

Institute of Catastrophe Risk Management

Welcome Greetings by

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**8<sup>th</sup> International Symposium on Catastrophe Risk Management –  
“Managing Risk & Resilience – Nat Cat Data (Exposure and Loss)”**

9:00 am, Thursday, 3 August 2017  
Grand Copthorne Waterfront Hotel, Singapore

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Good morning!

Guest of Honour, [Mr Ravi Menon](#), Managing Director, Monetary Authority  
of Singapore (MAS),

[Professor Bertil Andersson](#), President, Nanyang Technological University  
(NTU),

Distinguished Speakers, Delegates and Guests,

NTU Colleagues and Students,

Ladies and Gentlemen:

On behalf of ICRM at NTU, I would like to extend our warm welcome to everyone to the 8<sup>th</sup> International Symposium on Catastrophe Risk Management, “***Managing Risk & Resilience – Nat Cat Data (Exposure and Loss)***”. To our guests from overseas, welcome to Singapore!

## **ICRM Symposia**

I have special feelings for this Ballroom, because in January 2010 at this ballroom, ICRM held its inaugural symposium. Since then, ICRM has held seven international symposia on catastrophe risk management. The seven symposium themes are:

- “Public-Private Partnership in Understanding, Communicating and Managing Catastrophe Risk” in 2010,
- “Climate Change – Implications on Food & Water Security” in 2011,
- “Black Swan Events” in 2012,
- “Evolving Risks due to Extreme Events in Asia-Pacific” in 2013,
- “Financing of Natural Catastrophes in Asia” in 2014,
- “MegaCities of Asia and their Evolving Risks – Are these Risks Manageable?” in 2015, and
- “Plugging the Natural Catastrophe Data Gap – Thoughts to Action for NatCatDAX” in 2016.

Today, the 8<sup>th</sup> Symposium is on ***Managing Risk & Resilience – Nat Cat Data (Exposure and Loss)***. The symposium theme reflects ICRM’s current endeavours together with the financial industry, supported by MAS.

## **ICRM Development**

At this same ballroom in January 2010, ICRM was launched by Mr Heng Swee Keat who was Managing Director of MAS then and is now Minister for Finance, together with NTU President and President of General Insurance Association (GIA) of Singapore. Since then, ICRM has received very encouraging support from the government as well as the financial industry in its R&D activities in catastrophe risk management.

ICRM has completed two pilot R&D projects which were co-funded by MAS and NTU to create a prototype of ***analytical platform*** for flood risk and earthquake risk assessments of major cities in Southeast Asia region. The platform is mounted with ***Jakarta Flood Model*** and ***Singapore Earthquake Model***, and was released to MAS in March last year. These two models have thus been available to the insurance and reinsurance industry for almost a year.

Separately, ICRM is leading NTU's effort in a joint research work with ETH Zurich on **Future Resilient Systems (FRS) Program**. The FRS Program is funded by *National Research Foundation* of the Prime Minister's Office under CREATE Scheme, *Campus for Research Excellence and Technological Enterprise*. Working with ETH, NUS and SMU, ICRM research teams are looking into cascading failure of interdependent critical infrastructure systems. These systems have highly complex behaviour with hidden interdependences, which may include social-technical linkages. Our FRS research teams thus have professors, students and postdocs from NTU's schools of engineering, business, as well as humanity & social sciences.

### **MegaCities of Asia and their Evolving Risks**

In 2014, an **Asian Development Bank (ADB) report** noted that "natural disasters eat up a chunk of economic growth in the ASEAN region". Actually, the cost of disaster in some cases had exceeded the increase in economic growth. The report further suggested ASEAN to establish a Disaster Risk Management Fund that could strengthen financial resilience when calamities strike.

However, catastrophe risk management requires good understanding and quantification of underlining risks, for which high quality exposure and loss data are fundamental. Therefore, one of the goals of the Symposium today is to provide a platform where we can learn from the world's leading experts and from one another about enhancing the quality of **insurance exposure and loss data** as well as **economic exposure and loss data**. This will hopefully help us develop not only the technological solutions, but also the insurance and capital market solutions, which together enable workable risk transfer markets that serve the governments, businesses, and societies.

Before I end my greetings, I wish to convey to you greetings from Professor Haresh Shah. Some of you have noticed that Professor Shah is not here today. This is in fact the first time that he is not present at the symposium, and he sends his best regards to friends and those of you who know him.

In closing, I would like to thank our Guest of Honour, [Mr Ravi Menon](#) MD of MAS, [Professor Bertil Andersson](#) President of NTU, and all of you for joining us at the 8<sup>th</sup> Symposium on ***Managing Risk & Resilience – Nat Cat Data (Exposure and Loss)***.

I wish all of you a fruitful time at the Symposium.

Thank You!