Covid-19 Pandemic:
Impact of restriction measures
In West Africa

United Nations
Economic Commission
for Africa

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Acknowledgement

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It was developed under the leadership of the ECOWAS Commissioner in charge of Economic Policy and Research, Dr. Kofi Konadu Apraku, the Regional Director of WFP, Mr. Chris Nikoi and the Director of the ECA Sub-regional Office for West Africa, Ms. Ngone Diop. The report was prepared under the supervision and technical coordination of Dr. Simeon Koffi (ECOWAS), Dr. Issa Sanogo (CERFAM), OlloSib (WFP) and Dr. Amadou Diouf (ECA). It benefited from the eminent contributions of Alain Sy Traore (ECOWAS), Marie Ndiaye (WFP), Atsuvi Gamli (WFP), Mariam Katile (WFP), Abdoulaye Ndiaye (WFP), Katrina Frappier (WFP), Dr. Babou Sogue (ECOWAS) and Dr. Silvère Y. Konan (ECA).

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1. Executive Summary

This document analyses the impact of COVID-19 and the restrictions measures that were put in to place to contain the pandemic, in the ECOWAS region. It is based on a review of the epidemiological and the socio-economic analysis of primary and secondary data (implemented through a household web-survey covered 15 countries).

The epidemiological situation of the coronavirus pandemic shows the level of COVID-19 infections to be around 131,680 as of August 3, 2020[1]. This figure represents 13.6% of cases in the continent, a relatively low incidence level for an area that is home to 30% of the African population.[2] The case -fatality rates are also relatively low at 1.5% compared to 2.1% and 3.8% for the rest of Africa and the world respectively. Cure rates were also high at 69% for ECOWAS compared to the continent which stood at 65% respectively. Based on data observed between 3 and 5 August 2020 in some ECOWAS States, it appears that the number of tests carried out remains relatively low compared to countries such as Morocco and South Africa. The rate of people tested (per 1000 inhabitants) varies on average from 1.3 to 13.4 in the region while it is 29.6 in South Africa.

The number of actual positive cases is estimated at 1.3 million, i.e. nearly twelve (12) times the number officially reported, if the rates from South Africa between June and July are factored into the average positive rates in the region. Consequently, the implementation of the lifting of lockdown measures and the quasi-return to normal life should take into account both the evolution of the number of positive cases recorded and the capacity of the States to make an effective assessment of the health risk through the performance of a significant number of tests.

The current report will demonstrate how the rate of the spread of COVID-19 and the restriction measures taken, are straining the economic and social system of ECOWAS States. Several factors of vulnerability and socio-economic fragility facing the region could exacerbate the effects of the health crisis. In particular, the region is characterized by: (i) poorly diversified economies focused on exports of primary products; (ii) limited fiscal space; and (iii) a large informal sector.

The region's **growth prospects** are much less favourable in the second and third quarters of 2020, which are expected to lead to negative annual growth. In fact, ECOWAS is expected to enter recession in 2020, with a 3.6% contraction of the regional economy. This overall result is in line with the negative growth anticipated in Nigeria (5.4%) and Cape Verde (5.5%), Guinea Bissau (1.6%) and Sierra Leone (2.3%).

[1] https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200803-covid-19-sitrep-196-cleared.pdf?sfvrsn=8a8a3ca4_4

[2] UN Population Division Database, 2020

In Liberia, the economic recession that began in 2019 (2.3%) is expected to deepen in 2020 (2.6%). The other countries in the region are not expected to go into recession in 2020. But they are expected to diverge in their growth rates and to experience an economic slowdown of at least 3½ percentage points in the region.

The crisis situation could lead to greater **instability in consumer prices** in 2020. On average, a slight easing of the rise in consumer prices is expected due to lower demand and a sharp drop in oil prices, the combined effect of which is expected to more than offset the rise in the price of specific products caused by supply disruptions due to restriction measures.

The COVID-19 crisis would lead to a significant **widening of the public deficit** in ECOWAS Member States. The budget deficit for ECOWAS as a whole is expected to reach 6.4% in 2020 after an increase of 4.7% in 2019 and 2.9% in 2018. This sharp deterioration in the region's budget deficit in 2020 reflects a general worsening in all countries.

The economic recession and governments' swift response to the COVID-19 crisis would have a more or less significant impact on the evolution of public debt relative to GDP. Forecasts suggest on average an **increase in ECOWAS public debt** as a proportion of GDP, which would stand at 41% in 2020 and 42% in 2021, against 35% in 2019. However, the overall public debt situation remains of little concern.

The region is strongly affected by the **contraction of world trade**, causing a sharp fall in the prices of several export products such as oil, minerals and some agricultural products. In 2020, although still subject to strong uncertainty, forecasts predict a sharp deterioration in the current account deficit for ECOWAS as a whole, which is expected to stand at 4.3% against 2% in 2019.

A decline, sometimes significant, in the prices of raw materials exported by ECOWAS is observed due to the contraction of global demand. The price index of exported commodities fell by -11.4% in March 2020. The fall in prices concern both energy products (-36.1%), including a -39.8% collapse in the price of oil, and non-energy products (-7.2%).

The heavy reliance on a few products for exports or on a small number of customers (including India, the European Union, the United States and South Africa, which have been hard hit by the pandemic) amplifies the impact of the crisis on the regional economy.

Migrant workers are particularly vulnerable to income losses as they work in the sectors most affected by the restriction measures, including restaurants, hotels, retail and wholesale trade, tourism, and transportation and construction. Based on an estimated decline of 23.1% in Sub-Saharan Africa, ECOWAS remittances could fall to $25.9 billion in 2020, their lowest level in ten years.

The household survey undertaken for this report, further confirms the negative impact of the pandemic and restriction measures on the overall socio-economic situation and the well-being of the population. In particular, measures to close workplaces, schools, markets and restrictions on internal movements have affected households the most. Four groups of countries stand out in relation the type of impact experienced due to COVID-19 restriction measures:

- The first group, consisting of Togo, Guinea, Guinea Bissau, Liberia, Nigeria and Sierra Leone, recorded an increase in prices, lower stocks of goods compared to last year, difficulties in carrying out activities due to measures restricting public events and the closure of schools, all of which contributed to social tensions and an increase in the crime rate.
- The second group, made up of Benin, Burkina Faso, Ghana, Niger, and Senegal, were affected by the closure of local markets and the restriction of cross-border and internal movements, which nonetheless helped to generate new employment opportunities.
- The third group consists of Cape Verde, where COVID-19 has not had a significant impact on food stocks and prices, thanks to the public information campaign and health investments put in place.
- Finally, in Côte d'Ivoire, slums and informal settlements suffered a severe impact on income and job loss due to the closure of workplaces. This situation is similar for all the slums and informal settlements in the region.

Based on the findings listed above, below are the core recommendations:

a. It is crucial to systematically strengthen coordination and consultation among the various States with a view to harmonize and ensure the consistency of policies and measures implemented within the framework of the community provisions in force in the region.

b. Governments are called upon to further promote free movement by easing restriction measures (tariff and non-tariff barriers) that hinder the movement of goods, persons, capital and services, while strengthening health and sanitation measures.

c. Governments are encouraged to support policies and investments in local production in line with policies and strategies adopted at the continental and regional levels and to take advantage of innovation and technologies to modernize the agricultural sector, supply chains and diversify the economy in general.

d. Governments and economic actors are encouraged to invest in innovation by taking advantage of new information technologies to improve attempts to use distance learning as a teaching tool to address such situations in the future.

e. It is important to work with the States and all technical and financial partners to prioritize food products and agricultural inputs in the processing of goods at ports and ensure that agricultural producers have access to agricultural inputs on time in anticipation of the next crop year.

f. It is important for governments and the private sector to invest through research and development (R&D) in supply chains and the local processing of certain food and pharmaceutical products in order to reduce the supply chain and the risk of disruptions if restriction measures are extended.

g. There is a need to strengthen advocacy, policy dialogue and mobilization of adequate resources for food security and nutrition in relation to medium and long term interventions, including in terms of social protection, social safety nets, strategic reserves, food banks, etc.

h. It is imperative that governments and partners work closely together to establish humanitarian corridors, understand the socio-economic impact of COVID-19 on vulnerable households, and promote optimal and inclusive supply chains to facilitate agricultural producers' access to markets while ensuring the free movement of goods, people and humanitarian personnel.

i. There is an urgent need to forge/strengthen partnerships at several levels to guide and support decision-makers in implementing evidence-based interventions.

2.Introduction

The negative shock of the COVID-19 pandemic on the world economic growth exceeds in intensity compared to the 2008-2009 financial economic crisis [3], and is almost comparable for some advanced economies to the Great Depression of 1929. In addition to the immediate health consequences in terms of loss of human lives and the psychological shock of infection/exposure, there have been unprecedented measures to restrict the movement of people both within and outside countries, combined with disruptions in production supply and world trade, and shocks to demand. These effects have negatively impacted corporate revenues and have considerably restricted the fiscal space of states. The social impact would be directly perceptible on household incomes, with nearly 170 countries seeing their per capita income decline according to the IMF in 2020.[3]

Africa's average GDP growth for 2020 would decline by 1.4 percentage points from 3.2 percent to 1.8 percent. In the worst case scenario, GDP contraction could reach 2.6 percent according to the ECA. Also, partial or total containment measures would cost the continent 2.5% of its annual GDP per month according to estimates by the United Nations Economic Commission for Africa (UNECA).

The ECOWAS region has not been spared by the pandemic, both in its immediate health impact and its impact on sustainable development. After the first outbreaks of COVID-19 in most countries in March 2020, its incidence has been strongly accelerated, with a reported number of cases estimated at 136,784 as of August 6, 2020.[5]

The relatively rapid spread of COVID-19, which has not spared any member state, has had negative effects on all spheres of sustainable development goals. The rate of economic growth has been revised to an average of -1.4 percent against an initial forecast of 3.4 percent.[6] The fall in economic activity is reflected in lower household incomes, increasing the incidence of poverty, which affects more than 50 percent of households at the regional level. Nigeria, with an estimated population of two hundred million (200 million) people, or half the population of the ECOWAS region, is expected to experience a decline in per capita income of 0.8%.[7] These negative trends will also affect the education sector. As of May 2020, children and youth in West Africa had already lost an average of 8 weeks of schooling and nearly two million (2,000,000) of them were out of school due to the closure measures related to COVID 19.

Faced with these consequences that are likely to have a lastingly affect and hamper progress towards sustainable development and regional integration, the States and the ECOWAS Commission have taken measures to mitigate the impact of COVID-19 and anticipate the need for economic recovery.

[3] https://www.imf.org/en/Publications/WEO/Issues/2020/04/14/weo-april-2020

[4] https://www.imf.org/fr/News/Articles/2020/04/07/sp040920-SMs2020-Curtain-Raiser

[5] https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200803-covid-19-sit rep-196-cleared.pdf?sfvrsn=8a8a3ca4_4

[6] IMF- Regional economic outlook – Sub-Saharan Africa "COVID-19: An Unprecedented Threat to Development", April2020

At the sub-regional level, the ECOWAS Specialized Institution for Health, the West African Health Organization (WAHO) implemented a support plan to strengthen diagnostic and care capacities, as well as the protection of health personnel.

More decisively, specialized technical ministerial meetings (Agriculture and Food, Transport, Free Movement, Trade, etc.) were held from the beginning of the pandemic which demonstrates a strong political response that led to the holding of a virtual meeting of Heads of State and Government on 23 April 2020 on the fight against the pandemic, with a view to initiating a collective response and appointing a champion to ensure its effectiveness.

> The Member States "*called for strong coordination. And for this, they proposed that there should be a champion who would be the leader in coordinating the fight against the corona-virus in our region. It was unanimously President Buhari".*
>
> - Jean-Claude Kassi Brou, Chairman of the ECOWAS Commission

This document analyses the impact of COVID-19 in the ECOWAS region. It is structured around a review of the epidemiological situation and the responses of the countries and ECOWAS, as well as an analysis of the socio-economic impact.

The impact analysis will be developed at both macroeconomic and microeconomic level. Emphasis will be placed on the impact at the level of macroeconomic aggregates and social development indicators. Subsequently, the study will present analysis based on a household web survey to directly assess the impact of COVID-19 on the populations, focusing in particular on key aspects relating to food security, access to work, safety nets and income, and the preservation of basic rights.

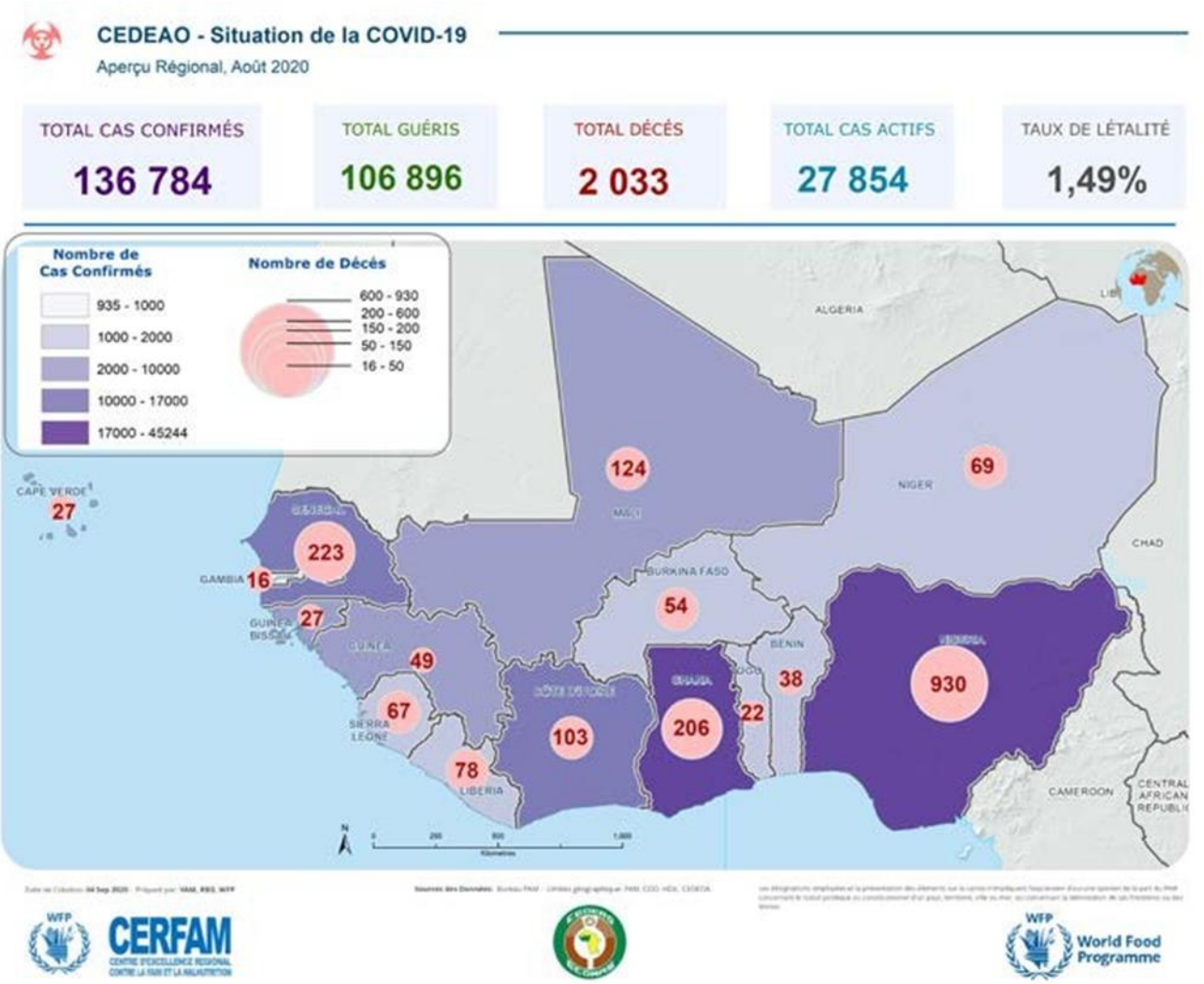
This approach based essentially on primary data will make it possible to identify the perceptions and expectations of the populations in order to adapt the response and foresee short and medium term actions with a view to better build ECOWAS in the post-COVID-19 era.

[7] https://blogs.worldbank.org/opendata/updated-estimates-impact-covid-19-global-poverty

3.Situation of the pandemic and response measures

Epidemiological Situation

There were around 137,000 confirmed cases of COVID-19 as of August 3, 2020[8] This level represents 13.6% of cases on the continent, a relatively low incidence level for an area that is home to 30% of the African population[9]. ECOWAS has a low case-fatality rates compared to the rest of Africa and the world, with a level of 1.5% compared to 2.1% and 3.8% respectively. The region, like the continent, also recorded relatively better cure rates, estimated at 69% and 65% respectively.



Map 1: COVID-19 in West Africa as of August 6, 2020

Source: West African Health Organization (WAHO), https://www.wa-hooas.org/web-ooas/fr/node/2216

[8] https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200803- covid-19-sitrep-196-cleared.pdf?sfvrsn=8a8a3ca4_

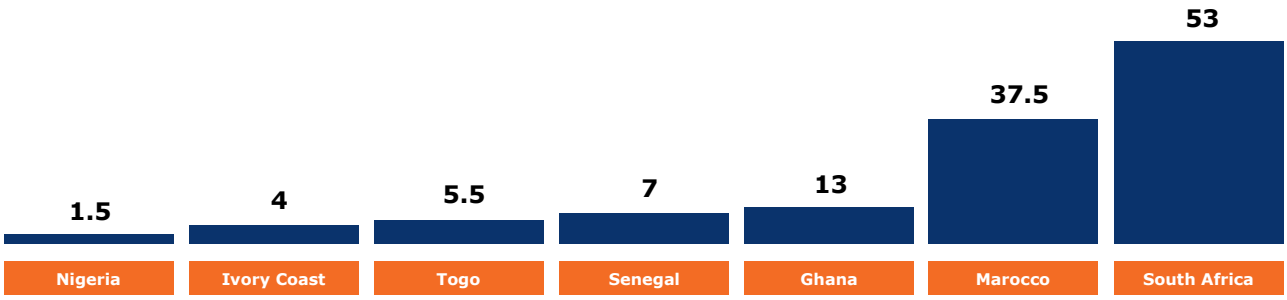
[9]UN Population Division Database, 2020

Challenge of the Weakness of COVID-19 Testing: An Underestimated Reality?

As in many countries around the world, one of the major challenges in the response to COVID-19 is the weakness of the tests performed. This situation is likely to minimize the number of positive cases of COVID-19, leading to a higher risks of contamination and spread.

An analysis of the relative levels of testing per 1000 inhabitants on data observed between August 3 and 5, 2020, in a group of ECOWAS countries compared to two peer African countries (Morocco and South Africa) shows low rates ranging from 1.3 to 13.4 per 1000 inhabitants (Figure 1)

Figure 1: Total de tests COVID-19 pour 1,000 habitants, August 6, 2020



Source: Author, based on data from UN-OCHA Services https://data.humdata.org/dataset/total-covid-19-tests-performed-by-country/.

The estimated number of potential cases in the region is estimated to be 1.3 million, i.e. nearly twelve (12) times the current figure (is the average level of South Africa between June and July 2020 (29.6 per thousand inhabitants) is considered and projected onto the average positivity rates for the rest of the region). Consequently, the implementation of lockdown lifting and quasi-return to normal life measures should take into account both the evolution of the number of positive cases identified but also the number of tests carried out.

Table 1. Estimated number of potential cases for a group of countries, based on South Africa's test rate, regarding the average positivity rate per country between June and July 2020

Countries	Reported cases on August 6, 2020	Test rate per 1000 inhbts Estimation 2020	Population,	Nombre de Tests potentiels (29,3*Pop estimée/1000)	Nombre de cas potentiels (Nombre de tests potentiels *Taux positivité moyen (Juin-Juillet)
Country group (Nigeria, Ghana, Ivory Coast, Senegal and Togo)	111,853 (82% ECOWAS cases)	29,6 South African references (June-July 2020)	288,613,474	8,532,583	1,355,590
			Total ECOWAS: 136,784		

Source: Author, based on data from UN-OCHA Services https://data.humdata.org/dataset/total-covid-19-tests-performed-by-country/.

National and regional responses

The outbreak of COVID-19 tested the regions ability to respond to a health emergency while dealing with an economic and social crisis the pandemic brought about. Immediate response measures were taken to strengthen diagnostic, treatment and information capacities. These measures were later extended to economic and social resilience.

The responses of ECOWAS countries can be grouped into four main pillars, articulated around a health response, total or partial containment measures, economic and social resilience and recovery, and strengthening regional and international cooperation (see Annex 6 for more details).

At the community level, policy actions have been implemented to strengthen the coordination of responses and support countries in their responses. The health response to COVID-19, at the regional level, is coordinated by the West African Health Organization (WAHO). An emergency meeting of West African Ministers of Health was held in Bamako, Mali on February 14, 2020, which agreed to:

- Strengthen coordination and collaboration among Member States on COVID-19 preparedness, in particular cross-border collaboration and surveillance at ports of entry (air, land and sea);
- Strengthen communication about the epidemic;
- Strengthen national capacities essential for diagnosis and develop a strategic plan for regional preparedness, including cost estimates, based on Member States' priorities; and
- Promote multisectoral national efforts based on a single health approach to reduce the impact of the disease; implement measures to ensure the availability of essential medical supplies, including laboratory equipment, and strengthen personal protection in the sub region.

More importantly, specialized technical ministerial meetings (Agriculture and Food, Transport, Free Movement, Trade, etc.) were held from the very beginning of the pandemic which demonstrated a strong political response that led to the virtual meeting of Heads of State and Government on April 23, 2020.

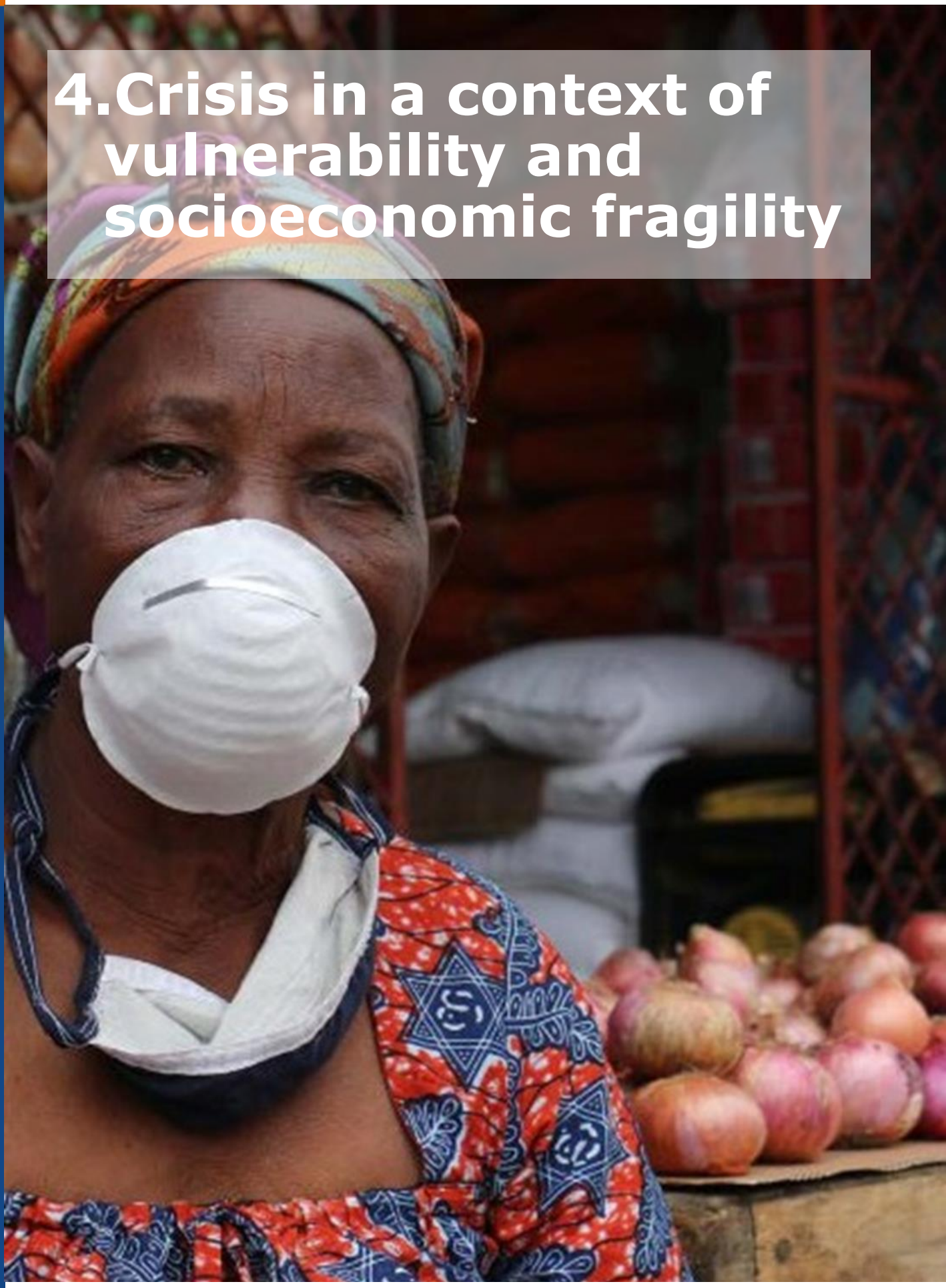
The Heads of State and Government of the Economic Community of West African States (ECOWAS) pledged to strengthen the coordination of efforts in West Africa to fight the pandemic at the summit. In addition, to ensure economic stabilization and recovery, it was decided, among other things, to:

- To facilitate and maintain the free movement of food within and between States of the Community while respecting health measures;
- Appeal to the international community to mobilize additional resources for the benefit of the Region to meet the economic and social challenges facing the States;
- Support the initiative of the African Union to negotiate with partners for the cancellation of public debt and restructuring of the private debt of African countries;
- Allocation as a grant of 8 million dollars to WAHO and plans to mobilize a stabilization fund with 40 million US dollars with Germany;
- Encouragement of States to strengthen Research & Development in the pharmaceutical industry and to pool, to the extent possible, their purchases of equipment and drugs to combat COVID-19. In addition to seting up a programme to support the pharmaceutical and health protection equipment manufacturing sector, whose production covered barely 20% of the region's needs;and
- Mobilize community mechanisms (Regional Food Security Reserve, Emergency Humanitarian Funds) to assist vulnerable people.

