

Impact of Covid-19 on Food Safety: Food Security in West Africa (CEDEAO)

Dembael Seidi

Programa de Apoio das Capacidades Administrativas (PARCA), Guinea - Bissau

Corresponding author: Dembael Seidi

Email: dembaelseidi@yahoo.fr

Abstract

The aim of this study is to study policy decisions adopted by countries in the West African region (ECOWAS) to mitigate the effects of COVID-19 on food supply. This article was carried out using an exploratory research method using qualitative data from bibliographic and documentary sources. Information was extracted from the Food and Agriculture Policy Decision Analysis (FAPDA), which describes policy decisions taken to mitigate effects on food security. After studying these data in relation to the Global Food Security Index (GFSI) indicators, it was found that political deliberations were focused on food access and availability. In terms of access to food, policies for transforming food into cash and policies for social protection measures stand out. In terms of food availability, macroeconomic policies and policies to support food production stand out. The implications of COVID-19 increase the risk of food insecurity, especially in sub-Saharan African regions.

Keywords: COVID-19, Food Security, Agribusiness

Introduction

The SARS-CoV-2 virus, which caused COVID-19 in the city of Wuhan in the province of Hubei, was discovered toward the end of 2019, according to a Chinese official announcement. The World Health Organization said that this virus already attained pandemic status in March 2020 (Grey, 2020). Since then, other studies have attempted to evaluate how this epidemic has affected supply networks (Mussell et al., 2020). Therefore, it is critical to comprehend how the COVID-19 pandemic would affect nations' capacities to provide food in a manner that is both safe and sufficient for their populations. According to Hossain, guaranteeing access to sufficient and nourishing amounts of food falls within the category of food security (Hossain, 2020).

It is important to ensure that individuals have access to sufficient and nourishing food in this scenario. Food security is the ability to produce enough food to meet people's needs on a physical and psychological level. This is measured by two factors related to access to food: economic access and physical access. Economic access reveals if a person has the means to purchase food. Physical accessibility, in turn, shows if there is enough food available for everyone. In this regard, it is recognized that the COVID-19 pandemic may result in a food crisis because of issues with both physical and financial accessibility (Hossain, 2020).

At the start of 2020, evidence from international organizations warned of the significant probability of a global food catastrophe as a result of the COVID-19 pandemic. Uncertainty regarding food supplies may result in trade limitations, emphasizing the issue of food security. Food supply systems have been disrupted during prior crises, such as mad cow disease and swine flu (SAES, 2020).

From the standpoint of agriculture and food security, Rasul (2021) examines the difficulties faced by South Asia as a result of climate change and the disruption brought on by COVID-19. Food security has been influenced across all of its aspects by the intricate linkages between COVID-19 and climate change. To take advantage of synergies and reduce trade-offs between food production, public health, and climate mitigation, these interlinkages necessitate an integrated strategy to tackling food, public health, and climate change (Rasul, 2021).

Throughout research conducted in Asia, Hossain (2020) outlines the challenges encountered by agrifood industries as a result of the COVID-19 pandemic and describes the measures and political activities taken by each nation assessed to address threats to food security and avoid starvation. Many

policies highlight the need of vital agricultural inputs such as fertilizers and quality seeds in meeting seasonal harvest timetables. The longer COVID-19 containment restrictions stay in place, the more difficult the recovery process will be to assure regular food production, access to basic food and nutrition, and cross-border commerce (Hossain, 2020).

The COVID-19 pandemic's effects, according to Said and Aicha (2021), transcend beyond health concerns to include socioeconomic factors and are a worldwide concern. The studies conducted on the Economic Community of West African States (ECOWAS) region, specifically the effects of the COVID-19 pandemic on food security in this region, are described in the following section (Said & Aicha, 2021).

What steps were done in this situation to lessen the impact of COVID-19 on the availability and demand for food in the West African area (ECOWAS)? This article's goal is to outline the political choices made by West African nations to lessen the effects of COVID-19 on the food supply. For that, an analysis of qualitative data given by ECOWAS, a research organization that deals with the problem of food security in West Africa, was conducted. Because it is a crucial location for global food security, this region was chosen.

This study is seen to be extremely significant for the setting of the ECOWAS nations' regional development, primarily because of the context of this area in regard to the danger of food insecurity. According to this study, the pandemic's consequences raised the probability of food insecurity, particularly in Sub-Saharan Africa.

