CMIP Community next steps survey

1. CMIP6 simulations

The purpose of this survey is to solicit community lessons from the 6th phase of CMIP, looking forward to future phases.

Click 'Next' at the end of the page to submit responses. Responses can be edited at any time by reloading the survey URL into your browser.

Page 1 requests basic respondent information

Pages 2 to 5 take a look at lessons learned from CMIP6

Pages 6 to 9 take a forward view.

The survey will take around 10-20 minutes to complete. Responses can be edited at any time, and there is no obligation to complete all sections.

A short introduction to the survey from the CMIP team, together with the WMO privacy policy can be viewed at https://www.wcrp-climate.org/cmip-survey

* Name

* Institution

* Country

* Contact Email

* Are you responding on behalf of an institution or group, or as an individual?

- [ ] Individual
- [ ] Institution (please give name / affiliation)

How have you been involved in CMIP? (select all that apply)

- [ ] CMIP6 forcing dataset provider
- [ ] Modelling group or centre
- [ ] ESGF
- [ ] Climate Service Centre / group
- [ ] MIP chair
- [ ] CMIP output analysis

Other (please specify)

Please indicate your primary scientific domain(s) of interest

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2. Looking back at CMIP6 : Design

DECK runs : Design and formulation.

How satisfied were you with the following in CMIP6?

	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied	N/A
Formulation of the DECK (were the right experiments included)	○	○	○	○	○	○
Variables included as core variables	○	○	○	○	○	○
Documentation for DECK experiments (input)	○	○	○	○	○	○
Documentation for DECK experiments (output)	○	○	○	○	○	○

DECK runs : Design and formulation.

Please describe: What went well, what went not so well, and indicate suggestions for improvement

MIPs. Design and formulation.

Which MIP(s) did you interact with? (tick all that apply)

- [ ] AerChemMIP
- [ ] C4MIP
- [ ] CDRMIP
- [ ] CFMIP
- [ ] DAMIP
- [ ] DCPP
- [ ] FAFMIP
- [ ] GeoMIP
- [ ] GMMIP
- [ ] HighResMIP
- [ ] ISMIP6
- [ ] LS3MIP
- [ ] LUMIP
- [ ] OMIP
- [ ] PAMIP
- [ ] PMIP
- [ ] RFMIP
- [ ] ScenarioMIP
- [ ] VolMIP
- [ ] CORDEX
- [ ] DynVarMIP
- [ ] SIMIP
- [ ] VIACS AB
- [ ] None of the above

MIPs. Design and formulation.

How satisfied were you with the following in CMIP6?

	Very dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied	N/A
Formulation: Do the MIPs address the scientific priorities and goals of the community?	○	○	○	○	○	○
Proposal mechanism for MIPs	○	○	○	○	○	○
Design mechanism for individual MIPs (please specify MIPs below)	○	○	○	○	○	○
Number of MIPs	○	○	○	○	○	○
Variables included as core variables (over all MIPs you interacted with)	○	○	○	○	○	○
Mechanism for later additions, e.g. Covid MIP	○	○	○	○	○	○

MIPs. Design and formulation.

Please describe: What went well, what went not-so-well, and indicate suggestions for improvement. Input on specific or multiple MIPs welcome

Overall Structure (DECK + MIPs). Design and formulation.

How satisfied were you with the following in CMIP6?

	Very dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied	N/A
Overall scientific focus	○	○	○	○	○	○
Size and scale	○	○	○	○	○	○
Timing with respect to other international activities (e.g. IPCC)	○	○	○	○	○	○
Division between DECK and MIP experiments	○	○	○	○	○	○

Overall Design and formulation. Please describe: What went well, what went not-so-well, and indicate suggestions for improvement.

How did you determine your involvement in / usage of CMIP6 beyond the core DECK experiments (PIControl, AMIP, 1pct CO2, abrupt 4xCO2, historical)?

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3. Input4MIPs

Please briefly describe how you interacted with Input4MIPS (data provider, modelling centre, etc.)

How satisfied were you with the following?

	Very dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied	N/A
Format expectations INTO Input4MIPS	○	○	○	○	○	○
Format consistency and utility for USERS	○	○	○	○	○	○
Timeliness of data availability	○	○	○	○	○	○
Data completeness	○	○	○	○	○	○
Communication of updates and errata	○	○	○	○	○	○
Were Input4MIPS data easy to access?	○	○	○	○	○	○

Input4MIPS. Please describe: What went well, what went not-so-well, and indicate suggestions for improvement.

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4. Output data : distribution, access and tools

Remote analysis platforms, web services, and community analysis tools have all become prominent features of CMIP6. This page seeks to understand how access and analysis of CMIP data occurs currently, and how we might plan for the future.

Please briefly describe how you accessed and analysed CMIP6 data (e.g. ESGF node, remote or local analysis, etc.)

