

Economic and Market Impact analysis of COVID-19 on West and Central Africa

WFP-Regional Bureau VAM/M&E/Nutrition/Supply Chain
30 March 2020

Key Messages:

- *The 19 countries of West and Central Africa all fall into the categories of low or lower-middle income economies, within which they can be further broadly grouped into 3 clusters based on Gross Domestic Production. Most of the countries in the lowest group have been affected by conflict of one form or another, although not a causal analysis as several countries in the top two ranges have also faced conflict or political turmoil in the last decade. Ebola crisis affected three of them: Guinea, Liberia and Sierra Leone.*
- *The strong agricultural season of 2019/20, with overall higher than average production of cereals, has meant good supply of cereals and declining prices in many markets across the region. However, this is not the case everywhere. As background to assessing the impact of Covid-19 on market prices, it is important to note that food commodities prices have been volatile throughout 2019. Consumer price index (CPI) for food is at its highest since 2008 in the Monetary Union of West Africa zone.*
- *For West Africa countries, crashing demand from China and the rest of the world will dry down major economic sectors, notably agriculture, extractive industry and tourism. Fragile economies, like Mali, Chad, Niger, Burkina Faso are likely to suffer more.*
- *Migrant remittances are an important source of external finance in West Africa. In general, migrant remittances surpass official aid and foreign direct investment and remittances flows contribute substantially to economy growth and to household incomes. Remittances are an important income source for many households in the region, both in rural and urban areas.*
- *Most of the rural people that migrated in urban areas in west Africa are involved in the informal sector. They are sending back money to their families living in rural areas. Disruption in the supply chain from China will affect all these livelihood groups to a certain degree. Moreover, increasingly strict mitigation measures attempting to reduce movement and interaction will have direct and substantial negative implication for livelihoods based in the informal sector.*
- *More than 80 percent of rural population rely on subsistence farming in West and Central Africa. The 2020 off season harvests should be reaching markets and providing substantial incomes of stallholder farmer. However, market closure, restriction on internal and cross borders movement limit markets access. Planting period starts in May/June for the main agricultural season while the Covid-19 epidemic is forcing governments to cut agricultural expenses and to prioritize health-related expenditures. If the above-mentioned restrictions continue, famers won't have access to market to buy good quality seeds and fertilizers.*
- *As the virus transmits most easily in high density population, cities are likely to face the brunt of outbreaks around the world. West and Central Africa are undergoing rapid urbanization, introducing another major vulnerability to the mix. It will be increasingly important to monitor the food security and nutrition status of urban populations in particular as this crisis unfolds.*

Introduction

Overall Implications of COVID-19 for developing country economies

Worldwide, the number of cases of coronavirus has surpassed the symbolic threshold of 100,000. After observing the experiences of China, Italy, Iran, South Korea, France and other early-affected countries, more and more countries are adopting measures to contain the spread of the virus that include: travel restrictions, nightly curfews, a ban on public events, the closure of schools, movie theaters, museums and gyms, and limits on opening hours, or closure, of restaurants, bars and shops. These unprecedented measures are pushing down on the world economy, which is weakening fast. The hit to gross domestic product (GDP) is expected to be high, especially if these restrictions last several months.

However, no one can reliably predict the full economic impact of the outbreak and speculations are changing rapidly. Too much depends on what is unknowable—how long the outbreak lasts, how many countries it afflicts, and the extent to which a coordinated, concerted, fast-track policy response is mobilized and sustained. But what we do know is that the outbreak arrived at a weak point for the world economy, just when global growth was beginning to pick up from its lowest rate since the 2009 financial crisis.

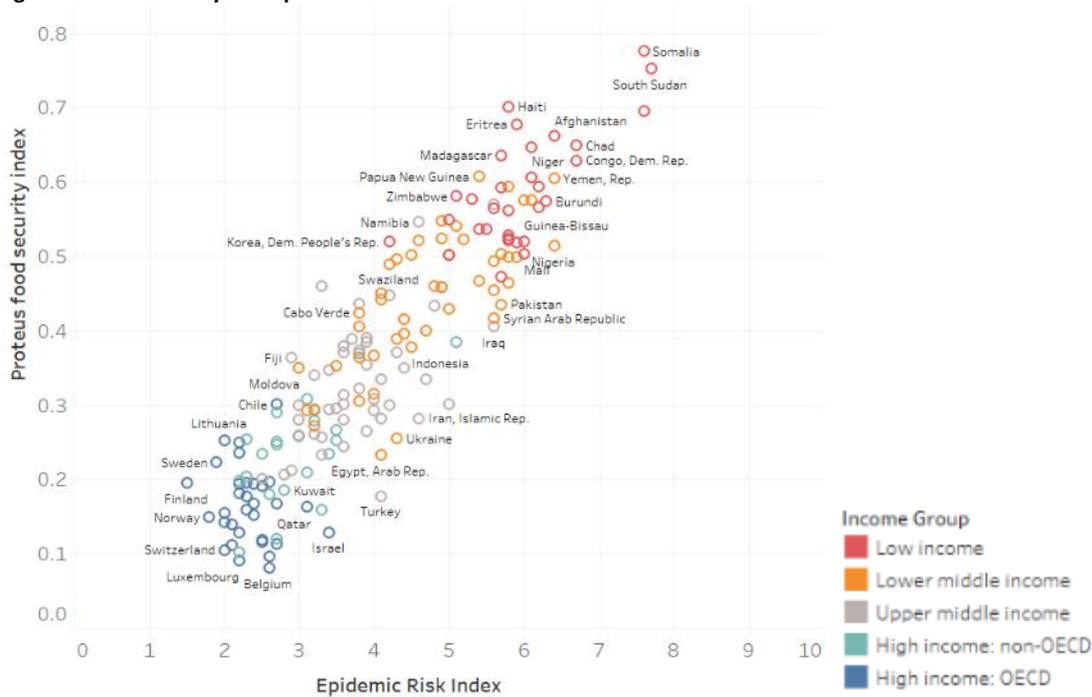
That has troubling implications for developing economies: Tighter credit conditions, weaker growth, and the diversion of government resources to shore up health care systems and fight the outbreak would reduce funds available for key development priorities. An economic slump would also set back the fight against extreme poverty. It is imperative, therefore, that policymakers everywhere recognize how economic harm can be transmitted from one country to another—and to act quickly to prevent its spread.

