Terry

[Music plays and the CSIRO logo and then text appears: Decadal Forecasting Project, Data assimilation and climate modelling]

[Image appears of Dr Terry O’Kane talking to the camera and text appears: Dr Terry O’Kane, Climate Forecasting Team Leader, CSIRO]

Dr Terry O’Kane: Decadal prediction is important to try to understand the variability and predictability of short term fluctuations in the climate system.

[Images move through of Terry and a colleague looking at weather data on a screen, Terry talking to the camera, an aerial view of the ocean and a view of swirling clouds and lightning]

In order to track extreme events in the climate system such as particularly intense El Niño or La Niña events we need to use the available observations, in particular sub surface ocean observations to initialise the climate models so that they’re in phase with the current climate state but contain information about instabilities that lead to these large scale, extreme climate events.

[Image changes to show Terry talking to the camera and then images flash through of swirling clouds, Terry working on a computer, swirling clouds over an arid landscape and people talking]

Our goal is to develop the scientific understanding and build the modelling structures and observational networks that allow us to understand variability and quantify predictability on time scales from seasons to inter-annual, in order to mitigate and plan for the effects of long term climatic extremes such as the millennial drought.

[Image changes to show Terry talking to the camera and then the image changes to show a rear view of Terry and colleagues looking at and discussing a weather map]

The international community has identified Near-Term climate prediction as one of the grand challenges in climate science. The work of the Decadal Project hopes to contribute to that international effort.

[Image changes to show Terry talking to the camera]

Through CSIRO’s decade long commitment to research in this area Australian scientists will contribute to understanding climate variability.

[Music plays and the CSIRO logo and text appears: CSIRO, Australia’s innovation catalyst]