Which of the following (if any), did you use to access data?

- [ ] apcc21.org
- [ ] bcc.cma.cn
- [ ] camscma.cn
- [ ] CEDA/JASMIN ceda.ac.uk
- [ ] cinceca.it
- [ ] cmcc.it
- [ ] csc.fi
- [ ] diasjp.net
- [ ] DRKZ CMIP Data Pool drkz.de
- [ ] ec.gc.ca
- [ ] fio.org.cn
- [ ] gfdl.noaa.gov
- [ ] PANGEO (GFDL/Amazon cloud)
- [ ] ichec.ie
- [ ] IPSL ciclad
- [ ] lasg.ac.cn
- [ ] nccs.nasa.gov
- [ ] NCI nci.org.au
- [ ] nird.sigma2.no
- [ ] nsc.lui.se
- [ ] pknu.ac.kr
- [ ] rcec.sinica.edu.tw
- [ ] snu.ac.kr
- [ ] tropmet.res.in
- [ ] ucar.edu GLADE
- [ ] umr-cnrm.fr
- [ ] Other (please specify)

What approaches did you use for data analysis?

- ○ Download, local analysis
- ○ Use a 'national' or other shared resource supported by institutional funding
- ○ Cloud - based Service or commercial computing provider (e.g. AWS)
- ○ Post processed data from the ESGF (please specify)
- ○ Other or hybrid approach

Please provide further details here

Within your primary platform for data download / analysis, how satisfied are you with...?

	Very dissatisfied	Dissatisfied	Neutral	Satisfied	Very satisfied	N/A
Data availability (based on your specific needs)	○	○	○	○	○	○
Ease of access	○	○	○	○	○	○
Notification of new data	○	○	○	○	○	○
Ease of navigation	○	○	○	○	○	○
Data volume (for analysis, download, storage)	○	○	○	○	○	○
Errata system, redacted runs	○	○	○	○	○	○

Please give a brief overview of any community tools or analysis platforms used, and their interface (if any) to CMIP. How central were they to your analysis? Could there be derived benefit from closer collaboration?

Data distribution and access. Please describe: What went well, what went not-so-well, and indicate suggestions for improvement.

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5. Documentation and Data Standards

Documentation includes but is not limited to: Experiment and model design and set up, data standards, MIP documentation, both in the published literature, and via online tools such as ES-DOC.

Data standards: Please include comments on any aspects of data conventions and compliance. This includes but is by no means limited to overall conformance to CMIP6 Global Attributes, filenames, directory structure etc. Within files, variable definitions, adherence to naming conventions, land/sea masks, timestamps etc.

Please indicate if you were involved in either production or use of experiment documentation, with a brief overview of context (specific models, etc.)

Were you able to find supporting information on any aspect of CMIP, when you needed it?

- ○ Not at all
- ○ Rarely
- ○ Sometimes
- ○ Often
- ○ Always

What supporting information did you access, and via what platform or medium (e.g. published literature, online documentation such as ES-DOC)?

Were your needs met by the documentation? Did it tell you what you needed to know?

- [ ] Not at all
- [ ] Rarely
- [ ] Sometimes
- [ ] Often
- [ ] Always

Documentation. Please describe: What went well, what went not-so-well, and indicate suggestions for improvement.

Data Standards and compliance to data conventions

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	N/A
Were data standards clearly defined?	○	○	○	○	○	○
Was compliance to data standards sufficient?	○	○	○	○	○	○

Data standards. Please describe: What went well, what went not-so-well, and indicate suggestions for improvement.

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6. Looking forward: Next steps

How critical to your institution's mission, funding and/or internal or external priorities is participation in CMIP?

How important is it for each phase of CMIP to be aligned with the IPCC (or other assessment schedule)?

Are there aspects of CMIP - technical, infrastructure, data, organisational aspects - that might be useful to your research outside of the application to CMIP?

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7. Looking forward : Experimental design

If a new MIP were to be included, what theme(s) should be considered?

How would you decide on participation in new or ongoing MIPs in a new phase of CMIP? Should the number of MIPs be centrally managed / administered, or should CMIP focus on core questions and providing support for groups to organize their own MIPs?

How frequently should CMIP request to update?

	More frequent than annually	Annually	2 years	5 years	10 years	Other
Historical forcing data	○	○	○	○	○	○
Historical simulations	○	○	○	○	○	○
Scenario forcing data	○	○	○	○	○	○
Scenario simulations	○	○	○	○	○	○

Other (please specify)

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8. Looking forward: Wishlist

What would you take forward from CMIP6, 5 etc., and what would you leave behind?

What, to you, could be the purposes of CMIP? How can they be effectively realised? (special interest experiments, model intercomparison, IPCC, etc.)

What would you prioritise for CMIP7?

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9. Additional thoughts and comments welcome

Please add any comments that you may have