

Review of: "The Disruption of the COVID-19 Pandemic on Farm Produce and its Implications for the Future of Food Security - A review"

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Potential competing interests: No potential competing interests to declare.

This paper reviews the mechanisms through which the COVID-19 pandemic has disrupted food systems, and the implications for the future of food security. I commend the authors for looking at the topic in detail, especially on how the pandemic had limited labor availability, and how it could change farmers' crop production decisions in the future. The authors also did well for alluding to the issue of food preferences – an important aspect of the food security concept (World Food Summit, 1996) which is often looked in the literature. Nevertheless, there is more room for improvement as indicated below:

1. The compounding threat of the pandemic on pre-existing stressors of food systems such as conflict, natural disasters, climate change, pests and animal diseases is of great interest but was not discussed in detail by the authors. Although a number of studies have examined the food security implications of the COVID-19 pandemic, little is known about interactions between the pandemic and already existing drivers of food insecurity. A comprehensive review of the extent to which the pandemic is interacting with pre-existing stressors to exacerbate food insecurity at different levels could significantly strengthen this paper. Addressing this knowledge gap is not only of academic interest, but could also guide policymakers to adopt an integrated approach that considers both COVID and non COVID-related factors in addressing food insecurity across scales.
2. While food security is fundamentally conceptualised in terms of availability, accessibility, utilisation, and stability, the paper focuses disproportionately on food availability and pays little attention to the remaining three dimensions. Food accessibility is of particular importance in the literature. According to the Theory of Entitlements (Sen, 1981), access to food by individuals and groups depends largely on their entitlements, which are classified into four: production-based (growing food), trade-based (buying food), own-labour (working for food), and inheritance/social transfers (gift). Moreover, the importance of cash income for acquiring appropriate foods from the market is increasingly being underscored in the literature (Kuma et al., 2019; Hashmiu et al., 2022). The authors did well for citing cases where market disruption by the pandemic caused farmers in Cameroun and the U.S to dump their produce. This, however, raises a very important question: To what extent is market disruption affecting farmers' income and purchasing power (trade-based entitlements)? For instance, a report from Ghana (Gakpo, 2020) indicates that COVID-19 lockdowns had forced the world's largest importers of cashew (including China and Vietnam) to cut importation, forcing the global market price to fall by 63%. Consequently, cashew farmers in Ghana suffered a substantial reduction in producer price; from US\$ 130 per bag (100 Kg of raw cashew nuts) to US\$ 75 (Gakpo, 2020). A comprehensive review of linkages between market disruption caused

by COVID 19, farmers' income, and purchasing power is therefore highly recommended.

3. The authors placed much emphasis on global food security at the expense of household food security. The household level, according Smith and Subandoro (2007), is crucial for the development of policies and programmes for helping vulnerable populations, planning appropriate interventions, and evaluating impact. Reviewing empirical evidences at the household level is indispensable, and could shed light on food security dynamics across scales.

4. Although volume of agricultural production was computed using both crop and livestock production (Table 1), the review centred solely on crops. Evidences from the livestock production sector are therefore needed, and could broaden the scope of this paper.

5. There are errors and inconsistencies in referencing which need to be corrected. For instance “ It is believed that much can be done to pull people back from the edge now FAO, (2020)”. Another one is “In many countries, the lock-down and borders' closure are strongly affecting farmers' access to inputs like seeds, fertilizers, and agrochemicals World Farmers Organization (2020)”. This is just to mention a few.

6. Overall, the paper needs further editing to remedy a number of mechanical errors, especially on punctuation and sentence structure. I think the title itself should even be edited. “Food Systems Disruption by the COVID-19 Pandemic: Implications for the Future of Food Security” would be a more appropriate title. The current title reads “The Disruption of the COVID-19 Pandemic on Farm Produce.....”, which sounds like what is being disrupted is the COVID-19 pandemic. Rather, what is being disrupted is food systems, and what is causing this disruption is the COVID-19 pandemic.

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