That transmission of economic harm is likely to occur through several channels.

- The first is through **global trade and prices**: global value chains, which account for nearly half of global trade, are being disrupted by factory shutdowns and delayed resumption of operations. Commodity prices as a result will also be disrupted
- The second is through **foreign financial flows**, which could decline (in the case of remittances) or be shifted away from coronavirus-affected countries.
- The third is through **tourism**, a major revenue stream for many developing countries that is shrinking with declining demand and expanding travel restrictions; and
- The fourth is through **domestic capital**—human as well as financial—which is becoming underutilized as factories are idled and people stay at home.

Apart from the food security implications of a COVID-19-triggered economic slowdown, an extensive spread of the disease in a poorer and more food insecure country could take a heavier toll on the economy than it has in those countries first impacted by the rapid spread of the virus. Countries with high levels of food insecurity are generally more vulnerable and less prepared for an epidemic outbreak than those that are seeing a rapid spread of the disease at present. The joint WHO-JRC Epidemic Risk Index, which measures risk based on hazard, exposure, vulnerability and coping capacity is higher for countries with a higher score for the Proteus index of food insecurity (Figure 1). Thus, these countries would likely see higher mortality rates. In addition, vulnerability to morbidity as well as food insecurity increases with malnourishment. With low-income economies typically more dependent on labor-intensive production, such hits to the workforce would aggravate the repercussions on production. At the same time, service industries in poorer countries are often less digitized and more reliant on face-to-face contact. This means that containment measures, designed to limit human interaction, or avoidance by scared customers, could hit these economies harder.

Figure 1: Food security and epidemic risk



Source: WHO/JRC and WFP calculations

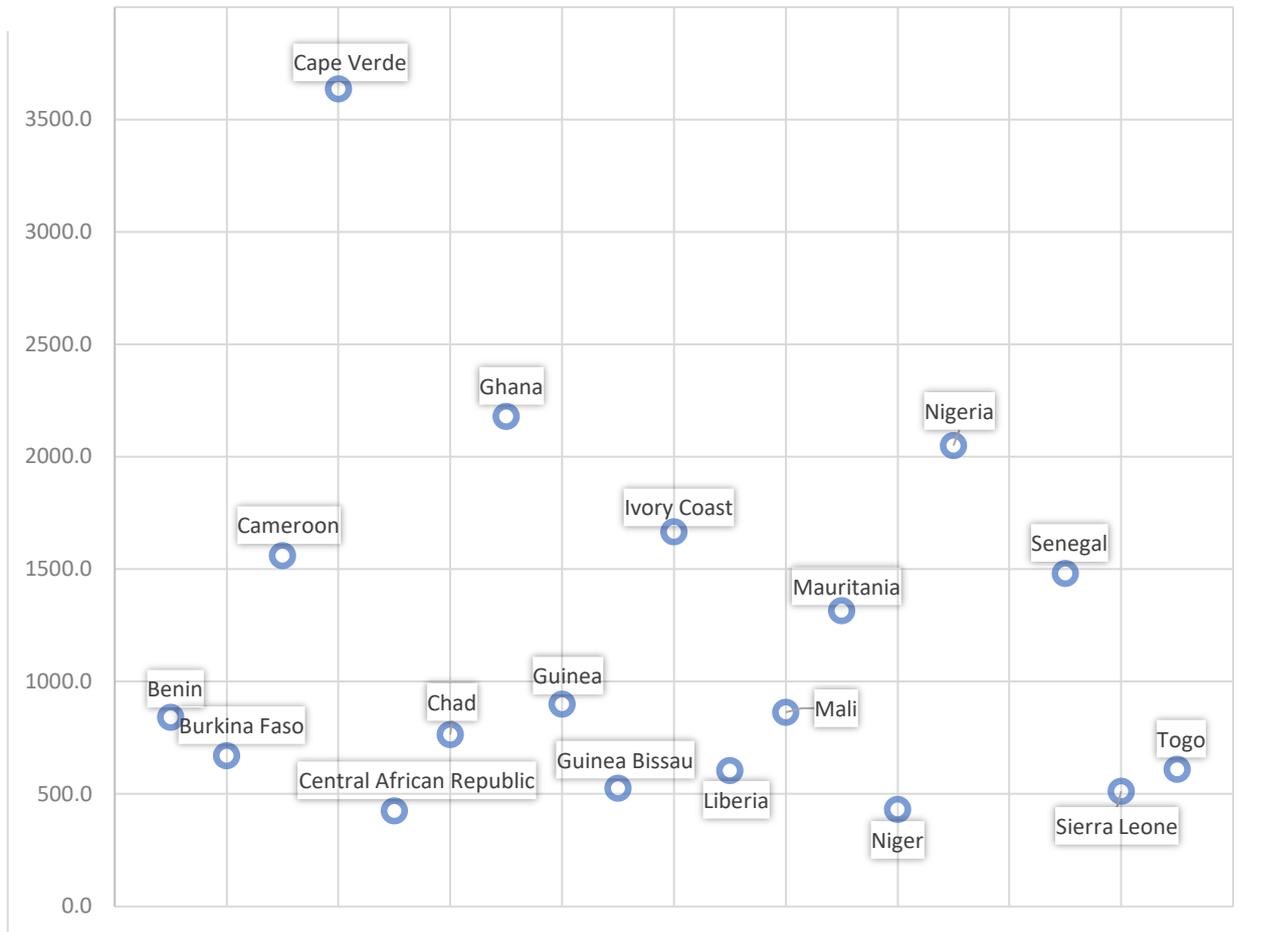
Coronavirus crisis in West and Central Africa

The following section provides analysis of the potential impact of Covid-19 (directly and indirectly) on food security in West and Central African countries¹ through the channels identified above: impact on (1) global trade (supply and prices of food and primary commodities), (2) foreign financial flows (focus specifically on remittances), (3) tourism, and (4) domestic capital.

