

An interactive focus on natural catastrophe threats and how to build a more resilient business

Nicholas Bailey, former Airmic chairperson



# Coverage is key

**Jack Sanderson** 

### FLOOD PROTECTION PROTECTION **AGAINST FREEZE AGAINST** AND SNOW RAINWATER COLLAPSE: DAMAGE: Install local ■ Ensure adequate flood barriers ■Ensure adequate roof and ground level roof load design, at entry points Raise or especially when drainage, including move critical/ building an extension secondary drainage. high value Install perimeter to existing building. ■ Have drain equipment to flood defences ■ Ensure adequate inspection higher floor building heat, programme. including during ■ Ensure adequate shutdowns. roof load design. Business impact and Bury water mains supply chain analyses deep enough. Provide window Secure key Quantification of exposures and door shutters equipment Emergency response plans Business continuity plan PROTECTION Adequate PDBI\* policy Provide SSOV **AGAINST HAIL** (safety shut off Ensure roof covering Know limits and DAMAGE: valves) on and insulation are deductibles ■ Keep vulnerable flammable gas PROTECTION properly secured yard storage indoors and liquid lines AGAINST or under canopies. BUSHFIRE: Avoid brittle roof Brace Tether Cut back the covering such as outdoor vegetation. asbestos and equipment sprinkler ■ Provide exposure unreinforced PVC. systems sprinkler protection to the facility and good water supplies for manual firefighting. Property damage and business interruption

