The size of the global insurance protection gap. Emerging economies account for $160bn (96%)

Lloyd’s World At Risk report, Oct 2018
www.lloyds.com/worldatrisk

$162.5bn

The percentage of natural disaster losses in developing countries 1980-2004 that were insured. This compares to c.30% in developed countries.

Dag Hammarskjöld Foundation and UNDP 2019
Financing the UN Development System: Time for Hard Choices

1%

The estimated figure lost to extreme natural disaster events globally over the past 40yrs

Swiss Re database of natural catastrophes

$4tn
RISK MODELLING STEERING GROUP

Members:
AIG Re, AIR Worldwide, Allianz Re, Aon (and Aon Impact Forecasting), Aviva, AXA Group, Axis Capital, Bank of England, Centre for Disaster Protection, Centre for Greening Finance and Investment, China Re, Convex, CoreLogic, Fathom, FCDO, FSD Africa, GEM Foundation, Geneva Association, GFDRR, Guy Carpenter, Hannover Re, Howden Group, ImageCat, InsuResilience Solutions Fund, InsuResilience Global Partnership Secretariat, JBA Group, KatRisk, Lloyd’s of London, MCII, MS Amlin, Munich Re, Oasis LMF, Renaissance Re, RMS, SCOR, NASDAQ, START Network, Swiss Re, Talbot, Tata Consultancy Services, UNDP, UNDRR, WTW, Xceedance and Zurich.
What’s the problem?

Risk analysis is critical to climate and disaster risk strategy:
• Investment in resilient infrastructure
• Contingent risk finance
• Early action, anticipatory finance

But access to risk analytics is unequal:
• Model platforms are expensive
• Proprietary formats prevent sharing or comparing
• Uncertainties are hidden
• Local research is not sufficiently used
• Public and private sector views are separated

A solution is required to democratise risk understanding
IDF RISK MODELLING STRATEGY

1. CAPABILITY DEVELOPMENT & CONTENT

- An expert team to work with countries
- A grant fund to fill critical model and data gaps

= Global Risk Modelling Alliance

2. OPEN RISK MODELLING INFRASTRUCTURE

- Open-source risk modelling platform and tools
- Open data standards
- Interoperability between formats

= IDF-Oasis technical development programme
The GRMA’s approach to democratize risk understanding

Technical assistance service:
> Public and private sector expertise
> Advice on model development
> Co-defined risk projects
> Commissioning & quality assurance

Models and data for public good:
> Filling strategic model/data gaps
> Translating existing research
> Emphasis on local data

Open risk modelling platform:
> Free to use
> Designed for risk finance
> Open source, open data standards
> A community of model providers

Open-Source Risk Platform
Model and Data Content
Technical Assistance Service
# IDF-Oasis technical projects

<table>
<thead>
<tr>
<th>Completed 2021-2022</th>
<th>Planned for 2023</th>
</tr>
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<td>Oasis code roll, improved performance</td>
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<td>Oasis Risk Explorer II</td>
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<tr>
<td>Oasis: Fragility Curves study</td>
<td>(Oasis: forecasting integration)</td>
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<tr>
<td>IDF CatRiskTools</td>
<td>Global Exposure Database</td>
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<td>Interoperability: ODTF</td>
<td>Interoperability (ODTF continued)</td>
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| Total spend $350k                                        | Total spend $400k                                     |
Oasis Risk Explorer

Step 1: Choose Location to Model

Step 2: Choose your hazard, region and Selected data

Step 3: Assess Vulnerability

<table>
<thead>
<tr>
<th>S-5 Category</th>
<th>Wind Speed (km)</th>
<th>Loss as Currency</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>119</td>
<td>2,000,000 USD</td>
</tr>
<tr>
<td>2</td>
<td>154</td>
<td>4,000,000 USD</td>
</tr>
<tr>
<td>3</td>
<td>179</td>
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<tr>
<td>4</td>
<td>209</td>
<td>8,000,000 USD</td>
</tr>
<tr>
<td>5</td>
<td>253</td>
<td>10,000,000 USD</td>
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RMSG Tools (insdevforum.org/rmsg-tools)
Spare
RMSG technical project criteria

- Does the project help accelerate the spread of risk understanding for public good in emerging markets?

- Is it consistent with insurance sector methods and RMSG principles?

- Does it promote access and collaboration across sectors?

- Is it affordable? Can the need be fulfilled another way?

- Does it benefit industry?