Thank you for your work on this tool and accompanying manuscript. I enjoyed reading it and spent time using the tool, which provides many useful features. More detailed comments to follow:

**Response: Thank you for your kind words regarding our manuscript. We are really grateful that you used and enjoyed our tool.**

Intro:

It is a critical first step for data to be accessible and easily understandable. But the interconnections between indicators can be complex and this may not be sufficient for stakeholders to explore the trade-offs and synergies between indicators. This is key to prioritize actions and evaluate their potential impacts.

You mention existing digital tools, it would be interesting to have a longer discussion of what digital tools are available in food systems and what the successes and limitations of existing tools are.

**Response: thank you for your comment. We added a paragraph discussing about the digital available in the food system and is now at lines: 86-95:**

**“Following the creation of the Data for Decisions to Expand Nutrition Transformation (DataDENT), a initiative led by John Hopkings University, several digital visualization tools aiming in displaying nutritional information were developed (Manorat, Becker and Flory, 2019). Such great amount of digital tools can be overwhelming for policy makers and researchers (Manorat, Becker and Flory, 2019; Fanzo et al., 2020). One example of digital tools in food systems is Food Systems Dashboards, that compiles, transform and display in visual structures data from different sources and drivers for national, regional and subnational level (Fanzo et al., 2020). However, none of these tools is capable of integrate data from different domains described in the Sustainable Intensification Assessment Framework (SIAF) (Musumba et al. 2017; Stewart et al., 2018) and some of them do not display data at a reduced spatial resolution as district level.”**

Did you consider partnering with an existing tool vs creating a new one? The large number of different available tools can be overwhelming for policymakers.

**Response: thank you for your comment. Yes, we agree in this point that there is a lot of tools available right now. However, the tool developed in this work is able to aggregate and integrate the data from different sources, such as spatial (CHIRPS and Banda et al.), USAID and data from Senegal.**

Materials/methods

How did you go about indicator selection? Were there a set of criteria you used?

**Response: thank you for your comment. The indicator selection was done based on the relevance and availability of the data. This is now included in the manuscript in lines 109-112:**

**“****The data were selected based on the availability (be open and accessible) and relevance to the five domains (more related to each domain and more impactful for interventions assessments)”**

What considerations went into which data visualizations are available on the tool? Did you do any user testing on this?

**Response: thank you for your comment. This tool was presented in a meeting between universities, having on it professors, students and staff. The data visualizations that are available came from the feedbacks provided from that meeting.**

I saw in the SI toolkit that there was a worksheet to identify synergies and tradeoffs? Is there any more guidance besides this? I could imagine this would be a difficult exercise for stakeholders to carry out and things may be missed or incorrectly identified.

**Response: thank you for your comment. Ana, here I think he is saying specifically about the worksheet of SIIL toolkit (**[**Step 1: Engage stakeholders | Sustainable Intensification Assessment Framework (SIIL) (sitoolkit.com)**](https://sitoolkit.com/how-to-use-the-framework/step-1-engage-stakeholders)**). Maybe he thinks that we are the author of it. I don’t know exactly what can we insert on our paper.**

Line 112 - Missing T in the

Line 139 - extra space

Case Study

Very useful and shows how the tool could be used by researchers. Are policymakers expected to go through these same steps? This may be difficult. Are there plans to provide any more guidance for policymakers? Did you get any feedback from policymakers or have any other stakeholders test the tool in this way?

**Response: thank you for your comment. For policymakers, the comparisons must be employed in a straighter forward manner. Should also be focused on specific variables that they are interested in. We did not have any feedbacks from policymakers or stakeholders that used our tool yet. A brief suggestion for policymakers’ usage of the tool is now included on lines 241 – 245:**

**“****The usage of this tool for policymakers should be in a straighter forward manner, maybe going further in district level, using more the correlation matrix, radar chart comparing years in the district and the line chart, comparing variables within a district. Thus, policymakers will be able to analyze, integrate and compare variables of different domains of a district at a time.”**

Discussion

Other digital tools in food systems exist that contain indicators on the domains discussed. Recognition of these other tools and also discussion of the added benefit of this tool would be helpful. You do this for NASA’s LANCE but others exist. For example, the Food Systems Dashboard contains indicators covering these domains at the national level but not currently at the subnational level for Senegal.

**Response: thank you for your comment. We used the Food Systems Dashboard and like it, mainly the part of suggesting Policies and actions. This is now included in the manuscript in lines 291-296:**

**“****Another example is the Food Systems Dashboard (The Food Systems Dashboard, 2023), which contains indicators covering several indicators, divided into drivers, food supply chains, food environments, individual factors and outcomes at national level worldwide. It also includes a section containing Policies and Actions, indicating impacts derived from actions implemented by policymakers. However, that tool does not cover subnational level for Senegal and does not have the option to integrate indicators.”**

It would be great to include more info on plans to provide more support to policymakers - what this might look like and how to achieve it. It would also be great to expand more on the plans to provide scenarios - what would these include?

**Response: thank you for your comment. This is now included in the manuscript in the lines 314-317**

**“The next steps are to integrate new datasets, incorporate new research, and provide scenarios (e.g. future weathers and population increase rates) for alternative interventions (e.g. farming strategies adoptions, application of environmental policies), based on the data visualization.”**