### Understanding your exposure

- Quantification of exposure
  - Known exposure
  - Unknown exposure

Business impact analysis

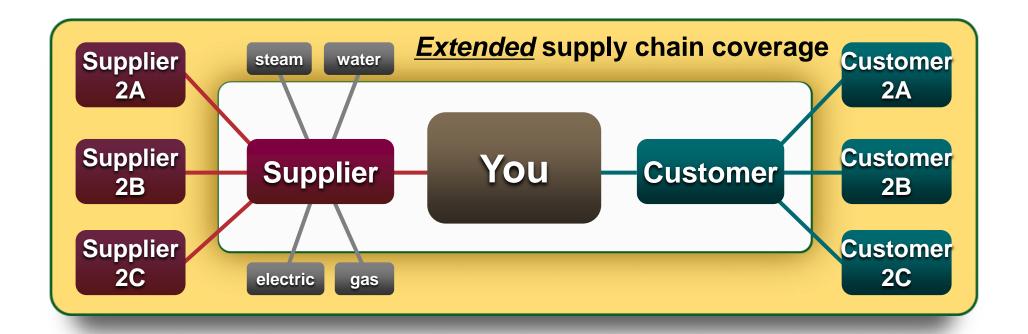
Supply chain analysis

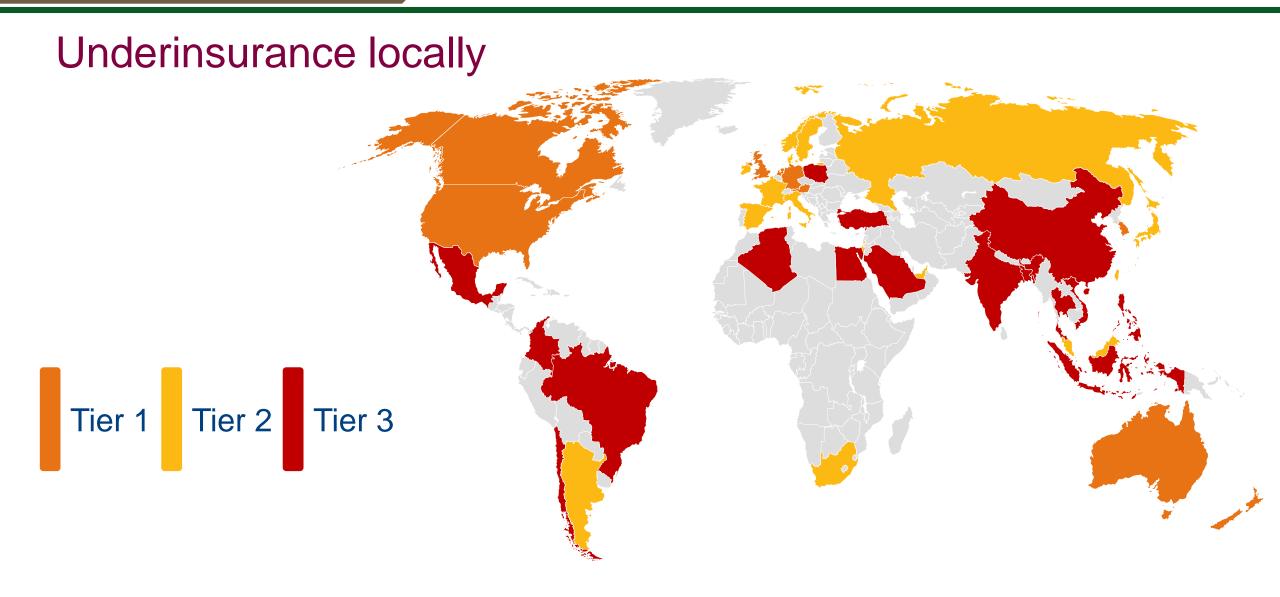
# Thailand floods: supply chain





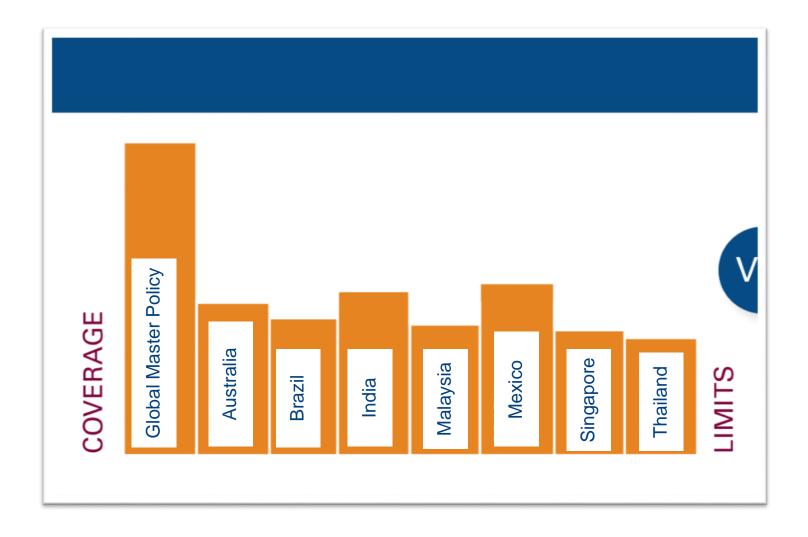
### Adequate supply chain coverage



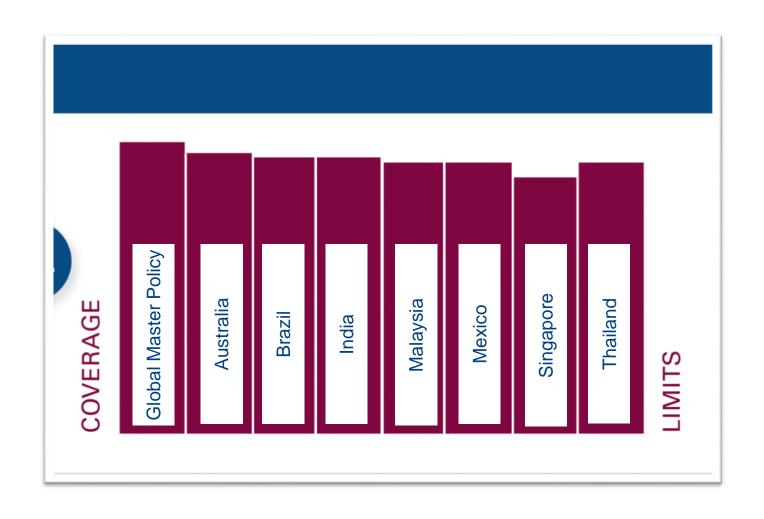


Ref: Lloyd's Global Underinsurance report, October 2012

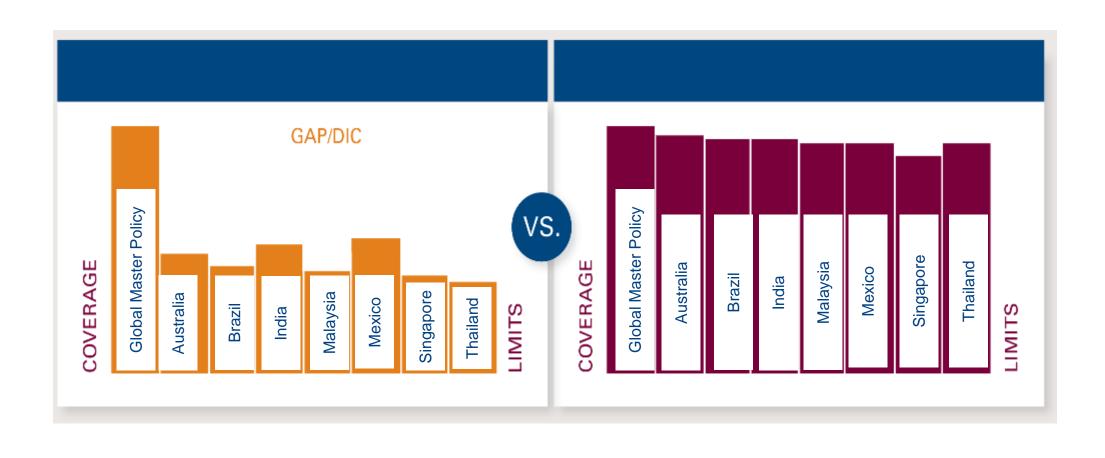
### Avoid stripped down local coverage



### Maximise local coverage



### Local coverage is key





# Precautions against specific natural hazards

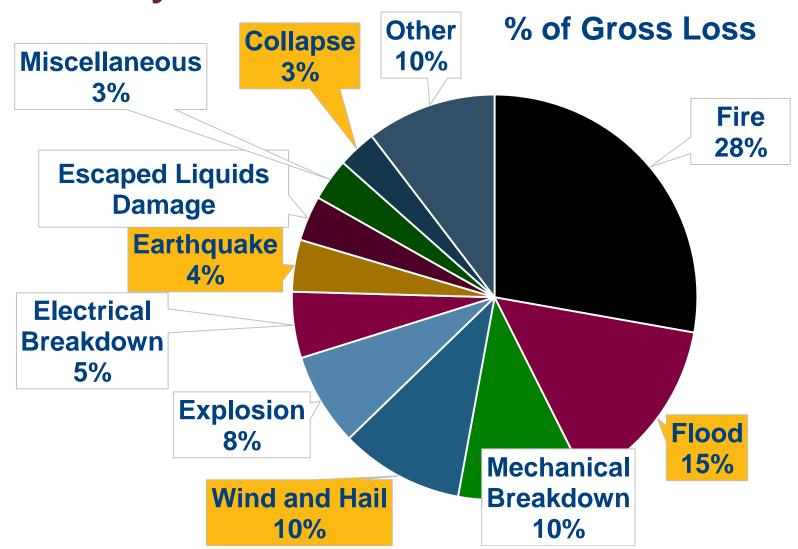