The 19 countries of West and Central Africa all fall into the categories of low or lower-middle income economies, within which they can be further broadly grouped into 3 clusters based on Gross Domestic Production (GDP) per capita: Very low GDP per capita (<1000 USD) countries (Niger, Sierra Leone, Togo, Guinea Bissau, Liberia, Central Africa Republic, Burkina Faso, Chad, Mali, Guinea and Togo); low GDP per capita (1000-2000 USD) countries (Côte d’Ivoire, Cameroon, Mauritania and Senegal); and medium GDP per capita (2000-4000 USD) countries (Cape Verde, Ghana and Nigeria). Most of the countries in the lowest group have been affected by conflict of one form or another, although not a causal analysis as several countries in the top two ranges have also faced conflict or political turmoil in the last decade. Ebola crisis affected three of them: Guinea, Liberia and Sierra Leone.

Figure 2: Gross Domestic Production per capita (USD) in West and Central Africa

¹ World Food Programme Region Bureau Dakar supports 19 countries in the region: Benin, Burkina Faso, Cabo Verde, Cameroon, Central African Republic, Chad, Côte d’Ivoire, The Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, and Togo



Source: Authors analysis based on TradingEconomics data, March 2020

(1) Global trade

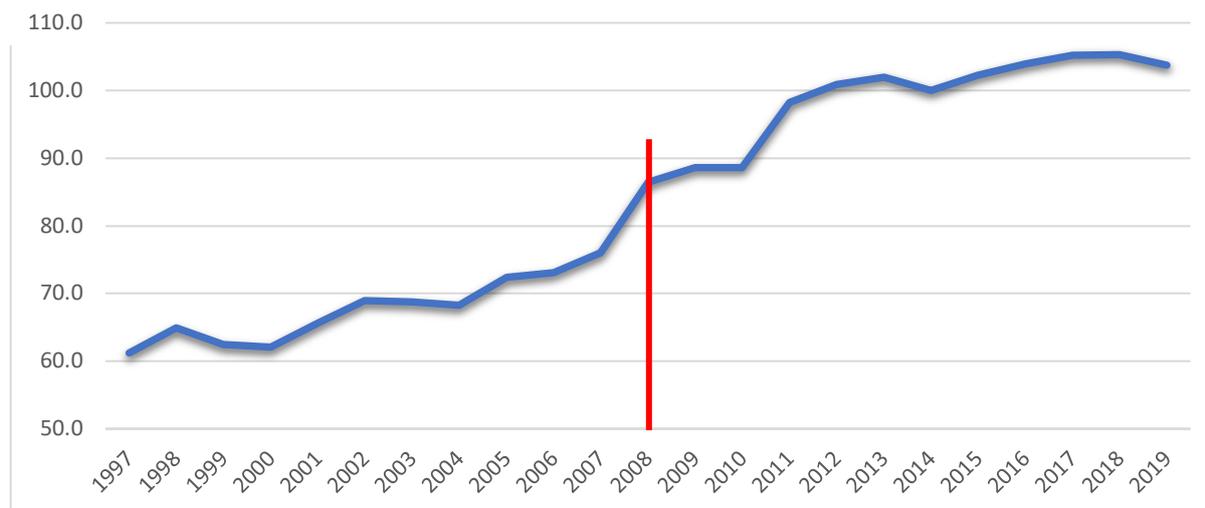
Supply chain & prices: border closure and constraints on supply

West African markets are well integrated and are grouped in three commercial basins: western basin, central basin and eastern basin. The strong agricultural season of 2019/20, with overall higher than average production of cereals, has meant good supply of cereals and declining prices in many markets across the region. Indeed, the February 2020 price bulletin issued by FEWSNET indicated downward trends of imported rice price in several markets. In Côte d'Ivoire, Benin, Togo, Niger, Chad, Burkina Faso, imported rice price decreased more than 10 percent compared to the five-year average. However, this is not the case everywhere: for example, import bans and border closures (unrelated to Covid-19) in Nigeria have caused imported rice prices to increase by 30 percent or more in Nigeria. WFP market monitoring system confirmed high volatility of food markets in Nigeria. In addition, countries that did not have strong harvests from last agricultural season, such as Senegal and Gambia, are experiencing early rising prices of dry cereals as stocks decline.

As background to assessing the impact of Covid-19 on market prices, it is important to note that food commodities prices have been volatile throughout 2019. Consumer price index (CPI) for food is at its highest since 2008 in the Monetary Union of West Africa zone. The CPI for food rose 3.7 percent in 2019 from 0.86 percent in 2008. As prices are likely to increase given the onset of the lean season, additional increases due to Covid-19 and supply restrictions or disruptions could further aggravate food insecurity, particularly for import dependent countries. Close monitoring of such supply disruptions is essentially given experiences already playing out around the world – For example, “a major grain export port in Argentina blocked trucks from entering

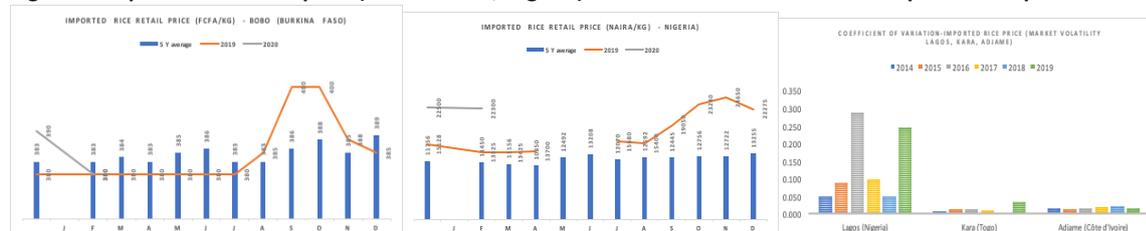
last week²; and Brazilian dock workers are considering a strike at Latin America’s biggest port for exports of corn and soybeans over safety concerns connected to the virus³. Numerous ports have further started to put health inspections in place⁴ and could proceed to require more cumbersome procedures such as a disinfection of vessels, causing delays and potentially supply chain hiccups⁵ – as well as because of the vulnerability identified in West African supply chains. According to WFP’s corporate impact risk analysis exercise, Western and Central Africa is a major hotspot with regards to WFP operations⁶ given that much of the food needs are imported into various landlocked countries through a few crucial corridors (Douala, Lomé, Cotonou).