Another ministerial meeting was organized in June 2020 by WAHO, with the objective of supporting the efforts of **H.E. Muhammadu Buhari**, President of the Federal Republic of Nigeria, who is the designated champion for the ECOWAS response to COVID-19. During this meeting, participants took stock of the epidemiological situation, agreed to strengthen the health response and post-crisis recovery plans notably to promote greater resilience of health systems.

ECOWAS has also committed itself through meetings, particularly in June 2020, to adopt and implement coordinated responses to the re-opening of borders and allowing businesses to function again. It is also continuing to provide direct support to States in their response to the COVID-19 as well as donations of materials and equipment to all ECOWAS Member States and the provision of cereal seeds to countries that are the most affected by the effects of terrorism, climate change and COVID-19 (Mali, Burkina, Niger and Northern Nigeria).

4.Crisis in a context of vulnerability and socioeconomic fragility



Economic Vulnerability Factors

The economic shock of COVID-19 affected all States, however it varied in its magnitude depending on the capacity of countries to deal with its consequences. The most notable vulnerability and socio-economic fragilities that impacted the ability of countries to deal with economic shocks included: (i) poorly diversified economies geared towards primary product exports; (ii) limited fiscal space; and (iii) a large informal sector.

Limited fiscal space

The financial consequences of COVID-19 are considerable. The effectiveness of the response measures therefore depends on the capacity of States to mobilize adequate financial resources, especially domestic resources. In order to fund with the health emergency, the deterioration of the livelihoods of the most vulnerable populations, the depression of certain sectors of activity, especially Small and medium-sized enterprises (SMEs) and the revival of economic activity in general.

In the face of all these demands, especially urgent social spending, government revenues, already drastically reduced since the crisis, were paramount. The major shock affecting economies around the world highlights factors of potential vulnerability in the public finances of ECOWAS States.

Although steadily increasing, total government revenue (including grants) as a proportion of GDP in the ECOWAS region remains relatively low. This average ratio for the fifteen Member States stood at 8.7% between 2015 and 2019, ranging from 4.9% in Nigeria to 28.6% in Cape Verde. On average, tax revenue mobilization accounts for nearly 60% of total public revenue in the region, with the share reaching 80% in Côte d'Ivoire and Senegal, and is a major determinant of the financial health of governments (Figure 3). Consequently, an analysis of the main components of the public account of the States in the region highlights three structural challenges.

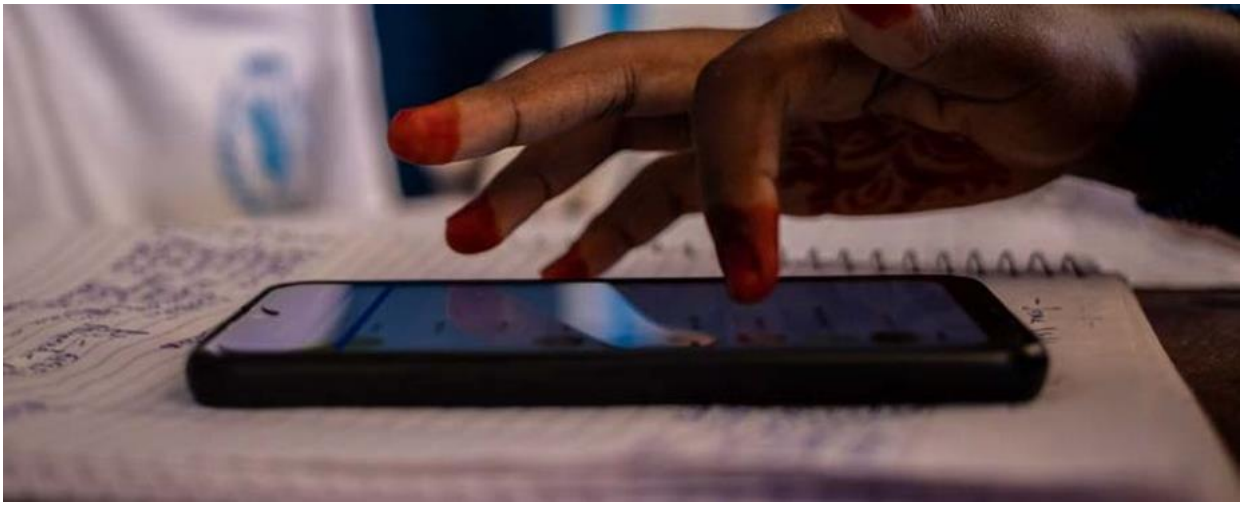


Figure 2 : Tax revenue / Total revenue, 2015-2019 average (in percentage)

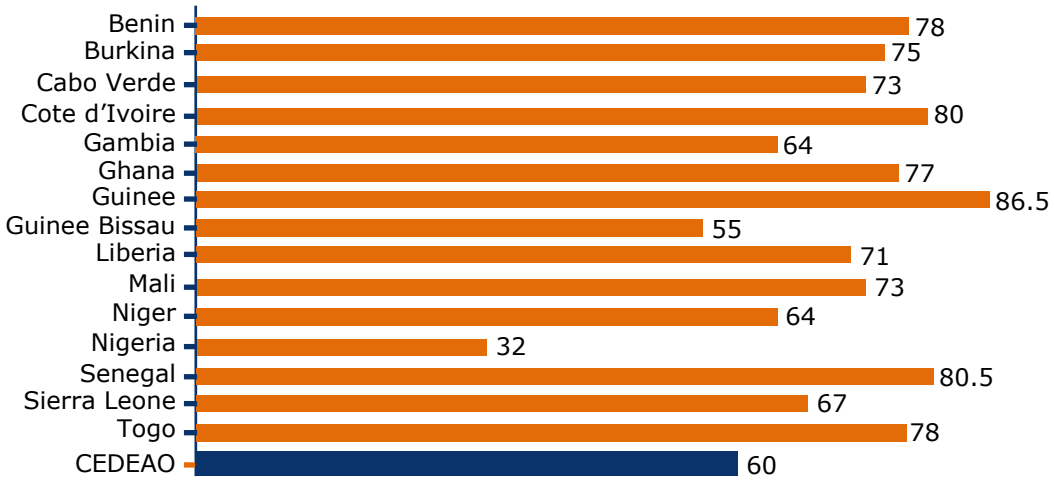


Figure 3: Tax revenue as a share of GDP, 2015-2019 average (in percentage)

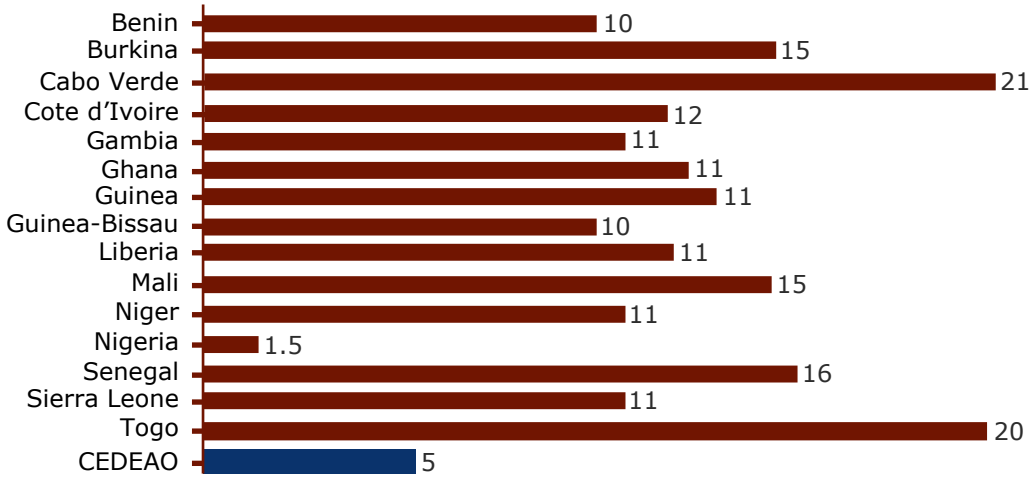


Figure 4: Average share of the two main components of tax revenues between 2015 and 2019 (in percentage)

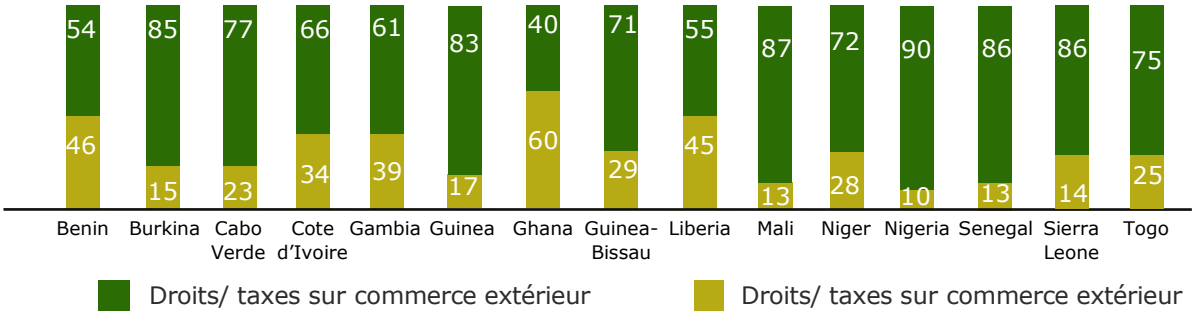
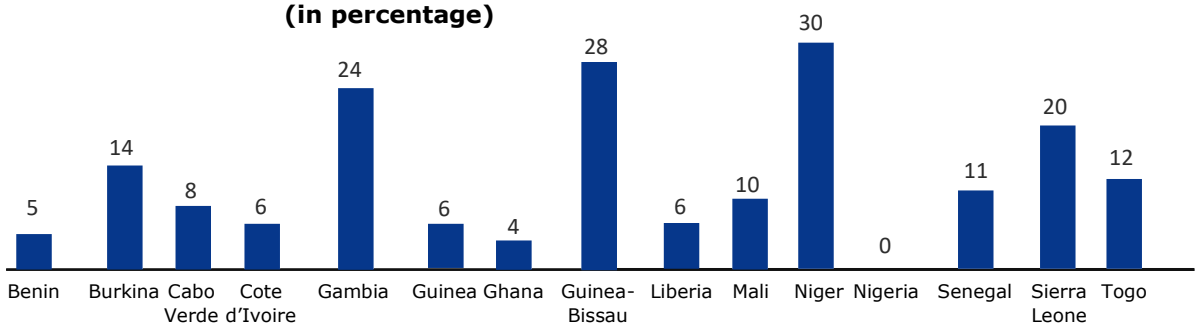


Figure 5: Average Share of Grants in Total Government Revenues from 2015 to 2019 (in percentage)



Source: Figure 2 and 3 (Commission de la CEDEAO).

The first challenge concerns the narrowness of the West African fiscal space compared to other regions of the world. The tax revenue-to-GDP ratio for ECOWAS as a whole is only 5.2 percent, with a minimum of 1.5 percent for Nigeria (reflecting more the weakness of the regional average) and a maximum of 20.9 percent for Cape Verde.

Besides Cape Verde, only Togo (20.3%) has a tax burden above 20% (Figure 3). Historical data indicate that the tax burden in West Africa is virtually stagnant. By way of comparison, the tax revenue ratio is on average 34.3% for the OECD and 40.3% for the European Union, reaching over 45% in some countries of this Union.

The second challenge relates to the heavy dependence of governments on revenues from international trade. In other words, in spite of trade liberalization actions, the much-desired momentum towards fiscal transition is slow to be established. In fact, over the last five years, duties and taxes on the foreign trade averages 35% (excluding import VAT) for the ECOWAS region. This proportion reaches 45% in Liberia and 60% in Guinea (Figure 4). As a result, supply and demand shocks have a significant impact on government revenues in the region through international trade.

The third challenge relates to the relatively high weight of certain elements of uncertainty in government revenues. This is particularly critical for low-income countries, where the unpredictability of external grants adds to the vulnerability of governments that depend on them, especially during periods of major crises. Donations can sometimes represent a significant share of government revenues. For example, they account for 13.6%, 24.4%, 27.8%, 30.5% and 19.8% respectively of total public revenue in Burkina Faso, The Gambia, Guinea Bissau, Niger and Sierra Leone (Figure 5). In the face of the COVID-19, the risk for these countries is that some external financial flows may be reduced or even eliminated, at a time when financial resources are much needed to contain the virus and its socio-economic impact.

Overall, the main components of government revenue highlight sources of structural fragility that limit governments' room for manoeuvre in the face of the COVID-19 crisis. Moreover, on the expenditure side, the government budget is characterized by a dominant allocation to operating expenses, in particular the remuneration of government employees and the use of goods and services.

Low diversification of export products and external partners

Most ECOWAS countries rely heavily on international transactions for the mobilization of government revenue through import duties and taxes and other royalties from the export of products. This dependence also relates to the satisfaction of consumer goods, capital goods and production inputs from developed and emerging countries.

Despite its openness to the world, West Africa has shown resilience to external shocks that spread through trade links. However, the scale of the coronavirus crisis has highlighted the vulnerability of the economic growth model of ECOWAS States and its heavy dependence on external demand and foreign financial flows. The high concentration of exports—the consequence of poorly diversified economies - is a major risk factor and makes economies vulnerable.

Four types of products account for 81.5% of the value of total exports of the ECOWAS region (Figure 6). These are petroleum products and natural gas (56.9%), gold (12%), cocoa (7.7%) and metals and minerals (4.9%). This structural characteristic of the regional economy is generally observed in all member states, albeit with differences in the degree of concentration and the goods exported (Table 2).

Figure 6: proportion of ECOWAS' main exports in 2019 (%)

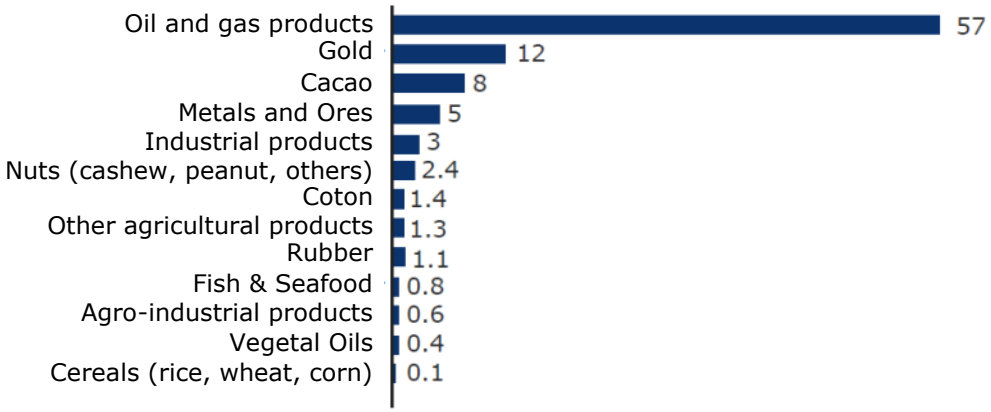
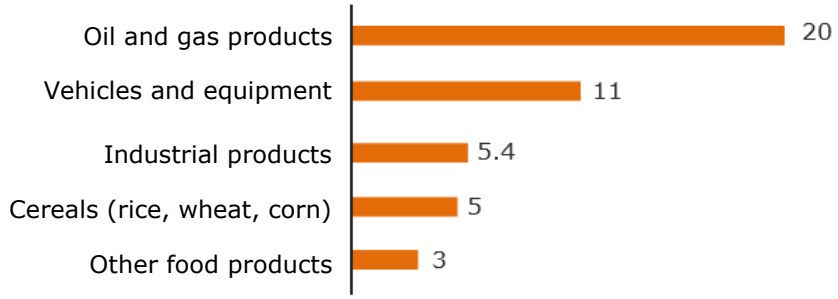


Figure 7: proportion of major ECOWAS imports in 2019 (%)



Source: Figure 6 & 7 (ECOWAS Commission).

The share of a single type of product in total exports is over 60% in seven ECOWAS States. Thus, petroleum products and natural gas account for 93.4% of Nigeria's total exports. Minerals, particularly bauxite, account for 89% of Guinea's exports.

Overall, the export sector of ECOWAS countries is highly dependent on one product and in the most favorable cases on three main goods. The risk is that a shock affecting the market for these goods could have a considerable effect on the entire economy given their dominant weight.

Moreover, the external trade of the region's countries is also characterized by a concentration of trading partners. Seven countries, namely India, the Netherlands, South Africa, Spain, the United States, France and China, account for more than half of ECOWAS clients (50.6%) (Table 2). In addition, China, France, the United States, India, Thailand and Germany are the main suppliers to the region with a 46.3% market share (Table 3).

Table 2: Main ECOWAS clients

Asia	**26.1**
India	13.7
China	5.0
European Union	**23.7**
Netherlands	8.3
Spain	6.3
France	5.2
Souh Africa	**6.6**
USA	**5.5**

Table 3: Main ECOWAS suppliers in 2019

Asia	**27.8**
India	13.3
China	5.3
Thailand	4.1
European Union	**19.6**
France	13.1
Germany	2.4
North America	**8.6**
USA	8.1
Canada	0.5
Africa	**0.9**
South Africa	0.8
Marocco	0.1

Source: Table 1 and 2 (ECOWAS Commission).

Heavy reliance on a few products for exports or on a small number of recipient countries can amplify the impact of a crisis on the regional economy. The coronavirus pandemic that is severely affecting India, the European Union, the United States and South Africa, by far the main clients of ECOWAS, reveals the fragility of the regional export sector.

Moreover, due to the high labor intensity of this sector, particularly agriculture, the risk of loss of income for a large number of smallholders is significant. On average, agricultural employment accounts for 38.3% of total employment in the ECOWAS region. This proportion reaches 61.7% in Guinea, 62.6% in Mali, 68.1% in Guinea Bissau and 75.1% in Niger.

large informal economy in the face of restrictive measures

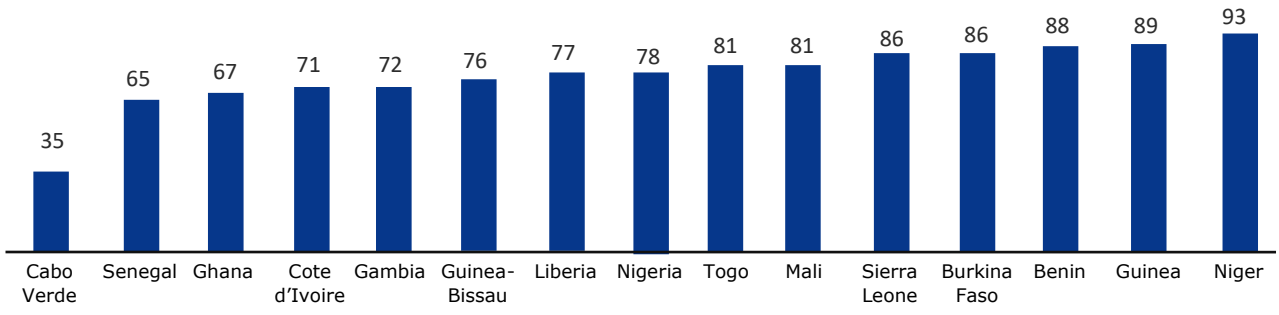
The economic context marked by a large informal sector makes some of the restriction measures adopted against COVID-19 difficult and ineffective. Indeed, with little or no regulation, this sector is characterized by very precarious working conditions and often the living conditions of its actors who do not have social safety nets.

This sector encompasses millions of workers, often marginal, who are often not employees in the usual sense of the term. They are mainly involved in subsistence farming or are often self-employed at home (making clothing, food, crafts, etc.), street vendors or in unregulated markets and are micro service providers (cleaning, transport, etc.) or domestic workers, etc. The majority of actors in this sector survive on daily hand to mouth earnings and are therefore in a highly vulnerable situation.

Based on ILO estimates, the average share of vulnerable jobs in total employment in the ECOWAS region is 75.7%. This proportion is very high in all member states, with only Cape Verde being the exception with a share of 35.2% (Figure 8).

The fact that a significant number of workers suffer from precarious and uncertain working conditions and lack social security is in itself a source of concern. Therefore, the restrictions are expected to harm the informal sector severely.

Figure 8: Share of Vulnerable Employment in Total Employment in 2019



Source: World Bank (ILO estimate).

Low human development and social protection challenge

Out of a total of 189 countries, apart from Cape Verde and Ghana which rank 126th and 142nd respectively, the other ECOWAS member countries are ranked among the last thirty countries in the world with the lowest Human Development Index (HDI). The last place in the world HDI rankings (189/189) is occupied by Niger with an HDI of 0.38.

Another major fact in the analysis of the HDIs of ECOWAS member countries highlights the weakness of Nigeria, the continent's leading economic power. Indeed, Nigeria has an HDI of 0.53 and ranks 158th out of 189 countries. Thus, Nigeria has low human development indicators compared to countries with a GDP similar to its own.

A more detailed analysis of the HDI regional profile shows overall progress in terms of Gross National Income per capita but also weaknesses in social indicators, particularly life expectancy and schooling rates.

For example, Germany, with 14.1 years of average schooling, has the highest performance in education, while South Africa, with 10.2 years, is the leading African country for this indicator. Thus, the average duration of schooling in the best performing country in the ECOWAS region is half that of the best performing nation in the world.

As for the expected duration of schooling, it varies from 6.5 years (Niger) to 12.6 years (Benin, Togo), while the strongest global performance is 22.1 years for Australia and the first African performance is 15.5 years for the Seychelles (UNDP, 2020). This reality indicates the scale of the investments need to be made at all levels of the education sector to ensure development gains in the long-term.

Social protection remains a real challenge with high proportions of informal employment in non-agricultural jobs in the member countries of ECOWAS. The proportions of informal employment in non-agricultural jobs vary from 57.8% to 94.5% (Table 5, ILOSTAT, 2020) over the period 2011-2018 and largely justify the deficit in social security coverage of workers.

Table4: Human Development Indicators and its components for ECOWAS countries in 2019

HDI Rank	Member States	Human development index (HDI)	Life expectancy at birth	Expected years of schooling	Mean years of schooling	Gross national income (GNI) per capita	GNI per capita rank minus HDI rank
	MEDIUM HUMAN DEVELOPMENT						
126	Cabo Verde	0.651	72.8	11.9	6.2	6,513	-1
142	Ghana	0.596	63.8	11.5	7.2	4,099	-2
	LOW HUMAN DEVELOPMENT						
158	Nigeria	0.534	54.3	9.7	6.5	5,086	-22
163	Benin	0.520	61.5	12.6	3.8	2,135	2
165	Cote d'Ivoire	0.516	57.4	9.6	5.2	3,589	-16
166	Senegal	0.514	67.7	9.0	3.1	3,256	-12
167	Togo	0.513	60.8	12.6	4.9	1,593	10
174	Gambia	0.466	61.7	9.5	3.7	1,490	4
174	Guinea	0.466	61.2	9.0	2.7	2,211	-10
176	Liberia	0.465	63.7	9.6	4.7	1,040	9
178	Guinea-Bissau	0.461	58.0	10.5	3.3	1,593	-2
181	Sierra Leone	0.438	54.3	10.2	3.6	1,381	1
182	Burkina Faso	0.434	61.2	8.9	1.6	1,705	-8
184	Mali	0.427	58.9	7.6	2.4	1,965	-17
189	Niger	0.377	62.0	6.5	2.0	912	-3

Source: UNDP (http://www.hdr.undp.org/).

Over the 2009-2018 period, the proportion of retired persons receiving a pension in ECOWAS countries, with the exception of Cape Verde, is very low and ranges from 2.7% (Burkina Faso) to 23.5% (Senegal) where data exist. Cape Verde stands out in particular for the proportion of retirees receiving a pension of 85.8% in 2016.

Table5: Proportion of retired persons receiving a pension in ECOWAS countries

HDI Rank		Proportion of informal employment in non-agricultural employment (%)	Old-age pension recipients (% of statutory pension age population)
126	Cabo Verde		72.8
166	Senegal		63.8
167	Togo		54.3
174	Gambia		61.5
142	Ghana		57.4
163	Benin		67.7
165	Cote d'Ivoire		60.8
158	Nigeria		61.7
189	Niger		61.2
182	Burkina Faso		63.7
184	Mali		58.0
174	Guinea		54.3
176	Liberia		61.2
178	Guinea-Bissau		58.9
181	Sierra Leone		62.0

Source: Author's compilation from ILOSTAT (2020).

