insurance	
Sierra Leone	A commercial invoice(s)	Certificate of origin
	Destination inspection classification	ECOWAS registration
	Evidence of fund transfer	Customs declaration
	Phytosanitary or fumigation certificate	Phytosanitary certificate
	Customs Declaration ASYCUDA	Export exit permit
	Valuation certificate	Tax clearance certificate
	Certificate of origin	Guaranteed bond
	Bill of lading	
	Payment of duties and taxes at the bank[77]	
	Customs tariff (cost of insurance and freight (c.i.f. value))	
Togo	Import license	Export license
	Certificate of movement of free practice	Custom declaration
	Inspection Certificates from Bureau Veritas (BIVAC)	ISRT Bond/ Customs Bond
	Certificate of Origin	Purchase order or Letter of Credit
	Certificate of Quality or Packaging Control	
	Phytosanitary Certificate	
	Original commercial invoice	
	Road Map[78]	
	Importation intention slip	
	Bills of lading	
	Authorization of Temporary Admission[79]	
	Exit Justification	
	Requisite licenses	
	Freight Invoice	

Source: Frica et al (2009), ECOWAS (2004), WTO Trade Policy Review (several publications).

9.3 Selected evidence-based gender impacts of trade policy measures

Title	Author	Methodology	Technicality	Conclusion
The impact of international trade on gender equality	The World Bank 2004	Review	Women inequality comes from wage discrimination, lower skills, and gender inequalities in accessing resources (such as land, labour, and the additional income from export crops).	Education and skill accumulation are significant determining factors on the impact of trade on women's employment and the gender wage gap. The factors are likely to enable them more flexibility to acquire the power to negotiate wages and other work conditions.
Agriculture, trade negotiations and gender	FAO 2006	Descriptive	Impact of the agricultural trade development on agricultural work, land use, women access to productive	Women challenges include time constraints, limited access to finance, land, information, networks, and skills mismatch, which renders women in a disadvantaged position

[76] On sugar, beverages, milk, wheat flour etc. https://www.wto.org/english/tratop_e/tpr_e/tp462_crc_e.htm.
[77] WTO www.wto.org › english › tratop_e › tpr_e › tp403_
[78] To indicate goods being transported.
[79] https://import-export.societegenerale.fr/en/country/togo/regulations-customs

Title	Author	Methodology	Technicality	Conclusion
			resources, new productive opportunities in agriculture.	than men in cope with the negative effects of trade liberalization.
The Gender Implications of Trade Liberalization in Southern Africa	Kiratu and Roy 2010	Descriptive	Relationship between gender and trade in South Africa with a focus on opportunities and challenges on regional trade arrangements, WTO instruments limiting women involvement in national economic sectors.	National policies on gender could complement trade rules and agreements when the policy instruments are used, enforce the gender equality conditions states should comply with to gain the benefits of trade to fill the existing gaps.
Assessing Regional Integration in Africa IV: 12. Gender and Intra African Trade: The Case of West Africa	Economic Commission for Africa; African Union; African Development Bank 2010	Gravity Model	Gender implication on trade and finance, Africa trade flows patterns, informal trade, infrastructure in trade, trade transit corridors.	West African countries would not derive significant benefits from the EPA, without increased productivity, product diversification and a stronger common market. There is a need for more disaggregation of data to identify the various types of production and trade impacts on women and men in rural areas.
Gender Equality & Trade Policy	UN - Women Watch 2011	Descriptive	Uncompetitiveness comes from inadequate access to education, employment, fiscal and social policies.	Improvement of women's access to education, technology, and skills, requires a change in attitudes and socio-cultural norms. Equitable distribution of household chores between men and women could be ensured by tackling the "time poverty" issue.
Unlocking Markets for Women to Trade	ITC 2015b	Survey	Time constraints on female managers led to limited access to productive resources e.g., finance and land, limited access to information and networks, skills mismatch	The identified barriers described why women-owned businesses are on average smaller and less productive than male-owned businesses. Small-size-women-owned firms also suffer comparatively from trade-related fixed costs, such as non-tariff measures.
Comparative advantage, international trade, and fertility	Do et al. 2016	Empirical-Partial equilibrium	Impact of trade comparative advantage on industries, fertility, male Labour-intensive goods, female labour-intensive goods, wages	Countries with comparative advantage in industries employing mainly women (female-labour intensive goods) exhibit lower fertility because the opportunity cost of children is higher in those countries.
Gender and trade in Africa: A case study of Niger	Fofana et al 2019	Descriptive	The distributional effects of trade reforms between men and women and, the impact of gender-based barriers on the outcome of trade reforms e.g., employment levels and earnings.	Although the custom union reform leads to positive outcomes for both men and women compared to the baseline, gender inequalities result in misallocation of resources in the economy and lead to a loss in economic opportunity for Niger. Thus, closing the gender gap in access to productive resources is likely to generate positive outcomes for Niger.

Title	Author	Methodology	Technicality	Conclusion
Women and Trade Networks in West Africa	OECD-SWAC 2019	Descriptive	Analysis of women social networks such as socio-economic barriers, opportunities in the food system, constraints affecting governance network	Public policies must increase the number of business connections within the communities in which women live to address the lower female business relationship gap.
Employment Responses to EU Food Safety Regulations: A Gendered Perspective	Kareem and Kareem 2020	Empirical	The gender impact of NTMs: agricultural employment, gender segregation, educational attainment, EU standards, agricultural value-added	Gender parity attained in primary education increases women's share of employment in the agricultural sector. Investment in infrastructure that reduces women care burden and build their educational capacity work could remove the gender-specific obstacles and enable them to respond to employment opportunities.

Source: own compilation

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