The methodological approach is discussed in the methodology section. The topic of food safety is discussed in the literature review section in relation to the COVID-19 pandemic. The study findings are reported in the results and discussion section. Finally, the conclusions highlight the study's contributions.

Method

The exploratory research approach was used to produce this paper, which included qualitative information from books and other archival materials. The phrase "food safety" was searched for in the World Health Organization's academic electronic platform for COVID-19 (Global Literature on Coronavirus Disease). The articles that were appropriate for this work's topic were examined.

The Global Food Security Index (GFSI) was then utilized to choose a location where the problem of food security was more pertinent.

To guarantee that the GFSI remains a trustworthy source of information, the methodology was created by a team of masters and updated annually.

In 113 nations, the GFSI takes into account the fundamental concerns of food cost, availability, quality, and safety, as well as natural resources and resilience. The index measures the factors that influence food security in both emerging and developed countries and strives to determine which nations are most and least susceptible to food insecurity. It is a dynamic quantitative and qualitative scoring model constructed from 59 distinct indicators (The Economist, 2021).

Finally, statistics for the 18-month period beginning January 1st, 2020 were obtained from the Food and Agriculture Policy Decision Analysis (FAPDA), a database maintained by the Food and Agriculture Organization (FAO). The data in this database depicts the key policy actions made at the worldwide level by several governmental sectors to offset the consequences of COVID-19 on agrifood systems in terms of food security.

The Food and Agricultural Policy Classification serves as the framework for the analysis and compilation of public policies in the FAPDA tool, making it a crucial component of the FAPDA Program. Laws, rules, and other institutions that represent public policy are implemented through programs and initiatives. A political choice, in turn, clarifies what must be done and by whom in order to accomplish a certain strategic outcome. An official declaration such as a legislation, bill, decree, ministerial circular, presidential directive, or other official declaration that is under the supervision of FAPDA is a policy decision that seeks to address issues in the food and agricultural sector of developing nations (Fao, 2021).

For each of these political actions, the economic and societal consequences in terms of food security were explored, using the GFSI categories of accessibility, availability, quality and safety, natural resources, and resilience. The following is a description of these categories (The Economist, 2021): Accessibility (measures consumers' capacity to buy food, their sensitivity to price shocks, and the availability of programs and policies to help them when shocks occur); Availability (measures the adequacy of the national food supply, the danger of supply interruption, the national capability to distribute food, and agricultural research activities). Quality and safety (assess the diversity and nutritional quality of typical meals, as well as food safety); Natural Resources and Resilience (measures a country's vulnerability to the effects of climate change, sensitivity to natural resource hazards, and adaptability to these risks). In this study, it was determined to select an area of the world from the FAPDA database that poses a high risk of food security. The West African region (ECOWAS) was chosen.

This region was composed of the following

countries: Burkina Faso, Benin, Ivory Coast, Cape Verde, Ghana, Guinea, Gambia, Guinea-Bissau, Liberia, Mali, Nigeria, Niger, Sierra Leone, Senegal and Togo. In the FAPDA (FAO) data, information from the following West African countries was identified: Burkina Faso, Cape Verde, Ghana, Liberia, Nigeria, Mali and Senegal and the others are not included in this study because they are not included in the database.

Results and Discussion

Covid-19 Pandemic Implications for ECOWAS Countries

According to research by Bouraima and Zanon, the ECOWAS region implemented stringent regulations in response to the COVID-19 epidemic. The repercussions in the food and health sectors might certainly overrun the already weak and frail existing health system and cause an acute food security crisis, despite the fact that stringent limitations are likely to have an impact on all areas of the economy and all populations. A comprehensive socioeconomic master plan spanning all sectors, as well as robust and resilient monitoring, are required in increasing society, commerce, health, and government. Furthermore, programs must be tailored to disadvantaged people while attempting to balance the economy through medium and long-term initiatives (Bouraima & Zonon, 2020).

According to Said and Aicha (2021) in research on the ECOWAS area, the impact of the COVID-19 pandemic extends beyond health difficulties to economical elements, making it a worldwide concern. West African nations, like the rest of Sub-Saharan Africa, may be especially exposed to the pandemic's external shocks. They highlight the economic impact of the COVID-19 pandemic on ECOWAS economies, demonstrating that the pandemic has had a negative impact on economic growth in the ECOWAS region through a descriptive analysis of macroeconomic indicators from five ECOWAS members (Burkina Faso, Cape Verde, Ghana, Ivory Coast, Liberia, Nigeria, Senegal) (Said & Aicha, 2021).