Charlotte Brennan

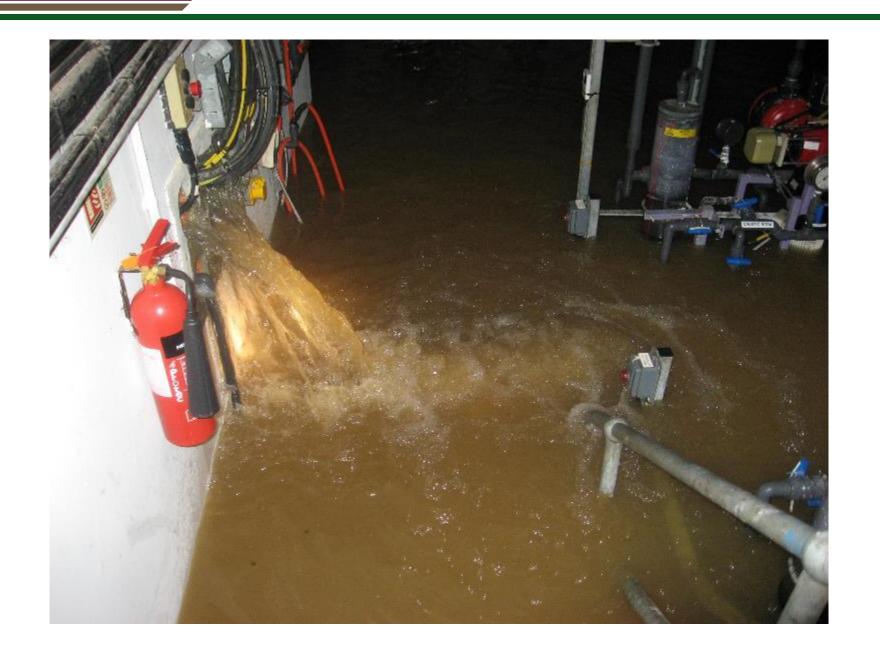
### FLOOD PROTECTION PROTECTION **AGAINST FREEZE AGAINST** AND SNOW RAINWATER COLLAPSE: DAMAGE: Install local Ensure adequate ■Ensure adequate flood barriers roof and ground level roof load design, Raise or at entry points especially when drainage, including move critical/ secondary drainage. building an extension high value Install perimeter to existing building. ■ Have drain equipment to flood defences ■ Ensure adequate inspection higher floor building heat, programme. including during ■ Ensure adequate shutdowns. roof load design. Business impact and Bury water mains supply chain analyses deep enough. Secure key Provide window Quantification of exposures and door shutters equipment Emergency response plans Business continuity plan PROTECTION Adequate PDBI\* policy Provide SSOV AGAINST HAIL (safety shut off Ensure roof covering Know limits and DAMAGE: valves) on deductibles and insulation are ■ Keep vulnerable flammable gas PROTECTION properly secured yard storage indoors and liquid lines **AGAINST** or under canopies. **BUSHFIRE:** Avoid brittle roof Tether Brace Cut back the covering such as outdoor vegetation. asbestos and equipment sprinkler unreinforced PVC. Provide exposure systems sprinkler protection to the facility and good water supplies for manual firefighting.