Figure 3: Consumer Price Index for Food, Monetary Union of West Africa



Source: Authors analysis based on monetary Union of West Africa statistics, 2019

Figure 4. Imported rice retail price (Burkina Faso, Nigeria) & Coefficient of variation for imported rice price



Source: Authors analysis based on WFP VAM shop food commodities prices monitoring

Exports: reduction in oil and commodity price

China is the main financier of the large infrastructure projects in West Africa therefore it is easy to see the possible effects that an economic crisis affecting China will have on the region. Many African nations are suppliers of primary commodities into China. As its economy downturn, China will be looking to scale down.

² <https://www.reuters.com/article/us-argentina-grains-port/argentine-grain-port-blocking-trucks-from-entering-shipments-unaffected-export-chamber-idUSKBN2173OY>

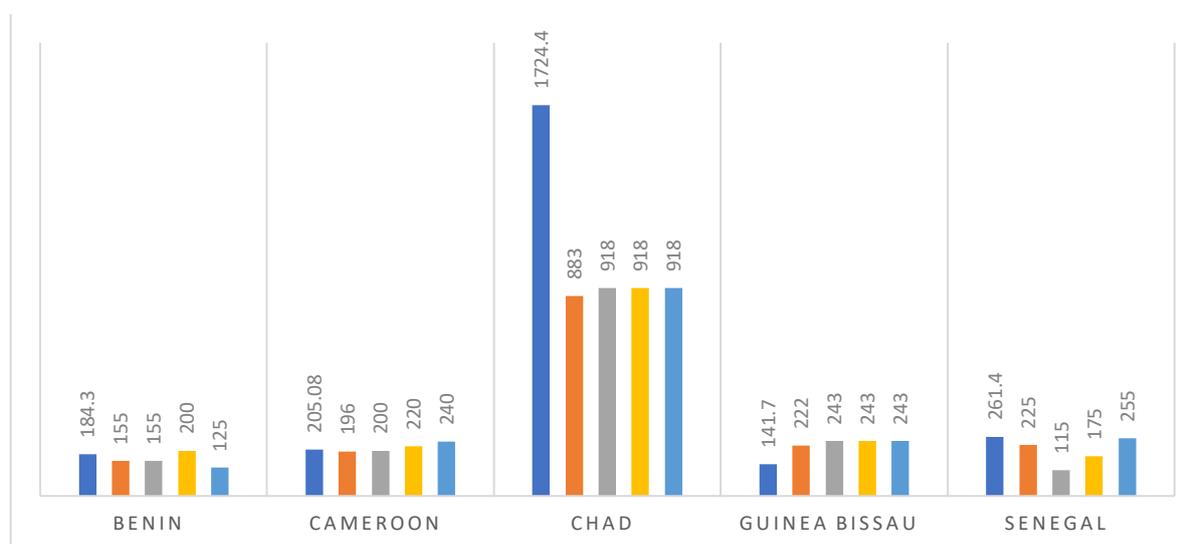
³ <https://www.reuters.com/article/us-health-coronavirus-brazil-ports/brazil-dock-workers-mull-strike-at-key-port-due-to-coronavirus-idUSKBN2173LZ>

⁴ <https://www.nepia.com/industry-news/coronavirus-outbreak-impact-on-shipping/>

⁵ WFP, 25 March 2020. *Economic and food security implications of the COVID-19 outbreak.*

⁶ WFP, 9 March 2020. *Identification & prioritization of key risks, contingency planning, and preparedness actions* Part of: WFP OPERATIONAL PLAN – GLOBAL RESPONSE TO COVID-19.

Figure 5: Exports forecast (CFA Franc Billion) for select West African Countries



Source: Authors analysis based on TradingEconomics data, March 2020

For West Africa countries, crashing demand from China and the rest of the world will dry down major economic sectors, notably agriculture, extractive industry and tourism. Fragile economies, like Mali, Chad, Niger, Burkina Faso are likely to suffer more. Mali, Niger and Burkina Faso are already dealing with an unprecedented humanitarian crisis with many health centers closed and hundreds of thousands of internally displaced people. Senegal and Nigeria are at risk, but in a different way. Senegal relies heavily on tourism. Nigeria is a big supplier of food commodities into China (cassava i.e.) and oil. Amid tensions between Russia and Saudi Arabia, a foreseen large drop in oil prices will weaken Nigeria's economy. Some specialists forecast a devaluation of Nigeria currency following predictable decrease of oil price.

The following visual links the two analyses above, vulnerability derived from supply chain disruptions and vulnerability from disruptions to exports of primary commodities. Disruptions in global trade are already widely evidenced as businesses shutter, transportation slows dramatically, and trade is disrupted. The price of oil, for example, continues to fall, starting with the price wars between OPEC and Russia and aggravated by the economic slowdown and uncertainty from Covid-19. As a result, countries highly dependent on primary commodity exports will likely see major undercutting of their earnings. While demand is less elastic for food, global food markets are likely to see some volatility as anxiety around supply could trigger price hikes, protectionism or panicked buying⁷. Countries that are highly dependent on food imports will feel the effects of global price swings most dramatically. The following graphic shows these vulnerabilities for West African countries: countries with high dependency on both sides will be hit hardest⁸. In the West and Central African region, based on available data, Nigeria, Mauritania, Guinea, Niger and Ghana are vulnerable from both sides.

