

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

Question No: 188
Hearing: Budget Estimates
Outcome: Agency
Programme: Bureau of Meteorology (BoM)
Topic: BoM - El Nino
Hansard Page: 28
Question Date: 25 May 2015
Question Type: Spoken

Senator Waters asked:

Senator WATERS: It is modelled that super El Ninos will become twice as frequent; namely once every 10 years, as climate change intensifies.

Dr Vertessy: We don't use the term 'super El Ninos'. We would say that strong El Ninos are likely to be more frequent. I cannot remember the exact figure of frequency increase, but I do know that they are increasing.

Senator WATERS: Perhaps you could take it on notice. My understanding is that it is one every 10 years, which is a doubling.

Dr Vertessy: We would be happy to provide a more detailed answer to that.

Answer:

Recent research led by Dr Wenju Cai from the CSIRO examined future changes in the frequency of what the research paper referred to as "extreme El Ninos". Collaborators included scientists from the Australian Research Council Centre of Excellence for Climate System Science as well as from China, France, the United Kingdom and the United States of America. Their work compared the frequency of such events over the 21st century with the frequency in the 20th century in a large number of global climate models.

Cai et al. (2014) found that in some models there is, on average, a doubling in the frequency of such events in the 21st century as compared to the 20th Century. However, this work is in its early stages and, as with most work of this kind, further research is needed to confirm these findings.

Reference:

Cai, W. 2014. Increasing frequency of extreme El Niño events due to greenhouse warming. Nature climate change, Vol.4, 111-116.