Low level of investment in agriculture

Agriculture is important in the economies of almost all ECOWAS countries despite the low share of public expenditure allocated to its financing. Over the period 2013-2018, with the exception of Cape Verde (7%), agricultural GDP represented on average between 15% (Senegal) and 56% (Sierra Leone) of the GDP of West African countries with 2% to 12% of the budget allocated to it. There is a contrast between countries both in terms of the agriculture sector's contribution to GDP and in terms of the public expenditure injected into the sector. The largest share of contribution of agriculture to the GDP in West African is noted in Benin, Côte d'Ivoire, Gambia, Ghana, Guinea, Nigeria and Senegal at around 20%. Four of these countries, Burkina Faso, Liberia, Mali and Niger, on the other hand, have an average share of agricultural GDP varying around 30%. The ECOWAP/CADP objective of allocating at least 10% of national budgets to the agriculture sector could not be achieved in the majority of countries with the exception of Burkina Faso (11%), Mali (12%) and Senegal (10%) (See Table 6) during the period 2013-2018. The positive correlation between public investment in agriculture and its performance implies that both single-factor and multi-factor productivity or Total Factor Productivity (TFP), due to the leverage effect induced by the productive mix, is also impacted. As a result, the ability to reduce mass poverty, strengthen the competitiveness of the agricultural sector, ensure sustainable food security and improve factor compensation could be tested by the COVID-19 pandemic.

Table 6: Share of agriculture in total public spending

Country	Share of agriculture in total public spending (%)	Share of agriculture in the GDP (%)
Benin	8	22
Burkina Faso	11	30
Cabo Verde	7	7
Cote d'Ivoire	4	21
Gambia	5	22
Ghana	9	20
Guinea	5	19
Guinea- Bis-sau	Nd	Nd
Liberia	2	35
Mali	12	38
Niger	7	36
Nigeria	3	21
Senegal	10	15
Sierra Leone	Nd	56
Togo	7	25

Source: Our calculations based on ReSAKSS WA, 2019

Low output of agricultural production and food insecurity

West Africa has a wide variety of agro-ecological zones, ranging from rainforests marked by two rainy seasons to relatively sparse, dry and arid vegetation, watered once a year and offering immense potential in terms of agricultural commodities and products that can be produced and marketed. However, the agriculture sector in West Africa is characterized by low yields that can affect the food and nutritional security of the area.

Growth is driven mainly by the increase in cultivated areas rather than by increased productivity. Although the productivity or apparent efficiency of land in ECOWAS countries has significantly increased during the 2010-2016 period compared to that of 1961-2016, it is still below the world averages which are $742/ha and $1,116/ha respectively over the 1961-2016 and 2010-2016 periods. While these averages were $691/ha and $1,103/ha for Ghana, which has the best agricultural land efficiency in the ECOWAS region. It should be noted that there is a disparity in the productivity of agricultural land between Sahelian and coastal countries, which is characteristic of the dependence of production on natural resources, particularly rainfall.

For example, in the long term, Burkina Faso and Niger produced $283/ha and $169/ha respectively, i.e. less than half of those from Benin, Côte d'Ivoire and Liberia. Nevertheless, the majority of the countries (except Guinea and The Gambia) have observed an improvement in their productive efficiency in recent years, marked by the long-term positive impact of the implementation of ECOWAS' intervention axis to increase the productivity and competitiveness of West African agriculture.

The analysis of the global rankings of partial land productivity of countries reveals that five countries of the West African community that are Ghana, Sierra Leone, Nigeria, Guinea-Bissau and Senegal have gained between 3 to 18 places in the medium term, including a gain in productivity and competitiveness. Three other member countries such as Benin, Burkina Faso and Mali were able to maintain their place in terms of their agricultural land productivity rankings over time. Finally, seven ECOWAS countries lost productivity gains in the medium term compared to 26 countries in the world in the long term (see Table 7).

Table 7: The productivity of the land in value $USD/ha in the medium and long term, and global performance of ECOWAS countries over time

Country	1961-2016	2010-2016	Rank 1961-2016	Rank 2010-2016	Rank saving
Ghana	691	1103	113	95	18
Benin	631	818	125	125	0
Sierra Leone	581	774	136	133	3
Nigeria	581	771	137	134	3
Cote d'Ivoire	649	712	121	140	-19
Liberia	642	688	124	146	-22
Guinea-Bissau	476	665	153	148	5
Mali	478	623	152	152	0
Cabo Verde	518	607	140	153	-13
Senegal	380	544	171	161	10
Guinea	513	482	144	166	-22
Togo	445	477	160	168	-8
Burkina Faso	283	386	180	180	0
Gambia	455	380	155	181	-26
Niger	169	208	184	185	-1
World	**742**	**1116**			

Source: Our calculations based on USDA, Economic Research Service, Data released October 1, 2019; revised November 18, 2019, https://www.ers.usda.gov/webdocs/DataFiles/51270/AgTFPindividualcountries.xlsx?v=785.3

Table 8 shows that just like the productivity of the land, labor productivity follows the same trend in terms of agricultural value creation compared to the world average, both in the long term and in the short term ($1.667/person and 2.626/person). The maximum labor productivity in the ECOWAS region is $1.713/worker and $2.102/worker respectively in the long and medium term, which is equivalent to 113 out of 189.

The ranking of States in terms of labor efficiency shows that Senegal, Sierra Leone, Gambia, Liberia and Niger have lost 9, 32, 1, 27 and 1 places respectively compared to their rank in the long term. Thus, agricultural labor in these member states is increasingly less efficient compared to the rest of the world and puts at the forefront the West African region's capacity to generate the added value necessary to ensure sustainable food security in its member states and to pay agricultural workers a decent wage.

Nevertheless, some member countries have fared well thanks to a sustained improvement in labor productivity that has helped them move up in their global rankings. They have moved from the range of 118th (Gambia) to 173rd (Burkina Faso) over the period 1961-2016 to that of 116th (Nigeria) to 169th (Niger) in the medium term. The most striking case is that of Burkina Faso, whose labor productivity has almost tripled in recent years compared to the long term ($454/worker to $1,252/worker), triggering a jump of 33 places in the medium term (Table 7). Burkina Faso's sustained investment in agriculture could be the main cause.

Table 8: Labor productivity in value $USD/person over 15 years of age in the medium and long term and global performance of ECOWAS countries over time

Country	1961-2016	2010-2016	Rank 1961-2016	Rank 2010-2016	Rank saving
Cote d'Ivoire	1713	2102	113	113	0
Nigeria	1203	1957	130	116	14
Ghana	984	1773	137	125	12
Benin	1055	1526	133	133	0
Cabo Verde	1039	1471	134	134	0
Burkina Faso	454	1252	173	140	33
Senegal	1059	1201	132	141	-9
Mali	764	1197	152	142	10
Sierra Leone	517	937	170	149	21
Gambia	1584	930	118	150	-32
Togo	804	870	150	151	-1
Guinea	702	818	157	157	0
Guinea-Bissau	615	799	162	158	4
Liberia	958	678	139	166	-27
Niger	534	650	168	169	-1
World	**1667**	**2626**			

Source: Our calculations based on USDA, Economic Research Service, Data released October 1, 2019; revised November 18, 2019, https://www.ers.usda.gov/webdocs/DataFiles/51270/AgTFPindividualcountries.xlsx?v=785.3

In short, the unifactorial analysis of productivity shows that despite certain achievements, there are still countries in the ECOWAS region that are less active in terms of value creation and competitiveness of the agricultural sector compared to the rest of the world. This implies dependence on the rest of the world to ensure food security and thus makes the ECOWAS region more vulnerable during shocks such as COVID-19.

Most countries in the ECOWAS region have not only improved over time the efficiency of the productive combination of agricultural factors of production but also generated productivity gains. This increased from 76 to 126 between 1961 and 2016, and from 85-137 between 2010 and 2016 (Table 8). Nine ECOWAS countries recorded a gain from 2 (Cape Verde) to 73 (Burkina Faso) places in their ranking over the medium term compared to the long term. This value added creation over the said period concerns Sierra Leone, Ghana, Burkina Faso, Guinea-Bissau, Niger, Senegal, Benin, Mali and Togo whose aggregate factor productivity ranged from 104 (Togo) to 137 (Sierra Leone).

Moreover, seven countries are inefficient because they cannot cover the costs of the allocated factors of production. This is characterized by a Total Factor Productivity (TFP) ranging from 85 (Liberia) to 97 (Nigeria), i.e. a shortfall of at least 3% to 15% compared to the productive potential. However, in the case of Senegal, which has lost 19 places in the medium-term ranking compared to the long term, with a TFP of 97 against 107, is an indicator of the tenacity of competition at the global level.

It is no longer enough to be efficient in the allocation of production factors to guarantee competitiveness in a globalized economy, but upstream control of the production environment seems more decisive.

As proof, the evaluation of the economic potential and the socio-economic situation of the countries, places Cape Verde as the most prosperous country in terms of human, public, physical, technological and institutional capital in the ECOWAS space, and should therefore have the best TPF.

Although growing, Cape Verde's TFP is the third lowest in the sub region, which is synonymous with poor endogenization of its agricultural GDP growth. The negative externalities arising from the combination of adverse factors such as the natural handicap (little cultivable land - dry islands without fresh water, etc.) for agricultural production, the low level of exports of basic food products useful for refinancing production,

Table 9: Overall factor productivity in the medium and long term, and global performance of ECOWAS countries over time

Country	1961-2016	2010-2016	Rank 1961-2016	Rank 2010-2016	Rank saving
Sierra Leone	107	137	22	10	12
Ghana	86	126	94	28	66
Burkina Faso	77	114	130	57	73
Guinea-Bissau	84	108	98	69	29
Niger	87	108	89	76	13
Senegal	97	107	58	77	-19
Benin	84	107	102	78	24
Mali	79	107	121	83	38
Togo	106	104	25	96	-71
Nigeria	77	97	134	122	12
Côte d'Ivoire	90	96	79	124	-45
Gambia	126	95	5	126	-121
Cape Verde	76	92	135	133	2
Guinea	105	91	28	137	-109
Liberia	112	85	13	141	-128

Source: Our calculations based on USDA, Economic Research Service, Data released October 1, 2019; revised November 18, 2019, https://www.ers.usda.gov/webdocs/DataFiles/51270/AgTFPindividualcountries.xlsx?v=785.3

The low level of public investment in agricultural production (7%) (compared to tourism) and in production innovations to ensure food self-sufficiency, could justify the low contribution of the TFP to production growth.

Moreover, over the period 1961-2016, TFP contributes on average for more than 42% to the growth of agricultural products in the world, whereas it represents only 33% at most in Sahelian countries that make greater use of innovative techniques in agriculture (Burkina Faso, Mali). It is 26% in Ghana, 22% in Cape Verde, 18% in Sierra Leone, 16% in Nigeria and 15% in Guinea Bissau. In contrast, the TFP in agriculture is negative in Liberia (-57%), Guinea (-0.25%), Togo (-11%) and Senegal (-5%).

Over the 2010-2016 period, TFP contributes on average for more than 75% to the growth of the world's agricultural product. In ECOWAS countries, in the face of demographic pressure and the increasing scarcity of arable land in some countries, major innovation efforts have been made. The contributions of TFP to agricultural product growth in Cape Verde are estimated at more than 142%, compared to 127% in Burkina Faso, 122% in Senegal, 95% in The Gambia and 79% in Ghana, respectively. On the other hand, TFP on agricultural product growth is negative in other countries such as Guinea (-93%), Liberia (-60%), Côte d'Ivoire (-46%), and Togo (-39%).

Even if the growth of the West African agricultural product exceeds that of the world agricultural product regardless of the period considered, it should be noted, however, that household strategies have paid little attention to increasing the productivity of farms by intensifying the yield per parcel of cultivated land. In fact, the average yield growth rate per worker in ECOWAS over the 2010-2016 period is 1.80% as against 3.24% for the world average, while yield growth per hectare is negative in ECOWAS (-0.81%) as against 1.60% at the world level. The crops grown in West Africa are grown over large areas while the global trend is more oriented towards

Table 10: Average annual growth in % of West African Agricultural Productivity Indicators over the period 1961-2016

	Output	Input	Total Factor Productivity	Output per worker	Output per ha
Burkina Faso	3.59	2.37	1.20	3.74	1.49
Cabo Verde	2.14	1.67	0.47	1.82	1.39
Gambia	1.15	2.43	-1.26	-1.95	-0.23
Mali	3.87	2.54	1.30	2.05	1.61
Niger	3.63	3.34	0.28	0.41	0.45
Senegal	1.52	1.60	-0.07	-0.17	1.04
Benin	3.60	2.94	0.64	1.46	1.37
Cote d'Ivoire	3.50	3.38	0.11	1.03	0.46
Ghana	3.18	2.33	0.84	1.75	1.72
Guinea	2.53	3.18	-0.63	0.29	-0.06
Guinea-Bissau	2.52	2.13	0.39	0.57	1.15
Liberia	1.67	2.63	-0.94	-0.77	0.96
Nigeria	3.07	2.57	0.49	2.17	1.28
Sierra Leone	3.27	2.67	0.59	1.97	1.04
Togo	2.64	2.94	-0.30	0.20	0.41
CEDEAO	***3,12***			***1,70***	***1,07***
World	2.33	1.32	1.00	1.67	1.84

Source: Our calculations based on USDA, Economic Research Service, Data released October 1, 2019; revised November 18, 2019, https://www.ers.usda.gov/webdocs/DataFiles/51270/AgTFPindividualcountries.xlsx?v=785.3

Table 11: Average annual growth in % of West African Agricultural Productivity Indicators over the period 2010-2016

	Output	Input	Total Factor Productivity	Output per worker	Output per ha
Burkina Faso	1.49	-0.40	1.90	7.69	1.13
Cabo Verde	-1.34	0.58	-1.90	-2.99	-3.92
Gambia	-3.63	-0.20	-3.44	-6.43	-0.79
Mali	5.66	4.28	1.32	3.15	-0.61
Niger	2.81	2.26	0.53	-0.62	2.75
Senegal	-0.61	0.14	-0.75	-0.27	0.88
Benin	4.49	3.20	1.25	2.18	1.35
Cote d'Ivoire	3.00	4.44	-1.37	-0.65	-3.79
Ghana	3.14	0.64	2.49	7.56	2.55
Guinea	2.26	4.45	-2.10	-0.11	-2.25
Guinea-Bissau	2.00	2.17	-0.16	-0.72	0.25
Liberia	1.63	2.62	-0.97	-1.02	0.77
Nigeria	2.09	2.30	-0.20	1.46	-2.55
Sierra Leone	4.68	2.07	2.55	4.20	2.89
Togo	2.70	3.78	-1.04	1.06	-1.65
CEDEAO	***2.57***			***1.80***	***-0.81***
World	2.04	0.49	1.54	3.24	1.60

Source: Our calculations based on USDA, Economic Research Service, Data released October 1, 2019; revised November 18, 2019, https://www.ers.usda.gov/webdocs/DataFiles/51270/AgTFPindividualcountries.xlsx?v=785.3

Moreover, the negativity of the growth rate of the yield per hectare could also reflect the low use of fertilizers on abundant developed land which is becoming less fertile.

This weakness in productivity indicators may hinder the achievement of food security, which the World Bank (1986) defined in the 1980s as access for all people at all times to sufficient food for an active and healthy life. Achieving food security requires that two major challenges be addressed. The first challenge is that of increasing agricultural productivity and the second relates to the resilience of risks related to climate change.

According to the NEPAD/African Union Integrated Program for the Development of Agriculture in Africa, only seven African countries, including two in West Africa (Côte d'Ivoire and Benin) are on track to achieve the objective of doubling agricultural productivity by 2025. With regard to the second challenge, which is resilience to climate change-related risks, 19 African countries including six ECOWAS Member States (Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Guinea Bissau and Mali) have made relative progress. By combining these two objectives, only Côte d'Ivoire is assured of achieving them within ECOWAS (African Union, 2018). [10]

According to the food crisis prevention and management network (RPCA, 2020), cereal production for the 2019/20 campaign is estimated at 74 million tons, a slight increase of 0.4% compared to last year and 12% compared to the average of the last five years.

[10] African Union, Inaugural Biennial Review Report of the African Union Commission on the Implementation of the Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods (Addis Ababa: African Union, 2018)

However, very significant decreases are observed in Cape Verde (-80%), The Gambia (-47%), Sierra Leone (-15%) and Niger (-6%) compared to the average production of the last five years. Root and tuber production is 190 million tons, nearly 16% higher than the average of the last five years. The pastoral situation is tense, due to significant fodder deficits in Senegal and Mauritania, in places in Mali and Niger, measures to restrict cross-border seasonal movement of livestock, but also the inaccessibility of herds to pasture due to the security crisis, further exacerbated by measures related to COVID-19. Food markets are normally supplied, even though the outbreak of COVID-19 has led to an upward trend in prices.

Malnutrition persists in the region and affects nearly 2.5 million children under the age of five in the Sahel. Poor nutritional practices, the closure of health centers, and the cessation of routine activities to manage acute malnutrition are the main causes. Burkina Faso, Cape Verde, Mali, Niger, Senegal and Chad have initiated their 2020 response plans for more than 400 billion F CFA (€61 million). However, their implementation is hampered by the serious budgetary difficulties of the States and the mobilization of external resources.

Good governance and security challenge

Exposed to fragility,[11] conflict and violence, ECOWAS Member States are generally faced with an inability or weakness of policies and institutions to ensure the sovereign missions including peace, stability, service delivery (security, health, education, etc.). (World Bank, 2019, Volume 19, p.2). At the level of ECOWAS countries, a total of 7 countries in 2020 are classified as fragile or affected by conflict and violence (World Bank, 2020 [12]). The presence of Burkina Faso, Mali, Niger and Nigeria on this list is due to these countries' struggles against terrorist groups on their territory. On the other hand, Gambia, Guinea Bissau and Liberia are classified as having high institutional and social fragility.

Table 12: List of fragile or conflict- and violence-affected countries in West Africa in 2020

	2020
Medium Intensity Conflict	Burkina Faso
	Mali
	Niger
	Nigeria
	Gambia
High institutional and social fragility	Guinea-Bissau
	Liberia

Source : Author's compilation from World Bank (2020), https://www.worldbank.org/en/topic/fragilityconflictviolence/brief/harmonized-list-of-fragile-situations

[11] The term "fragile situations" covers countries or territories with : (i) a harmonized Country Policy and Institutional Assessment (CPIA) score of 3.2 or less; and/or (ii) the presence in the last three years of a regional mission (for example, from the African Union, the European Union or the North Atlantic Treaty) or the United Nations for the maintenance or consolidation of peace, excluding border surveillance operations.1 Harmonization of the CPIA score is achieved by averaging the CPIA scores of the World Bank and the corresponding regional development banks (the African Development Bank or the Asian Development Bank). Nineteen of the thirty-six countries identified as fragile on the basis of these criteria are located in Sub-Saharan Africa (Africa's Pulse, April 2019, Volume 19, p.38)

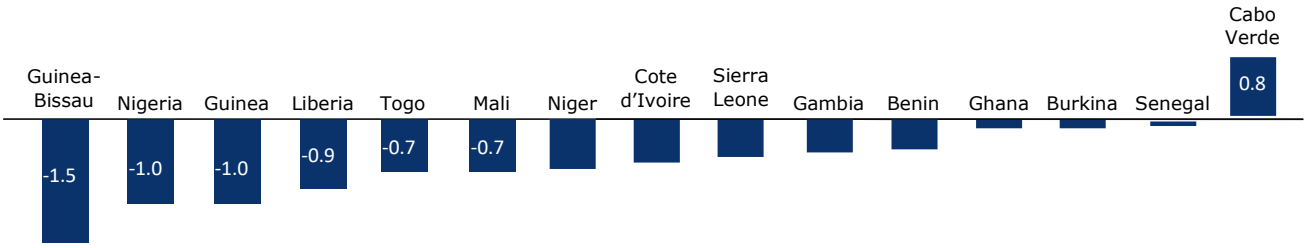
[12] World Bank (2020a), Classification of Fragile and Conflict-Affected Situations

The quality of governance of countries in West Africa is also reflected in the indicators measuring corruption and political stability, which are important for ensuring food security and nutrition. With the exception of Cape Verde, which has a positive corruption control indicator (0.8), all the other member states have negative indicators reflecting very poor corruption control in 2018.

However, heterogeneities exist. Senegal does better in terms of corruption control than Burkina Faso, Ghana, Côte d'Ivoire and Nigeria which has the second lowest score for this indicator (Figure 9).

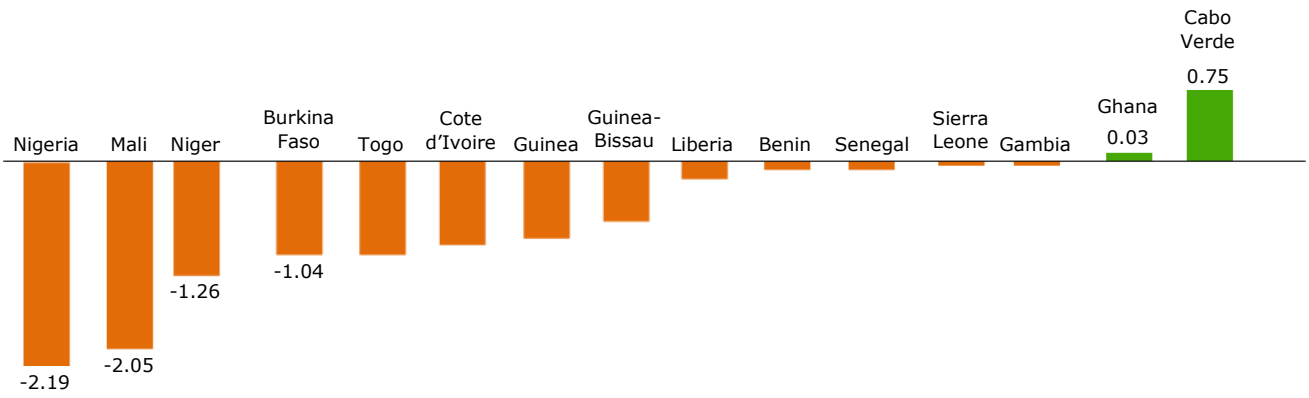
With regard to political stability and the absence of violence/terrorism, the performance of the various member states in contact with terrorist groups is very poor, as shown by the scores of Nigeria (-2.19), Mali (-2.05), Niger (-1.26), Burkina Faso (-1.04) on a scale of -2.5 to 2.5, with -2.5 reflecting the worst.

Figure 9: Corruption indicator in ECOWAS countries in 2018

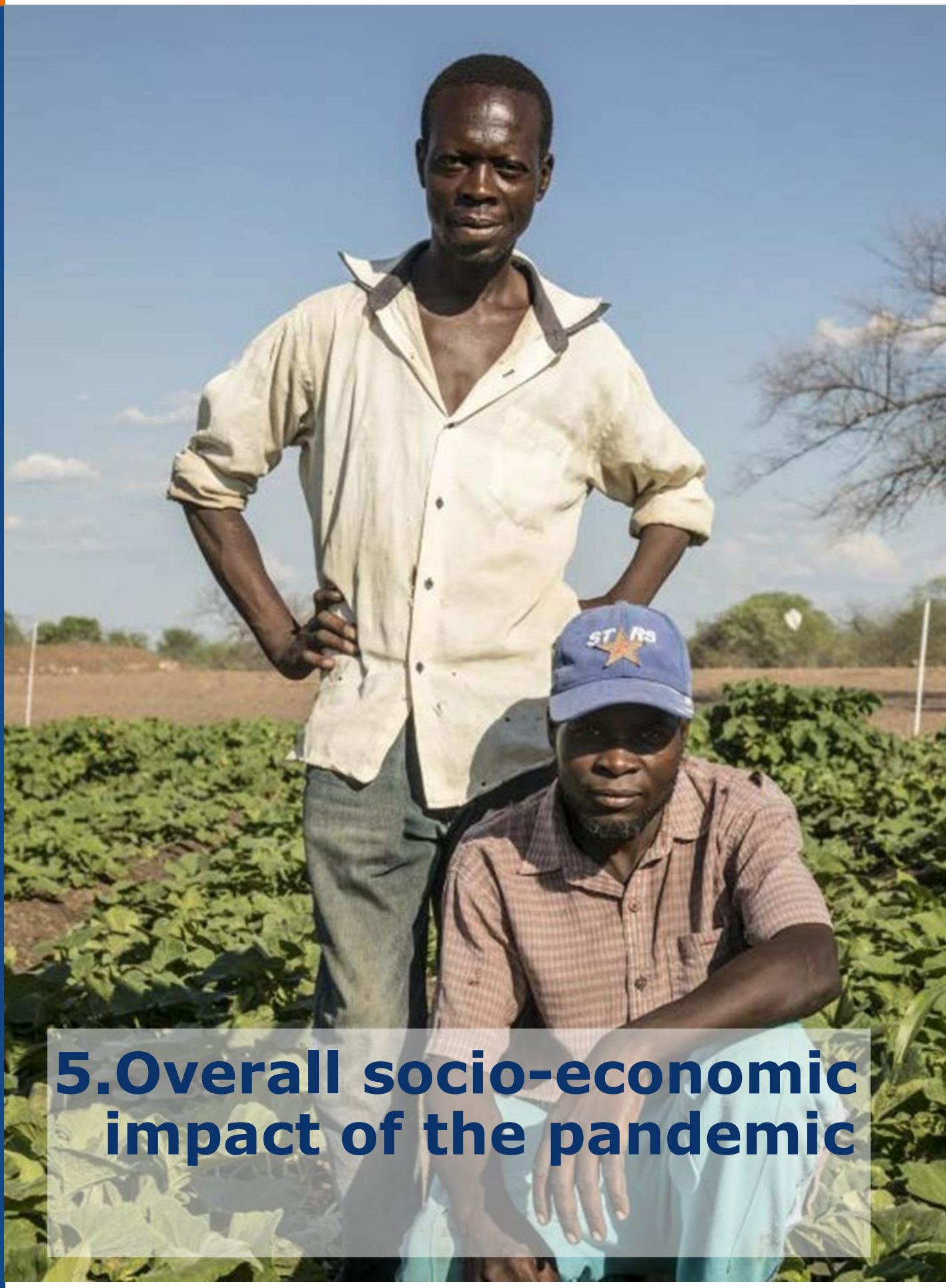


Source: World Bank (2019b).