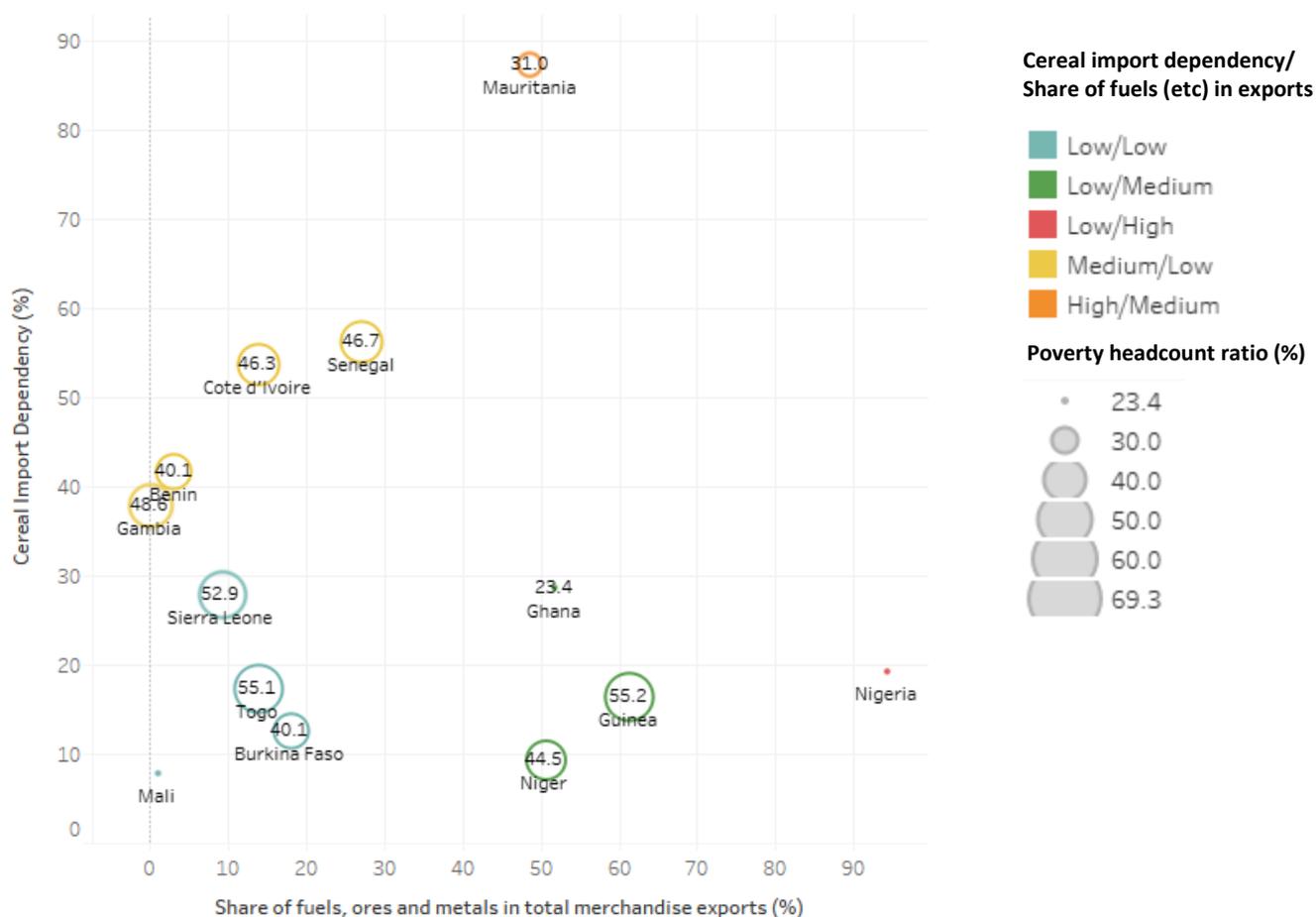
Figure 6. Primary commodity exports and cereal import dependency (bubble size indicates poverty headcount, %)

*sufficient data not available for Cameroon, Chad, Guinea-Bissau, Liberia

*poverty headcount ratio data not available for Mali, Nigeria (but still included in graph)

⁷ WFP, 25 March 2020. Economic and food security implications of the COVID-19 outbreak.

⁸ Ibid.



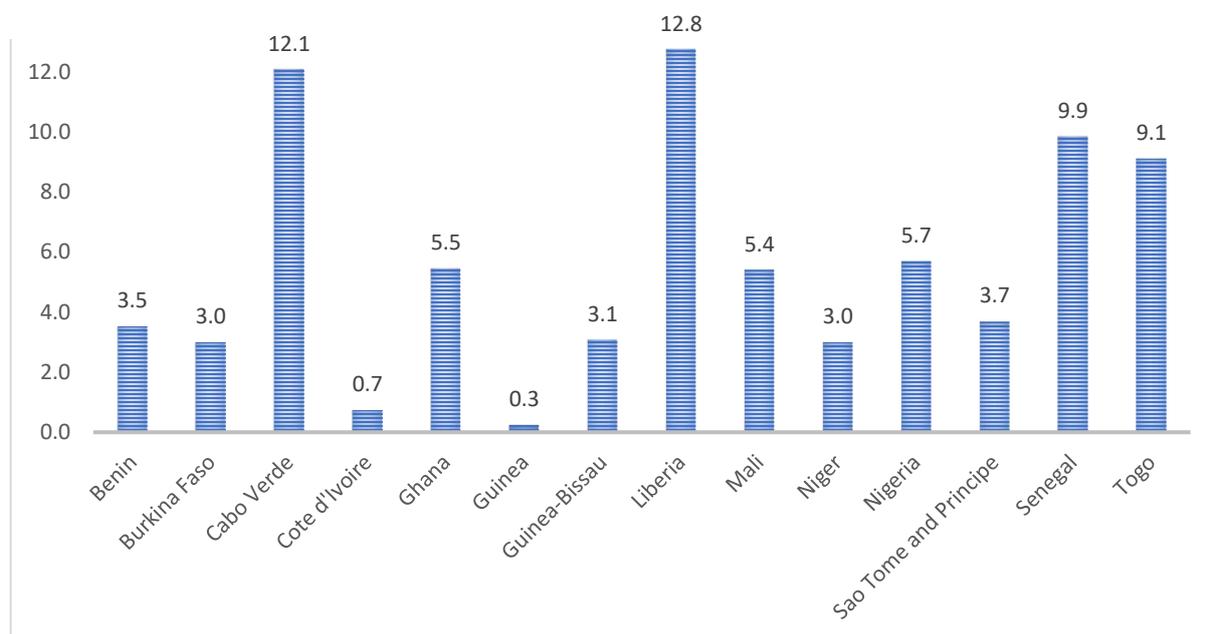
Source: FAOSTAT (Cereal Import Dependency), World Bank (poverty headcount ratio, share of fuels, ores and metals in total merchandise exports)