Property damage and business interruption



### What history tells us







## Physical precautions against flood

Install perimeter flood defences



 Install local flood barriers at entry points



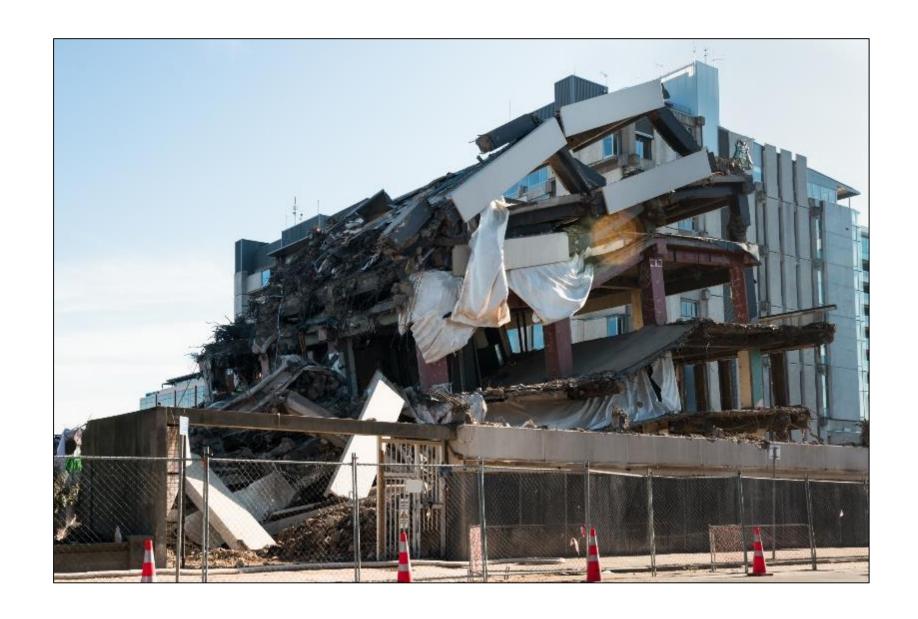


 Raise or move equipment and stock











## Physical precautions against earthquake

Secure key equipment



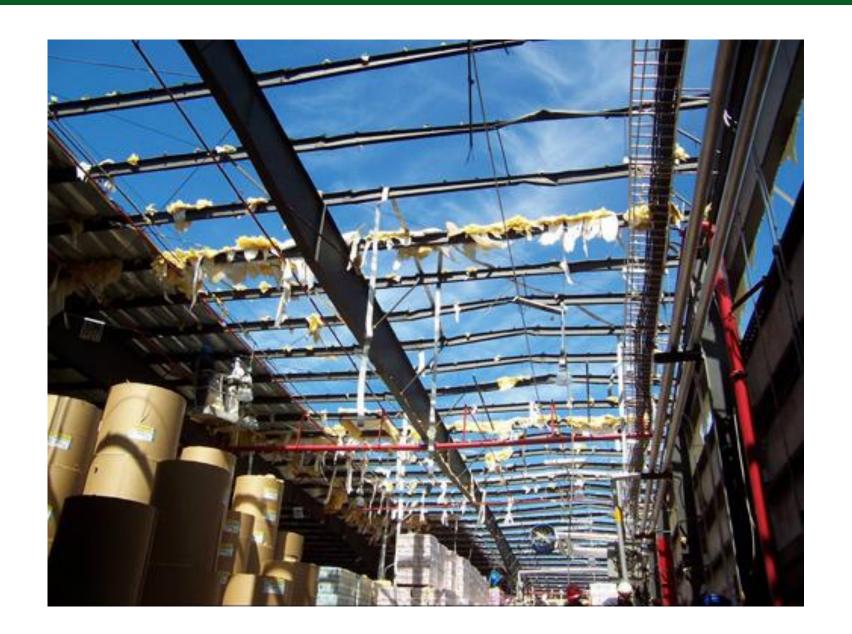
Provide safety shut off valves



Brace automatic sprinkler systems









### Physical precautions against windstorm

Tether outdoor equipment.

 Ensure roof covering and insulation properly secured.

 Provide window and door shutters.





## Placeholder for jigsaw exercise



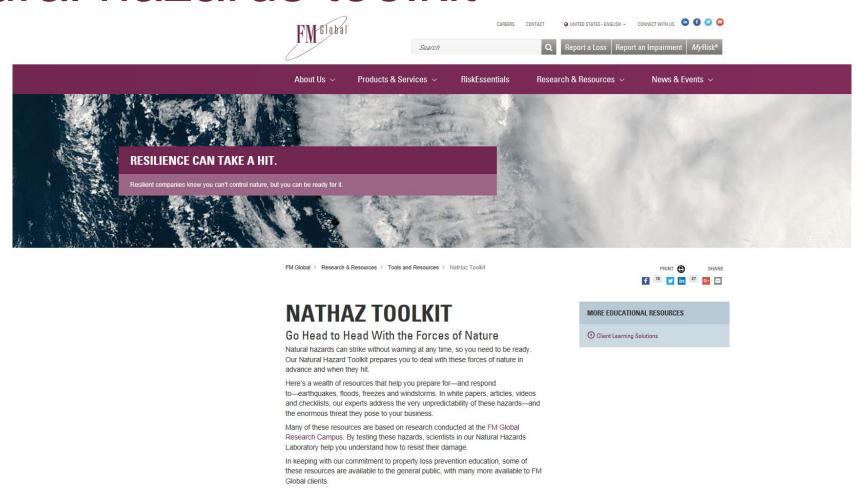
# Conclusion and resources

Adriano Lanzilotto

### Conclusion

- Know and quantify your exposures
- Put the right precautions in place, both human element and physical protection
- Be really sure you have the right cover, in every territory
- Use the right resources for information...

