

Interactive comment on "Development and calibration of a global hydrological model for integrated assessment modeling" *by* Tingju Zhu et al.

Tingju Zhu et al.

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Dear authors, In my role as Executive editor of GMD, I would like to bring to your attention our Editorial version 1.1: http://www.geosci-model-dev.net/8/3487/2015/gmd-8-3487-2015.html This highlights some requirements of papers published in GMD, which is also available on the GMD website in the 'Manuscript Types' section: http://www.geoscientific-model-development.net/submission/manuscript_types.html

In particular, please note that for your paper, the following requirements have not been met in the Discussions paper: $\hat{a}\check{A}\acute{c}$ "The main paper must give the model name and version number (or other unique identifier) in the title."

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Response: We appreciate the Executive Editor for these comments. We have added the model name and version in the title. The revised title reads as "Development and calibration of the IMPACT Global Hydrological Model 2.0 (IGHM 2.0) for integrated assessment modeling using IMPACT 3.0"

åÅć "If the model development relates to a single model then the model name and the version number must be included in the title of the paper. If the main intention of an article is to make a general (i.e. model independent) statement about the usefulness of a new development, but the usefulness is shown with the help of one specific model, the model name and version number must be stated in the title. The title could have a form such as, "Title outlining amazing generic advance: a case study with Model XXX (version Y)"."

Response: The model development relates to a single model and we now include the model name and version number in the title of the paper, as above explained.

åÅć "All papers must include a section, at the end of the paper, entitled 'Code availability'. Here, either instructions for obtaining the code, or the reasons why the code is not available should be clearly stated. It is preferred for the code to be uploaded as a supplement or to be made available at a data repository with an associated DOI (digital object identifier) for the exact model version described in the paper. Alternatively, for established models, there may be an existing means of accessing the code through a particular system. In this case, there must exist a means of permanently accessing the precise model version described in the paper. In some cases, authors may prefer to put models on their own website, or to act as a point of contact for obtaining the code. Given the impermanence of websites and email addresses, this is not encouraged, and authors should consider improving the availability with a more permanent arrangement. After the paper is accepted the model archive should be updated to include a link to the GMD paper."

Response: Key elements of the IMPACT 3.0 model code were published as Robin-

son et al. 2015 and is available at https://www.ifpri.org/publication/internationalmodel-policy-analysis-agricultural-commodities-and-trade-impact-model-0; IFPRI currently only makes the model code available to people trained on the integrated modeling system in international agricultural research centers.

Thus the title should include the name (acronym) and version number of the hydrological model. Additionally, as you are using one specific integrated assessment model, this should also be named (and versioned). E.g., "Development and calibration of a IMPACT Global Hydrological Model (IGHM vX.y) for integrated assessment modeling using IMPACT (v z.A)."

Response: The paper title has been changed to "Development and calibration of the IMPACT Global Hydrological Model 2.0 (IGHM 2.0) for integrated assessment modeling using IMPACT 3.0"

Additionally, please provide a reason why your model is not publicly available. It is scientific best practice that the code described in a paper is also made available to the public. Only legal issue might be a reason to sidestep this. Otherwise the publication has limited value. If the code /data are publicly available, please make the exact version, your article refers to, available via a permanent archive providing a DOI (e.g. Zenodo).

Response: Key elements of the IMPACT 3.0 model code were published as Robinson et al. 2015 and is available at https://www.ifpri.org/publication/internationalmodel-policy-analysis-agricultural-commodities-and-trade-impact-model-0; IFPRI currently only makes the model code available to people trained on the integrated modeling system in international agricultural research centers.

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