(2) Foreign Financial flows

Another hidden effect is the drop of remittances from developed countries as migrants from West African countries, mostly undocumented immigrants in Europe, are unable to work and therefore will no longer be able to send money home. Migrant remittances are an important source of external finance in West Africa. In general, migrant remittances surpass official aid and foreign direct investment and remittances flows contribute substantially to economy growth and to household incomes. In West Africa, remittances as a share of Gross Domestic Production are highest in Senegal (9.1 percent), Nigeria (5.7 percent), Cape Verde (12.1 percent), Togo (9.1 percent), Liberia, (12.8 percent), and Gambia (15.3 percent), according to the World Bank (figure 7). The main locations from which remittances to African countries are sent are Western Europe (41 percent) and United States (5 percent).

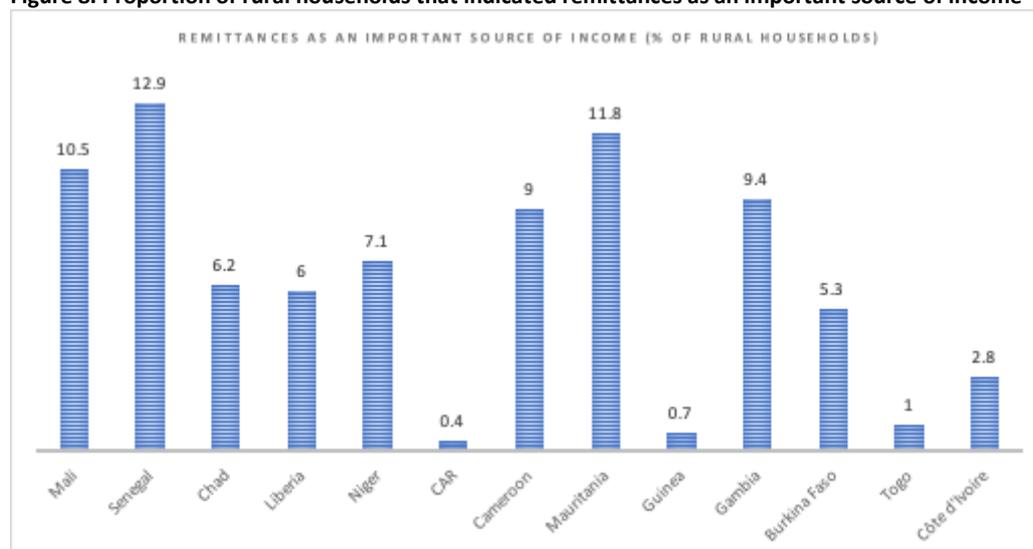
Remittances are an important income source for many households in the region, both in rural and urban areas. Figure 8 shows the the proportion of rural households that indicated remittances were an important source of income, with highest rates in Senegal (12.9 percent), Mauritania (11.8 percent) and Mali (10.5 percent). In rural areas, where the most vulnerable households typically live, sources of remittances are similar across the region. Vast majority of rural households receives remittances from family members who are living abroad. Therefore, any decrease or elimination of remittances flows will affect overall food security status.

Figure 7. Remittances inflow as a share of GDP (%) in West Africa in 2019



Source: Authors analysis based on the World Bank statistics

Figure 8. Proportion of rural households that indicated remittances as an important source of income

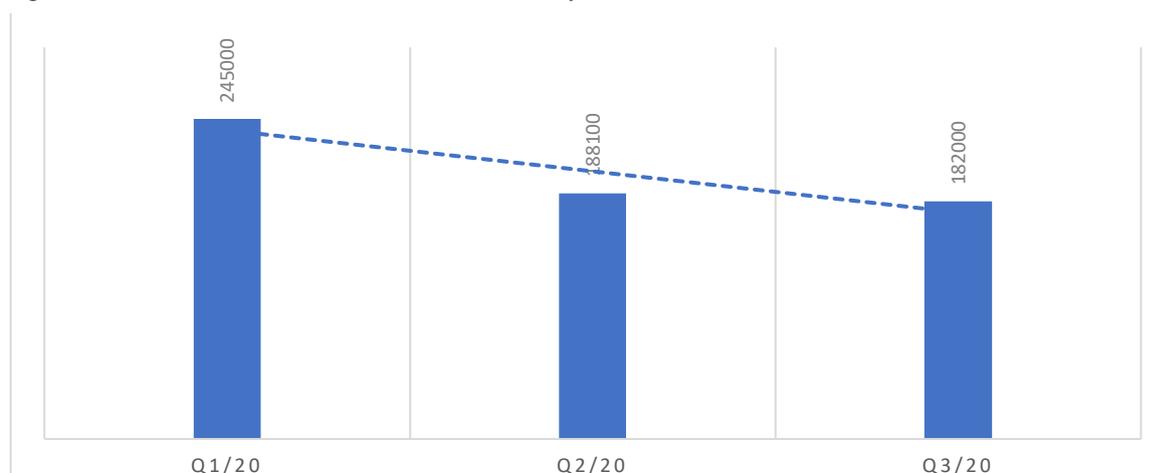


Source: Authors analysis based on WFP VAM food security assessments.

