

Senate Standing Committee on Environment and Communications
Legislation Committee
Answers to questions on notice
Environment and Energy portfolio

Question No: 140
Hearing: Budget Estimates
Outcome: Outcome 2
Program: Domestic Emissions Reduction Division (DERD)
Topic: Sources regarding sea-level-rise figures
Hansard Page: 93
Question Date: 23 May 2017
Question Type: Spoken

Senator Waters asked:

Senator WATERS: What sea-level-rise figures are you working with to inform your adaptation work for 2050 and 2100? What sources do you rely upon for those estimates?

Ms Brunoro: We will take that on notice. We have drawn from the biannual climate projections that are done by the CSIRO and the Bureau of Meteorology for the predominant cases, and, when it comes to concentration pathways, it uses the IPCC work.

Answer:

- The Australian Government takes its climate science information primarily from the CSIRO and the Bureau of Meteorology. The Department of the Environment and Energy uses sea-level-rise projections from the following sources:
 - the State of the Climate reports which are jointly released by the CSIRO and the Bureau every two years;
 - the Climate Change in Australia (CCIA) technical report jointly released by the CSIRO and the Bureau; and
 - the Intergovernmental Panel on Climate Change (IPCC) assessment reports for global sea level rise.
- There are a range of levels presented in these sources, for example;
 - sea level projections for Australia by 2090 are comparable to, or slightly larger than (by up to 6cm) the global mean sea level projections of 26-55cm for RCP2.6 and 45-82 cm for RCP8.5 (page 148, CCIA technical report; page 13, IPCC AR 5).
- Sea level records reveal that changes are non-linear and there may be periods of larger rates of rise and periods of stability.
 - changes in local winds, ocean currents and changes in sea water density contribute to the variability and trends of sea level along the coast (page 152, IPCC AR5).