

# Review of: "Improving agriculture and food security in Africa: Can the one health approach be the answer?"

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Review of Afriye et al. 2023 (preprint) as posted on Qeios

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## Report Summary

NOTE: Lines numbers are not available for this article due to Qeios formatting options lacking these features— this would be an area where Qeios could improve their preprint article display/download options to help out both the authors and the reviewers. Page numbers will be used when possible.

The authors have endeavoured to review both existing research on One Health (OH) -based initiatives and practices in the African agricultural and epidemiological context, and the explicit OH-related initiatives currently live across the continent in various scopes and foci. The authors identified multiple articles and twenty different initiatives, giving tabular summary information on the latter while briefly discussing the former in the context of African food insecurity and agricultural production. The article concludes by reviewing some research on barriers to adoption of a OH approach to solving problems in agriculture and strategies to integration of OH into the sector recommended by some authors. The article concludes with a call to further adopt OH practices and initiatives into African agriculture to improve both food security and disease morbidity. The

## Major Comments:

1. I was very interested in the work the authors did to compare the various OH initiatives to both each other and to the general approach of transdisciplinary groups that has been shown to be significantly effective when solving complex problems with holistic solutions. This is the main strength of the paper in its current version, in my opinion.
2. I am having trouble finding a clear research question beyond exploring One Health (OH) in the African context, and cannot find an explicit methodology. Thus, the article reads more like a commentary rather than a work of research – if that is in fact what it is, great, but for the research to be valid, a question of interest and methods must be described.
3. One essential requirement for review papers is a focused methodology that includes the scope of the review, search terms, criteria for determining quality of research, etc. This is needed for a number of reasons, primarily (1) to prevent important, possibly contradictory research from being missed, and (2) to give validation to the conclusions of the

review. This is doubly important for multi/transdisciplinary reviews such as OH-focussed research that reviews research in more than one field out of necessity. This article does not yet state a clear methodology. I would refer the authors to the PRISMA 2011 systematic review guidelines for guidance on this (see <https://pubmed.ncbi.nlm.nih.gov/21147401/>); however, if the intention was never to be as comprehensive as a systematic review, they do need to state how they came across the research that is reviewed in the article. The narrative is good, and the article flows pretty well, but at the expense of technical rigour.

4. The article does attempt to state barriers to adoption of OH approaches to problems in African agriculture and strategies to overcome these barriers, but I would really like to see more explicit recommendations be given, perhaps in the form of a case study or with a focus on a single country. This is also relates back to comments 2 and 3; both commentaries and review papers often can fall into generalities if their focus is too broad or nonspecific, generalities that are often stated in other forms elsewhere and are frankly not useful to advancing the science. Even just a single case study would really bring the reviewed points of the article home and demonstrate how the recommended actions can bring about real change.

#### Minor Comments:

1. Double-check that every statement of fact is cited – there are several that do not yet have citations.
2. Major terms used in the paper such as One Health, transdisciplinary, etc. need to be defined, and/or defined much earlier in the article (as in the case of One Health).
3. Emotive language throughout the paper needs to be removed (if this is a work of research), as do terms that do not translate well into other languages; “menace”, “evidences”, etc. Multiple instances of incorrect grammar indicate the article could benefit from one more pass from a copy editor/co-author with a research background who speaks English as their first language.

#### Final Words

I would be very interested to review in detail a later version of this paper, especially once a methodology is implemented, but as it currently reads the article requires major revisions before I could say it is rigorous enough to be useful to the scientific community. As a commentary it is interesting, but still needs a valid methodology of some sort and more specific findings/recommendations to be read with interest by researchers in this field.

My thanks to the authors for their efforts, and for having the courage to post a preprint on Qeios!