(3) Tourism

Tourism is a strategic economic sector in West and Central Africa. Taking Ebola crisis of 2013-2014 as a benchmark, tourism arrivals could fall 25 percent and the sector annual revenues could decrease proportionately, said the United Nations Commission for Africa. For instance, in Cabo Verde, TradingEconomics forecasts a significant drop of tourism arrivals (26%), from 245 000 to 182000 in the third quarter (figure 9). This means, significant growth and employment losses in many countries that rely heavily on tourism, notably Cabo Verde (43.4 percent), Gambia, the (19.9 percent), Senegal (11.4 percent).

Figure 8. Forecast of the number of tourist arrivals in Cape Verde



Source: Authors analysis based on TradingEconomics forecast

Table 1. Tourism importance to GDP and employment in West Africa

	Tourism total contribution to GDP (%)			Tourism total contribution to employment (%)		
	BAU	S1	S2	BAU	S1	S2
Benin	6.06	4.55	3.03	5.26	3.94	2.63
Burkina Faso	3.60	2.70	1.80	3.15	2.37	1.58
Cabo Verde	43.38	32.54	21.69	37.84	28.38	18.92
Cote d'Ivoire	4.90	3.67	2.45	4.38	3.28	2.19
Gambia, the	19.94	14.96	9.97	17.28	12.96	8.64
Ghana	7.41	5.56	3.71	6.29	4.72	3.15
Guinea	4.58	3.44	2.29	3.66	2.74	1.83
Mali	9.48	7.11	4.74	6.66	4.99	3.33
Niger	3.75	2.82	1.88	3.20	2.40	1.60
Nigeria	4.13	3.09	2.06	3.95	2.96	1.98
Senegal	11.35	8.52	5.68	9.80	7.35	4.90
Sierra Leone	5.39	4.04	2.70	5.36	4.02	2.68
Togo	8.47	6.35	4.23	7.15	5.37	3.58
ECOWAS	4.87	3.65	2.43	4.49	3.37	2.24

Source: Economic Commission for Africa, potential socio-economic impact of Coronavirus on West Africa, ECAs calculations based on UNCTADSTAT, 2020 from "Potential socio-economic impacts of Coronavirus on West Africa"

(4) Domestic Capital

The impact of Covid-19 on human work potential in any economy is immediately clear. Those who become ill with Covid-19 are unable to work, while those who are not yet ill, may be restricted from working due to prevention and mitigation measures. In low-income economies, the lost work potential can have enormous impacts on the economy and the livelihoods given that most jobs are in the informal sector and in agriculture, while many jobs in the formal sector are with businesses who lack liquidity to guarantee employment and payment through this crisis⁹.

Petty traders and other livelihood groups: likely to suffer

⁹ <https://blogs.worldbank.org/impacetevaluations/what-can-low-income-countries-do-provide-relief-poor-and-vulnerable-during-covid>

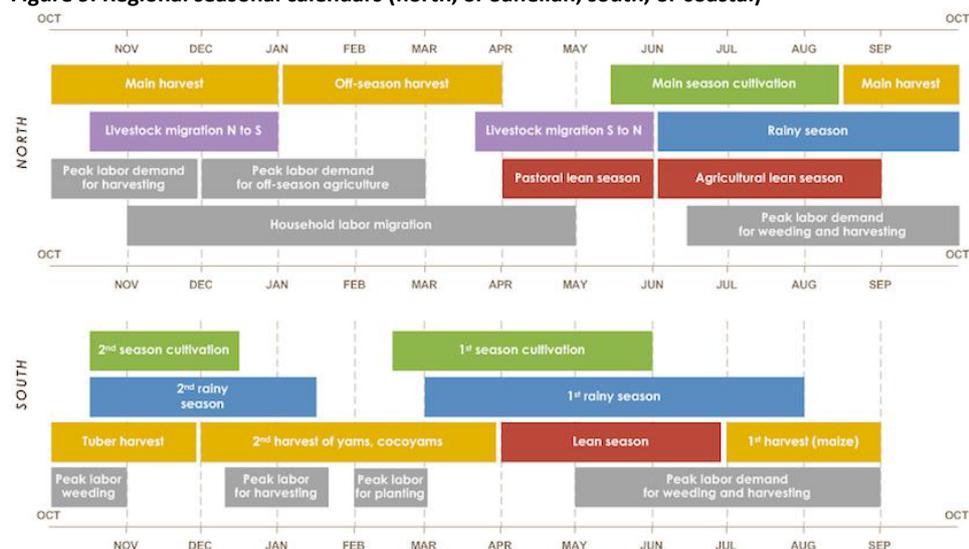
According to the World Bank, in West Africa the informal sector accounts for over 80% of employment, and 90% of new jobs. Often, individuals are buying and selling lower priced goods from China to resell them at a profit. Most of the rural people that migrated in urban areas in West Africa are involved in these activities. They are sending back money to their families living in rural areas. Disruption in the supply chain from China will affect all these livelihood groups to a certain degree. Moreover, increasingly strict mitigation measures attempting to reduce movement and interaction will have direct and substantial negative implications for livelihoods based in the informal sector.

Smallholders farmers

More than 80 percent of rural population rely on subsistence farming in West and Central Africa. The 2020 off-season harvests should be reaching markets and providing substantial incomes of stallholder farmers. However, market closure, restriction on internal and cross borders movement limit markets access. Important harvests loss is reported. Consequently, smallholder farmers incomes are shrinking and purchasing power decreasing.

Planting period starts in May/June for the main agricultural season while the Covid-19 epidemic is forcing governments to cut agricultural expenses and to prioritize health-related expenditures. As a result, millions of farmers will not receive subsidies for the upcoming agricultural season. If the above-mentioned restrictions continue, farmers won't have access to market to buy good quality seeds and fertilizers.

Figure 9. Regional seasonal calendars (north, or Sahelian; south, or coastal)



Source: FEWSNET

Rapid Urbanization

As the virus transmits most easily in high density population, cities are likely to face the brunt of outbreaks around the world. West and Central Africa are undergoing rapid urbanization, introducing another major vulnerability to the mix. It will be increasingly important to monitor the food security and nutrition status of urban populations in particular as this crisis unfolds.