Figure 10: Political stability and voilence and terrorism in 2018 in ECOWAS



Source: World Bank (2019b).



5.Overall socio-economic impact of the pandemic

Economic impact

The economic forecasts are mainly based on a set of assumptions related to the evolution of COVID-19 and the lockdown measures it entails. The various restrictive measures taken in the context of the pandemic, both globally and nationally, have severe repercussions on the economies of Member States.

However, these repercussions are quite varied due to structural differences in the main sources of economic growth within the region. In fact, the dichotomies of oil exporters/importers and mono-product/relatively diversified economies partly explain the divergences in the growth forecasts of ECOWAS Member States.

Sluggish economic growth

The depressive effect of the COVID-19 pandemic on economic activity was felt as early as the first quarter of 2020 due to the restrictive measures taken by Member States and other countries in Asia and Europe. At the end of March 2020, a slowdown in growth of about one percentage point was recorded compared to the 2019 average of 2.3% (Figure 11). None of the main activity sectors is spared by this slowdown. Agriculture, industry and services recorded a decline in their growth rate to 2%, 0.5% and 0.9% respectively in Q1 2020, against 2.7%, 1.4% and 1.1% in Q1 2019 as well as compared to the growth obtained on average in 2019 (Figure 12).

Figure 11: ECOWAS growth in the 1st quarter of 2020(%)

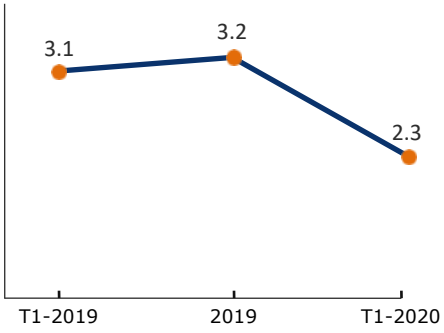
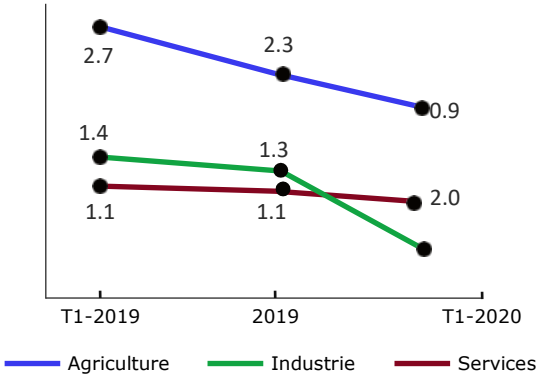


Figure 12: Growth of the main sectors in Q1 2020 (%)



Source: Figure 11 and 12: ECOWAS Commission.

The lockdown measures have particularly affected industrial activities and services. The added value of the extractive activities sub-sectors is estimated to slow down to 3.6% in March 2020 against 4.3% on average in 2019. The added value of manufacturing industries and construction have declined to 0.7% and 0.9% respectively in the first quarter of 2020, against 1.2% for the year 2019 (Figure 13).

The value added of the services sector has recorded the most marked decline, with tourism, hotels, restaurants, trade, and transportation being particularly affected by the lockdown measures.

In particular, growth in transport has declined to 2.3% in March 2020, compared with 15.3% in the same quarter of the previous year and 8.3% on average in 2019. Trade has contracted sharply to -2.4% in the first quarter of 2020, compared with an increase of 0.9% in the first quarter of 2019 and 0.1% during the year 2019.

Figure 13: Growth in value added mining, manufacturing and construction

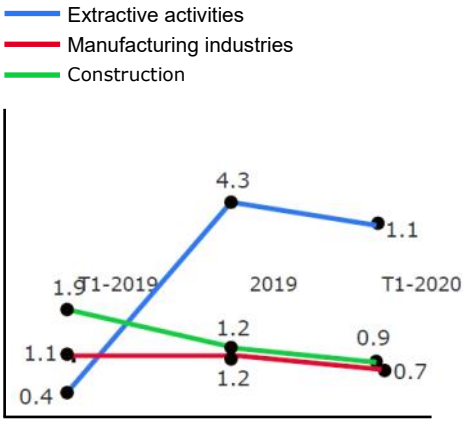
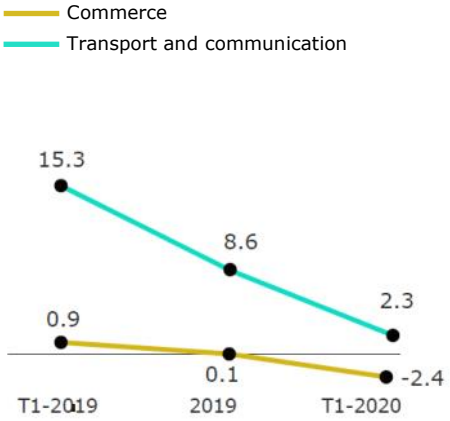


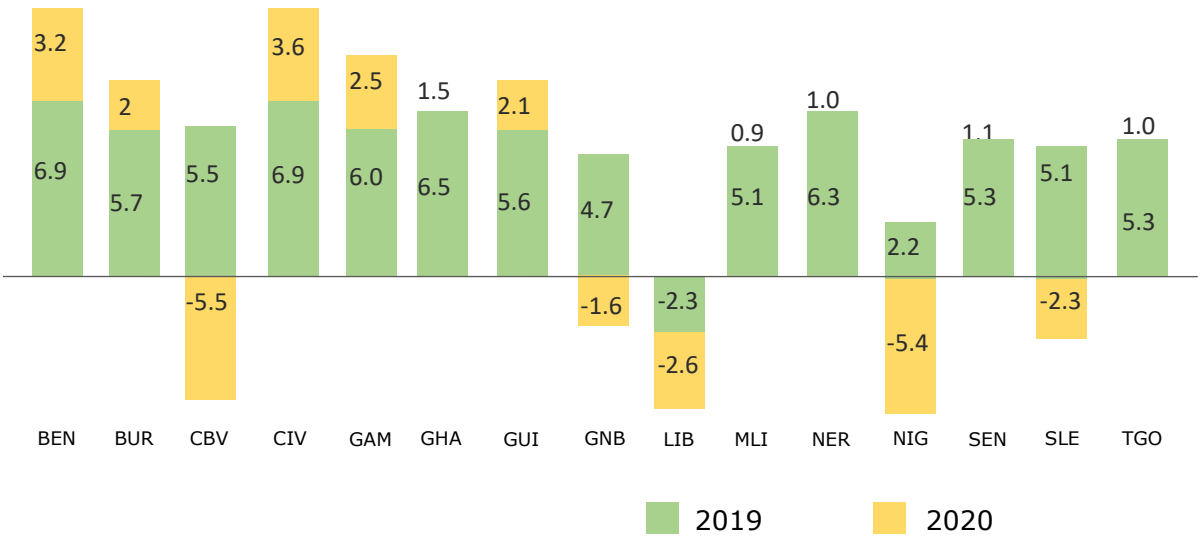
Figure 14: Growth in the added value of trade and transport



Source: Figure 13 and 14: ECOWAS Commission.

The region's growth prospects are much less favorable in the second and third quarters of 2020, which should lead to negative annual growth leading to negative annual growth. In fact, according to forecasts, ECOWAS is expected to enter recession in 2020, with a 3.6% contraction of the regional economy. This overall result is in line with the negative growth anticipated in Nigeria (5.4%) and Cape Verde (5.5%), Guinea Bissau (1.6%) and Sierra Leone (2.3%). In Liberia, the economic recession that began in 2019 (2.3%) is expected to worsen in 2020 (2.6%). The other countries in the region are not expected to enter recession in 2020. But they are expected to diverge in their growth rates and to experience an economic slowdown of at least 3½ percentage points in the region (Figure 14).

Figure 15: Economic growth of member states, 2019-2020 (%)



Source: ECOWAS/IMF Commission 2019.

Restriction measures have a strong impact on the determinants of economic growth such as consumer spending, agricultural, industrial production and services, investment, trade, capital flows and supply chains. The gradual easing of lockdown measures should pave the way for recovery, the extent of which is still highly uncertain.

Rising inflation

The crisis situation could lead to greater instability in consumer prices in 2020. However, in general, a slight easing of the rise in consumer prices is expected on average due to lower demand and a sharp drop in oil prices, the combined effect of which is expected to more than offset the rise in the price of certain specific products caused by pandemic-related supply disruptions.

Inflation for ECOWAS as a whole is expected to stand at 9.9% in 2020, against 11.2% in 2019. In particular, this easing could be observed in Nigeria and Liberia with inflation rates of 11.7% and 20.5% respectively in 2020, against 13.5% and 24.5% in 2019. On the other hand, price pressures could be observed in The Gambia, Ghana and Guinea, where the inflation rate would increase by 6.5%, 9.2% and 8.3% respectively in 2020, compared to 5.3%, 8% and 8% in the previous year. Inflation is expected to remain under control in WAEMU countries and Cape Verde, generally between 1% and 2% this year.

Rising budget deficit

The budget deficit for ECOWAS as a whole is expected to stand at 6.4% in 2020 after an increase of 4.7% in 2019 and 2.9% in 2018. This sharp increase in the region's budget deficit in 2020 reflects a general worsening in all countries. Thus, while ten Member States had a budget deficit contained within the 3% limit required in the ECOWAS multilateral surveillance system, only two countries, namely Benin (2.8%) and The Gambia (2.4%) are expected to have a deficit below this threshold in 2020. The public deficits of Guinea (4.3%), Guinea Bissau (4.1%) and Togo (4.1%) are expected to rise above 4% in 2020, against 2.3%, 2.8% and 1.5% respectively in 2019.

In addition, the budget deficit would be at least equal to 5% in Burkina Faso (5%), Côte d'Ivoire (5.3%), Mali (5.8%), Nigeria (6.4%), Senegal (5.6%), and Sierra Leone (5.6%), and would deteriorate further in Ghana (10%) and Cape Verde (8.3%). The risk of a greater deficit situation is very likely as the economic consequences of the pandemic are likely to be more severe than expected.

Rising public debt

The economic recession and the rapid responses of governments to COVID-19 health crisis have varying degrees of impact on the evolution of public debt in relation to GDP. Forecasts suggested on average an increase in the public debt-to-GDP ratio in ECOWAS to 41% in 2020 and 42% in 2021, against 35% in 2019. Although the public debt situation remains of little concern overall, it is rising steadily and rapidly in some countries of the region, which could be exacerbated by the COVID-19 pandemic if appropriate measures are not taken.

According to initial forecasts, public debt as a proportion of GDP would be above the 70% threshold in four countries in 2020, namely Cape Verde (132%), The Gambia (80%), Guinea Bissau (71%) and Sierra Leone (73%), against 121%, 82%, 70% and 67% respectively in 2019. Moreover, while in 2019 five countries still recorded a public debt ratio below 40%, only Nigeria (with 35%) is expected to continue to contain its debt within this limit in 2020. The public debt ratio could record a rapid evolution this year in many countries in the region. For example, the debt ratios of Ghana, Liberia and Senegal would rise from 63%, 55% and 64% respectively in 2019 to 68%, 63% and 67% in 2020.

Declining foreign trade

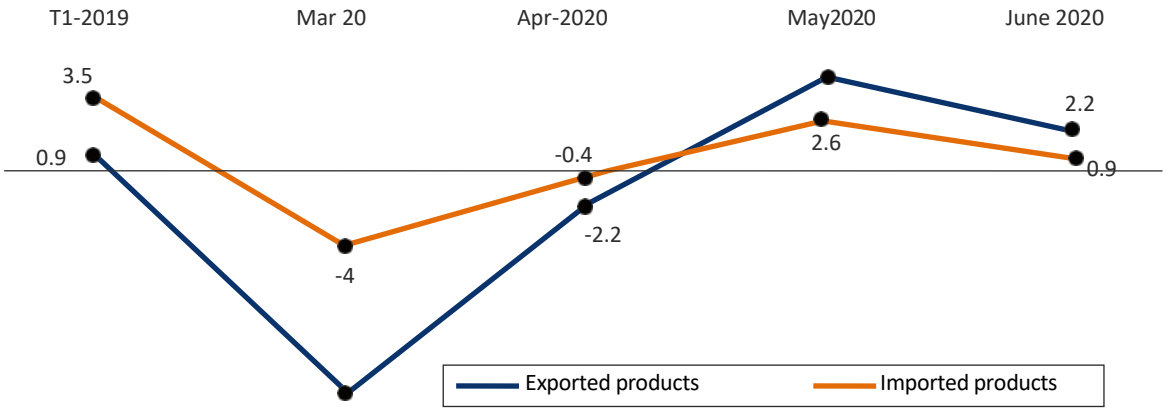
Global trade is severely affected by the isolation measures adopted by most countries in the world, leading to a sharp drop in the prices of several export products such as oil, minerals and certain agricultural products. In 2020, although still subject to high uncertainty, forecasts predict a sharply deteriorating current account deficit for ECOWAS as a whole, which is expected to reach 4.3%, compared to 2% in 2019.

A deteriorating current account, with a drop in foreign trade

The first quarter of 2020 was marked by a drop, sometimes significant, in the prices of raw materials exported by ECOWAS due to the contraction of global demand. The price index of exported commodities fell by -11.4% in March 2020 (Figure 16). The declines in prices concern both energy products (-36.1%) and non-energy products (-7.2%).

The collapse in oil prices to -39.8% explains the drop in energy prices.

Figure 16: Price index of exported and imported products (monthly variation in %)



Source: index mundi, ECOWAS Commission calculation

The drop in prices of non-energy raw materials exported by ECOWAS countries mainly concerned metals and minerals (-0.1%) and precious metals (-0.3%) as well as the prices of food products (cashew nuts: -17.6%, palm oil: -9.6%, coffee: -7.4% and cocoa: -2.7%) and other raw materials (cotton: -8.3% and rubber: -10.3%).

However, overall prices were observed to rise in April and May with the gradual lifting of lockdown measures in several countries around the world and the resumption of activities in China. Exported and imported products rose respectively to 2.2% and -0.4% in April and 4.5% and 2.6% in May. This aggregate trend is linked, in particular, to the rise in oil prices (+36.9%), cocoa (+1.7%), coffee (+2.4%), cashew nuts (4.3%) and cotton (+8.3%).

Figure 17: Oil prices

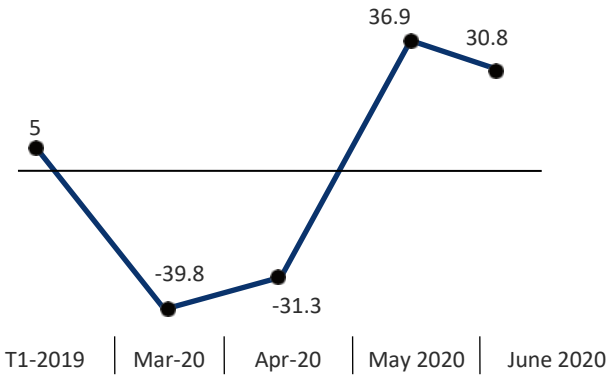


Figure 18: Food prices

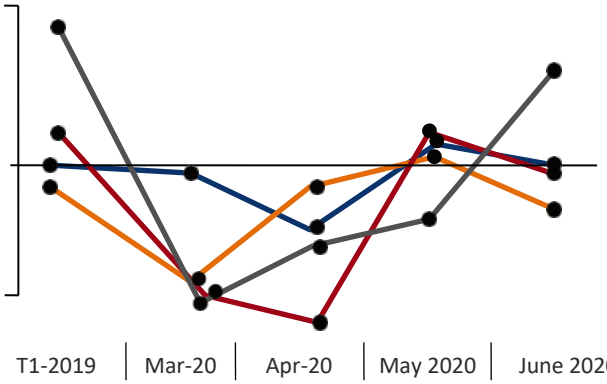


Figure 19: Gold prices

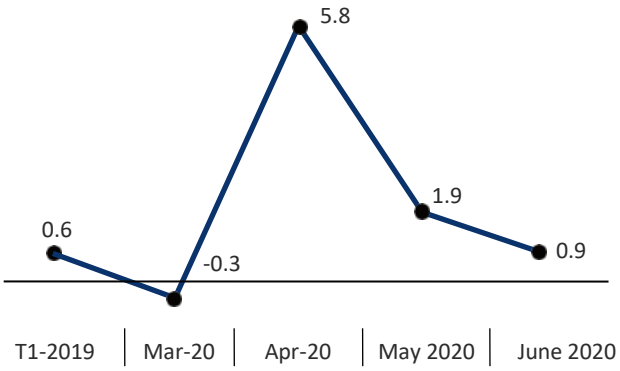
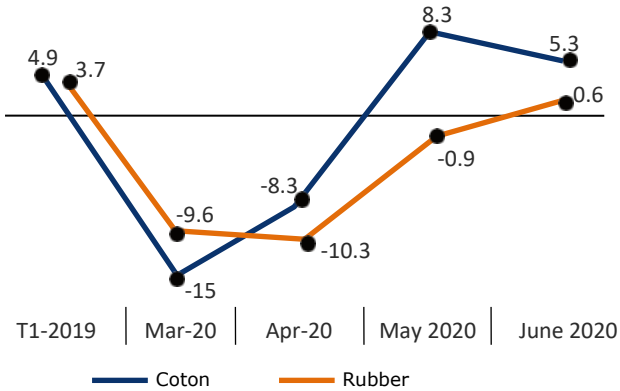


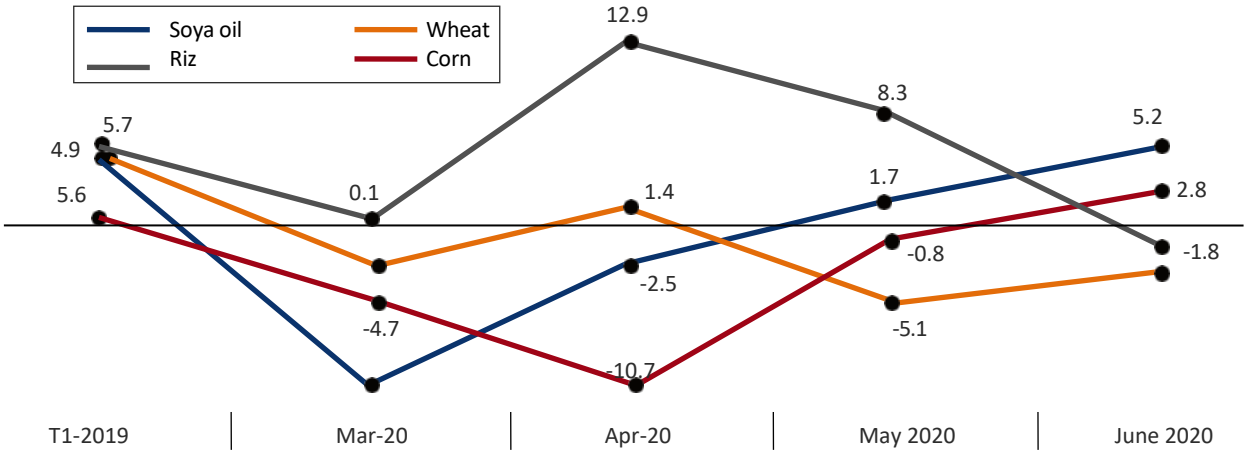
Figure 20: Coton and rubber prices



Source: index mundi, ECOWAS Commission calculation.

The price index of the main food products imported into ECOWAS fell by 4% in March 2020. This decline is due in particular to the fall in the price of maize (-4.7%), wheat (-2.6%) and soybean oil (-11.1%) and the marked slowdown in the increase in the price of rice (+0.1% against 5.7% in December 2019). This strong downward trend recorded in the first quarter of 2020 was reversed from April. Apart from the price of corn which continued to fall (-10.7%), there was a reversal in April in the price trend for rice (+12.9%), wheat (+1.4%) and soybean oil (-2.5%, compared with 5.2% in June 2020).

Figure 21: Food prices (monthly variation in %)

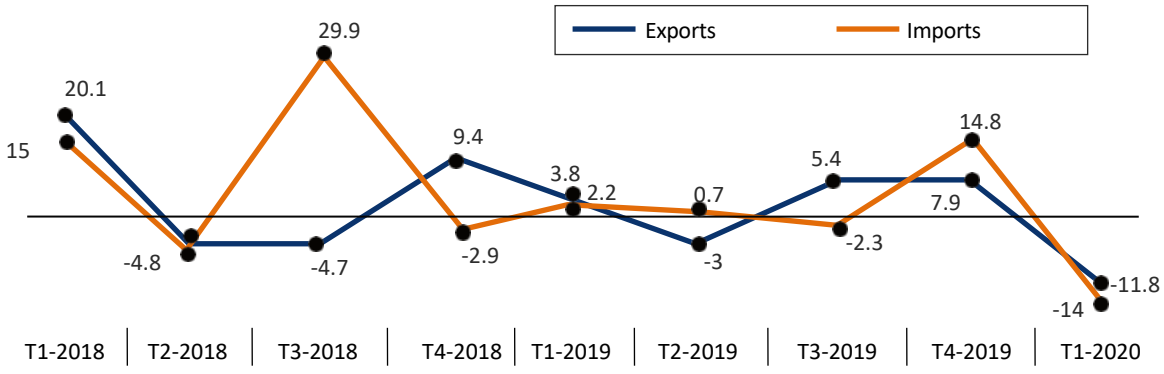


Source: index mundi, ECOWAS Commission calculation.

ECOWAS's foreign trade recorded in the 1st quarter of 2020, its largest drop in several years. Total ECOWAS exports fell by 11.8% in March 2020 while they were up by 7.9% in the last quarter of 2019. This significant decline is linked to the collapse of prices of the region's main exports, particularly petroleum products (-39.8%).

The ECOWAS imports recorded a more significant decline from a 14.8% growth in the last quarter of 2019 to a sharp contraction of 14% at the end of March 2020.

Figure 22: ECOWAS foreign trade (quarterly variation in %)



Source: index mundi, ECOWAS Commission calculation.

The fall in foreign trade since the beginning of the crisis has led to a deterioration in the current account balance of ECOWAS States. In 2020, the ECOWAS current account deficit stood at 4.3%, against 0.4% in 2019. This result is linked to a worsening of Nigeria's deficit by 3.3%, compared to 1.1% in the previous year.

Migrants' remittances

Migrant remittances are an important source of income in many countries in the region. In 2019, these transfers amounted to $ 33.7 billion for ECOWAS as a whole, or nearly 5% of the regional GDP. Nigeria is one of the largest beneficiaries with $23.8 billion received, or 5.3% of GDP in 2019. Ghana and Senegal follow with $3.5 billion (5.2% of GDP) and $2.5 billion (10.5%) respectively. Migrant remittances accounted for 15.8% of GDP in The Gambia and 11.6% of GDP in Cape Verde.

The lockdown measures imposed in an attempt to stem the pandemic and which have caused a drop in activity in all sectors, are expected to cause a sharp decline in migrant remittances as confirmed by a recent World Bank study. Migrant workers are particularly exposed to income losses as they work in the sectors most affected by the restrictive measures, including restaurants, hotels, retail and wholesale, tourism, transportation and construction. Based on an estimated 23.1% decline in Sub-Saharan Africa, ECOWAS remittances could drop to $ 25.9 billion in 2020, i.e. its lowest level in ten years.

Impact on social development

COVID-19 has had a social impact on the Member States, which the latter are trying to counter through response plans and economic stimulus measures. The social impact of COVID-19 can be seen in education, health, youth, gender-based violence (GBV) and the free movement of goods and people in the ECOWAS region.

Impact on education

In terms of education, COVID-19 has had the effect of affecting all pupils and students of ECOWAS at all levels as of May 10, 2020 because of the school closure measures gradually implemented by the ECOWAS Member States.

The effect of the closure of schools and universities on the reduction of human capital in the Member States is to be feared as distance learning in most countries has been carried out in difficult conditions with poor access internet and digital communication tools. The partial physical resumption of teaching which started gradually from May 2020 did not covered all countries, all training cycles and school curricula could not be completed.

In addition, learner assessments could not be carried out under optimal conditions. COVID-19 has therefore destabilized the normal functioning of education in the Member States while opening up new perspectives for distance learning with tools such as Microsoft Teams and Zoom. However, in order to make full use of these tools, an acceleration of the quality of the mobile telephone network, of the internet speed offered to users and a large-scale public action in digital investment to equip schools, universities, training centers and learners are essential.

