



Development, Science, and Complexity: What new scientific thinking means for policy and practice

**Monday 10th February 2014
11.00 – 15.00**

6th floor, UKCDS, c/o The Wellcome Trust, London NW1 2BE

UKCDS is a group of UK government departments and research funders with interests in international development. UKCDS has long been interested in the application of complexity science to development, having previously worked on the water, land, energy and health nexus, and with Ben Ramalingam to host a complexity workshop in 2011. Ramalingam's acclaimed new book, *Aid on the Edge of Chaos*, draws on the science of complex adaptive systems to argue for an urgent rethink of the linear cause and effect models often underpinning aid and development assistance.

The event will provide an opportunity to share knowledge and identify areas of common interest on how complexity thinking can shape research relevant to international development research being undertaken in and supported by the UK.

Agenda

11.00	Coffee and registration
11.15	Welcome and introduction - Professor Sir John Beddington
11.30	Development, Science, and Complexity: What new scientific thinking means for policy and practice – Ben Ramalingam
12.00	Critique and implications - Philip Ball, discussant
12.20	Audience questions and discussion
13.00	Lunch & networking
14.00	Close



Biographies

Chair



Professor John Beddington CMG FRS, Senior Adviser, Oxford Martin School

Between January 2008 and the end of March 2013, Sir John was the Government Chief Scientific Adviser and Head of the Government Office for Science. He reported directly to the Prime Minister and attended Cabinet Sub-committees and, on occasion, Cabinet. He had access to and numerous interactions with various Secretaries of State and his formal reporting line was to the Cabinet Secretary. He was Head of Profession for Science and Engineering in Government and founded the Government Science and Engineering Network. He headed the group of Chief Scientific Advisers in Government.

He chaired the National Security Council Science Advisory Group and the Science Advisory Group in Emergencies reporting into the COBR Committee. His experience was in three rather different emergencies: the pandemic influenza outbreak in 2009, the volcanic ash closure of UK air space in 2010 and problems linked to the earthquake and tsunami affecting the nuclear plants in Fukushima in Japan in 2011.

He directed the Foresight team which had the responsibility to look forward and assess implications for major challenges in the future. Typical timescales ranged from 10 to as much as 40 years. The reports produced by the Foresight team are substantial, typically projects may involve some 400 contributors from around 40 countries. The subjects studied are highly variable and involve substantial multi-disciplinary work.

Sir John was involved in heading the UK delegation to a number of joint science and technology commissions with a variety of countries. The key ones were with Japan, Russia, Brazil, China, India, Vietnam and Thailand. In addition, there were clear links with the USA where he interacted regularly with his counterpart, John Holdren, who is the Science Adviser to President Obama.

Keynote Speaker



Ben Ramalingam, Researcher and Writer, affiliated with the Overseas Development Institute and the Institute of Development Studies

Ben Ramalingam is an independent researcher, consultant and writer specialising on international development and humanitarian issues.

He has worked with and advised leading development and humanitarian organisations including UN bodies, NGOs, the Red Cross movement, and government agencies. He is Chair of the, the first mechanism dedicated to supporting innovation in international disaster response, which he designed and co-founded.

Ben currently holds honorary and visiting positions at the London School of Economics, the Overseas Development Institute, the Institute of Development Studies at Sussex University and the Royal Veterinary College. Ben is author of *Aid on the Edge of Chaos: Rethinking International Cooperation in a Complex World* (Oxford University Press, October 2013)

Discussant



Philip Ball, Freelance Science Writer

Philip Ball is a freelance science writer. He worked previously at *Nature* for over 20 years, first as an editor for physical sciences (for which his brief extended from biochemistry to quantum physics and materials science) and then as a Consultant Editor. His writings on science for the popular press have covered topical issues ranging from cosmology to the future of molecular biology.

Philip is the author of several popular books on science, including works on the nature of water, pattern formation in the natural world, colour in art, and the science of social and political philosophy. He has written widely on the interactions between art and science, and has delivered lectures to scientific and general audiences at venues ranging from the Victoria and Albert Museum (London) to the NASA Ames Research Center and the London School of Economics.

Philip continues to write regularly for *Nature*. He has contributed to publications ranging from *New Scientist* to the *New York Times*, the *Guardian*, the *Financial Times* and *New Statesman*. He is the regular contributor to *Prospect* magazine, and also a columnist for *Chemistry World*, *Nature Materials* and *BBC Future*. He has broadcast on many occasions on radio and TV, and in June 2004 he presented a three-part serial on nanotechnology, 'Small Worlds', on BBC Radio 4.

Philip has a BA in Chemistry from the University of Oxford and a PhD in Physics from the University of Bristol.