Earth Syst. Sci. Data Discuss., referee comment RC1
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Comment on essd-2021-262

Anonymous Referee #1

Referee comment on "Emissions of greenhouse gases from energy use in agriculture, forestry and fisheries: 1970–2019" by Alessandro Flammini et al., Earth Syst. Sci. Data Discuss., https://doi.org/10.5194/essd-2021-262-RC1, 2021

The authors reconstructed a country-level energy-related GHG emission inventory in the agriculture, forestry and fisheries sector from 1970 to 2019. The work is worthy of recognition. However, there are still many aspects that need to be improved. The following are my comments. A substantial revision is needed.

- In the Introduction section, it is recommended that the description of previous research on energy-related GHG emissions in the agriculture, forestry and fisheries sector (on Page 2, Line 25-39) be placed before what this research has done (Page 2, Line 18-24). At the same time, the narrative logic of this part needs to be improved accordingly.
- On page 2, Line 32-36, the description of the two literature (Smil (2008) and FAO (2011)) seems too detailed, resulting in messy data and not easy to understand. It is recommended to summarize and show only the most important content.
- In the Materials and methods section, the first paragraph (on Page 3, Line 2-9) mentioned that the basic data sources of this study are UNSD and IEA. But the authors used a lot of space to describe UNSD dataset, and did not mention anything in terms of IEA.
- In the Materials and methods section, the subtitles are disorderly, the paragraphs are chaotically divided, and the text descriptions are repeated. It is recommended to make in-depth revisions.
- On Page 4, Line 5-6, “The associated emissions of CH4 and N2O were not considered, as our calculations (not shown) indicated the latter would be five to six orders of magnitude smaller compared to CO2, on a per ton basis.” This sentence needs some evidence to support it.
- As a data article, the uncertainty and technical verification part (Page 4, Line 16-24) seems too thin and needs to be improved drastically.
- The content of the results section is generally too simple, just briefly talk about the trend and a few simple indexes. needs improvement.
- There are too many Figures (up to 13), and a lot of information is repeated, which needs to be improved.
- There are some typos and simple grammatical errors in the manuscript, please check carefully.