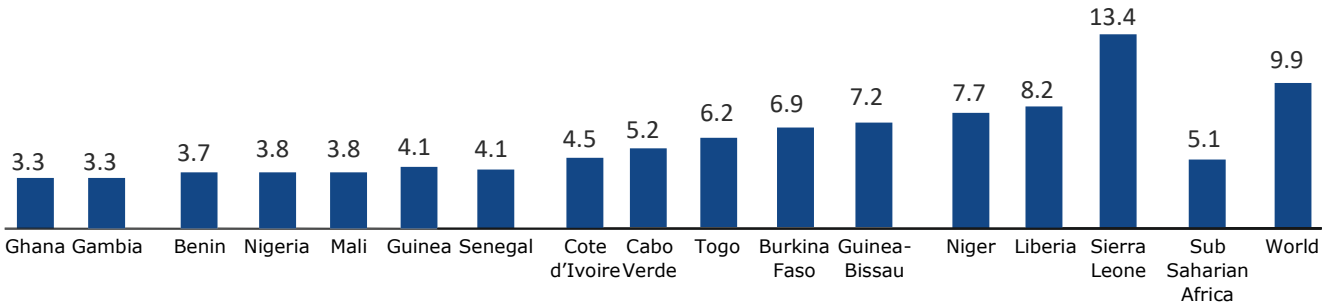
Impact on health

COVID-19 has severely strained the health system in ECOWAS countries characterized by a low level of investment and a low health staff-to-population ratio below World Health Organization standards.

In terms of investment, ECOWAS countries have a level of current health expenditure as a proportion of GDP ranging from 3.3% (Ghana) to 13.4% (Sierra Leone). With the exception of Sierra Leone (13.4%), all countries have a level of current health expenditure as a proportion of GDP below the world average of 9.9%. On the other hand, according to this indicator, the situation is much more difficult for Côte d'Ivoire (4.5%), Senegal (4.1%), Guinea (4.1%), Mali (3.8%), Nigeria (3.8%), Benin (3.7%), The Gambia (3.3%), and Ghana (3.3%), which have values below the Sub-Saharan African average.

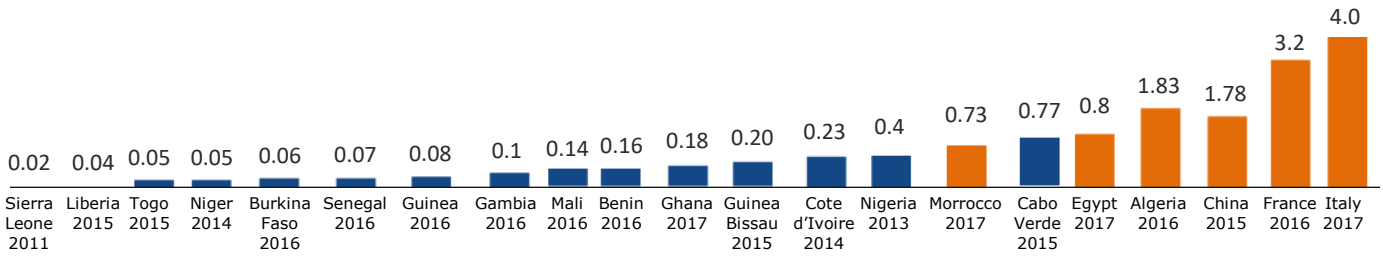
In terms of the health staff-to-population ratio, the number of doctors per 1,000 inhabitants ratio is also very low for all the ECOWAS countries, indicating a low level of care. Within ECOWAS, Cape Verde, with a ratio of 0.77 doctors per 1,000 inhabitants, has the best performance (Graph 5). The ratios of the other countries vary between 0.025 (Sierra Leone) and 0.38 (Nigeria). It is interesting to note that Morocco, destination of nationals of ECOWAS countries failing to travel to Europe and practicing health tourism, has a ratio of 0.73.

Figure 23: Current health expenditures in ECOWAS countries as a proportion of GDP in 2017



Source: WDI (2020).

Figure 24: Ratio of the number of doctors per 1000 inhabitants in ECOWAS countries



Source: ECA (2020), ECA's calculation based on the World Health Organization's Global Health Workforce Statistics. Note: The calculation used the most recent year for which data is available.

Other social effects (free movement, gender, informal work)

The closure of the international borders of member countries has restricted the freedom of movement of the community's citizens and has significantly impacted cross-border trade. In addition, the limitation of travel has an impact on the large mass of informal workers paid on a daily basis and who are forced to remain inactive. Lockdown and temporary loss of work may affect the livelihoods of populations as the informal sector accounts for more than 80% of employment in the region.

The closure of restaurants, bars, and sales areas to prevent the spread of the disease has resulted in most families losing their source of income and livelihood. In addition, the extension of lockdown measures can exacerbate domestic and gender-based violence.

6.Evidence from the household online survey

The methodological approach of this study includes a descriptive part and an analytical part. The study of the socio-economic impact of the COVID-19 pandemic in the ECOWAS region is based on data from an online survey in the ECOWAS region. The methodological aspects of the survey and analysis of the results are presented in annexes (1 to 5).

The objective of the survey was to collect credible and timely information in the 15 ECOWAS countries in order to understand the socio-economic impacts of COVID-19 on urban and rural households.

For further analysis of the socio-economic impact of the pandemic, two approaches were used, namely univariate and bivariate analysis, and multivariate analysis.

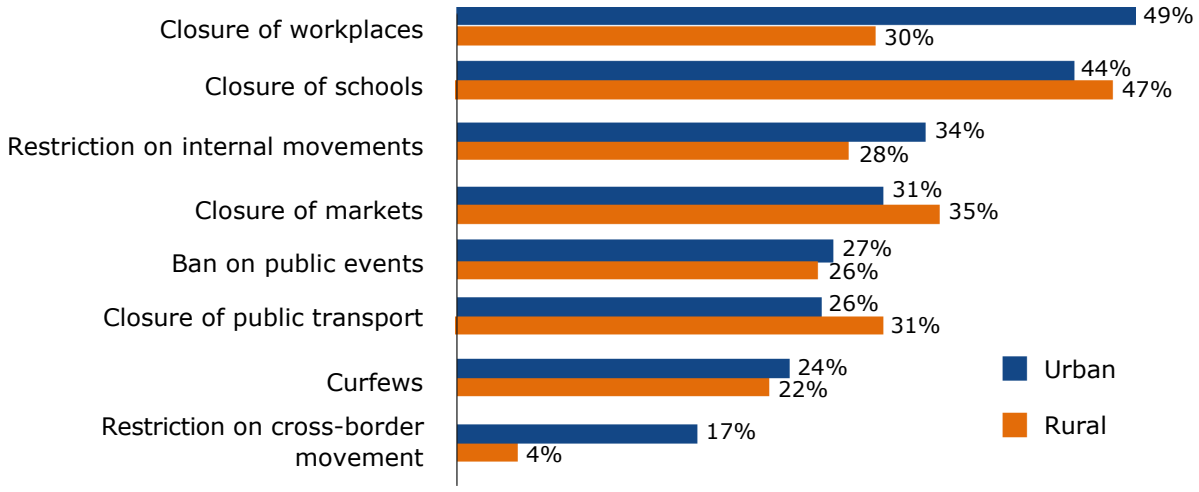
Multidimensional analysis

Measures that have the most impact on livelihoods

Households surveyed reveal that measures such as closures of workplaces, schools, markets, and restrictions on internal movement have affected their livelihoods the most.

The restrictive measures have caused market access difficulties in both urban (46%) and rural areas (62%). In cities, lockdown, fear of going out due to COVID-19, and market closures are the main reasons for difficult access to markets. Restrictions on internal movement and disruption of transport have further affected market access in rural areas where markets are more dispersed and sometimes hours' walk away. These results confirm the urban/rural transmission of the impact of the lockdown of urban areas which are currently the epicentre of the health crisis.

Figure 25: Impact of restrictive measures on household livelihoods



Source: ECOWAS Commission/Survey data analysis

Severely hampered market access

Figure 26: Difficulties of market access in rural areas

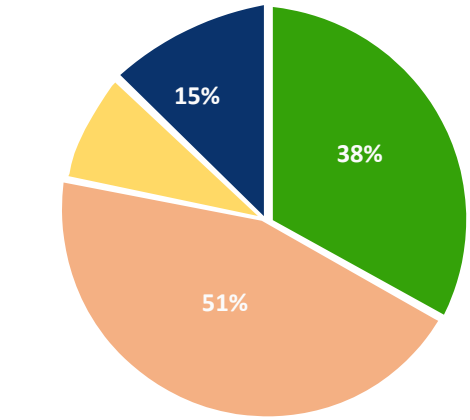
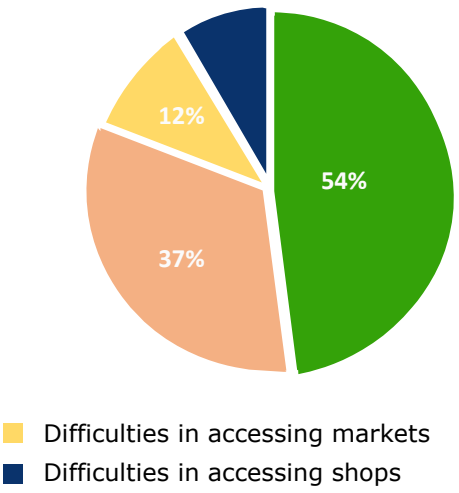


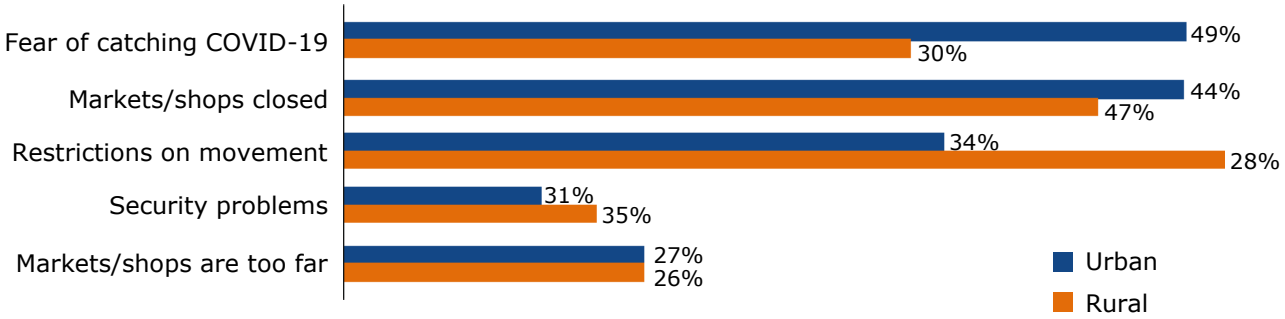
Figure 27: Difficulties of market access in urban areas



Source: ECOWAS Commission/Survey data analysis.

Availability of food and non-food products

Figure 28. Main reasons of inaccessibility to markets in urban and rural areas



Transport disruption has affected the availability of basic food, hygiene and pharmaceutical products more in rural areas. In these areas, the supply chain is longer for imported food products (e.g., rice) and storage capacities are low for both households and traders. However, in urban areas, stocks are lager and the supply chain is shorter, resulting in fewer shortages of basic food products.

Table 13: Availability of food and non-food products

	Fresh food products (e.g. vegetables, meat, eggs)		Foodstuffs basic (e.g. cereal, sorghum, flour)	
	Urban	**Rural**	**Urban**	**Rural**
Always available	**50%**	**31%**	**50%**	**31%**
Sometimes available	**43%**	**58%**	**43%**	**58%**
Rarely / never available	**2%**	**3%**	**2%**	**3%**
No longer available	**2%**	**7%**	**2%**	**7%**
Do not know	**3%**	**1%**	**3%**	**1%**

Source: ECOWAS Commission/Survey data analysis.

If COVID-19 spreads in rural areas, the low availability of food, hygiene and pharmaceutical products will exacerbate the health crisis.

Rising prices and loss of income and purchasing power

The most perceptible impact of the COVID-19 crisis is rising food prices, which was reported by more than 90% of households in both rural and urban areas. In fact, all socio-economic categories are affected.

The impact on income is more severe for those who depend on unstable and insecure sources of income, including small traders, street vendors and casual workers. People who depend on remittances are also strongly affected.

Strong disruption of sources of income, in the informal sector and for women

Daily income-generating activities, particularly in the informal sector, have been severely disrupted in most ECOWAS countries. In more than 90% of cases, households reported that the restriction measures have had a negative impact on household incomes. For 44% of them, the impact has been significant or even severe.

Figure 29: Perception of the impact of COVID-19 on household income sources

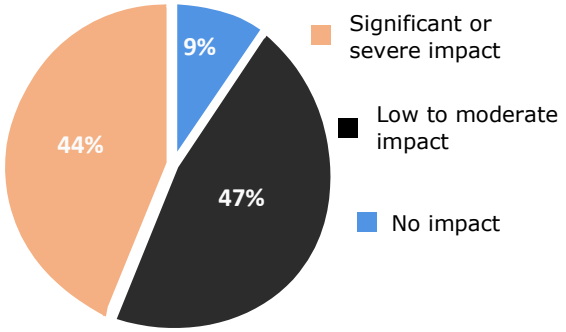
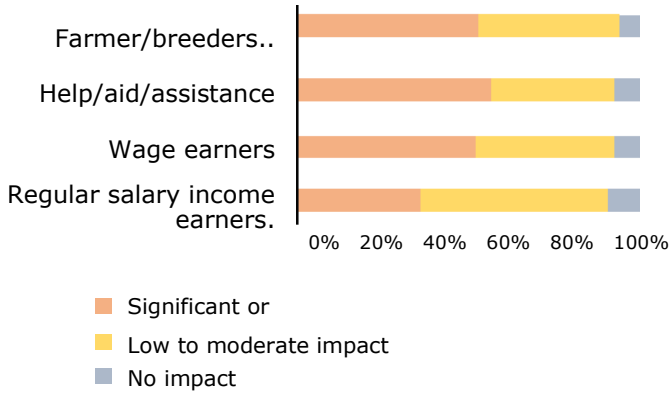


Figure 30: Perception of the impact of COVID-19 on household income sources according to livelihood groups

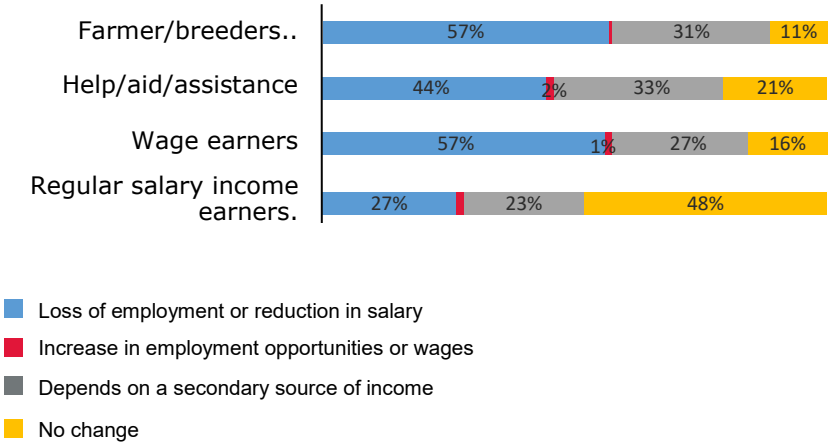


Source: ECOWAS Commission / analysis of survey data.

All types of activities have been negatively affected whether they are casual work, trade, agricultural activities or aid. Wage earners with regular income were the least impacted.

For the vast majority of respondent households, the restrictive measures led to job loss or a reduction in wages.

Figure 31: Change in revenues by main sources



Source: ECOWAS Commission/Survey data analysis.

Female-headed households appear to be more affected. In fact, 42% of these households reported to having lost their jobs following the introduction of restrictive measures, compared to 37% in male-headed households.

Informal work (casual workers, daily workers, trade, own business) and producers of fresh agricultural products (market gardening) are the most affected by the loss of employment and reduction in salary following the restrictive measures put in place by the Governments. In addition, about a quarter of households have developed a number of strategies to cope with this situation, including recourse to a secondary source of income. This implies that certain socio-economic categories, particularly people working in the informal sector, are an agile and adaptable workforce due to their low professional specialization.

Decline in food stocks

Food stock is a key indicator of food availability at the household level. At the time of data collection in June/July 2020, most households considered that on average their food stocks were lower than last year's stocks. In rural areas this percentage is 80%, against 63% in urban areas.

Increased household concerns about fear of lack of food, particularly among female-headed households.

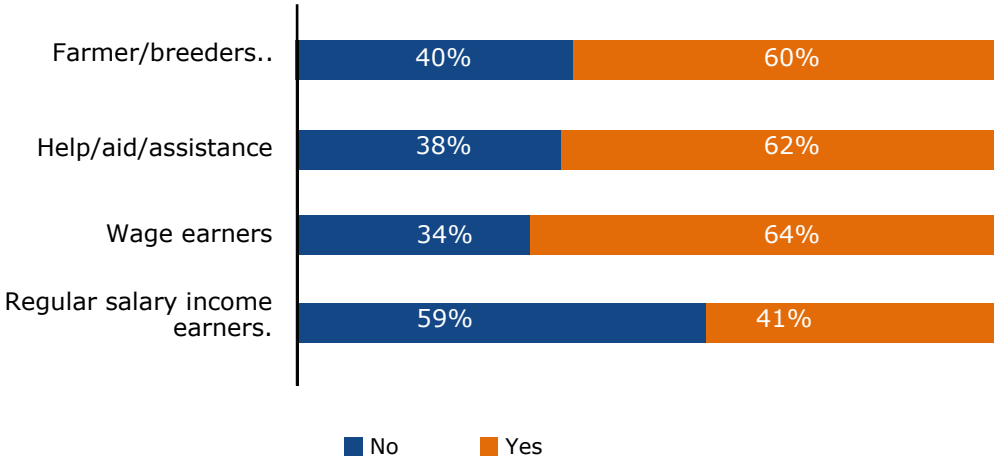
Fear of running out of food is reported by the majority of households. In fact, more than half of the households (52%) surveyed reported worrying about not having enough food in the 30 days prior to the survey.

Rural households felt the negative effects of the restrictive measures taken in urban areas through loss of earnings spilling over to rural settings. In addition, the restriction of travel and movement has prevented some rural households from being able to sell their products in urban centres or in border areas, resulting in lower incomes for rural households.

Concerns about household access to food were felt more by female-headed households. In this category, further analysis highlights a greater vulnerability of households headed by non-working women (74%) than working women (47%).

In addition, households depending on unstable and precarious sources of income - such as day laborers, small traders and those dependent on remittances or family support as well as those who are active in agriculture - also reported greater fears about access to food compared to other household categories.

Figure 32: Did the household worry about not having enough food to eat



Source: ECOWAS Commission / analysis of survey data.

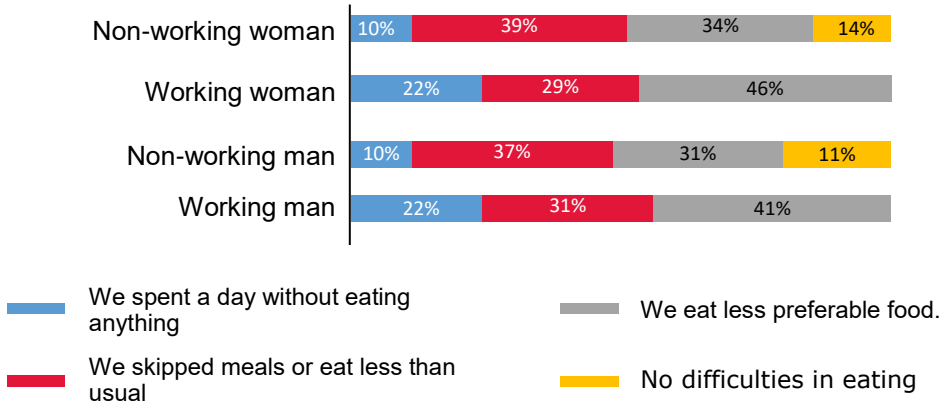
Household coping strategies facing the risk of food shortage

In order to address the lack of food, a majority of households (60%) resorted to coping strategies such as eating less preferred foods, skipping meals or eating less than usual, or spending a whole day without eating - the last two being the most stringent strategies. In the 7 days prior to the survey, almost one-third of households resorted to one of these two strategies commonly used in critical situations. These two strategies reflect stressful situations on food access.

Consistent with the previous results, households that depend on the informal sector tended to apply more stringent coping strategies than the other household categories. This could be explained by the fact that the incomes of these households are much more volatile, exposing them to greater impacts on food security in the short term. Despite the fact that some urban households have suffered a decline in income, it should also be noted that a large proportion of them work for government or public entities, which ensures relative income stability.

The analysis also revealed a difference between male-headed and female-headed households; 32% of female-headed households reported having spent an entire day without eating or skipped meals, compared to 28% of male-headed households.

Figure 33: Coping strategies adopted in the past week by gender and status of the head of the household



Source: ECOWAS Commission / analysis of survey data.

Consequences of the extension of the restrictive measures

An extension of restrictive measures or a second wave of COVID-19 contamination that could lead to a new closure of the borders of some African states could have significant repercussions on household food security. Around 45% of households believe they do not have sufficient resources to cope with an extension of restrictive measures. It goes without saying that the daily life of households in ECOWAS countries has been significantly affected by COVID-19 and the measures put in place to reduce its transmission. In order to assess this dimension, the survey focused on two important aspects: movement and travel as well as household security.

Figure 34: Regularly travelling outside the city for work

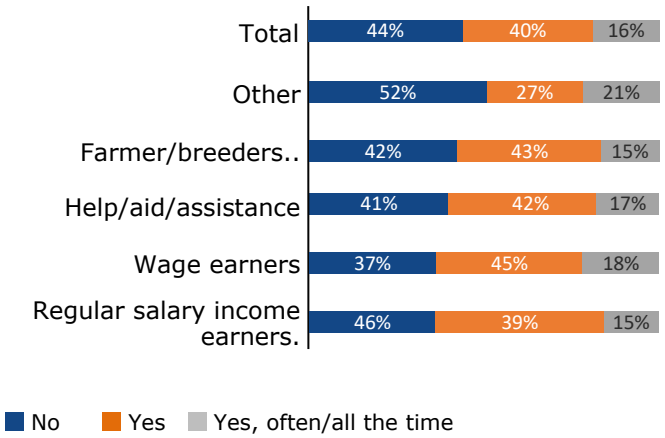
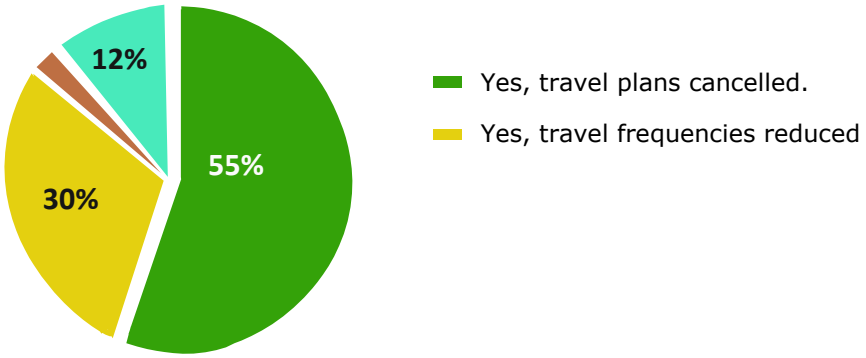


Figure 35: Change in travel for work or other reasons due to COVID-19



Source: ECOWAS Commission / analysis of survey data.

Travel is an important part of household life in both urban and rural settings. Before COVID-19, about 56% of households reported having to travel regularly beyond their city limits to work. Casual workers are the most mobile, with a total of 63% of them travelling regularly to carry out their economic activities. As for employees, they seem to travel less, compared to other workers (Figure 35).

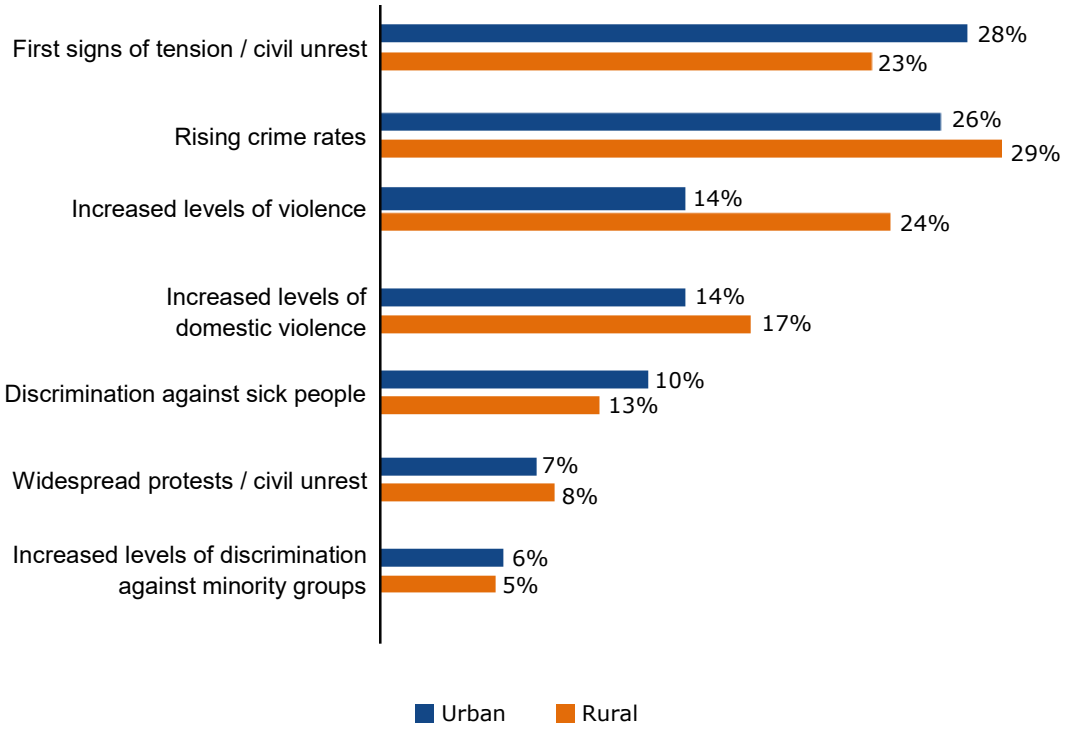
As a result of the pandemic, 86% of households reported having members who had to change their trips - either by cancelling or reducing them. No difference was observed between urban and rural areas: households also had to change their travels regardless of where they lived.

