**Response to Reviewer ≠1 comment**

Many thanks for your response. The manuscript has been largely improved.

Modified content should be marked in the revised manuscript for easy review by reviewers.

Response: Thanks. We have followed the instruction. The change was marked with the red letter.

**Some specific comments:**

The abstract could be more concise.

Response: Thanks. The abstract was revised to show all key results.

The introduction part can highlight the key points and innovations of this paper.

Response: Thanks. Introduction was modified.

The definite article “the” is missing in many places in the whole article. please check it.

Response: Thanks. The manuscript was checked for missing articles and edited.

Too many parentheses are used in the essay, which is not recommended in writing.

Response: Thanks. We reduced the number of parentheses significantly.

Line 135: “impairment water resources”  Is this expression appropriate?

Response: Thanks. It was removed.

Table 1: The pH values are different from those in the previous version.

Response: Thanks. Soory for the technical error. In the previous version, pH values were related to the determination in KCL solution. It was replaced with pH values in H2O water.

Attention should be paid to the number of decimal places in all numbers throughout the text.

Response: Thanks. It was edited both in the text and tables.

Line 909: “c, f, f, a” should be superscripts, indicating the author's work unit. Please check the format of all references.

Response: Thanks. It was corrected.

The conclusion is too long and does not highlight the key results.

Response: Thanks. The conclusions were rewritten to reflect the key results.