



PRESS RELEASE

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Leading Catastrophe Risk Expert Says Key Targets in Sendai Framework Could Produce Invalid Results That Do Not Measure True Progress on Framework Goals

Dr. Robert Muir-Wood: current targets focus only on short snapshots of disaster data, with no risk analysis of the infrequent catastrophic events which can kill hundreds of thousands

NEWARK, Calif. – May 24, 2017 – Dr. Robert Muir-Wood, a leading authority on understanding and managing the risk of natural disasters, has warned that the implementation of the Sendai Framework, an important charter for global risk management, risks being undermined by a lack of reliable metrics for how much progress is actually being made. Dr. Muir-Wood is the chief research officer at [RMS](#), a global risk modeling and analytics firm and leader in catastrophe risk management.

At this week's United Nations [Global Platform for Disaster Risk Reduction](#) in Cancun, Mexico, member countries will offer evidence of their progress in reducing the risk posed by natural disasters to lives, livelihoods and economies, against the Sendai Framework. However, some of the most important targets for determining that progress are to be measured through comparing disaster data from just two decades: 2005-2015 and 2020-2030. Crucially, the frequency of the largest disasters is highly volatile, and so comparison of two such short time frames is likely to be misleading, Muir-Wood will tell the conference.

“The incidence of the largest catastrophes, such as earthquakes and floods, is hugely variable over time. You may have more than a century without incident,” **said Dr. Muir-Wood**. “And then without warning disaster can strike, killing tens of thousands of people in minutes, as in the 2011 Japan earthquake and tsunami. Simply comparing data from two decades will give invalid results. This could cause complacency in those countries which were spared significant disasters at the time the Framework assessment is made, leading to a potentially dangerous failure to invest in disaster risk reduction.”

A further illustration is Haiti, according to Dr. Muir-Wood. From 1900-2000 fewer than ten people were killed in earthquakes, whereas in 2010 more than 200,000 died in a single afternoon.

Comparing decades of data through the 20th Century would not provide a true perspective on the seismic risk faced by Haitians.

For a much more accurate perspective, Dr Muir-Wood advocates that governments use the risk models that since 1990 have become central to the successful management of catastrophe risk in the financial markets, and particularly insurance. These models combine the scientific understanding of perils such as earthquakes and hurricanes, with sophisticated statistical modeling techniques that process detailed data on the people, buildings and economic activity within that territory. They are built to include a well-calibrated synthetic history of possible disasters which could hit a region over tens or hundreds or thousands of years. The models can be continuously updated with details of the latest disaster risk mitigation strategies – for example the building of sea walls, early warning systems, or the tightening of laws on building construction.

Dr. Muir-Wood continued: “We need to see the introduction of disaster risk auditing to assess a country’s resilience, repeated every few years using these models, to measure what real progress is being made in reducing potential lives lost and economic damage. This should be undertaken according to agreed international standards as an independent audit, in the same way that rating agencies audit countries and cities for their creditworthiness. This will reveal the level of national or city preparedness without having to suffer a disaster. It will hold political leaders to account for making substantive progress in improving resilience, and so reducing disaster risk.”

Dr. Muir-Wood suggests that wealthier countries could fund their own independent disaster risk audits to demonstrate how they are managing their risks, while poorer countries, such as the V20 group of most vulnerable nations, could see them funded through international aid. This would open up new opportunities for developed countries to stimulate tangible progress in building disaster resilience among poorer nations.

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Dr. [Robert Muir-Wood](#) will be [speaking at the United Nations Office for Disaster Risk Reduction’s](#) (UNISDR) 2017 Global Platform for Disaster Risk Reduction in Cancun, Mexico on May 24 and 25. Dr. Muir-Wood is chief research officer of RMS, and has been a senior advisor to the Intergovernmental Panel on Climate Change (IPCC) and the Organisation for Economic Cooperation and Development (OECD). He has written several leading books on disaster risk management, including [“The Cure for Catastrophe.”](#)

He is available for interview. Please email prteam@rms.com or call the numbers at the top of this release.

About RMS

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Notes to Editors

The first two targets of the [Sendai Framework](#) are:

- (a) Substantially reduce global disaster mortality by 2030, aiming to lower average per 100,000 global mortality rate in the decade 2020-2030 compared to the period 2005-2015.
- (b) Substantially reduce the number of affected people globally by 2030, aiming to lower average global figure per 100,000 in the decade 2020 -2030 compared to the period 2005-2015.