

Economics Legislation Committee
ANSWERS TO QUESTIONS ON NOTICE
Industry, Innovation, Science, Research and Tertiary Education Portfolio
Supplementary Budget Estimates Hearing 2012-13
26 November 2012

AGENCY/DEPARTMENT: DEPARTMENT OF INDUSTRY, INNOVATION, SCIENCE, RESEARCH AND TERTIARY EDUCATION

TOPIC: Carbon tax

REFERENCE: Question on Notice (Hansard, 26 November 2012, page 8).

QUESTION No.: SI-200

Senator BUSHBY: The question was: Are claims that failing to implement the government's carbon tax would precipitate the loss of the Great Barrier Reef, Kakadu and the Australian snowfields accurate and provable?

Senator CAMERON: A point of order! I think it is appropriate if Senator Bushby is quoting from some document or quoting someone that both the document and the person is identified. I do not think it is fair to Professor Chubb.

Senator BUSHBY: To short-circuit that, I am not quoting from anybody. They are general claims that I read and I have seen on a number of different publications—

Senator Lundy: I am happy to take that on notice.

ANSWER

The following response has been provided by the Department of Climate Change and Energy Efficiency which has responsibility for this matter.

The reality of human induced climate change is recognised by the Australian Academy of Science, the CSIRO, the Bureau of Meteorology, the Intergovernmental Panel on Climate Change (IPCC) and many other scientific institutions around the world. Peer-reviewed research has found that 97–98 per cent of the most actively publishing climate researchers support the tenets of climate change as outlined by the IPCC *Fourth Assessment Report*. The research also found that the relative climate expertise and scientific prominence of the researchers who are unconvinced of human induced climate change is substantially below that of those who support the IPCC.

Scientific evidence shows that without global action to tackle climate change we will likely see the effective destruction of coral reefs, including the Great Barrier Reef, significant impacts on Kakadu National Park and a decline in snow at Australian snowfields.

Corals are very sensitive to changes in water temperature. The IPCC *Fourth Assessment Report* found a temperature rise of 2 degrees Celsius, together with the impacts of increasing ocean acidity, is expected to cause serious damage to the Great Barrier Reef, with a shift from hard coral dominated reefs to dead coral structures covered in seaweed¹.

¹ Hennessy, K., B. Fitzharris, B.C. Bates, N. Harvey, S.M. Howden, L. Hughes, J. Salinger and R. Warrick, 2007: Australia and New Zealand. *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press, Cambridge, UK, p.518

Kakadu National Park is particularly vulnerable to the impacts of climate change, including rising sea levels and changes to rainfall patterns and fire regimes. These impacts are likely to reduce the key environmental, cultural, and economic values of Kakadu National Park. The IPCC Fourth Assessment Report found that with just 0.3m of sea level rise up to 80% of freshwater wetlands in Kakadu could potentially be lost².

The Australian Alps, which are home to vulnerable alpine flora and fauna, are highly susceptible to warming. With a no mitigation scenario and decreased rainfall, the length of the snow season may contract by 85-96 per cent by 2050 and disappear before the end of the century³.

The world is continuing to warm and emission levels are currently tracking to high end emission scenarios, a trend that could result in 4 degrees Celsius of warming by the end of the century. Scientists advise that it is not too late to bring about significant emissions cuts to avoid dangerous climate change and meet the internationally agreed guardrail to limit temperature increases to below 2 degrees Celsius. This is the critical decade for action.

Australia's emissions reduction efforts need to be considered in a global context. Australia is committed to playing a full, fair and constructive part in building global solutions to climate change. An effective global solution requires action from all major emitters.

The Australian Government has developed a comprehensive plan to move to a clean energy future. Central to that plan is the introduction of a carbon price that will cut pollution in the cheapest and most effective way and drive investment in clean energy sources such as solar, gas and wind. This reduction in emissions has bipartisan support and simply represents Australia's fair share of global action.

² Hennessy et al (at reference 1) p. 527

³ Hennessy, K., Whetton, P., Smith, I., Bathols, J., Hutchinson, M. & Sharples, J. 2003, 'The Impact of Climate Change on Snow Conditions in Mainland Australia', CSIRO, Aspendale, Victoria