

## Abstract Template

**Katherine Richardson**

**Organisation :** University of Copenhagen/Danish Climate Commission

**Short description:**

The Danish Climate Commission is charged by the Government to come with a road map describing how Denmark can become independent of fossil fuels

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### **Presentation title: Climate change: what does science really say and what are our options?**

Summary of your Abstract:

A short resume of the current scientific understanding of human-caused climate change and the options available to society for responding to the challenges presented by climate change are presented.

It is seldom that advances in scientific understanding cause the kind of reaction in society such as the one induced by climate change. Probably the last time a similar reaction was elicited was when Darwin in 1859 introduced the concept of evolution. The discoveries of both evolution and climate change challenged the perception of human identity at the time of their discoveries. In the case of Darwin and evolution, most of society found it difficult to accept the concept of humans simply being another species – an ape. In the case of climate change, many non-scientists find it difficult to believe that the human species identified by Darwin is, through its collective actions, capable of influencing how the Earth, itself, functions. The scientific evidence for the impact of human activities on the Earth system is, however, overwhelming. In this presentation, the current understanding of human impact on the Earth's climate system is briefly reviewed. It is argued that reducing this impact to a level acceptable to future societies requires that modern society develops energy independence from fossil fuels. The Danish Government has established a Commission to identify a road-map for how Denmark can become independent of fossil fuels. This Commission will report in September 2010. Status for the work in this Commission will be presented.

**Resumé:** Katherine Richardson is educated at Harvard University (USA) and University of Wales (UK). She is currently Vice-Dean at the Faculty of Science at the University of Copenhagen and Professor in Biological Oceanography. She has been active both as a member and chairman of several national and international research committees and advisory bodies. The focus of her research is how biological processes in the ocean affect the uptake of CO<sub>2</sub> from the atmosphere. She has co-authored several books dealing with how human impacts influence the Earth System, for example by impacting the climate system.

**Recommended reading:** Richardson, K., W. Steffen, H.J. Schellnhuber, J. Alcamo, T. Barker, D.M. Kammen, R. Leemans, D. Liverman, M. Munasinghe, B. Osman-Elasha, N. Stern & O. Wæver. 2009. Synthesis Report: Climate Change, Global Risks, Challenges and Decisions. University of Copenhagen, Denmark. [www.climatecongress.ku.dk/pdf/synthesisreport](http://www.climatecongress.ku.dk/pdf/synthesisreport)