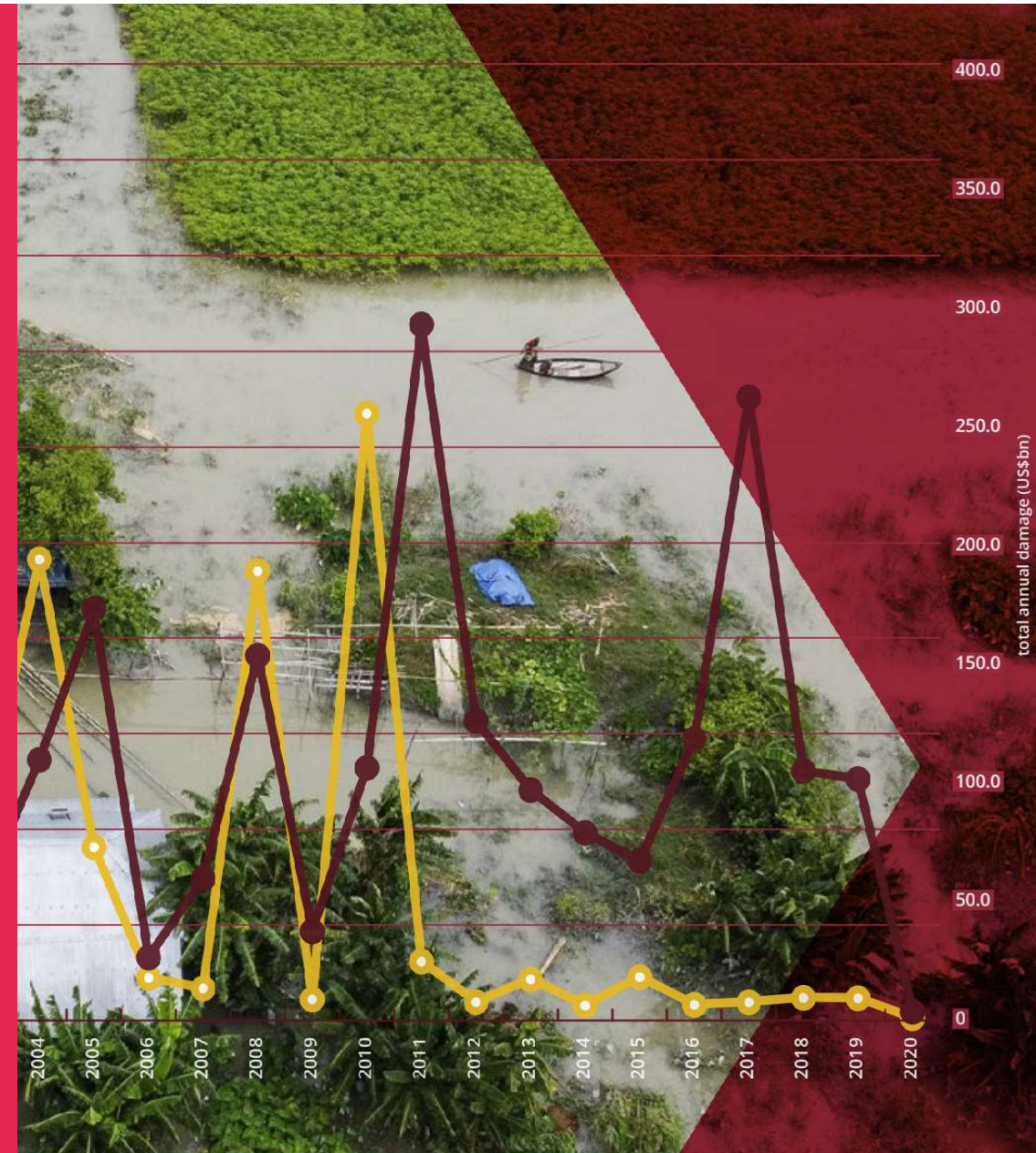


Session 2: Advanced Analytics and Practical Applications

Alastair Norris

ICII Conference
Kathmandu, Nepal

October 21, 2024



**“IF YOU CAN’T MEASURE IT,
YOU CAN’T MANAGE IT”**

MICHAEL BLOOMBERG

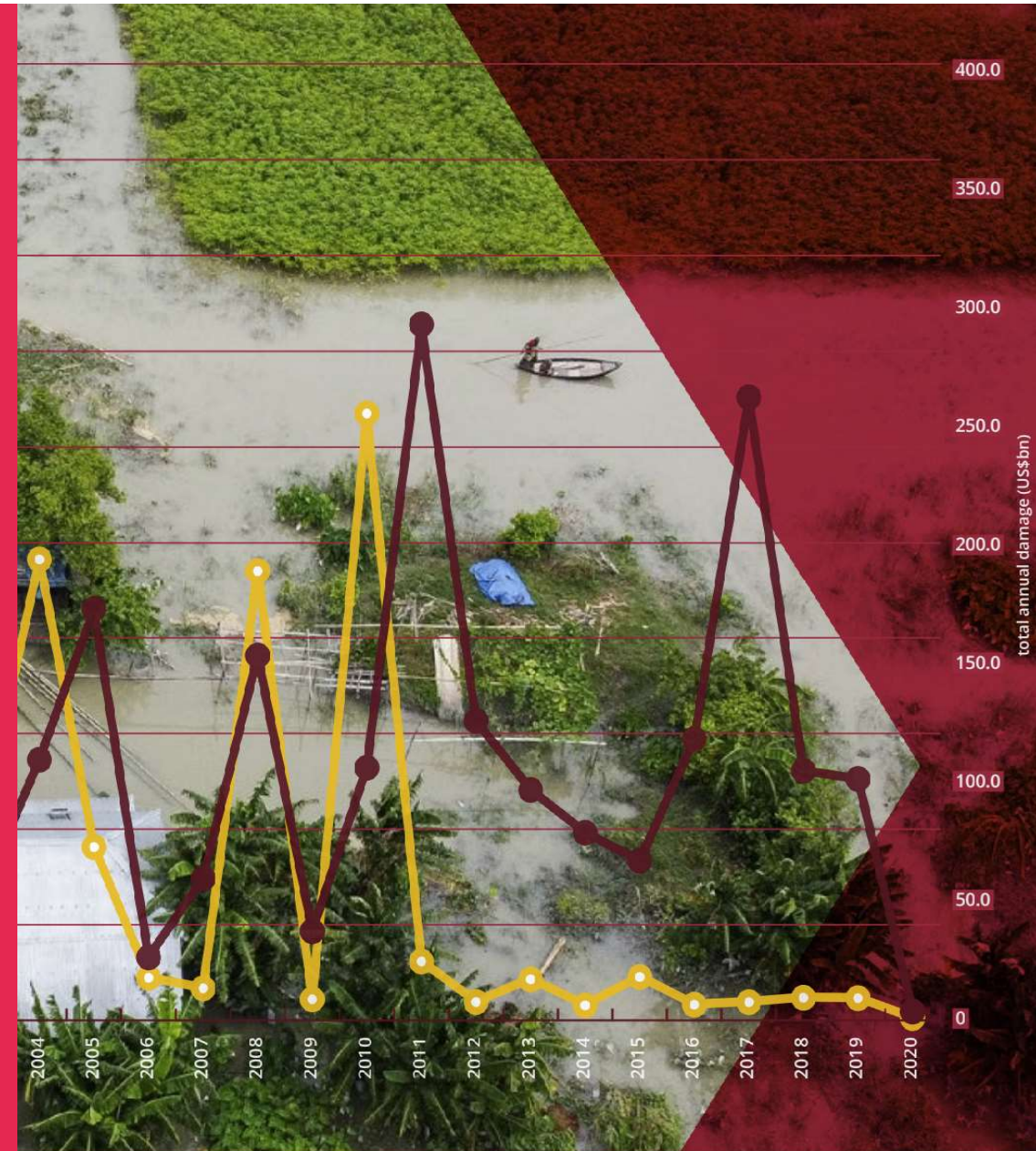


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The value of risk analytics for decision making

Strategic

-  How many lives and livelihoods are under threat? 
-  What economic impacts could there be? 
-  How to manage risk across the market? 
-  When is it better to transfer the risk to markets? 
-  How to report our risks? 

