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Professor Will Steffen is Executive Director of the ANU Climate Change Institute at the Australian National University (ANU), Canberra, served on the Multi-Party Climate Change Committee (MPCCC) in 2010-11, and is currently a Climate Commissioner. He is also Co-Director of the Canberra Urban and Regional Futures (CURF) initiative, a joint venture of ANU and the University of Canberra. From 1998 to mid-2004, Steffen served as Executive Director of the International Geosphere-Biosphere Programme, based in Stockholm, Sweden. His research interests span a broad range within the fields of climate and Earth System science, with an emphasis on incorporation of human processes in Earth System modelling and analysis; and on sustainability and climate change, with a focus on urban systems.

Abstract**Governing Complexity in the Anthropocene**

The advent of the Anthropocene challenges the way humanity relates to the rest of the natural world, from the fundamental level of worldviews or perspectives to the practical management of social-ecological systems on an everyday basis. However, there is probably no bigger challenge that effectively governing the human enterprise in the Anthropocene. This talk will explore four major aspects of the complex governance challenge facing humanity. First, the challenge is inherently global in that the functioning of the Earth System as a single complex system is being affected, yet the drivers of those changes operate at multiple levels, from local to international; hence, multi-level governance systems are required. Second, like any complex system, the functioning of the Earth System is not entirely deterministic, which presents daunting uncertainties to those who attempt planetary stewardship. Third, for effective governance we'll need to develop early warning systems as approach thresholds that, if crossed, would lead to abrupt change, and the science needed to build such early warning systems is in its infancy. Finally, new understanding of the Earth System and the human pressures on it is increasing rapidly, implying that any governance system must have the capacity to assimilate new knowledge and adapt on the basis of it.