**Responses to Reviewer Comments**

1. **Reviewer #3**

*Comment:* I greatly enjoyed reviewing your paper "Valuing ecosystem services for agricultural wetlands: A systematic review and meta-analysis." I found it to be very well written and on a subject that should be of great interest to the readership of Wetlands Ecology and Management. I found very little wrong with your paper. The techniques used seemed innovative and appropriate, and your interpretation of the results were well described. I only had a few minor comments and suggested edits that I have included in a marked-changes version that I will attach. I hope to see you paper in print soon.

*Response:*

Thank you for the positive feedback on our manuscript. I have responded to all your comments in the manuscript. Also, on line 450 there was a comment to “provide reference” to support the effect of agricultural total factor productivity (AgTFP) on wetland values. Our study could not do that in the revised manuscript since we did not find that reference; however, we made a case for how improved could mean less wetland drainage, and plausible positive impact on wetland values.

1. **Reviewer #6**

*Comment*: A nicely written article and generally understandable (even from a non-statistician). Any new effort to calculate values of wetland needs to be moved forward. My only suggestion would be to aim your discussion a bit more at managers rather than the rather technical approach that you have. It needs to be really clear what the benefits of this approach would be.  
  
Also, on Line 450 you write "Provide reference", so I guess you need to do that. :)

*Response*:

Thank you for the positive feedback on our manuscript. Your suggestion has been addressed in the revised manuscript. Also, our study could provide the reference since we could not provide an appropriate reference in the literature; however, we made a case for how improved could mean less wetland drainage, and plausible positive impact on wetland values.

1. **Reviewer #4**

*Overall Comment*: Under the interference of global climate change and human activities, there is a need for a global estimate of the value of wetland ecosystem services within agricultural landscapes, which is of great significance for guiding regional planning and improving human well-being. However, the authors did not do a good job in this regard, especially the conceptual confusion, which needs to be revised. Based on the above reasons, this paper proposes a major revision, and the specific revision opinions are as follows.

*Overall Response*: Thank you for the positive feedback on our manuscript. We respond to your individual comments below:  
  
*Comment 1.*

Title  
The key word of the title is "Valuing the Ecosystem Services ", but most of the conclusions in the article are in the analysis of driving factors. It is recommended that the author reconsider revising the title of the paper.

*Response*: We have changed the title of manuscript to “Evaluating Ecosystem Services for Agricultural Wetlands: A systematic review and meta-analysis “in the revised manuscript.  
  
*Comment 2.*

Abstract  
(1) In the abstract, there is no estimate of the value of wetlands. It is recommended to add specific values.  
(2) Lines 41-42 in P2, "regulating (e.g., carbon sequestration, nutrient recycling, flood control) services.", "nutrient recycling" belongs to "Supporting services". The author needs to sort out the classification of ecosystem services to avoid conceptual errors.

*Response:*

1. We have provided regulating and provisioning values of selected wetlands across the world in the results, discussion and abstract sections in the revised manuscript.
2. In lines 117 – 125, we have provided references of the original studies (meta-data) that defined nutrient recycling, nutrient mitigation, and nutrient retention as regulating ecosystem service. Also, we supported their definition with Brander et al. (2013) who defined nutrient retention as regulating service. We have provided the list of all the services that make up regulating and provisioning services in Table A1 in the appendix.

*Comment 3.*

Manuscript  
(1) Based on the Millennium Ecosystem Service Assessment Report, ecosystems are divided into 4 categories, including provisioning, regulating, supporting and cultural services. However, Lines 146-147 in P7, "Ecosystem services were classified into regulating and provisioning ecosystem services, following Morris and Camino (2011)", Is this correct? It is recommended to revise or give a give a more reasonable explanation.

*Response:*

Yes, you are right with regards to the classification of ecosystem services based on the Millennium Ecosystem Service Assessment Report. However, we did not include cultural and supporting services in our meta-analysis because of insufficient data. We have made this point clear in the methodology lines 202- 204. We have deleted the comment “"Ecosystem services were classified into regulating and provisioning ecosystem services, following Morris and Camino (2011)" and explained that our model builds on the previous work of Brander et al (2013) by focusing on regulating and provisioning ecosystem services; again, we stated that we excluded supporting and cultural services because of insufficient data (lines 117 – 120).

*Comment 4*

Please add a meta-analysis of the wetland ecosystem service value evaluation flowchart in the methodology section.

*Response:* This has been done in the revised manuscript in the methodology section, page 14 (Figure 2).

*Comment 5.*

"Methodology" section.  
(3) The "wetlands within agricultural landscapes" is only mentioned in the "Introduction" and "Methodology" section and are absent from the analysis of results. Please note the words in the analysis of results. If I read only the results analysis, I could not distinguish whether the authors were studying wetlands in agricultural landscapes or other landscapes. Please add the words "agricultural landscapes" in "Results" section.

*Response:*  It has been done in the revised manuscript. Specifically, in the introduction of section 3.2 (meta-regression results) we stated that “we discuss the factors that influence regulating and provisioning ecosystem services on agricultural landscapes” in lines 445-446.

*Comment 6*  
(4) What are the advantages of Meta-analysis compared with other evaluation methods? please add a discussion about it in the "Discussion" section.

*Response:* It has been done in the discussion section of the revised manuscript lines 609-621.

*Comment 7.*

Artwork and Tables  
(1) Lines 184-185 in P9, the title of figures 1 should be placed below the picture.

*Response:* This change has been made in the revised manuscript. The titles of all figures and tables are now below them.

*Comment 8.*   
The scale was wrong (we recommend using latitude and longitude grid) in figure 1.

*Response:*

We have corrected it with the latitude and longitude grid in the revised manuscript.

*Comment 9.*  
And the legend should be given in the picture instead of given a footnote in the title.  
Reference

*Response:* This change was made in the revised manuscript.

*Comment 10.*

(1) The list of references should be reunified and standardized. Including the page (e.g. "pp. XX -XX" or "XX-XX") and the standard abbreviation of a journal's name.  
(2) Please always include DOIs as full DOI links in your reference list (e.g. "https://doi.org/abc").  
(3) Line 663, remove "&"; Lines 631-632 remove "." (e.g. modified "Gardner, R.C.," to "Gardner, RC,")  
  
*Response:*

The changes have been made in the revised manuscript. .