

## Response to executive editor (gmd-2023-22)

**Comment 1:** Unfortunately, after checking your manuscript, it has come to our attention that it does not comply with our "Code and Data Policy".

[https://www.geoscientific-model-development.net/policies/code\\_and\\_data\\_policy.html](https://www.geoscientific-model-development.net/policies/code_and_data_policy.html)

In your manuscript, you state that to get access to the model data for the QDA method in NAQPMS, it is necessary to contact you. This is not acceptable according to our policy, and your manuscript is currently in an irregular situation, as it should have not been accepted for Discussions with such shortcomings. You must publish all the code and data used to carry on your work in one of the acceptable repositories stated in our policy.

Also, in your manuscript, you state that you use several other models and datasets, and you have not published their code or even mentioned them in the Code Availability Section. These include CMAQ 4.6, the MEIC data, fields from WRF, etc. Even the link that you provide for MEIC data in the text is broken and the linked webpage does not serve the data. Also, the Zenodo repository that you include with your manuscript does not include an explanation about what is each file, and the names of them do not help.

Moreover, some data in the Zenodo repository is in .xlsx format, which depends on proprietary software to get correct access to it. I recommend you to save and publish such files in OpenDocumentFormat (.ods), which is an ISO standard and relies on free software.

Therefore, please, publish the requested data and code in one of the appropriate repositories, and reply to this comment with the relevant information (link and DOI) as soon as possible, as it should be available for the Discussions stage.

Also, you must include in a potentially reviewed version of your manuscript the modified 'Code and Data Availability' section, with the DOI of the new repositories.

Please, note that if you do not fix this problem, we will have to reject your manuscript for publication in our journal.

**Reply:** We feel sorry for the noncompliance with the “code and data” policy of the GMD. We have submitted all the codes related to the QDA method and the observation data that used to validate the QDA method in our original submission. Following the requirement of the editor, we have uploaded the emission dataset obtained from the MEIC and the WRF fields in the new repository. Note that the source code of the CMAQ 4.6 has been included in the source code we submitted to the repositories. A

document explaining the meaning of each file is also added in the new repositories and the xlsx files in the original repository have been transferred to the OpenDocumentFormat (.ods). The DOI of the new repositories is

10.5281/zenodo.8217774 and the 'Code and Data Availability' section has been modified as:

The observational data used in this study and the source codes of the QDA method are available online via ZENODO (<http://doi.org/10.5281/zenodo.8217774>). The emission data obtained from MEIC ([http://meicmodel.org.cn/?page\\_id=1772&lang=en](http://meicmodel.org.cn/?page_id=1772&lang=en)) and 24-hour WRF simulation data that were used to drive the QDA method are also included.