Operational

-  How much of the risk can be reduced? 
-  How can we fund loss not mitigated by risk management? 
-  How much should be set aside for events? 
-  How much could risk finance instruments pay out? 
-  What do they cost? 

Why ministries need local risk insights

WHAT'S THE RISK QUESTION?



Strategic

- How can I reduce the risk to people & assets?
- When is it better to transfer the risk to markets?
- How to report our risk?

Operational

- How much should we set aside for regular events?
- How much could different risk finance instruments pay out?
- What will they cost?

WHAT EVIDENCE CAN HELP?



RISK METRICS



ECONOMIC AND INSURED LOSSES
CASUALTIES AND LIVELIHOODS

WHAT CAN I DO WITH IT?



Decisions

- Priorities for risk policy e.g. NAPs
- Layered risk finance
- Disaster Risk Management

What's the investment?



Staff time



Collaboration across
ministries & agencies

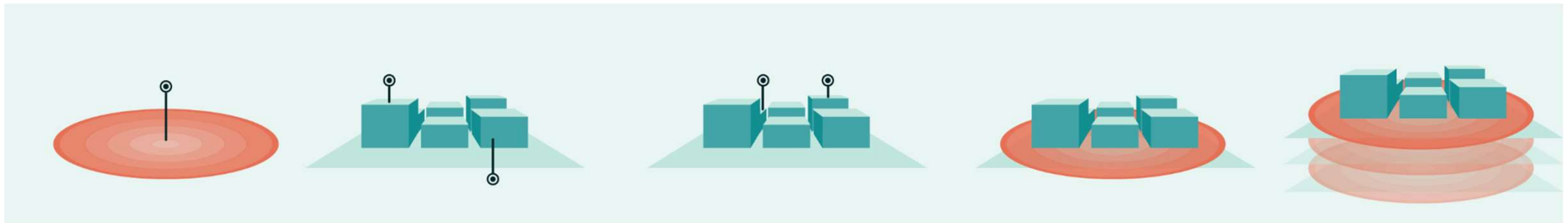
What's the cost of **NOT** modelling risk?

- Too much uncertainty
- Nobody owns the risk
- Risks are ignored
- Fiscal / debt stress

Components of risk

Historical information not always complete and not a guide to future

Models give a more complete picture of risk



HAZARD

The likelihood, probability, or chance of a potentially destructive phenomenon.

EXPOSURE

The location, attributes, and values of assets that are important to communities.

VULNERABILITY

The likelihood that assets will be damaged or destroyed when exposed to a hazard event.

