REVIEWER REPORTS

Reviewer Comments:

Reviewer 1

My review is different from what the authors or the editors expected. I made only a few comments in the manuscript. . My comments are below.

The paper asserts that agriculture is primed for power disparities. I agree. The great majority of farmers are male. One would have to explore the sociological literature for discussion of why that is true.

*This comment provided a good reminder of a common question agricultural researchers may have, so we changed our domination matrix from being a general presentation to one used look at this specific reflection. We believe this change renders the use of the matrix of domination more tangible and more relatable for readers like the reviewer.*

I offer a small example from my agricultural experience in developing countries of the Third World. Weeding crops has been done in many places and still is done by women and perhaps children. If a machine is required (a plow) or if animals are required (cutivation) - men do it.

This is a great reflection and we would hope applying the matrix of domination to that context could help unpack why those disparities exist!

The paper asserts that agriculture is prime for power disparities. I agree. The great majority of farmers are male.

Gender is not the only dimension through which power is experienced in agriculture, we need to emphasize this.

Introduction - The paper assumes that everyone knows what agroecology is. I question that assumption. Agroecology is a developing academic discipline that studies ecological processes applied to agricultural production. It uses ecological principles (which have been ignored in agricultural research) to suggest and do the research on new management practices.

As the reviewer’s definition shows, the exact components of agroecology are contested. We believe the definition of agroecology is more than simply the scientific methods, so we rephrased this sentence and added a citation specific to describing the (contested) definition we are utilizing:

PUT IT HERE

The paper mentions multiple dimensions of power and provides only one citation of empirical studies.

We provide one citation for the concept of intersectionality. We do not provide a citation of empirical studies because we are stating the framework is rooted in empirical studies, of which there are too many to cite in this paper (which is why there is an entire book on the subject).

It would improve the paper if the collective experiences of the authors had a bit more explanation.

We agree and changed the sentence as follows:

*Our perspectives are strongly framed by our collective academic experiences in the industrialized agricultural systems of the United States (US), and specifically of those in the maize-producing areas of the Midwest*

2. Research for the public good......

It is at this point that my limited, narrow, view of data feminism drifts away from power to gender. I do not have and have not explored the data on resistance to power within the agricultural realm. But within the agricultural realm male dominance is clear. The gender resistance of men is what requires intentional examination and intervention. Power is important. Although men dominate agriculture's power they don't even know they do and are reluctant to begin to understand the role of gender inequality. Therefore, the power problem is men's mindset - their ignorance.

2.1 Serving the margins....

It is reasonable to claim that in much the world women grow food and men grow commodities. The commodities include wheat, rice, canola, soybeans, and other major crops. Commodity are sold to one or more international companies that produce what we eat

2.2 Technical audits

Some explanation of how each the good examples relates to feminism would be appropriate

3. Farmer-researcher.....

Provide examples of the myriad opportunities in the agricultural realm to distribute power more equitably. Surely there is something beyond how experimental plots are managed by researchers.

3.2 Metrics for success.

Once again, my bias and my hope for success and should be focused on the existing and proper role of women in the agricultural enterprise.

4. Values-informed...

Most scientists agree their research is objective. They must also agree it ts subjective because the scientists decide what will be studied and how it is to be done.

I agree research is values-informed. But what are the values? Values are universal principles that guide human behavior. Moral values can be regarded as specific norms and beliefs of a specific culture, religion or social group. Ethical values: equality, freedom, justice and integrity, are applicable in different contexts and are fundamental for the promotion of equality and justice in societies, and indeed of power.

You can't get away with mentioning values without some discussion of the values that determine desirability.

5. Conclusions

I think the demonstrates how agriculture ought to contribute to examining, challenges and distribution power rather than agriculture’s unique contributions to the examination.

The conclusion mentions sustainability. It is something everyone is for. At least one important question is what must be sustained?

For example - When the morally good goal of feeding a growing world population bumps against the morally good goal of protecting the environment there is a value question science cannot answer. When the environment’s natural objects are valued only in terms of their worth to humans and can be and are legally destroyed or modified. There is a moral problem.

Power, gender roles, and data feminism all play a role to play in agricultural sustainability. I encourage you not to treat sustainability too casually.

Finally. I applaud the authors for addressing an agricultural problem that has been largely ignored within the agricultural enterprise. I think the work should be published and hope the authors will consider and appropriately incorporate some of my comments