Risks of social tensions

The difficult situation that many households are facing as a result of the pandemic poses certain security risks. Some ECOWAS countries, such as Nigeria, Mali and Burkina Faso are already facing internal conflicts that did not subside during the pandemic. The loss of income, social difficulties and uncertainties about the future generated by this pandemic require special attention to changes related to tensions and violence. Figure 36 illustrates respondents' perceptions on this last point.

It is important to note that there has been an increased risk of violence in both rural and urban areas. In addition, domestic violence has slightly increased.

Figure 36: Perception of tensions and violence



Source: ECOWAS Commission / analysis of survey data.

Expectations of the population in terms of assistance

Governments' responses have reached some of the households surveyed. However, this response was limited in scope both in terms of the number of people targeted and the transfer modalities used.

In many countries, government assistance is provided in the form of food donations while the majority of households said they wanted to receive a financial allowance and health kits.

Impact of COVID-19: an evaluation through multiple data analysis

A purely descriptive analysis cannot capture the intensity of the socio-economic impact of the pandemic because its effects are complex and require a structural methodological approach. This is why, in addition to the purely descriptive work, it is necessary to carry out cross-analyses to highlight, through structural equation models, the interactions between the variables (latent and observed), the nature and strength of these causal links with the impact of COVID-19 and to predict the short- and medium-term effectiveness of the response measures taken by each country to address COVID-19.

The multivariate analysis allows the consideration of social categories at the regional level. Considering the populations of the ECOWAS region as a homogeneous group could have an impact on the quality of the results and recommendations and therefore on the effectiveness of intervention measures.

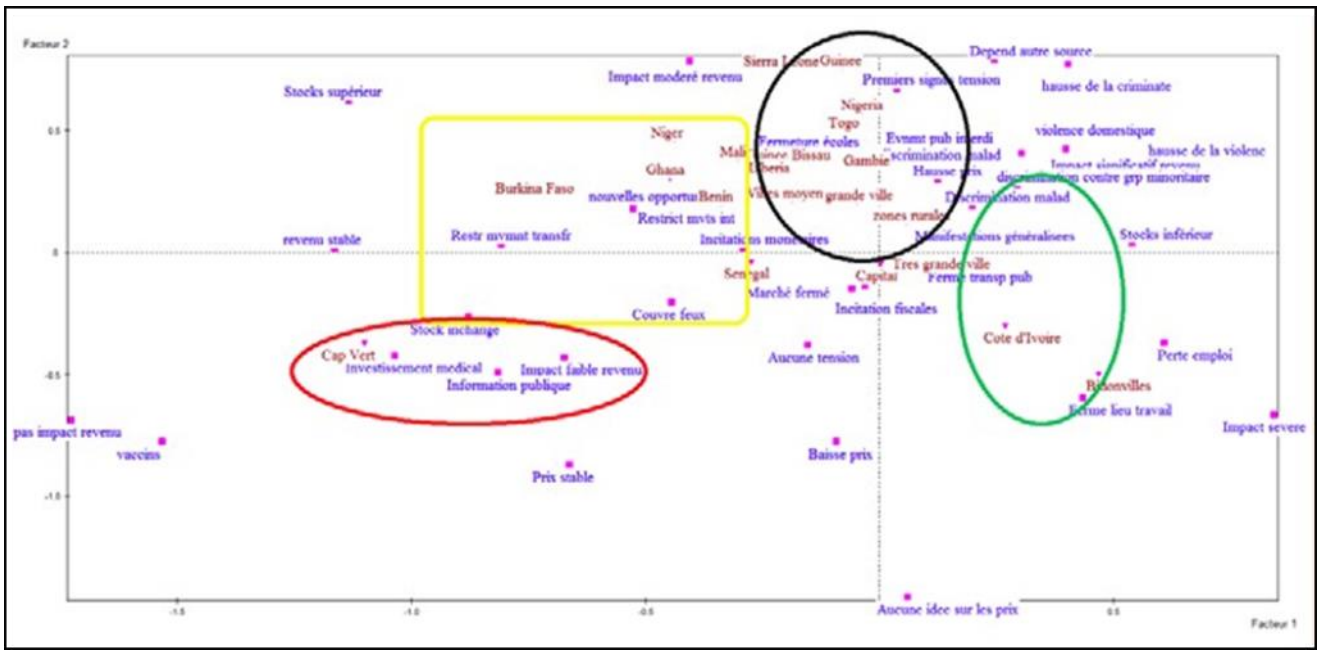
This is all the more so as countries do not have the same social, economic and nutritional situations. In addition, countries have taken different responses to COVID -19 which may in turn have different socioeconomic effects. It is therefore necessary to analyse the impact of these mitigation measures on the socio-economic situation of the countries and to classify the countries by similar socio-economic impacts.

Upstream, this mapping of the socio-economic impacts of lockdown measures is necessary not only for learning and capitalization of country experiences but also for case-by-case decision making at the regional level. Downstream, it will enable countries to customize their mitigation measures. To this end, a Machine Learning (Annex I) on the data sets would make it possible to classify the countries according to the criteria mentioned above.

There are four distinguishable groups that are noted through the analysis:

- The first composed of Togo, Guinea, Guinea Bissau, Liberia, Nigeria and Sierra Leone, characterized by rising prices, a lower level of stocks compared to last year, difficulties to carry out their activities due to measures restricting public events and the closure of schools, that are recording the first signs of tension and an increase in crime rates.
- The second group is made up of Benin, Burkina Faso, Ghana, Niger and Senegal, which have been affected by the closure of local markets and the restriction of cross-border and internal movements, all of which have helped generate new employment opportunities.
- The third group consists of Cape Verde, where COVID-19 has not had a significant impact on food stocks and prices because of the public information campaign and health investments put in place.
- Finally, Côte d'Ivoire, which is the last group with the prospect of a severe impact on income and job loss due to the closure of workplaces. Slums and informal settlements display characteristics similar to the impacts seen in Côte d'Ivoire.

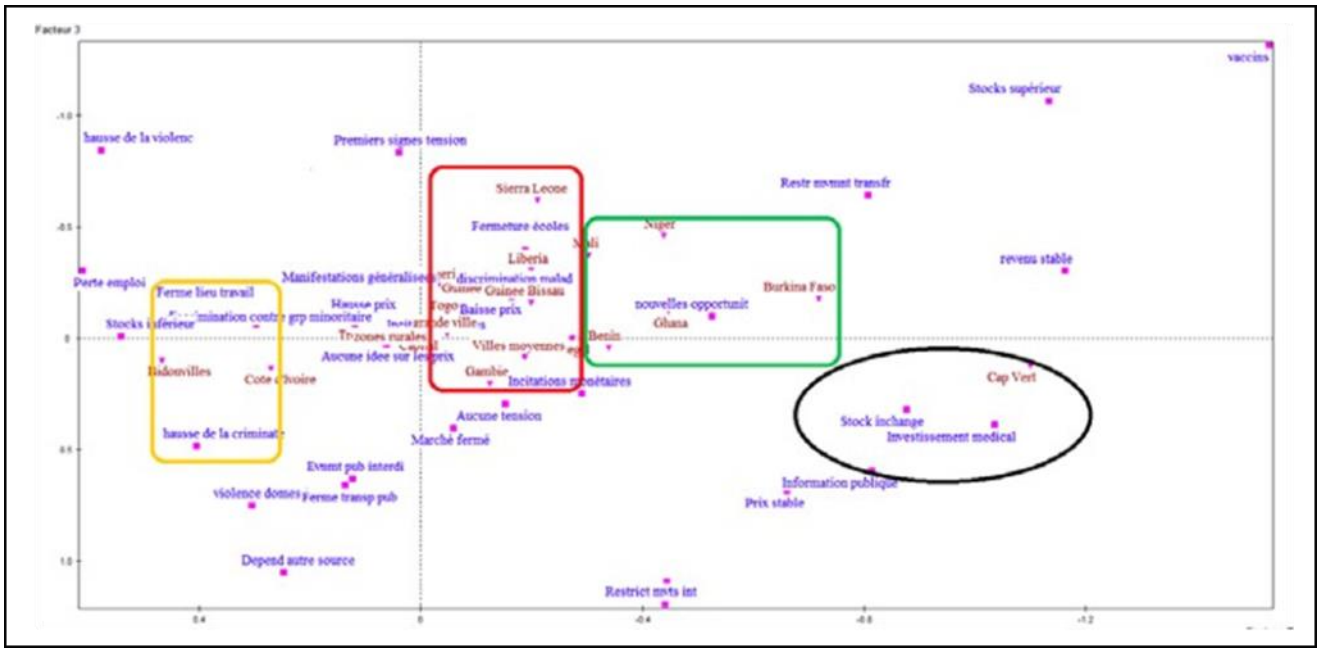
Figure 37: Representation of the cloud of active and illustrative modalities in the factorial design (1; 2)



Source: ECOWAS Commission / analysis of survey data.

Apart from the low correlation of modalities with factors, there is a proximity between capitals, cities, large cities and very large cities with variables such as increased levels of domestic violence, discrimination against the sick, increased levels of discrimination against minority groups and price increases on the one hand; and those of internal movement restrictions, closures of local markets and public transport on the other hand. This demonstrates that the advent of COVID-19's restriction measures have exacerbated some forms of tensions at the family level.

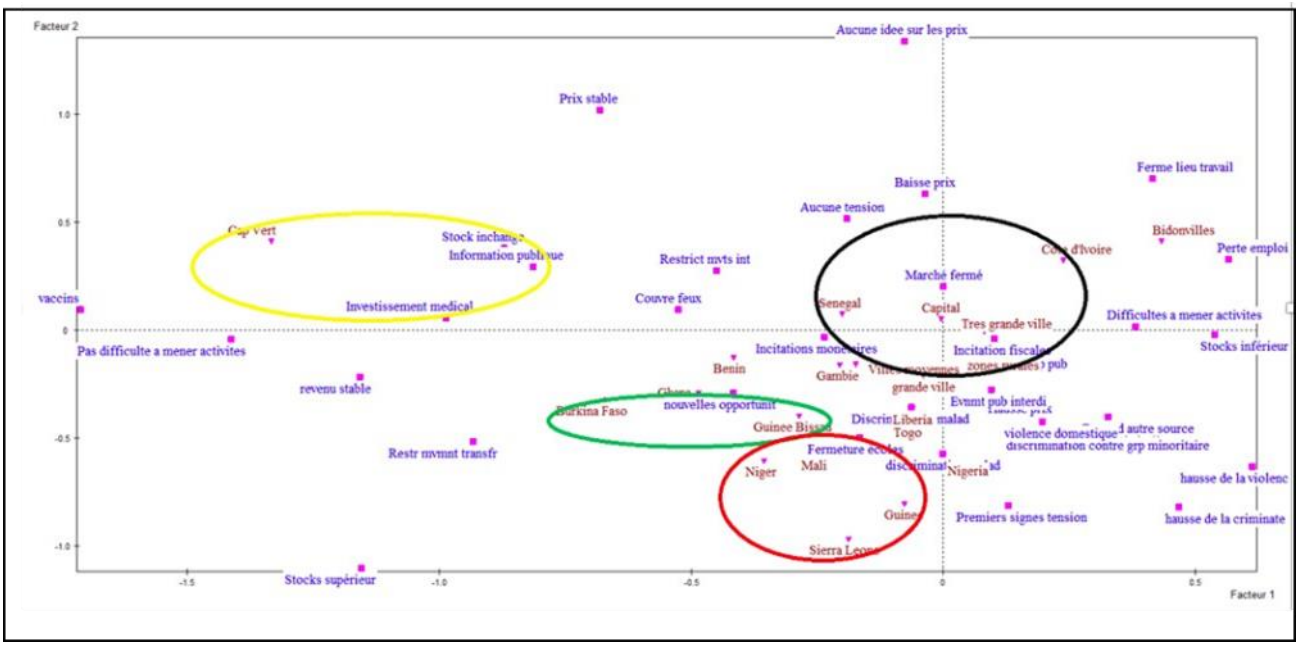
Figure 38: Representation of the cloud of active and illustrative modalities in the factorial design (1;3)



Source: ECOWAS Commission / analysis of survey data.

In short, it should be noted that variables such as price increases, lower inventories compared to last year, school closures, increased crime rates, local market closures, new job opportunities, unchanged stocks, public information, medical investment, severe impact on income, job loss, workplace closures can be considered as explanatory factors for the socio-economic impact of COVID-19. An additional analysis of these modalities gives a representation of the cloud of active and illustrative modalities in the factorial design with four more or less homogeneous and distinct groups.

Figure 39: Representation of the cloud of active and illustrative modalities in the factorial design (1;2)



Source: ECOWAS Commission / analysis of survey data.

After the interpretation of Figures 37-39, we proceed to a classification of the countries of the ECOWAS area according to all the criteria. There are six main groups of homogeneous countries to analyse according to the results. However, given the number of country groups and the high disparity in the variables, an automatic hierarchical bottom-up classification was applied, the results of which are recorded in Table 14 below where five main categories are identified.

Table 14: Country classification

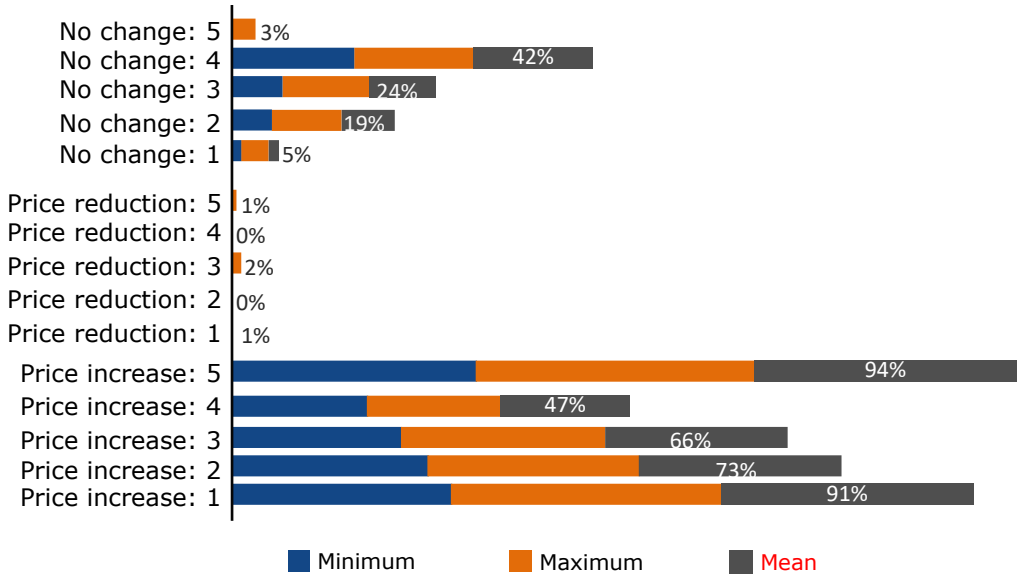
Group 1	Group 2	Group 3	Group 4	Group 5
Benin	Burkina Faso	Cote d'Ivoire	Cabo Verde	Mali
Ghana	Guinée Bissau	Sénégal		Guinée
Liberia				Niger
Gambia				Sierra Leone
Nigeria				
Togo				

Source: ECOWAS Commission / analysis of survey data.

Figure 40 shows that an average of 94% of respondents from group 5 countries have been affected by the price hike.

In group 1, 91% of respondents from these countries noted an increase in prices. Group 4 is the group where respondents didn't feel the effects of the price increase as much, with only 47% noting it, while 42% of them consider prices to be stable. In other words, more than 47% of the individuals in the different groups have observed a price hike, while those who consider that prices have not changed as a result of restrictive measures, are less than 42%. The price-reduction modality is an

Figure 40: Impact of COVID-19 on prices by groups

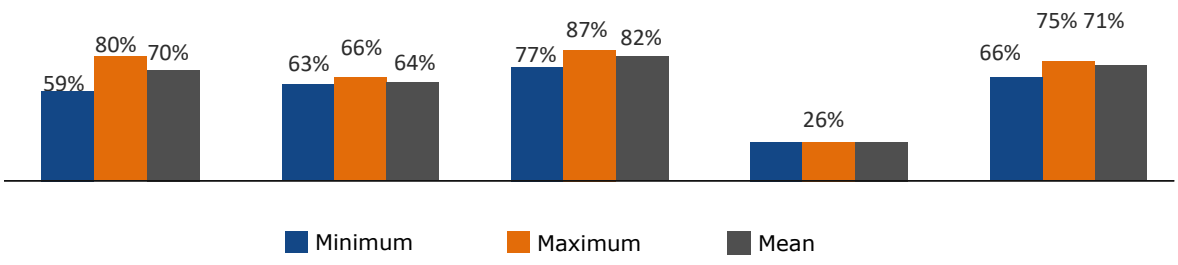


Source: ECOWAS Commission / analysis of survey data.

Figure 41 shows that 26-87% of households have encountered difficulties in carrying out the activities they live on since restrictive measures were put in place by governments.

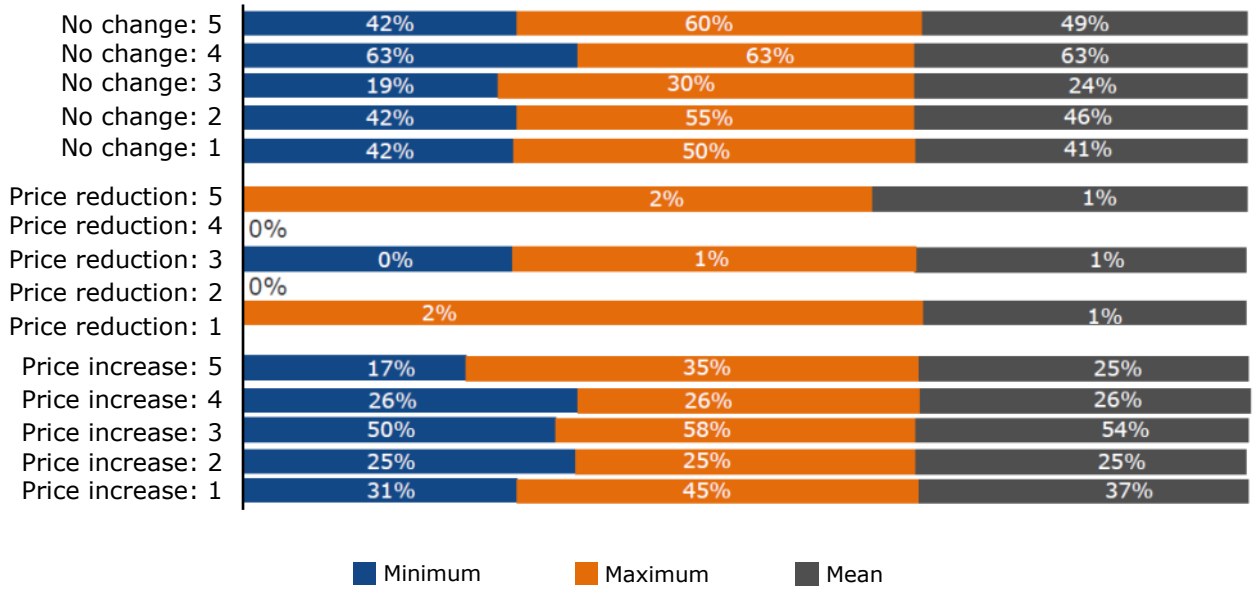
In particular, the restrictive measures of governments in group 3 countries have affected on average 82% of households in their ability to carry out their basic activities. Group 4 government measures have affected household activity the least (26%).

Figure 41: Difficulties in carrying out activities



The analysis of the impact of government measures on sources of income confirms that it is in group 3 (Côte d'Ivoire, Senegal) that households (54%) fear job loss as a result of the restrictions, while 63% of households in group 4 (Cape Verde) have not observed any change in their main sources of income (Figure 42). The job opportunity variable represents isolated cases as shown by their weights in relation to sample size. In short, 17-58% of households fear job loss compared to 19-63% who are confident that they will not lose their jobs as a result of the pandemic.

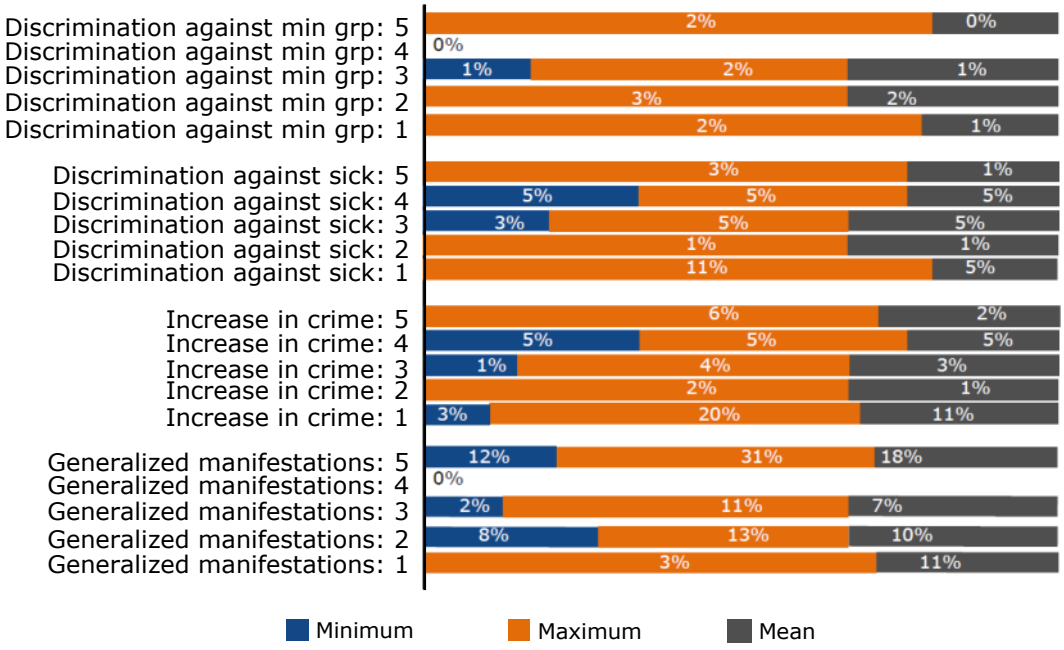
Figure 42: Impact of measures on sources of income



Source: ECOWAS Commission / analysis of survey data.

The analysis of the social tension variable reveals an upsurge in crime in group 1 group of countries (Benin, Ghana, Liberia, Gambia, Nigeria, Togo) with a rate of 11% of households admitting this (Figure 43). Households in group 5 (Mali, Guinea, Niger, Sierra Leone) mentioned widespread demonstrations and civil unrest (18%) and discrimination against the sick (11%) as signs of social tension. Discrimination against minority groups and against the sick seems subsidiary since no more than 5% of the respondents notified it.

Figure 43: Risks of tension



Source: ECOWAS Commission / analysis of survey data.

Overall, school closures, followed by closures of workplaces and local markets, have affected households the most. School closures have affected 32-52% of households. On average, 48% of households in group 5 countries (Mali, Guinea, Niger, and Sierra Leone) have been affected by school closures. However, it is the households (32%) in class 4 (Cape Verde) followed closely by those in class 3 (Côte d'Ivoire and Senegal with an average rate of 29%) that fear the impact of the closure of work places.

Moreover, the countries have not experienced the same socio-economic impact of the COVID-19 pandemic due to the heterogeneity of the response measures adopted by the countries. In a dynamic of learning, capitalization and personalization of these measures, it is necessary to question the socio-economic variables most affected by these measures and to investigate the least or most effective measures.

A discriminant analysis of country profiles according to the measures taken is performed, followed by a classification of these countries according to the most important variables resulting from the discriminant analysis in order to proceed, finally, to the characterization of the countries.

Socio-economic impact of mitigation measures: classification and characterization of countries

In this section, an analysis of the variables that discriminate between ECOWAS countries according to the mitigation measures taken against COVID-19 is made in order to determine the most important variables. A discriminant factor analysis (DFA) or simply discriminant analysis is used for this purpose. The latter is a statistical technique used to determine the variables that make it possible to discriminate between two or more groups naturally occurring.

The results of the discriminant analysis of country mitigation measures, shown in Figure 44, reveal that the availability of fresh food products (10), basic food products (11), hygiene products (12) and the food situation of households (24) are the most important variables for discriminating countries according to the impacts of the mitigation measures taken. These variables are also known determinants of food security and illustrate that the measures taken have not had the same impacts on food security of the countries.

