



NATIONAL PARTNERSHIP  
FOR CLIMATE PROJECTIONS

# Bringing the Australian climate science community together to help users

## National Partnership for Climate Projections

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BoM R & D Workshop 2023 Towards seamless science and services



## NATIONAL PARTNERSHIP FOR CLIMATE PROJECTIONS



Australian  
Climate  
Service



Australian Government  
Bureau of Meteorology



Australian Government  
Department of Climate Change, Energy,  
the Environment and Water



**Why:** New initiatives need climate information.  
Which climate projections to choose and why?

**What:** Collaboration of all Commonwealth, state and territory governments and research initiatives producing climate projections

**How:** Working together to deliver a nationally aligned approach providing future climate data:

- Comparable
- Fit-for-Purpose
- Credible
- Authoritative
- Robust
- Useable



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**Working Group 1**  
Lead Michael  
Grose, CSIRO

### **Working Group 1: Climate change science and projections**

- Delivering national and regional downscaled climate projections
- Climate science, modelling and projections research needs



**Working Group 2**  
Lead Ben Evans,  
NCI

### **Working Group 2: Technology, computing and data**

- Coordinating access to computing infrastructure and data
- Investing in projections infrastructure



**Working Group 3**  
Lead Ramona  
Dalla Pozza,  
DCCEEW

### **Working Group 3: Climate services and user needs**

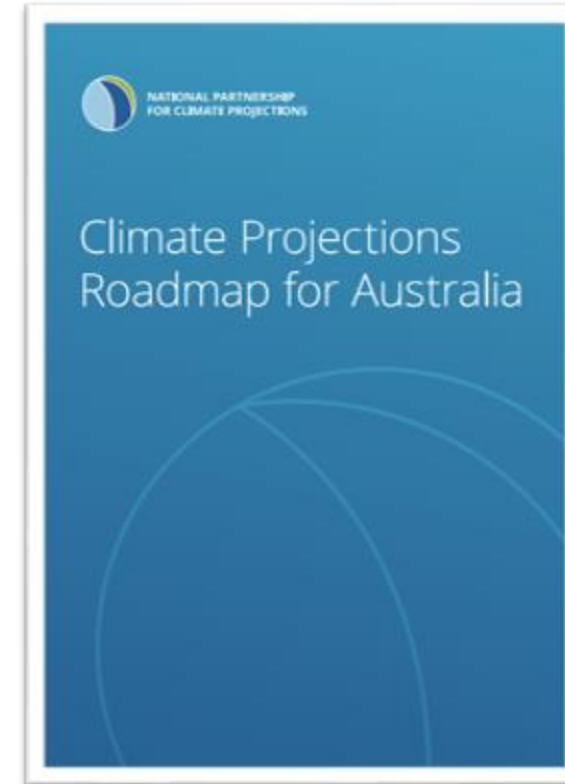
- Climate services, presentation of information and knowledge brokerage
- Addressing maturing user needs



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# Achievements

- Roadmap
- Conference presentations
- Collaborative publications
- Formal and informal knowledge sharing events
- Mapping of the climate science and services landscape
- Aligning computational resources and access to national computing infrastructure



[Climate Projections Roadmap for Australia - DCCEEW](#)



## Benefits so far

- **Establishing consistent approaches to delivery of projections**  
Shared resources - inter-comparison of methods – choices and justification
- **Coordinated access to high-performance computing capacity and infrastructure**  
Improved data sharing across Partnership members.

## Where to next

- Looking forward to continuing to meet, run joint events and facilitate collaborations to allow consistent analysis and publications featuring NPCP partner staff



## References and Publication Links

- Di Virgilio, G., F. Ji, E. Tam, N. Nishant, J. P. Evans, C. Thomas, M. L. Riley, K. Beyer, M. R. Grose, S. Narsey and F. Delage (2022). "Selecting CMIP6 GCMs for CORDEX Dynamical Downscaling: Model Performance, Independence, and Climate Change Signals." *Earth's Future* **10**(4): e2021EF002625.  
<https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2021EF002625>
  - Grose, M. R., S. Narsey, R. Trancoso, C. Mackallah, F. Delage, A. Dowdy, G. Di Virgilio, I. Watterson, P. Dobrohotoff, H. A. Rashid, S. Rauniyar, B. Henley, M. Thatcher, J. Syktus, G. Abramowitz, J. P. Evans, C.-H. Su and A. Takbash (2023). "A CMIP6-based multi-model downscaling ensemble to underpin climate change services in Australia." *Climate Services* **30**: 100368. <https://www.sciencedirect.com/science/article/pii/S2405880723000298>
  - 13<sup>th</sup> International Conference on Southern Hemisphere Meteorology and Oceanography – Christchurch 2022, session: "Downscaling and regional modelling – CMIP6 model selection, CORDEX and regional applications" (largest session at the conference, included conference best talk winner) Australian Meteorological and Oceanographic Society (AMOS) annual conference, Adelaide 2022 – special event: Regional climate downscaling for Australia within the CORDEX framework.
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<https://www.dcceew.gov.au/climate-change/policy/climate-science/climate-science/climate-change-future>