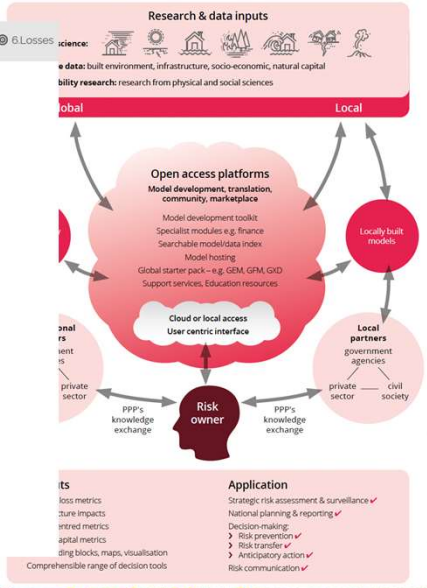
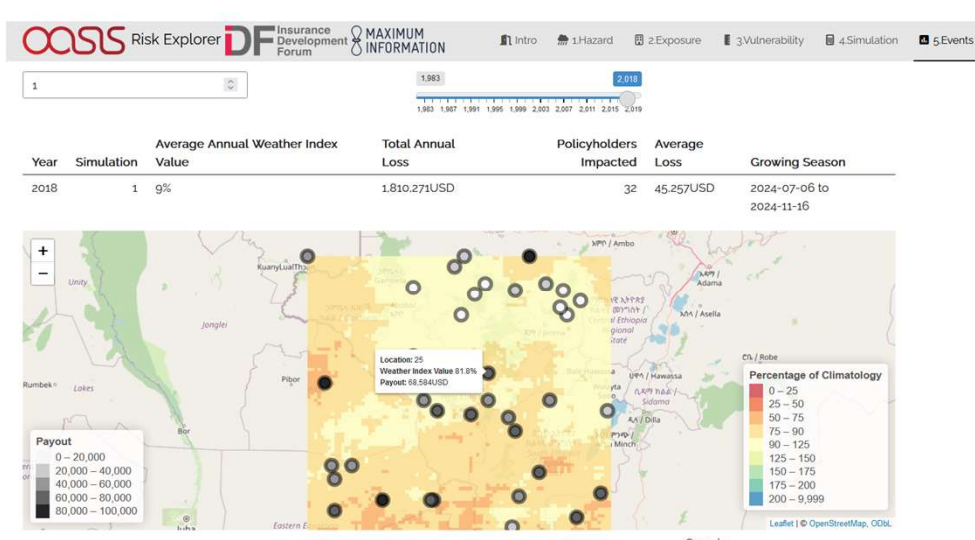
IMPACT

For use in preparedness, an evaluation of what might happen to people and assets from a single event.

RISK

Is the composite of the impacts of ALL potential events (100s or 1,000s or models).

IDF publications and capability development

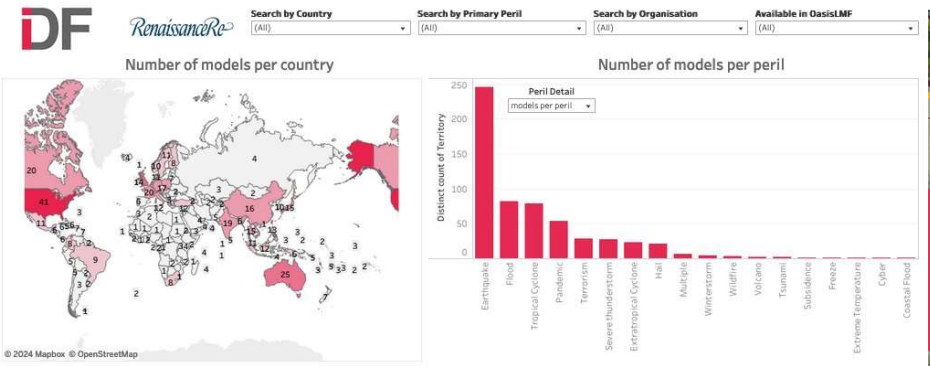


A2ii-IDF Workshop on Risk Modelling for Insurance Supervisors
29 November and 7 December 2023



Flood Risk Modeling to Support Risk Transfer: Challenges and opportunities in data-scarce contexts
February 2023

Disaster Risk Financing & Insurance Program
WORLD BANK GROUP



insdevforum.org/working-groups/rmsg/

insdevforum.org/rmsg-tools/



Key messages

- Advanced analytics provide a useful guide for managing risk
 - Overcome limitations of historical data
 - Project future risk, counterfactual policy impact
 - Quantify risk for decision-making
 - Need to understand limitations – data challenges, uncertainty
- Repeat analytics regularly
 - Improved understanding, risk is dynamic
- The risk question should dictate approach / tool used
- Tools and reports available on IDF website