Table 15: Summary of analysis validity criteria

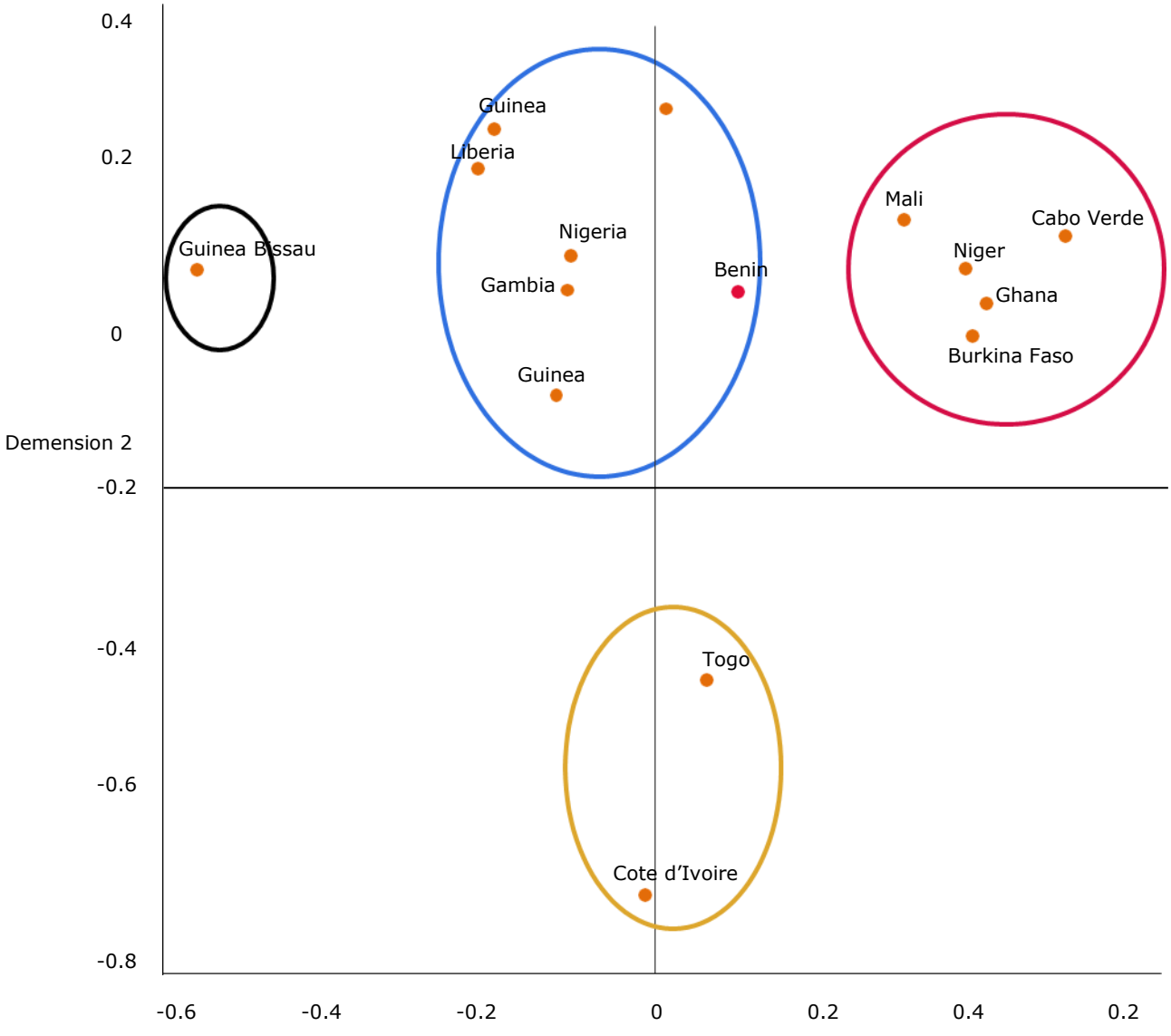
Dimensions	Cronbach's alpha	Deviation taken into account		
		Total (own value)	Inertia	% of the Variance
1	0,795	2,748	0,550	54,966
2	0,668	2,149	0,430	42,978
Total		4,897	0,979	
Average	0,740[a]	2,449	0,490	48,972
Cronbach's mean Alpha is based on the mean eigenvalue				

Source: ECOWAS Commission / analysis of survey data.

The results of the validity tests in Table 15 show that the results are robust and valid as the average of Alpha Cronbach and the total information captured must be at least 0.7, whereas they are 0.74 and 0.979 respectively in this case.

A final Multiple Correspondence Analysis (MCA) of these discriminant variables gives a new representation of the countries according to their profiles (the closest ones are identical) as in Figure 44.

Figure 44: Grouping of countries according to the variables that discriminate them



Source: ECOWAS Commission / analysis of survey data.

Figure 45 shows four groups of countries: we have the Burkina Faso, Cape Verde, Mali, Ghana and Niger group completely opposite to that of Guinea Bissau group but close to the Benin, Guinea, Liberia, Gambia, Nigeria, Sierra Leone, Senegal group which is in turn are in a complete opposite position to the Togo and Côte d'Ivoire group.

Thus, the food security situation in Guinea Bissau is completely opposite to that of households in the Burkina Faso group, but close to that of Benin. The food situation of the Benin group is intermediate but opposite to that of the Togo group.

A classification of countries according to these four food security variables gives four classes of countries with specific profiles as shown in Table 16.

Table 16: Grouping of countries according to the variables that distinguish them

Group 1	*Group 2*	*Group 3*	*Groupe 4*
Benin	Burkina Faso	Guinea Bissau	Togo
Guinea	Cabo Verde		Cote d'Ivoire
Liberia	Mali		
Gambia	Ghana		
Nigeria	Niger		
Sierra Leone			
Senegal			

Source: ECOWAS Commission / analysis of survey data.

Characterization of countries

Restrictive measures by group 2 governments (Burkina Faso, Cape Verde, Mali, Ghana, Niger) have affected the availability of fresh food products for households the least. In fact, 62-78% of households indicated that these products were always available. In particular, Cape Verdean measures seem to be the most effective as 78% of these households responded that fresh food products were available and 22% of them maintain that these products are sometimes available.

Relatively limited availability of fresh produce

Group 1 consists of Benin, Guinea, Liberia, Gambia, Nigeria, Sierra Leone and Senegal. It recorded an average impact of government measures on the availability of fresh produce with 35-60% of households finding that such food was still available on the market and in shops. In contrast, in Sierra Leone and Liberia, the situation of households is more precarious in terms of the availability of fresh produce, as at least 60% of them found that these products were sometimes available.

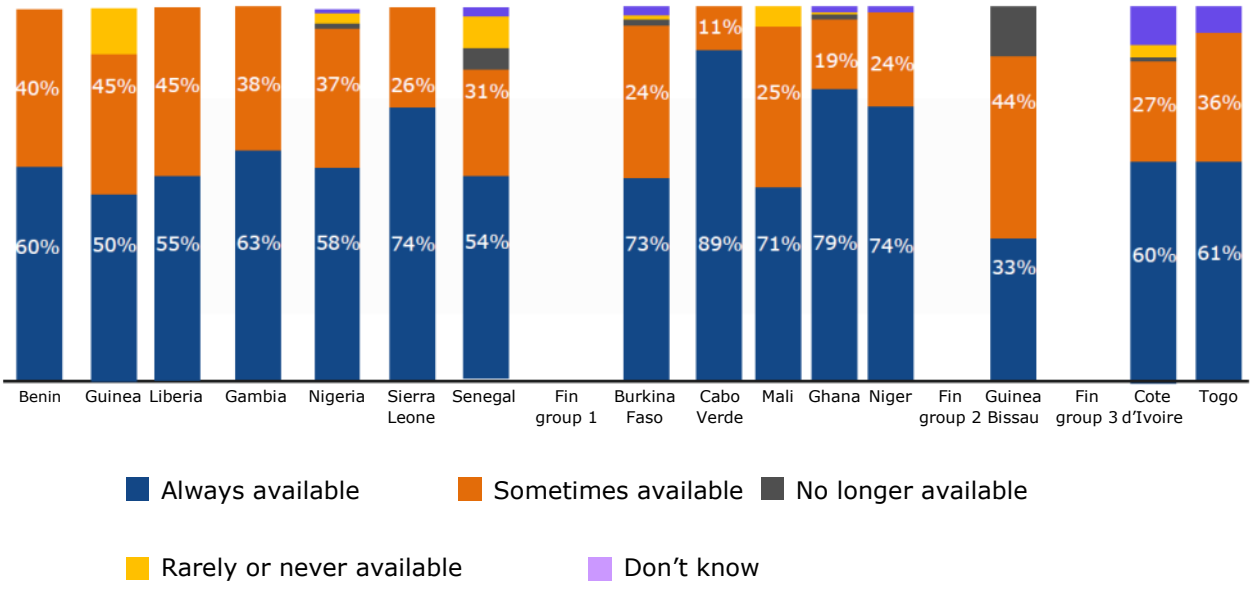
In group 4, composed of Togo and Côte d'Ivoire, the availability of fresh food products is almost similar for both countries (53% and 56%) but remains lower than in group 1. Moreover, government measures in group 3 have had the most drastic effects on the availability of fresh produce for households than those in the other three groups. Only 33% of them noted the presence of fresh food products in the markets, while 44% said that these products are sometimes available and 11% said that they are no longer available.

Acceptable availability of basic food products

As previously for fresh produce, Class 2 government measures have been the most effective in terms of impacting the availability of basic foods products (Figure 45). Indeed, between 71-89% of households in these countries noted that food products were always available in markets and shops and 11-25% noted that they are sometimes available.

In group 1, between 54-74% of households found that basic food products are always available versus 14-38% who said that these products are sometimes available. Group 4 is homogeneous and shows that 60% and 61% of households in Côte d'Ivoire and Togo respectively, had found that basic food products were available on the market and in shops. The availability of basic food products in class 3 has been particularly the most affected of all classes with about one-third of responses indicating that they are always available and one-quarter indicating that they are sometimes

Figure 45: Availability of basic food product

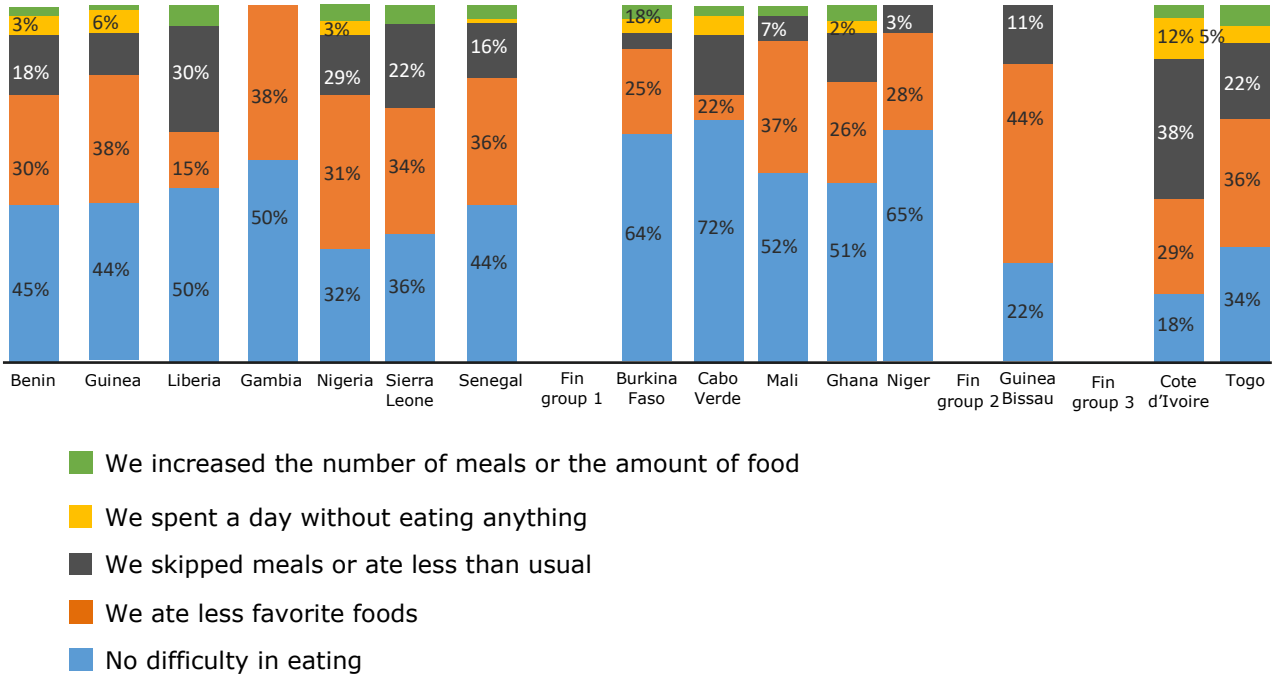


Source: ECOWAS Commission / analysis of survey data.

The analysis of the country profile in terms of food situation following the mitigation measures taken by governments against COVID-19 presents those in group 2 followed by group 1 as having less impact on households compared to group 4 and 3 (Figure 46). In fact, 22% of group 3 households admit having no difficulty eating enough to satisfy their hunger, 44% of them ate less preferred foods and 11% of them skipped a meal.

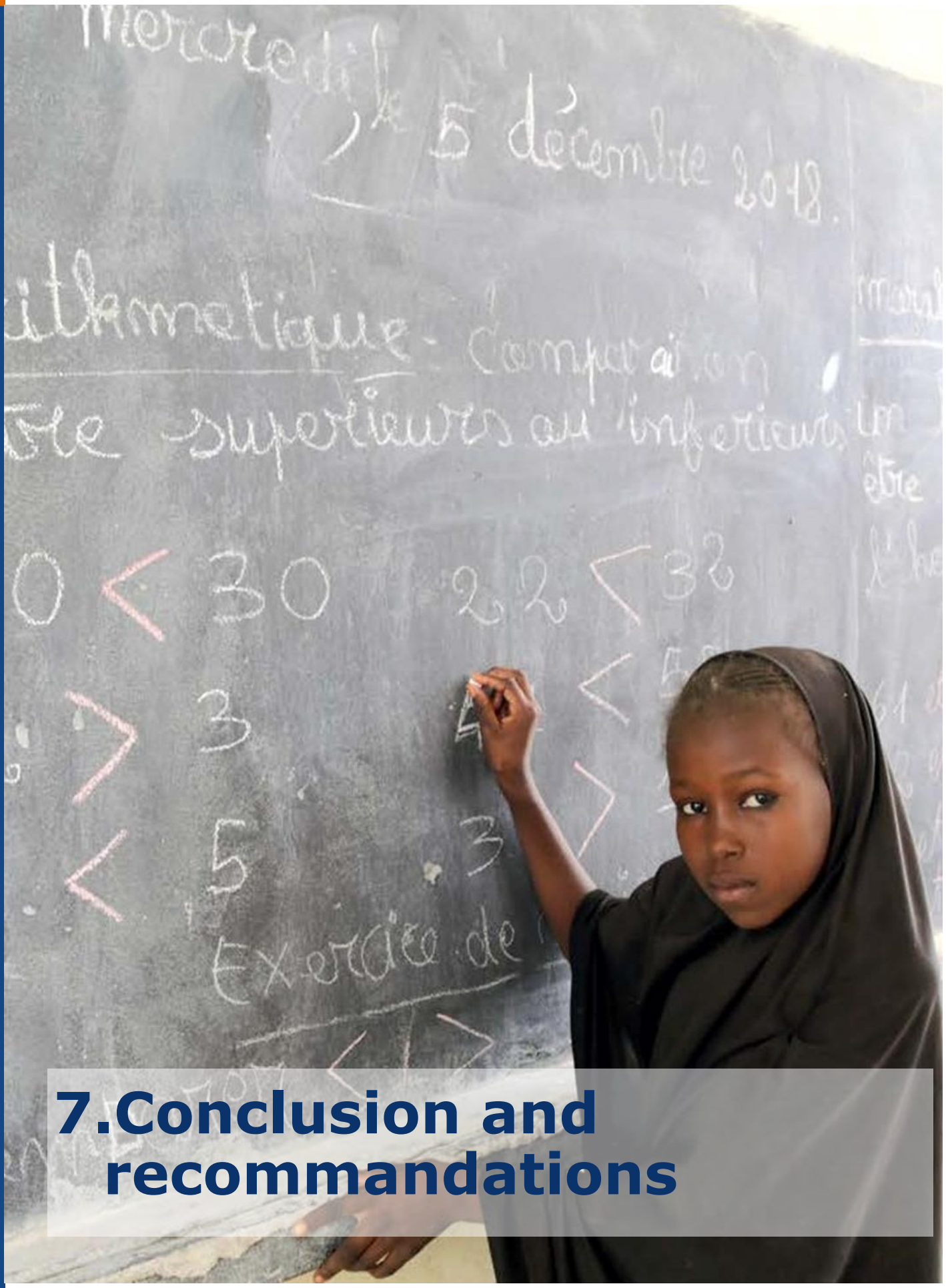
In groups 1 and 2, between 32-50% and 51-72% of households, respectively, had no difficulty in having enough to eat. Between 15-38% of class 1 and 22-37% of group 2 often ate less preferred foods. Group 1 recorded more cases where households (15-38%) either skipped a meal or spent an entire day without eating.

Figure 46: Household food situation



Source: ECOWAS Commission / analysis of survey data.

In conclusion, government measures against COVID-19 in group 2 are the most effective of all in terms of food security and can therefore serve as a lesson for other similar cases. However, group 3 measures need to be further investigated to determine the causes of its ineffectiveness in order to avoid them in the near future.



7.Conclusion and recommandations

An unfavourable macroeconomic situation

The analysis indicates that ECOWAS countries are highly dependent on a single export product or in the most positive cases, on three main goods. As a result, the entire economy is highly sensitive to any shock affecting the market for these goods given their dominant weight. A drop, sometimes significant, in the prices of raw materials exported by ECOWAS is observed due to the contraction of global demand, leading to a decline (-11.4% in March 2020) in the price index of exported commodities.

Heavy reliance on a few products for exports or on a small number of recipient countries amplifies the impact of a crisis on the regional economy. The COVID-19 pandemic that is severely affecting India, the European Union, the United States and South Africa, by far the main clients of ECOWAS, reveals the fragility of the regional export sector.

The region's economic growth prospects are not good for the second and third quarters of 2020, and negative annual growth is expected. In fact, according to forecasts, ECOWAS is expected to enter recession in 2020, with a 3.6% contraction of the regional economy. The contraction of the regional economy in a context where Member States have increased social spending to curb the effects of restriction measures is expected to widen the public deficit. The budget deficit for ECOWAS as a whole is expected to reach 6.4% in 2020 while the public debt ratio is expected to reach 41% and 42% respectively in 2020 and 2021 against 35% in 2019.

Strong repercussions on households

Closure of workplaces, schools, markets, and restrictions on internal movement were the measures that most affected the households surveyed.

Furthermore, the restrictive measures caused difficulties in accessing markets in both urban (46%) and rural areas (62%). In the cities, lockdown, fear of going out due to COVID-19 and the closure of markets are the main reasons for the difficulty in accessing markets. Restrictions on internal movement and disorganized transport affect market access more in rural areas where markets are more dispersed and sometimes located several hours' walk away. These results confirm the urban/rural transmission of the impact of the confinement of urban areas, which are currently the epicentre of the health crisis.

Also, disorganized transport affects the availability of basic food, hygiene and pharmaceutical products more in rural areas in urban centres. In these areas, the supply chain is longer for imported food products (e.g., rice) and storage capacities are low among both households and traders. However, in urban areas, stocks are larger and the supply chain is shorter, resulting in less frequent disruptions for basic food products. If COVID-19 spreads in rural areas rural, the low availability of food, hygiene, and pharmaceutical products would exacerbate the health crisis.

The analysis indicates that the most perceptible impact of the restriction measures is the increase in food prices. The impact on income is most severe for people who depend on unstable and precarious sources of income, including small traders, street vendors, and daily workers. People who depend on remittances are also strongly affected. The crisis could induce greater instability in consumer prices in 2020, although on average a slight easing of consumer price increases is to be expected. This slight easing is favoured by the drop in demand and the sharp drop in oil prices, the combined effect of which should more than offset the rise in the price of certain specific products caused by supply disruptions linked to the pandemic.

A price increase similar to that of 2008 would have a strong negative impact on the region's food and nutritional security. The analysis indicates that the fear of running out of food is reported by the vast majority of households. This also explains the "panic buying" observed when the restriction measures were announced.

The analysis indicates that some socio-economic categories are more affected than others. Indeed, migrant workers are particularly exposed to income losses, as they work in the sectors most affected by the restrictive measures, including restaurants, hotels, retail and wholesale trade, tourism, transport and construction.

Projected real COVID-19 cases in the region

The epidemiological situation of the COVID-19 pandemic shows a level of cases diagnosed positive to COVID-19 of 131,680 as of August 3, 2020.[13] This level represents 13.6% of cases on the continent, a relatively low incidence level for an area that is home to 30% of the African population. [14] ECOWAS had low case-fatality rates as at 6 August 2020 compared to the rest of Africa and the world, with a level of 1.5% compared to 2.1% and 3.8% respectively. The region, like the continent, also has relatively good cure rates, estimated at 69% and 65% respectively.

However, an analysis of relative levels of testing per 1000 inhabitants on data observed, between August 3 and 5, 2020, in a group of ECOWAS countries compared to two peer African countries (Morocco and South Africa) shows low rates ranging from 1.3 to 13.4 per thousand.

Consequently, an alignment of testing capacity to the average level of South Africa between June and July 2020 (29.6 per thousand inhabitants), taking into account the average positivity rates of the countries considered over the same period, shows that the five countries considered, which concentrate about 82% of ECOWAS cases, a number of potential cases estimated at 1.3 million, i.e. nearly twelve (12) times the current number of cases. Consequently, the implementation of generalized lockdown lifting and quasi-return to normal life measures should take into account both the evolution of the number of positive cases recorded and the number of tests carried out.

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[8] https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200803-covid-19-sitrep-196-cleared.pdf?sfvrsn=8a8a3ca4_4

[9] UN Population Division Database,2020

Recommended policy actions

From the findings, the following recommendations can be made:

a. It is crucial to systematically strengthen coordination and consultation among the various States with a view to harmonizing and ensuring the consistency of policies and measures implemented within the framework of the community provisions in force in the sub region.

b. Governments are called upon to further promote free movement by reducing restriction measures (tariff and non-tariff barriers) that impede the movement of goods, persons, capital and services, including the relaxation of transhumance measures, while strengthening the application of measures and health devices.

c. Governments are encouraged to support policies and investments for local production and processing in line with policies and strategies adopted at the continental, regional and sub-regional levels and to take advantage of innovation and technologies to modernize the agricultural sector, supply chains, promote e-business platforms and diversify the economy in general.

d. Governments and economic actors are encouraged to invest in innovation by taking advantage of new information technologies to improve attempts to use distance learning as a teaching tool to deal with such situations in the future.

e. It is important to work with the States and all technical and financial partners to prioritize food products and agricultural inputs in the processing of goods at the ports and to ensure that agricultural producers have access to agricultural inputs in time for the next crop year.

f. It is important for the States and the private sector to invest through research and development (R&D) in supply chains and the local processing of certain food and pharmaceutical products in order to reduce the supply chain and the risk of disruptions if restriction measures are extended.

g. There is a need to strengthen advocacy, policy dialogue and mobilization of adequate resources for food security and nutrition in relation to medium and long term interventions, including social protection, social safety nets, strategic reserves, food banks, etc.

a. It is vital to continue to work closely with governments and partners to establish humanitarian corridors, understand the socio-economic impact of COVID-19 on vulnerable households and promote optimal and inclusive supply chains to facilitate agricultural producers' access to markets while ensuring the free movement of goods, persons and humanitarian personnel.

b. There is an urgent need to forge/strengthen partnerships at several levels to guide and support decision-makers in the implementation of evidence-based interventions.

Annexes

Annex 1: Methodological Approaches: Use of Survey Data

Survey implementation strategy

In a context marked by significant restrictions on movement due to COVID-19, the collection of data from households using traditional survey methods was not feasible. It was very difficult to simultaneously deploy field interviewers to collect data from households in all 15 ECOWAS countries. Such an approach would be extremely time-consuming and costly when the priority was to save lives in the face of an unprecedented health crisis. For these reasons, the technical teams of WFP, ECOWAS, CERFAM and ECA explored other data collection methods. It appeared that online or web-based surveys had already been explored by the Caribbean regional organization (CARICOM) to assess the impact of COVID-19 and restrictive measures on populations.

By definition, online surveys are used to survey the opinions of populations and understand their perceptions on a given issue. These types of surveys make it possible to cover a large geographical area in a short period of time and at a lower cost. They do not necessarily target a representative sample, but seek to mobilize a large number of participants in order to gather as much information as possible about the problem.

Data Collection Tools

ECOWAS has adapted the methodology and tools developed in the Caribbean to the context of West Africa.

As part of this survey, a household questionnaire was developed in the three (03) languages officially spoken in the region (English, French and Portuguese). This questionnaire is structured around the demographic characteristics of the responding household, the restrictive measures, the impact on food security and livelihoods, coping strategies and the risks incurred in case of prolonged restriction measures. This questionnaire was developed on ArcGIS' Survey123 platform. This platform is accessible free of charge for the World Food Programme (WFP) thanks to a headquarters agreement with the company ESRI. Once the questionnaire was developed, the link generated was then widely disseminated in the sub-region. For this survey, several communication channels were used to disseminate the questionnaire.

First, ECOWAS mobilized the statistical institutes of member countries which in turn inputted the various panels used in their routine surveys. In addition, through emails, social networks (WhatsApp, Facebook, Twitter), the questionnaire was widely disseminated in the 15 countries at the same time. In addition, in some countries, cell phone companies sent SMS messages to their users for their participation. Finally, regional associations and cooperatives (AFAO, RBM, APESS, ROAC, ROPPA, and RESIMAO etc.) mobilized their members to answer the questionnaire. The combined efforts of all these partners made it possible to widely disseminate the questionnaire in the 15 ECOWAS countries.

Data collection took place from May 10 to July 3 and 4,677 households were registered.

