

Data management at ISIMIP

We help modellers join ISIMIP and then support them from their data submission, through the iterative process of passing our quality checks, to the publication of their simulations in the ISIMIP repositories, where data are publicly available.

Approach us if you have any questions or comments!

ISIMIP WORKFLOW

Join the ISIMIP → community

- Review the ISIMIP protocols
- Get in touch with your sector coordinators & the ISIMIP Data Management Team, to help you get:
 - Modellers' Dashboard account
 - Model's entry in ISIMIP website
 - DKRZ account
 - Join 'isimip-modelers' and 'isimip-data_updates' mailing lists

Data Uploads →

- Submit your simulations to the "UploadArea" at DKRZ
- Respond to the *Data publication confirmation* email:
 - Complete model documentation
 - Assign an output license
 - Select an embargo period

Quality Checks →

- Iteration of formatting fixes and other checks, as indicated by the Data Management Team
- Note: Models not completing all points in the *Data publication confirmation* email will not be made available to ISIMIP participants

Publish data for → ISIMIP participants

- Sharing and crediting conditions as listed in our 'Terms of use - During embargo period'
- To maximize the use of your data, we encourage either no embargo or short embargo periods. Maximum embargo period is one year
- Data caveats communicated via the 'isimip-modelers' mailing list

Publish data in data.isimip.org

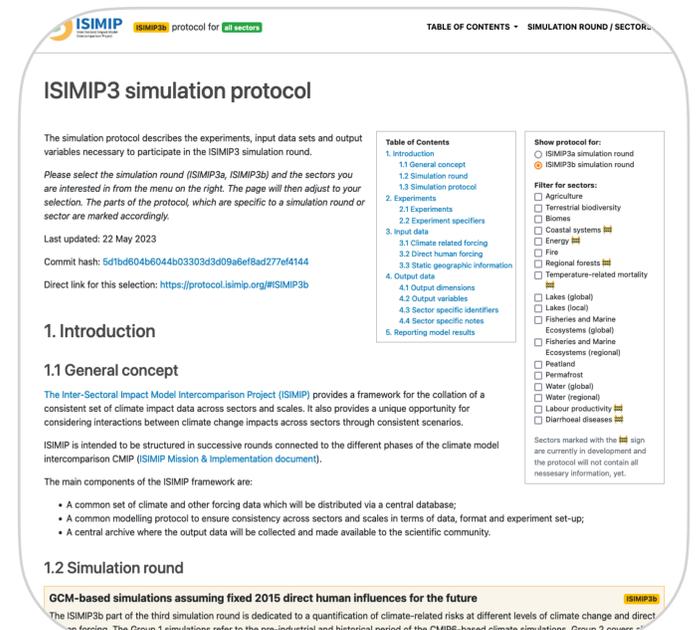
- Sharing and crediting conditions as listed in our 'Terms of use - Publicly available data'
- Publication of DOI per sector
- Data caveats communicated via the 'isimip-data_updates' mailing list

INTERACTIVE PROTOCOL

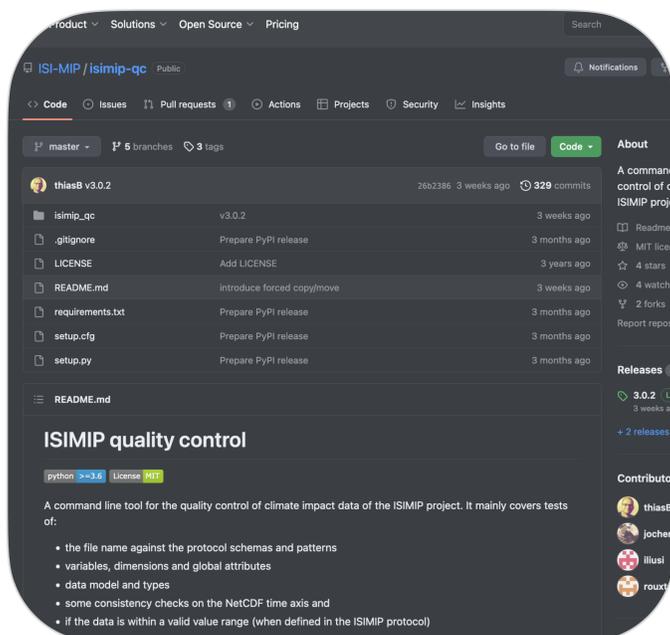
Simulation protocols reflect the decisions taken at the Strategy Group Meetings. These describe the experiments, input data sets and sector-specific output variables necessary to participate in a simulation round, as well as the guidelines for reporting your model results.

The ISIMIP3 protocol follows the convention of previous simulation rounds, with the 3a-part addressing the historical period and designed for model evaluation, and the 3b-part addressing historic and future impact projections. It is divided into:

- Group 1 simulations: model evaluation and potential attribution of observed impacts
- Group 2 simulations: impact simulations forced by CMIP6 climate simulations assuming fixed socio-economic conditions
- Group 3 simulations: impact simulations forced by CMIP6 climate simulations assuming varying socio-economic conditions – supported depending on projected socioeconomic data availability



QUALITY CHECKING TOOL



The ISIMIP quality checking tool allows you to test your simulation files against the definitions, patterns and schemas from our machine-readable protocols for ISIMIP2 and ISIMIP3. It mainly covers tests of:

- the file name against the protocol schemas and patterns
- variables, dimensions and global attributes
- data model and types
- some consistency checks on the NetCDF time axis and
- as of ISIMIP3: checking the variable values for compliance with a predefined valid range - collected from a coordinated effort of sectoral coordination.

The tool is ready to work on Windows, MacOS and Linux machines with Python >= 3.7 installed. You can find the install and usage instructions at: <https://github.com/ISI-MIP/isimip-qc>

Applying the tool to your own files before submitting them to DKRZ could lower the chance of time-consuming email conversations about inconsistencies in the submitted NetCDF files and avoid multiple upload iterations. A demo script for using the tool is available on the ISIMIP YouTube channel ([@isimip3627](https://www.youtube.com/@isimip3627)) and website (> ['Preparing simulation files'](#)).

This is still work in progress. You can help us by sharing your experience on failures and unexpected behaviour by filing an issue on the GitHub page or by writing us an email.