Since the COVID-19 pandemic started to spread, practically all West African nations have begun to implement health measures to combat the epidemic, according to Chouhaibi (Chouhaibi, 2021). (quarantines, confinements and closures of their borders). Because of this, West African nations were less impacted by the epidemic, providing a potential market for investment. These nations gained knowledge from earlier outbreaks. The West African Covid 19 transmission has been characterized by comparatively fewer infections.

According to Sers and Mughal (Sers & Mughal, 2020), several African nations like Benin

continue to have difficulties with regard to food security due to their heavy reliance on imported rice. The Covid-19 outbreak and associated preventative lockdowns provided a new difficulty since the food supply chains were changed, there was a significant decline in production, transportation, and consumption, and there was a negative impact on family income. In addition, the primary Asian producers of rice saw a brief halt in trade as a result of border closures, which raised the price of rice on the world market. This posed a threat to significantly deteriorate the region's already precarious status regarding food security. The situation once more emphasizes the necessity of increased national and international efforts to attain food security. Public funding on agriculture must be increased, with stronger emphasis placed on measures to boost production.

The study conducted on Cape Verde (Brilhante et al., 2021) supports the challenge faced in nations where food security was already a serious problem. The authors claim that Cape Verde is one of the ECOWAS regions where the agricultural industry is severely constrained by environmental factors such dry seasons, subpar soils, a lack of agricultural acreage, and low technical level.

According to (Soendergaard et al., 2020), the COVID-19 pandemic may make food security issues worse, particularly in low-income nations like some parts of Africa. Developing nations that are net importers of agrifood items are more likely to experience this circumstance.

As a result, research on the COVID- 19 situation and food insecurity during this pandemic time were provided with an emphasis on ECOWAS. In an effort to comprehend why its leaders made the decisions they did regarding the implementation of public policies to lessen the effects of the COVID-19 pandemic, it was discovered that strong institutions are crucial for structuring food supply chains that permit accessibility, availability, quality, and food safety.

Global Food Security Index (GFSI)

The GFSI indicators and data from FAPDA-FAO, which depict the primary political decisions implemented to mitigate the impacts with respect to food security, will be used to analyze the political decisions adopted by countries in the ECOWAS region to mitigate the impacts of the COVID-19 pandemic on agro-industrial food systems.

The Global Food Security Index (GFSI) measures the factors that influence food security in a group of 113 nations using 59 indicators. It is based on a quantitative and qualitative reference model. Availability, accessibility, food quality and safety, natural resources, and resilience are the four views this index is made up of (The Economist, 2021).

The global food environment declined in 2019 compared to the 2012–18 GFSI editions, which showed gains in the food safety environment. The 2020 index then had a second little fall after that. Analyze the factors that influence food security. The impact of food system vulnerabilities may not be felt as strongly during prosperous times. The effect on overall levels of food security during political or socioeconomic upheaval depends on national, regional, and international initiatives to enhance food systems. The GFSI draws attention to these weaknesses and suggests areas that require improvement in order to lower the probability of severe food insecurity during times of crisis (The Economist, 2021).

Food insecurity is concentrated in the nations with the lowest GDPs (Gross Domestic Products) per capita, as seen in Figure 1. The graph shows that the nations with the lowest GDP per capita (smaller bubbles) fall below the general score indicator's cutoff point of 50. The majority of these nations are found in sub-Saharan African areas.

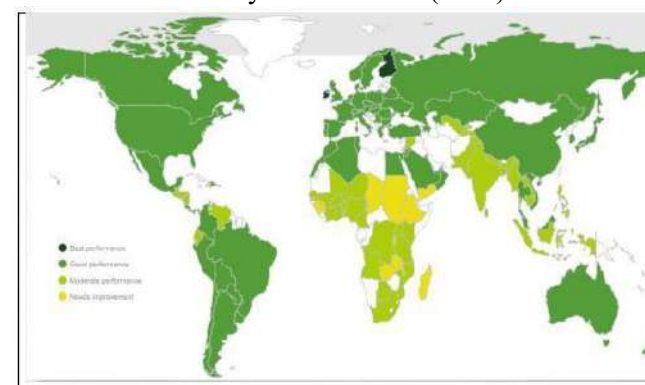
FIGURE 1: Global Score x PIB per capita (2021)



Source: (The Economist, 2021)

Figure 2 shows a map of the world with country profiles based on how well they performed for the GFSI indicators in 2021.

