

Senate Standing Committee on Economics
ANSWERS TO QUESTIONS ON NOTICE
Innovation, Industry, Science and Research Portfolio
Budget Estimates Hearing 2010-11
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AGENCY/DEPARTMENT: OFFICE OF THE CHIEF SCIENTIST

TOPIC: Monitoring of current journal articles on climate change science

REFERENCE: Written Question-Senator Eggleston

QUESTION No.: BI-134

In relation to climate change, what monitoring systems and/or search methods does the Chief Scientist (and/or her staff) use to ensure she is alerted to current journal articles? How regularly are these used and how extensive is their national and/or international reach?

ANSWER

The number of articles published each year on climate change related issues is enormous. It is beyond the remit or capacity of the Office of the Chief Scientist to continuously monitor all of them. As particular issues emerge, the Chief Scientist can undertake a literature search and select relevant articles from peer-reviewed journals.

The nature of scientific discourse is such that the understanding of phenomena is progressed through the collective work of scientists who publish their findings in peer-reviewed journals. These publications, in turn, form the basis for discussion and further work. In time, a consensus on how a phenomenon or systems works is gradually developed. The process of peer review and publication ensures that methods, data and conclusions are tested and refined in an open and rigorous manner.

From time to time, large peer-reviewed compendiums are published that summarise the current state of knowledge in a field, referencing original work. These are a valuable resource for researchers and for the Office of the Chief Scientist.

One such set of compilations has been developed by the Intergovernmental Panel on Climate Change (IPCC) which periodically convenes panels of experts to review publications already in print and provide a consensus snapshot on the understanding of climate change, making reference to the primary pieces of work on which consensus rests and indicating areas where knowledge is more uncertain. Other, more recent, summaries of peer-reviewed science of climate change include: *Climate Change: Global Risks, Challenges and Decisions*, a Synthesis Report derived from peer-reviewed work presented at an international meeting in 2009 convened by the International Alliance of Research Universities (IARU), and *The Copenhagen Diagnosis*, a summary prepared by 26 international climate scientists.