Weighting

During the data collection phase, coverage errors appeared due to the distribution of the sample in the geographical areas considered (countries, regions, etc.) and the characteristics of the targeted households. To correct them, weights were calculated taking into account the number of households per country, disaggregated by sex of the head of household and the internet coverage rate. The application of these coefficients made it possible to adjust the data so that the distribution of the sample was similar to that of the population with respect to the parameters considered.

The results thus presented provide a good assessment of the general socio-economic situation of households in the region on the impacts of COVID-19.

In the data analysis, the ECOWAS area was generally considered as a single stratum. However, the analysis of secondary data made it possible to take into account the specificities of each country as the countries do not have the same social, economic and food situations.

Limitations of the Study:

The main limitation observed is the low participation in areas with low internet coverage and in countries where dissemination has been limited. However, these limitations have been corrected by weighting techniques based on internet access rates and the sex of the heads of household.

Annex 2: Table of results

Household size		
Residence area	Mean	N
Urban	5.98	4413
Rural	7.97	222
Total	6.08	4634

ANOVA Table							
			Sum of Squares	df	Mean Square	F	Sig.
Household size * Residence area	Be-tween Groups	(Combined)	835.681	1	835.68 1	55.23 0	.00 0
	Within Groups		70091.75 8	4632	15.131		
	Total		70927.43 9	4633			

Revenue Frequencies				
		Responses		Percent of Cases
		N	Percent	
Revenue	Employee with regular income	3140	51.9%	67.2%
	Casual/day /business/comm. workers	2033	33.6%	43.5%
	Aid/Donation/Assistance	468	7.7%	10.0%
	Farmer/Market gardeners /Breeders/Fishermen	234	3.9%	5.0%
	Others	172	2.9%	3.7%
Total		6047	100.0%	129.3%

Annex 3: Multivariate Analysis Methodology

I. Machine Learning

Machine Learning is a computational technique that allows computers to learn how to perform tasks based on patterns perceived in data. For example in E-commerce, the machine learns to recommend items to consumers based on geographic location data and past purchases.

Depending on the nature of the data, there are two approaches to the machine learning: supervised and unsupervised.

- Supervised Machine Learning is applicable to quantitative data. It consists of asking the machine to learn to predict a variable. Concretely, this involves a dependent or to be predicted column in the dataset where the X variables are the Predictors and the Y dependent is the Variable to be predicted. This is a regression problem.
- The unsupervised Learning Machine is applied mainly to qualifying datasets. It consists in asking the machine to construct a typology of the objects studied, i.e. groups of similar objects. The aim is to create classes. This does not imply a variable column to be predicted in the initial dataset. Common tools include k-means, Hierarchical Ascending Classification, Principal Component Analysis, and Multiple Component Analysis (MCA). This will be applied in this analysis because the data is qualitative.

Multiple Correspondence Analysis or MCA is a method of data analysis based on the description of large tables of qualitative variables. With this method, the linear and/or non-linear relationships between the variables are highlighted.

The Multiple Correspondence Analysis (MCA) of the data will be used as a basis to identify homogeneous groups and allow a classification of countries according to the intensity of the socio-economic impact. In effect, a hierarchical bottom-up classification (HOC) is made based on a multiple correspondence analysis (MCA). The ACM will essentially allow the classification of countries according to the impact of COVID-19 on income and social tensions.

The literature search conducted made it possible to assess all the variables relevant to the study. Variables such as accessibility to markets and stores, availability of fresh food, availability of staple foods, level of impact of COVID-19 on income, impact of COVID-19 on prices, impact of COVID-19 on food stocks, ability to carry on business, ownership of draught animals, impact of COVID-19 on the source of income, government measures to respond to the pandemic are considered active dummy variables.

II. MCA Variables

a. List of active dummy variables

Variables	MODALITIES
Accessibility of markets and stores	No difficulties Difficulties in accessing local markets Difficulties accessing supermarkets Difficulties in accessing the stores
Availability of staple foods	*Always available* Never available I don't know No longer available Sometimes available
Availability of fresh food	*Always available* Never available I don't know No longer available Sometimes available
Impact of government restrictive measures on food product prices	Price increase Decrease in prices No change I don't know
Has your household experienced any difficulties in carrying out the activities you have been living on since the restrictive measures were put in place by the government?	Difficulty in carrying out the activities (yes) No difficulty in carrying out the activities (no)
Has your household income changed since the restrictive measures were put in place by the government?	Loss of employment or reduction in salary Increased employment opportunities or wages Depends on a secondary source of income No change
Predicted Impact of COVID-19 on your household income?	No impact Low impact Moderate impact Significant impact Severe impact
Strain	No strain Early signs of strain Widespread protests Increased levels of violence Increased crime rates Increasing levels of domestic violence Discrimination against the sick Increasing levels of discrimination against minatory groups
How do you feel about your household food stocks during this period compared to the same period in the previous year? ***(regardless of Ramadan)?***	No change Food stocks are lower than last year Food stocks are higher than last year
Measures	Closing of schools Closure of workplaces Closure of public events Closure of public transport Closure of markets Restriction of internal movements Curfews Restriction of cross-border movements (Restrmvmnttransfr)

b. List of illustrative dummy variables: countries and residential areas

Variables	MODALITIES
Country	*Benin, Burkina Faso, Cape Verde, Cote d'Ivoire, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo*
Residential area	*Capital city* *Very large city (1-5 m hbts)* *Large cities (500m-1m hbts)* *Medium cities (30m-500m hbts) (Medium cities) Villages or rural areas (rural area))* *Slums or informal settlements (Slums)*

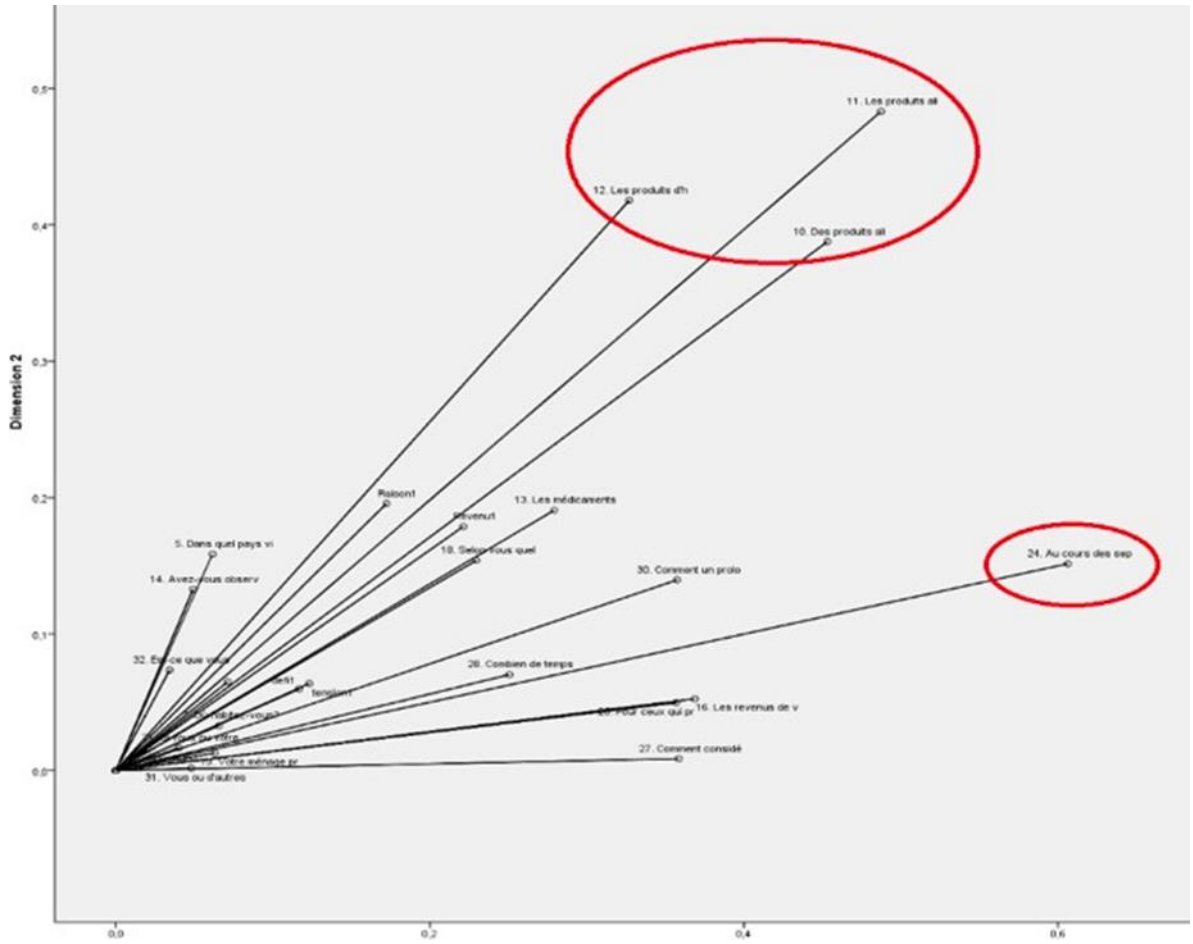
We note that the overwhelming majority of the households surveyed, more than 90%, live in urban areas. This situation can be explained by the type of online survey that is more adapted to the urban environment. Rural areas still have low internet coverage. In view of the technical difficulties in organizing surveys in urban areas, online surveys are a promising alternative.

The results of the data analysis reveal that out of all respondents, 19% are female heads of households. Male headed households appear to be more economically independent than female headed households. In fact, 80% of these male heads of households are workers, compared to 65% of female heads of households (Table 1).

Table 1: Status of the head of household by gender

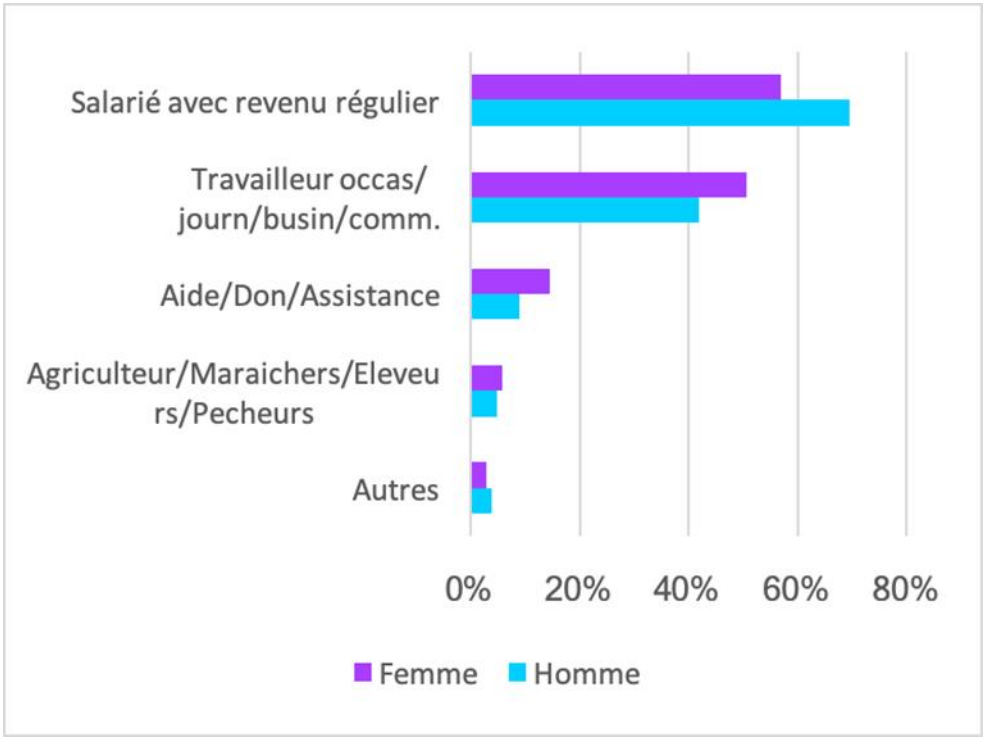
		Status of the head of household		Total
		Worker	Non - worker	
	Man	80.1%	19.9%	100%
	Woman	64.7%	35.3%	100%
Total		77.3%	22.7%	100%

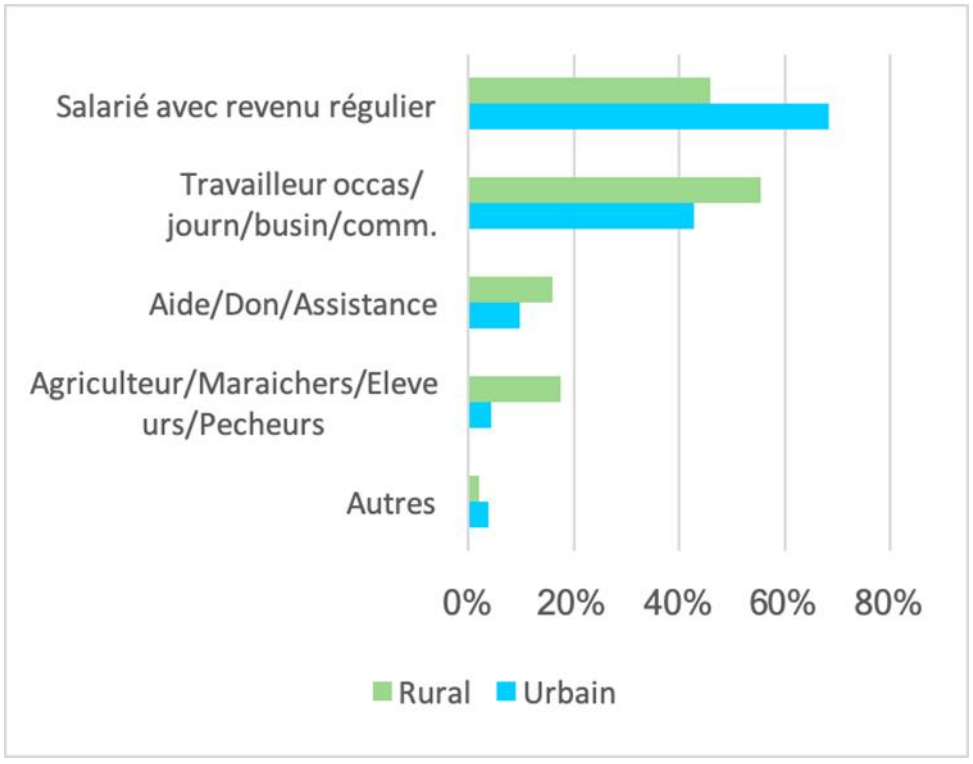
In the sample, the average household size is 6 individuals. It is higher in rural areas than in urban areas, with 8 and 6 individuals respectively (Annex 1)



Source: ECOWAS Commission / analysis of survey data.

Annex 4: Main Sources of Household Income by Gender of Head of Household and Area of Residence





Last year, more than half of the households surveyed had wage-earners with regular incomes. This category is more important in male-headed households and in households residing in urban areas.

The second most important source of income is casual or day laborers or shopkeepers; it is the main activity of members of households in rural areas and those headed by women. The latter also receive more assistance and donations from the authorities or the family as they are considered more vulnerable.

Annex 5: affected Socio-economic Categories

Restriction measures	Employee with regular income	Casual / Day/ busine/ comm. worker	Aid/Donation/ Assistance	Farmer/Market gardeners/ Breed-ers/ Fishers	Others
School closure	47.5%	44.3%	51.3%	41.9%	21.3%
Closure of work-places	48.3%	53.6%	53.8%	42.9%	44.4%
Prohibition of public events	27.1%	33.4%	32.5%	32.1%	24.3%
Closure of public transport	25.4%	31.5%	38.4%	36.9%	20.0%
Closing of mar-kets	28.7%	37.5%	38.3%	52.0%	32.7%
Restriction of internal move-ments	34.9%	35.0%	32.7%	36.3%	34.7%
Curfews	21.8%	28.6%	22.6%	29.7%	28.8%
Restriction of cross-border movements	18.6%	13.3%	22.1%	10.7%	18.1%
Tax Incentives	2.6%	.8%	1.5%	.5%	4.4%
Monetary measures	7.0%	5.8%	4.8%	6.4%	19.5%
Investment in the health care sys-tem	1.9%	1.5%	4.3%	3.5%	7.2%
Investment in vaccines	.1%	.1%	.0%	0.0%	0.0%
Public Infor-mation Campaign	1.4%	1.5%	.4%	2.8%	3.6%

Annex 6: Some strategies adopted, political measures taken and support

	Some strategies adopted, political measures taken and supports	Country
 Health	• Setting up emergency funds for the health sector • State of health emergency • Setting up test sites and isolation of positive cases ; • Creation of intensive care centers for positive cases; • Disinfection of markets and other public places; • Compliance with guidelines for social distancing, use of masks, regular disinfection and monitoring of body temperature; • Reinforcement of medical and hospital equipment	All 15 countries
	• Mitigation measures estimated at 2..2 billion VECs (1.2% of GDP) for the most vulnerable including : (I) income compensation to provide financial support to people working in the informal sector; (II) emergency social inclusion measures for vulnerable people without income; (III) social inclusion income, with the support of the World Bank: (IV) support to Microfinance Institutions to support interest-free loans to vulnerable households and : (V) Healthy Elderly with food and other financial assistance • Mixed contribution to a USD 1.65 billion (7% of GDP) fiscal stimulus package to support vulnerable households and businesses and provide food aid	Cabo Verde Benin 5enegal
 Lockdown	• Local or national containment, including reduced mobility and prohibition of social gatherings ; • Border and school closures ;	All 15 countries
 Economic and social resilience and recovery Support to vulnerable populations	• The cost of this plan for 2020 has been set at CFAF 150 billion (1.7% of GDP), CFAF 40 billion to support companies in difficulty through targeted and temporary tax exemptions and a relaxation of certain payment rules. • Provision of a budget package of USD 17 million (0.1% of P18) for vulnerable groups and for economic recovery; • Revised 2020 budget to address the Socio-Economic Impacts of COVID-19. Several measures: reduction of VAT and other tax rates, deferred payments to the State and suspension of government fees charged to informal sector operators for leasing. Coverage of water and electricity bills, including by cancellation, for the most vulnerable social groups; guarantee of adequate stocks of consumer products and strengthening of price monitoring and adoption of a response plan. • Adoption of revised budget, private sector support measures, including loan guarantees and tax compliance facilities, as follows: loan guarantees up to 50% for large enterprises in all sectors (1 billion HCE, about 9 million euros); up to 80% for companies in the tourism and transport sectors (1 billion HCE); up to 100% for small and medium enterprises in all sectors (300 million HCE, 2. 7 million euros) and for microenterprises in all sectors (700 mile VSC, about 6.7 million euros).	Benin Burkina Faso Cabo Verde

	• Other tax relief measures and funding of a contingency plan with 76 million CVE to reallocate budget allocations to cover additional staff, training and medical equipment costs. • For the most vulnerable, support measures estimated at CVE 2.2 billion (1.2 percent of GDP). (CVE currency Cape Verde escudos	
	• Emergency health Plan of 96 billion FCFA (or 0.3% of GDP). • Creation of 4 Special Funds to be spent over 2 years, including the National Solidarity Fund of 170 billion FCFA (0.5% of GDP), the Informal Sector Support Fund of 100 billion FCFA (0.3% of GDP), the Small and Medium Enterprises Support Fund of 150 billion FCFA (0.4% of GDP) and the Large Enterprises Support Fund of 100 billion FCFA (0.3% of KB). Financial support to the agricultural sector of CFAF 300 billion (0.8% of GDP).	Cote d'Ivoire
	• COV1D-19 action plan of US$9 million (0.5% of GDP). The government has reallocated 500 million dalasi (0.6% of GDP) from the current budget to the Ministry of Health and other relevant public entities. Student Relief Fund to support Gambian students abroad and a GMD 800 million ($15.8 million) nationwide food distribution program benefiting 84 percent of Gambian students. Households. In addition, 2,000 tons of fertilizer distributed to meet the needs of farmers, food aid of GMD 546 million to various sectors, including city councils, public entities, the tourism sector, the media	Gambia
	• 11.2 billion GHc fund to address the pandemic and its social and economic consequences in 2020. About 600 million GHc will be used to support preparedness and response, and about 10.6 billion GHc under its COVID-19 program • Reduction of expenditure on goods and services, transfers and capital investment for a total of at least 1.1 billion GHc (0.3% of GDP), support to the financial sector for about 1.2 billion GHc (0.3% of GDP). • Drawdown of US$ 218 million from the Stabilization Fund and borrowing up to GHc 10 billion from the Bank of Ghana. • Implementation of the national contingency plan is estimated at US$47 million (0.3 percent of GDP). Adoption of a comprehensive response plan estimated at US$32 million (2.3 percent of GDP) including exemptions from social security contributions and payment of public services as well as support for Business, implementation of labor-intensive public works, provision of cash transfers, exemption from payment of public services for the most vulnerable	Ghana
	• Household assistance of CFAF 525 million (or 0.06 percent of IEP) 20,000 bags of rice and .1.0 thousand bags of sugar • Import Facilitation, Budget Review • A comprehensive response plan is being finalized. • Approval of US$25 million - for food distribution to the most vulnerable people • Reduction of the Central Bank's intervention rate to support the financing of the economy • Social measures to support the most vulnerable households: a massive distribution of cereals and livestock feed to the poorest households, provision of free electricity and water to the poorest consumers for the months of April and May 2020	Guinea
	• Tax relief (3-month VAT exemption on electricity and water tariffs, and a 3-month exemption from import duties on staple foods such as rice and milk)	Guinea Bissau

	• Measures to alleviate the liquidity constraints of companies in difficulty, including a guarantee fund to support SMEs, the granting of a tax deferral and relief in particular in the hotel sector.	
	• Response plan estimated at 18.4 percent of GDP, including food distribution measures, two months of free public services (water, electricity) for vulnerable households Temporary tax relief for hard-hit sectors	Liberia
	• Private sector loan guarantee	
	• Approval of a supplementary budget estimated at 1.3% of GDP reallocated to additional spending for the response	Mali
	• Simian price measures, including fuel, Increase in social registry beneficiaries from 1 million to 3.15 million households	
	• Adoption of a revised national budget for 2020, including a COVID-19 intervention fund of 500 billion naira (0.3% of GDP) for public works programs to support the income of vulnerable people, conditional cash transfer, an allocation of 150 billion naira to meet the spending needs of states and local governments; a 2.3 billion naira stimulus package to finance labor-intensive projects, particularly in the agriculture, roads and housing sectors,	
	• Use of credit facilities supported by the Central Bank, the Sovereignty Fund, and other savings funds to finance government interventions.	
	• Resilience program evaluated at nearly 7% of the RIS, including the strengthening of social protection, the Stabilization of the economy and the financial system to support the private sector and employment, and securing the supply and distribution of key food, medicines and energy products.	Niger
	• Social protection: one million households are receiving food aid (69 billion FCFAJ) and utility payments (for water and electricity) for the poorest customers have been suspended for a period of 2 months (18.5 billion FCFA).	
	• Direct business support of about 100 billion FCFA and access to additional financing through a credit guarantee fund totaling 200 billion FCFA	Nigeria
	• Tax relief for businesses and tax incentives for businesses that maintain jobs.	
	• Quick Action Economic Response Program (QAERP) including measures to ensure a stable supply of basic commodities and essential food items; support for small and medium enterprises; and strengthening social protection and public works for the most vulnerable.	
	• Cash Transfers for Informal Workers (NOVISSI Program) was launched in April (at least 30 percent of the minimum wage, with payments ranging from 10,500 FCFA ($18) to 20,000 FCFA ($34). Based on program data, 65 percent of the beneficiaries are women. A total of 1.4 million people have registered and nearly 600,000 have so far received a NOVISSI payment for a total cost of 11.4 billion FCFA ($19 million; 0.3 percent of GDP).	
	• Subsidy of water and electricity for social rate groups for three months. Total colt is estimated at CFAF 6.6 billion ($12 million; 0.2 percent of GDP).	Senegal
	• Economic recovery: Reduction of the VAT rate from 18 to 10 percent for businesses in the hotel and restaurant sectors and reduction of tax payments for businesses, vouchers for the purchase of inputs from farmers, the total cost of which is estimated at CFAF 5.5 billion ($10 million; 0.2 percent of GD).	Sierra Leone
		Togo

 **Regional and International Cooperation**	• **United Nations Humanitarian Response Plan to COVID-19 for ECOWAS countries - Amount of funds mobilized: 14 millionsUSD (https//data.uninfo.org/Home/FundingTracker) UN Humanitarian response plan - Funding**	**Burkina Faso Mali, Niger Nigeria, Sierra Leone, Togo**
	• **UN Country Response Plan finalized /Drafts**	**Senegal, Mali, Togo, Nigeria Cote d'Ivoire, Niger, Ghana, Burkina Faso, Guinea Bissau, Cabo Vede, Guinea**
	• **Donation of US$3.3 billion by the World Bank, US$10 billion in loans and US$295 million as donation to low-income countries (Benin, Burkina Faso, The Gambia, Guinea, Guinea, Bissau, Liberia, Mali, Niger, Sierra Leone, Togo)**	**10 ECOWAS countries**
	• **Debt Service Relief (for 6 months) at the IMF**	**Benin, Burkina Faso, Gambia, Guinea, Guinea Bissau, Liberia, Sierra Leone, Togo**
	• **IMF Financial Assistance of $21.3 Million for Debt Service Relief from the Rapid Credit Facility**	**Gambia**
	• **The IMF disbursed $143 million in emergency assistance and World Bank budget support for $101.6 million.**	**Sierra Leone**
	• **Contribution of bilateral and multilateral partners for U5D 218,793 million to the US$9BB response plan**	**Niger**

Source: Compiled by the author from national sources, https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COV ID-19, (https://data.uninfo.org/Home/_FundingTracker)