FIGURE 2: Country Profile-GFSI (2021)



Source: (The Economist, 2021)

Figure 2 demonstrates that the majority of GFSI index-performing nations are found in Asia, North Africa, South and Central America, and Europe. The GFSI index identifies nations in Sub-Saharan Africa and South Asia that perform moderately or may do better.

The nations in the West African area (ECOWAS) were selected to analyze food and agricultural policy decisions based on the analysis of the GFSI indicators (Figures 1 and 2), which will be covered in the next section.

The Analysis of Food and Agriculture Policy Decisions-Fapda

The Food and Agriculture Policy Decision Analysis database of the FAO provides a thorough analysis of the current policy decisions being made by member nations to lessen the impact of COVID-19 on agro-industrial food systems. By gathering and sharing policy information via a web-based application, FAPDA encourages decision-making that is supported by the best available evidence. The platform offers a digital archive of food and agricultural policy from more than 140 nations. The tool makes it easier to do policy research and analysis, identify policy trends, and make a preliminary determination of policy coherence (Fao, 2021).

The primary international policy decisions made by the various government domains to lessen the impact of COVID-19 on agrifood systems with relation to food security were collected from the FAO database in August 2021 for the period of 18 months beginning on January 1, 2020.

The methodology section provided further information on the GFSI indicators, which are comprised of indicators from four viewpoints (availability, accessibility, food quality and safety, and natural resources and resilience) and will be used to assess the FAPDA data. These criteria will serve as the basis for political decision analysis.

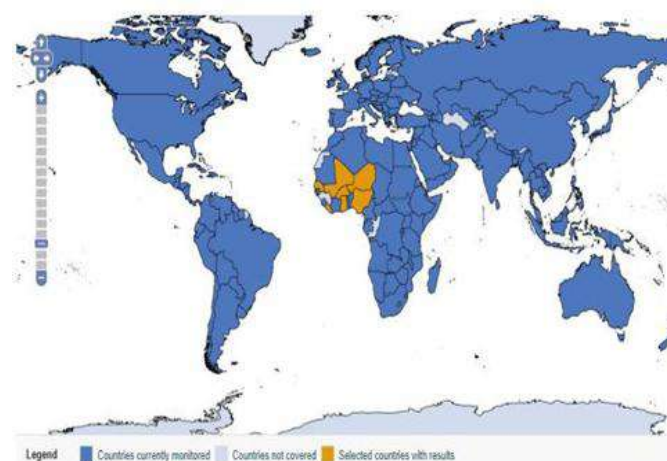
Because of the potential for food insecurity, the West African area (ECOWAS) (Figure 3) was selected. Burkina Faso, Cape Verde, Ghana, Liberia, Nigeria, Mali, and Senegal are the West African nations for which data was supplied; the rest, which were not represented in the database, are not examined in this study. Note: (FAPDA-FAO)

Burkina Faso

The execution of social protection measures demands special attention in the area of food security. Due to its heavy reliance on imported rice, one of the places that offers a tempting scenario in terms of food security is Burkina Faso. This position has grown

worrisome as a result of the COVID-19 pandemic's consequences. The study affirms the significance of revealing and economic aspects to address issues with ensuring food security in this region, which highlights the hazards of food insecurity and highlights the relevance of food access policies and food availability to lessen the consequences of COVID-19 (Sers & Mughal, 2020).

Figure 3: West Africa (ECOWAS-2021)



Source: (FAPDA-FAO-2021)

Cape Verde

The availability and accessibility of food were the key factors that influenced policy choices related to food and agriculture. It places a strong emphasis on the execution of social protection measures in food availability. The macroeconomic policy is highlighted in the food availability dimension.

The agricultural sector is severely constrained in Cape Verde, one of the ECOWAS areas, by environmental constraints such droughts, poor soils, and a lack of agricultural acreage with low technical sophistication. The study on Cape Verde demonstrates the challenges faced in nations where food security was already a top priority. To lessen the consequences of COVID-19 in this scenario, food access and availability strategies are crucial (Brilhante et al., 2021).

