



Institute  
and Faculty  
of Actuaries



Global Challenges Foundation

# Major Global Risks Workshop

Monday 2 November - 09.00 to 15.15  
Staple Inn Hall, London

Over the last century the world has changed in profound ways, caused by rapid developments in science and technology, population explosion and a greatly improved but very resource-demanding standard of living in the developed world. As a result we now face new global risks with the potential of severely affecting billions of people.

These risks are big and take no account of borders, yet they are poorly understood by both the general public and policymakers. Insufficient understanding of these risks and short-term thinking that does not consider potential catastrophes might well put current and future generations at risk.

Raising awareness and developing tools that will help decision-makers understand the true dimensions of major global risks is a key priority for the Institute and Faculty of Actuaries and for the Global Challenges Foundation.

This workshop will bring together experts from the actuarial profession, policy, economics, science and the risk profession to discuss how a risk approach can help inform policy responses to these challenges. It will identify best practice and the potential to share lessons from different risk areas.

## Sessions and keynote speakers:

**Climate change risk** - Oliver Bettis, Resource and Environment Board, Institute and Faculty of Actuaries

### Pandemic risk

- Dr Gordon Woo, Risk Management Solutions

**Food security** - Dr Aled Jones, Global Sustainability Institute, Anglia Ruskin University

**Artificial intelligence** - Dr Stuart Armstrong, Future for Humanities Institute, University of Oxford

The workshop will also explore the possibility of producing a guidance document that would allow decision-makers to base strategic decisions in key global risk areas on the kind of science-based risk approach developed and refined by the actuarial profession.

To register your interest in attending this workshop please visit our **website**

## Event programme

Time	Event
09.00	<b>Registration</b>
09.30	<b>Welcome and introduction</b> Workshop Chair – Dennis Pamlin, Global Challenges Foundation Andrew Hitchcox, Risk Board, Institute and Faculty of Actuaries
10.00	<b>Session One: Climate Change</b> <p>Policy makers are aiming to limit global temperature increase to 2°C. However, evidence suggests there is a risk that temperature increases could be much higher, with drastic impacts on political, economic, social and environmental stability. To what extent should these “tail risks” be a factor in policy development?</p> <p><b>Speaker:</b>            Oliver Bettis, Resource and Environment Board, Institute and Faculty of Actuaries</p>
11.00	<b>Coffee Break</b>
11.15	<b>Session Two: Pandemics</b> <p>Despite dramatic advances in medical science and health, we are not immune to pandemics. Global trends such as the growth in international travel, urbanisation, immune-deficiency and political conflict fuel pandemic risk and the impacts could be very serious for society. So how do we assess and manage these risks?</p> <p><b>Speaker:</b>            Dr Gordon Woo, Catastrophist, Risk Management Solutions</p>
12.15	<b>Lunch</b>
13.00	<b>Session Three: Food Security</b> <p>Climate change, a growing population and increasing consumption means there is an increased risk of food shortages. The combined effects could result in political instability, with consequences for supply chains and the financial system. To what extent does food security pose a risk and how will market and policy responses impact on global food security and system resilience?</p> <p><b>Speaker:</b>            Dr Aled Jones, Director, Global Sustainability Institute, Anglia Ruskin University</p>
14.00	<b>Session Four: Artificial Intelligence</b> <p>Artificial Intelligence (AI) is one of the least understood global risks. While there is considerable uncertainty associated with AI, there are reasons to suspect that an AI with human-comparable skills could be a major risk factor. How do we assess the potential risk and develop policy and regulatory frameworks to guide future development?</p> <p><b>Speaker:</b>            Dr Stuart Armstrong, Future for Humanities Institute, University of Oxford</p>
15.00	<b>Concluding remarks and close of workshop</b> Dennis Pamlin, Global Challenges Foundation

### How the sessions will run

The workshop aims to encourage discussion about the risk issues that arise under each of the sessions.

Each session will start with a 15 minute presentation by our keynote speakers. This will be followed by a discussion with the expert panel and Q&A with the workshop participants.

The sessions will be interactive and we want you to participate alongside our panellists. We hope this will help further develop our understanding of the work needed to tackle the key global challenges of our time.

### Panellists include:

**Sarah Millar,**  
 Head of International Climate Change Engagement, DECC

**Professor Molly Jahn,**  
 Laboratory of Genetics and Department of Agronomy, University of Wisconsin-Madison

**Dr Chloe Sellwood,**  
 Pandemic Influenza Resilience Manager, NHS

**Dr Douglas Wright,**  
 Faculty of Actuarial Science and Insurance, Cass Business School

**Professor David Harper,**  
 Chatham House Centre on Global Health Security (TBC)

**Dr Scott Kelly,**  
 Senior Research Associate, Centre for Risk Studies, Cambridge University