C. Field: **Strengthening policy relevance of scientific assessments**

The mandate of the IPCC is to provide the world's governments with scientific information that is policy relevant but not policy prescriptive. With continuing improvements in both the quality and quantity of available science on climate change, it is increasingly important to ask how information can be assessed to make it as policy relevant as possible. This requires an understanding of the needs of the policy community as well as an expanded commitment to integrating both within the climate science community as well as between climate science and other disciplines. Perhaps the most important element of making assessments relevant is effectively presenting dealing with climate change as a problem in risk management, where risk is defined as the product of the probability of an event and its consequences. With this framing, characterizing the probability of the full range of outcomes becomes a top priority. Knowing the central tendency of a response is still important. But for many impacts, the consequences rise steeply with the amount of climate change, often creating a situation in which risk peaks at an amount of change greater than the median, sometimes much greater. In these situations, knowledge about the shape of the tails of the distribution of outcomes is critical, as are mature approaches for characterizing the response of impacts to the amount of change. For outcomes with probability density functions that are poorly constrained, it is still important to find ways to provide as much information as possible. The IPCC's uncertainty guidance provides a starting point, but policy relevance can be enhanced with research focused more strongly on characterizing the full range of both outcomes and impacts.

Christopher B. Field, Founding Director, Carnegie Institution's Department of Global Ecology, Professor of Biology and Environmental Earth System Science, Stanford University, United States

Dr Chris Field is also Faculty Director of Stanford's Jasper Ridge Biological Preserve. Dr Field's research emphasizes impacts of climate change, from the molecular to the global scale. For nearly two decades, he has led major experiments on responses of California grassland to multi-factor global change. Field has served on many national and international committees related to global ecology and climate change. He was a coordinating lead author for the fourth assessment report of the Intergovernmental Panel on Climate Change and a member of the IPCC delegation that received the Nobel Peace Prize in 2007. In September, 2008, he was elected co-chair of Working Group II of the IPCC, and will lead the next assessment on climate change impacts, adaptation and

vulnerability. He is a fellow of the American Association for the Advancement of Science and an elected member of the American Academy of Arts and Sciences and the National Academy of Sciences. Dr Field received a PhD from Stanford University in 1981 and has been at the Carnegie Institution for Science since 1984.