

*Science and Catastrophe Risk Management*  
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**Abstract**

Our way of life, our economy, and our assets are threatened by rare but extreme events, ranging from natural disasters to terrorist strikes, pandemics or unexpected economic collapse.

An industry of catastrophe risk management has developed over the past 20 years, using science to quantify the likelihood and severity of a wide range of threats. The financial services industries, government policy units and corporations make increasing use of catastrophe risk analysis to support risk management decisions, to protect against losses, improve the resilience of society, and quantify the benefits of risk reduction measures.

This talk summarises how analysis feeds into risk management decisions, how quantified metrics of risk are defined and used in decision support, and gives examples of decision-making behaviour over complex and unfamiliar risks. Areas where research can support and advance the science of catastrophe risk management are discussed, as inputs into defining the agenda for the research framework of the Cambridge Centre for the Management of Societal and Economic Risk.

**Speaker bio**

Andrew Coburn is Vice President of Catastrophe Research at Risk Management Solutions, Inc., the leading provider of catastrophe risk models to the insurance industry. Andrew has also provided research inputs into government policy, such as House of Congress legislation on terrorism risk management policy and urban planning for disaster mitigation in Mexico, Metro Manila, and Southern Italy. Andrew is an advisor to the University of Cambridge Centre for the Management of Societal and Economic Risk.