Ghana

Ghana's food and agricultural policy have centered on the availability and accessibility of food. It emphasizes income, credit, and money transfer strategies in the area of food availability. Support strategies for food production and distribution to increase food availability.

They concentrate on the COVID-19's economic impact on ECOWAS economies like Ghana (Said and Aicha, 2021). It has been demonstrated through a descriptive examination of macroeconomic data that COVID-19

has a detrimental effect on regional economic growth (Said & Aicha, 2021). The study demonstrates the risk of COVID-19's impacts on economic growth and reiterates the significance of economic indicators for food security policy. Policies governing food accessibility and availability are crucial in this setting to reduce the impact of COVID-19.

Liberia

In Liberia, the aspects of food access, availability, and use have received the majority of attention in choices about food and agriculture policy. The policy for transferring food in kind is addressed in terms of access to food. Macroeconomic policies stand out in terms of food accessibility. Sanitation and cleanliness are highlighted in relation to the usage dimension.

Although there was a significant disruption in market activity and income losses among market sellers, there was no proof of a short-term deterioration in family food security (Park et al., 2020). Cash transfers enhanced the quality and quantity of the population's diet despite the blockades having no negative effects on food security, and the study supports the significance of public cash transfer programs for attaining food security. To lessen the impacts of COVID-19 in this setting, regulations on food access, availability, and usage are crucial (Park et al., 2020).

Nigeria

In Nigeria, food and agricultural policy choices were mostly based on metrics of food access and availability. In terms of access, the food transfer program in kind is emphasized. Macroeconomic policies stand out in terms of food availability.

The impact of Covid-19 on Nigeria's unstable food security circumstances is visible in the country's inflation, unemployment, protest, violence, hunger, poverty, and political and economic instability (Oruma, Misra, 2021). There is a need for a shift in the pattern of traditional small-scale agriculture toward the adoption of digital technologies in large-scale commercial agriculture, and the authors of the Nigeria study (Oruma, Misra, 2021) highlight the difficulties encountered in countries where food security is already a major concern. Food access and availability policies are critical in this setting to mitigating the consequences of COVID-19.

Mali

The availability and accessibility of food in Mali were the key considerations in the formulation of food and agricultural policy. The policy for transferring food in kind is addressed in terms of access to food. Subsidy and credit schemes stand out in terms of food

accessibility.

The difference in the severity of COVID-19-related disturbances between Mali's urban and rural areas was calculated by (Adjognon, G. S.; Bloem, 2021). Despite rural households being more likely to experience food insecurity prior to COVID-19, it was discovered that food insecurity increased more in urban than rural areas. The study (Adjognon, G. S.; Bloem, 2021) affirms the relevance of studying COVID-19's effects in lower-income countries, highlighting the importance of understanding the heterogeneity of those effects to effectively design and target post-COVID-19 policies. To lessen the consequences of COVID-19 in this scenario, food access and availability strategies are crucial.

Senegal

During discussions on food and agricultural policy, the availability and accessibility of food in Senegal received the consequences of COVID-19 in this scenario, food access and availability strategies are crucial. The policy for transferring food in kind is addressed in terms of access to food. The emphasis is on measures that boost food production in the case of food availability.

Through an outstanding analysis of macroeconomic statistics that show that the pandemic had a negative influence on economic development in the area, they emphasize the economic impact of COVID-19 on ECOWAS economies such as Senegal (Said & Aicha, 2021).

The analyses of Said and Aicha confirm the relevance of economic indicators for food security policy, highlighting the risk of COVID-19's impacts on economic growth. Food access and availability policies are critical in this situation to mitigating the consequences of COVID-19.

Conclusion

After examining FADPA-FAO data on choices made about food and agricultural policy in the West African area (ECOWAS), it is clear that these policies were mostly concentrated on factors of food availability and access. Policies for distributing food in kind and policies for putting social protection measures in place stand out when it comes to access to food. Macroeconomic policies and those that assist food production are addressed in terms of food availability.

An examination of the GFSI indicators indicates that there is a significant buildup of food insecurity in nations with lower GDP per capita in specific parts of the world. Sub-Saharan Africa contains a sizable portion of these nations.

This article focuses on the policy choices made by ECOWAS member nations to lessen the impact of COVID-19 on the food supply. The political choices

made can effectively reduce the likelihood of food insecurity and the impact of COVID-19.

