



The why, how and when of producing climate projections in Australia

Tuesday 17 July 2018, 2.30–3.30 pm (AEST)

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As the old quote states ‘it’s difficult to make predictions, especially about the future’. Not all predictions about the future have eventuated (where is our moon base and flying cars?). So how can we plan for the future of our climate?

By understanding our Earth system and how it reacts to pushes such as human emissions, we can estimate the range of possible climate outcomes that may occur if we follow any given scenario of human development. Climate projections use our latest understanding and modelling to give plausible estimates of climate change under a range of timeframes and emissions pathways, while being mindful of ongoing natural variability, important thresholds and potential twists and turns of human society. These projections are then relevant to stakeholders to discern, discuss, deliberate and decide what future climate change means and what we can do in response.

To be used in decision-making at all, climate projections need to be seen as a legitimate part of the decision-making process. Projections must therefore be scientifically credible, communicated effectively and made relevant and useable to a range of stakeholder needs and perspectives. An important part of scientific credibility is that projections need to comprehensively describe the full range of possible change (avoiding over-confidence), in order to appropriately inform sound decisions and to avoid maladaptive decisions. To remain a useful tool in considering and understanding future changes to our climate, projections will need to incorporate new science and modelling data, new users and stakeholder needs and new frameworks (such as what Australia looks like if we meet the Paris Agreement targets).

In this webinar, Dr Michael Grose will talk about climate change projections research undertaken by the Earth System and Climate Change Hub (Project 2.6), how climate projections have been produced in the past and where they could go in the future.



Dr Michael Grose is a research scientist at the CSIRO Climate Science Centre in Hobart. His research work focusses on the science of climate change processes, understanding climate changes we have seen to date, and how we can produce future climate projections that are useful for a range of stakeholders. Michael is the leader of the Earth Systems and Climate Change Hub *Project 2.6: Regional climate projection science, information and services*.

The Earth Systems and Climate Change Hub science webinars are open to the research community and anyone interested in finding out more about the Hub’s research (noting that the content may assume some understanding of climate change science and the fields being discussed).