

## Seminar by Professor Arthur Petersen

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### Improving the IPCC's uncertainty management in assessing climate change, impacts and responses

Date: **Thursday 13<sup>th</sup> May, 12.30-14.00.**

Venue: **NAB LG09**

#### Abstract

Dealing consistently with risk and uncertainty across the IPCC reports is a difficult challenge. Huge practical difficulties arise from the Panel's scale and interdisciplinary context, the complexity of the climate change issue and its political context. In this presentation the observed differences in the handling of uncertainties by the three IPCC Working Groups are clarified. One of the key findings is that there is reason to agree to disagree: the fundamental differences between the issues covered by the IPCC's three interdisciplinary Working Groups, between the type of information available, and between the dominant paradigms of the practitioners, legitimately lead to different approaches. We argue that properly using the IPCC's Guidance Notes for Lead Authors for addressing uncertainty, adding a pedigree analysis for key findings, and particularly communicating the diverse nature of uncertainty to the users of the assessment would increase the quality of the assessment. This approach would provide information about the nature of the uncertainties in addition to their magnitude and the confidence assessors have in their findings. In order to restore trust in the IPCC, it is particularly important to increase transparency on the role of expert judgements and to even better execute the review procedures while seeking wider input from extended peer communities.

**Professor Arthur Petersen** is a Munich Re Programme Visiting Professor at LSE and Director of the Methodology and Modelling Programme at the Netherlands Environmental Assessment Agency (PBL). He received graduate training as theoretical physicist (MSc), atmospheric scientist (PhD) and philosopher of science (MA and PhD). Since 2001, he has gained considerable experience in shaping the science-policy interface at Dutch, European and global levels on issues of climate change and sustainable development. He has become a world-leading expert on assessing and communicating uncertainties. In particular, he has studied major uncertainties in climate simulation.