For that, qualitative data provided by research bodies that address the matter of food security in West Africa (ECOWAS) were studied. The political decisions taken can reduce the effect of COVID-19 and essentially the risk of food insecurity.

It was discovered that in the ECOWAS area, political discussions on food and agriculture have mostly centered on issues of food supply and access. Policies for distributing food in kind and policies for putting social protection measures in place stand out when it comes to access to food. Macroeconomic policies and those that assist food production are addressed in terms of food availability.

In conclusion, when examining how the COVID19 pandemic will affect the future of nations, it emphasizes the significance of local communities building strong institutions and suggests that COVID-19 will leave societies with a legacy of questions to be produced in the future, as the questions are more significant than the answers. Each community will try to calibrate its institutional space to the COVID-19 situation, where the State's participation is crucial for the restoration of social protection, depending on the development of its institutions.

Reference

- Adjognon, G. S., & Bloem, J.R.S. (2021). The coronavirus pandemic and food security : Evidence from Mali. *Food Policy*, 101 (February), 102050. <https://doi.org/10.1016/j.foodpol.2021.102050>
- Bouraima, & Zonon. (2020). COVID-19 Pandemic and Socio-Economic and Elections Implications in the Economic Community of West African States (ECOWAS).
- Brilhante, M., Varela, E., Essoh, A. P., Fortes, A., Duarte, M. C., Monteiro, F., Ferreira, V., Correia, A. M., Duarte, M. P., & Romeiras, M. M. (2021). Tackling Food Insecurity in Cabo Verde Islands: The Nutritional, Agricultural Tackling Food Insecurity in Cabo Verde Islands: The Nutritional, Agricultural and Environmental. January. <https://doi.org/10.3390/foods10020206>
- Chouhaibi. (2021). Impact de la pandémie Covid-19 sur les investissements marocains en Afrique de l' Ouest : Cas de la CEDEAO Asmaa Chouhaibi To cite this version : HAL Id: hal-03319154 Impacte de la pandémie Covid-19 sur les investissements marocains en Afrique de l' Ou. <https://doi.org/10.5281/zenodo.5132861>
- FAO. (2021). Food Security And Nutrition In The World For Food Security, Improved Nutrition And Affordable Healthy Diets For All.
- Grey. (2020). Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19 . The COVID-19 resource centre is hosted on Elsevier Connect , the company ' s public news and information. *Psychiatry Research*, 14 (4) (January), 293.
- Hossain, S. T. (2020). Impacts of COVID- 19 on the agri-food sector: Food security policies of Asian productivity organization members. *Journal of Agricultural Sciences - Sri Lanka*, 15(2), 116–132. <https://doi.org/10.4038/jas.v15i2.8794>
- Mussell, A., Bilyea, T., & Hedley, D. (2020). Agri-Food Supply Chains and Covid-19 : Balancing Resilience and Vulnerability. 1–6.
- Oruma, M.S. (2021). Framework for Food Security Attainment. 4, 1–37. <https://doi.org/10.1109/ACCESS.2021.3086453>.
- Park, D.S., & Mccargo, L., Vasilov, C., & Baxter, P. (2020). Did Covid-19 Market Disruptions Disrupt Food Security Evidence from Households in Rural Liberia and Malawi.
- Rasul, G. (2021). A Framework for Addressing the Twin Challenges of COVID-19 and Climate Change for Sustainable Agriculture and Food Security in South Asia. 5 (July), 1–16. <https://doi.org/10.3389/fsufs.2021.679037>.
- Said, B., & Aicha, C. O. (2021). Les effets de la pandémie COVID-19 sur les puissances économiques en Afrique de l' Ouest : cas de la CEDEAO The effects of the COVID-19 pandemic on economic growth in West Africa : the case of ECOWAS. 114–129.
- Sers, C. F., & Mughal, M. (2020). Covid-19 outbreak and the need for rice self-sufficiency in West Africa. *World Development*, 135, 105071. <https://doi.org/10.1016/j.worlddev.2020.105071>.
- Soendergaard, N., Gilio, L., & Jank, M. S. (2020). Impactos Da Covid-19 No Agronegócio e o Papel Do Brasil.
- The Economist. (2021). Global Food Security Index 2021 The 10-year anniversary.