Table 2. Proportion urban population in West & Central Africa

Country	Population (million)	Projected Food Insecure (CH-June to August 2020)- rural population	% Urban population
Benin	11.88	14 578	48%
Burkina Faso	20.87	2 151 966	31%
Cameroon	24.35	211 326	
Cape Verde	0.55	10 012	67%
Central African Republic	4.7	2 123 266	
Chad	15.69	1 017 358	
Ghana	30.28	21 712	57%
Guinea	12.22	267 170	37%
Guinea Bissau	1.9	67 767	44%
Côte d'Ivoire	25.8	168 398	52%
Liberia	4.96		52%
Mali	19.68	1 340 741	44%
Mauritania	4.56	609 180	
Niger	23.15	2 007 405	17%
Nigeria	200	7 087 102	52%
Sao Tome and Principe	0.21		
Senegal	16.2	766 725	48%
Sierra Leone	7.8	1 304 985	43%
Togo	8.19	3 560	43%
Gambia	2.5	136 586	

Source: Authors analysis based on tradingEconomics data and CILSS projected food security statistics

School closure and students affected

The closure of schools has short-term repercussions on families in terms of capacity to continue working as well as care, protection and health of children, in addition to the potential longer term implications for students, depending on how long schools remain closed. UNESCO dataset provides information on school enrolment by grade and by country. Data for Nigeria, Central African Republic, Chad, Guinea, Guinea-Bissau, Liberia, Sao Tome and Principe were not available. In total, more than **40 million students** (all grades) are affected in the region as schools are closed.

Table 3. School enrolments

	Total students (estimation from 2019)
Benin	2 396 390
Burkina Faso	5 967 730
Cameroon	4 717 902
Cabo Verde	205 984
Côte d'Ivoire	8 161 438
Gambia	566 418
Ghana	12 456 997
Mali	4 704 210
Niger	266 897
Senegal	4 747 269
Sierra Leone	1 775 939
Togo	1 806 537
Total	47 773 711

Source: Authors analysis based on UNESCO data

Prevention and Mitigation Measures in West Africa

However, there are also factors that could mitigate the damage of a Covid-19 outbreak in, for example, Sub-Saharan Africa. First, there is some evidence to suggest that a warmer climate might slow down the virus' transmission. While it is not certain that heat stops its spread, the disease appears to be transmitted in the same fashion as the flu and common cold, through respiratory droplets; and warm, humid weather can make this more difficult. However, more research is needed to confirm this. Second, the age structure in Africa differs substantially from that of currently affected regions. The share of people with the highest risk (by age) of developing severe disease or dying is far lower in Africa than in, for example, China or Europe. Third, less dense and predominantly rural based population and more limited travel networks both within and between countries could reduce the pace at which Covid-19 spreads.

The virus has already arrived in Africa, with quick reactions from governments. In the 19 West African countries covered in this paper, all have implemented school closures, cancellation of public events, restriction on large gatherings, scaling up of public information campaigns, and restriction on international travel. Some have imposed curfews and restrictions on internal movements (Côte d'Ivoire, Senegal, Burkina Faso, Togo, Mali). **Workplaces and markets have, as of yet, not been closed.** All are working to shore up their emergency health care response capacity and many have already allocated resources to prevention and mitigation plans (table 2).

In addition to government resources, the World Bank has also allocated grants and loans to low -income countries, including Benin, Burkina Faso, Gambia, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Sierra Leone, and Togo.

Table 2. Resources allocated by country

	Resources allocated to prevention and mitigations plans (USD million)	HRP budget-2019
Burkina Faso	20	100.3
Nigeria	163.6	847.7
Ghana	100	-
Ivory Coast	1.4	-
Benin	102	-
Guinea	12.8	-
Senegal	2.3	-

Source: Authors analysis based on respective countries response plan to Covid-19

Lessons from Financial & Ebola crisis

One recalls that in 2008, trade disruption was the major driver of food prices increase. It fueled prices increase and volatility in international markets, leading to domestic price increases higher than they otherwise would have been. West Africa was particularly affected, confirming the region economy is highly sensitive to external shocks. Understanding the region fragility calls for prevention measures.

Past viral outbreaks in Africa have stretched the already weak healthcare systems, exposing serious gaps related to the timely detection of disease, availability of basic care, tracing of contacts, quarantine and isolation procedures, and preparedness outside the health sector, including global coordination and response mobilization¹⁰. During the 2014 Ebola outbreak, the World Bank estimated \$2.2 billion in projected combined economic losses in the GDP of Liberia, Guinea and Sierra Leone, while the international community spent \$3.6 billion to contain the disease¹¹. This economic loss threatened macroeconomic stability, food and nutrition security, human capital development and private sector growth across the region¹².

Various studies have assessed the systemic failures in the Ebola response, revealing that only about one third of countries in the world can prevent, detect and respond to public health emergencies. These studies have also shown, among other issues: (i) inadequate financing for pandemic preparedness; (ii) rigid instruments for emergency response; and (iii) slow and costly delivery of aid.

However, the region experience during Ebola has prepared the health systems for outbreaks like coronavirus. Health workers have been deployed at the airports to screen all arriving passengers and the system seems to be working. Sensitization campaigns are in place to raise awareness and promote prevention measures.

Despite this experience, at household and community level, certain measures can sometime be difficult to implement. In conflict affected areas, health centers are not functioning. Where functioning, health centers don't always have the appropriate equipment. Hand shaking is deeply rooted in the culture of the region. Frequent handwashing with soap and clean water is one of the best ways to protect from coronavirus. However, water and soap are not always available even in the health centers.

¹⁰ <https://www.ncbi.nlm.nih.gov/books/NBK525302/>

¹¹ <https://www.worldbank.org/en/news/feature/2018/02/28/making-pandemic-preparedness-financially-sustainable-in-east-asia-and-the-pacific>

¹² <https://www.who.int/bulletin/volumes/95/12/17-199695/en/>