### Natural hazards toolkit



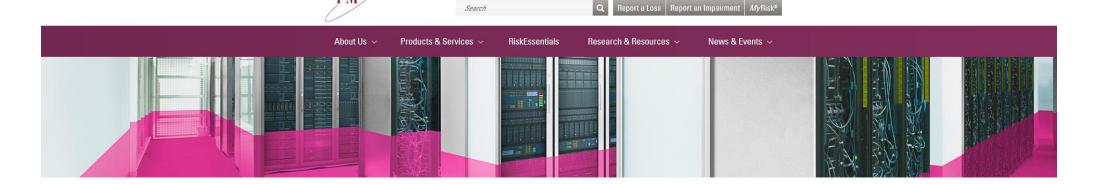
www.fmglobal.com>Research and Resources>Tools and Resources

### Data sheets for maps and guidance

- 1-2 Earthquake
- 1-11 Fire Following Earthquakes
- 1-28 Wind Design
- 1-34 Hail Damage
- 1-40 Flood
- 9-18 Prevention of Freeze ups
- 9-19 Wildland fire
- 10-2 Emergency response
- 10-5 Disaster Recovery Planning



# Global flood map



### **GLOBAL FLOOD MAP**

FM Global > Research & Resources > Global Flood Map

### A revolution in flood mapping technology

Our Global Flood Map breaks new ground. It's a physically based map that provides a worldwide view of moderate- and high-hazard flood zones across the globe. Unlike maps based solely on historical flood data, our innovative Global Flood Map is built using hydrology and hydraulic science, and considers, among other factors, essential information like rainfall, evaporation, snowmelt and terrain.

### Assessing Your Flood Resilience

Flood is one of the most devastating and costly of all natural disasters. There are three primary factors behind the increased frequency and severity of flood loss: climate change, globalization and urbanization. A fourth factor may be attributed to the fact that, in many parts of the world, flood information can be unreliable, inconsistent or outdated—or simply doesn't exist. As resilient businesses expand globally, they need a trusted resource that can help identify potential flood exposures on every continent.

### Are You In or Out?

Is your facility located in a potential flood zone? Type in your address, and see where your location falls on our Global Flood Map. To get started, click the button below, then complete the simple registration form. Registration is free.

View Global Flood Map

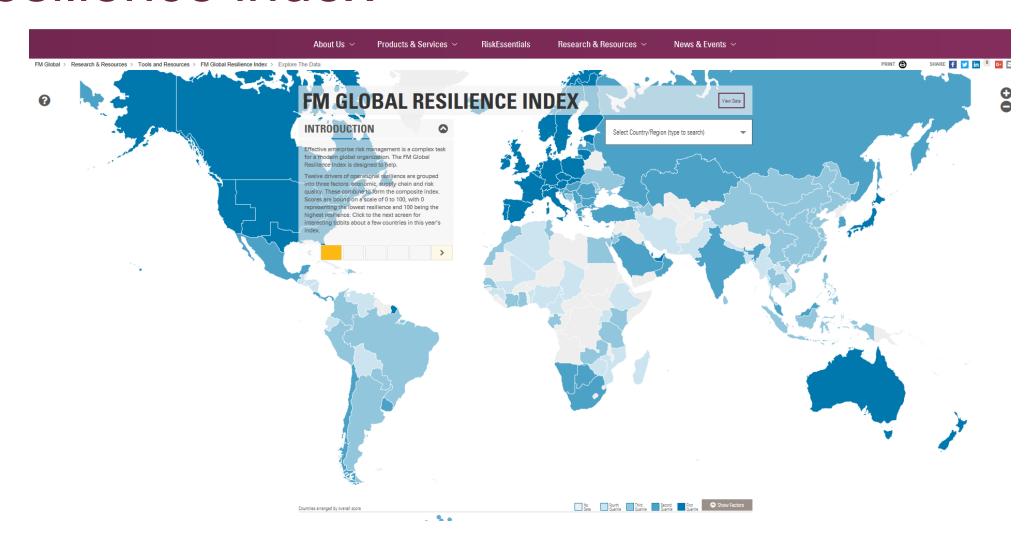
# Is your facility located in a potential flood zone? Type in your address, and see where your location fails on our global flood map. ① View Global Flood Map

f 116 💟 in 165 🖸 🖂

Q UNITED STATES - ENGLISH ~ CONNECT WITH US (a) (3) (2)

More info on stand 85!

### Resilience index



### Q&A

We're happy to answer any questions.

And, please do share useful experience you have.



An interactive focus on natural catastrophe threats and how to build a more resilient business

### Disclaimer

This information is made available for informational purposes only. No liability is assumed by or through the use of this information. The liability of FM Global is limited to that contained in its insurance policies.