



DF Insurance
Development
Forum

Insurance Development Forum

The Protection Gap

1%

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

\$162.5bn

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

\$4tn

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

Swiss Re database of natural catastrophes

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, RenaissanceRe, 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**

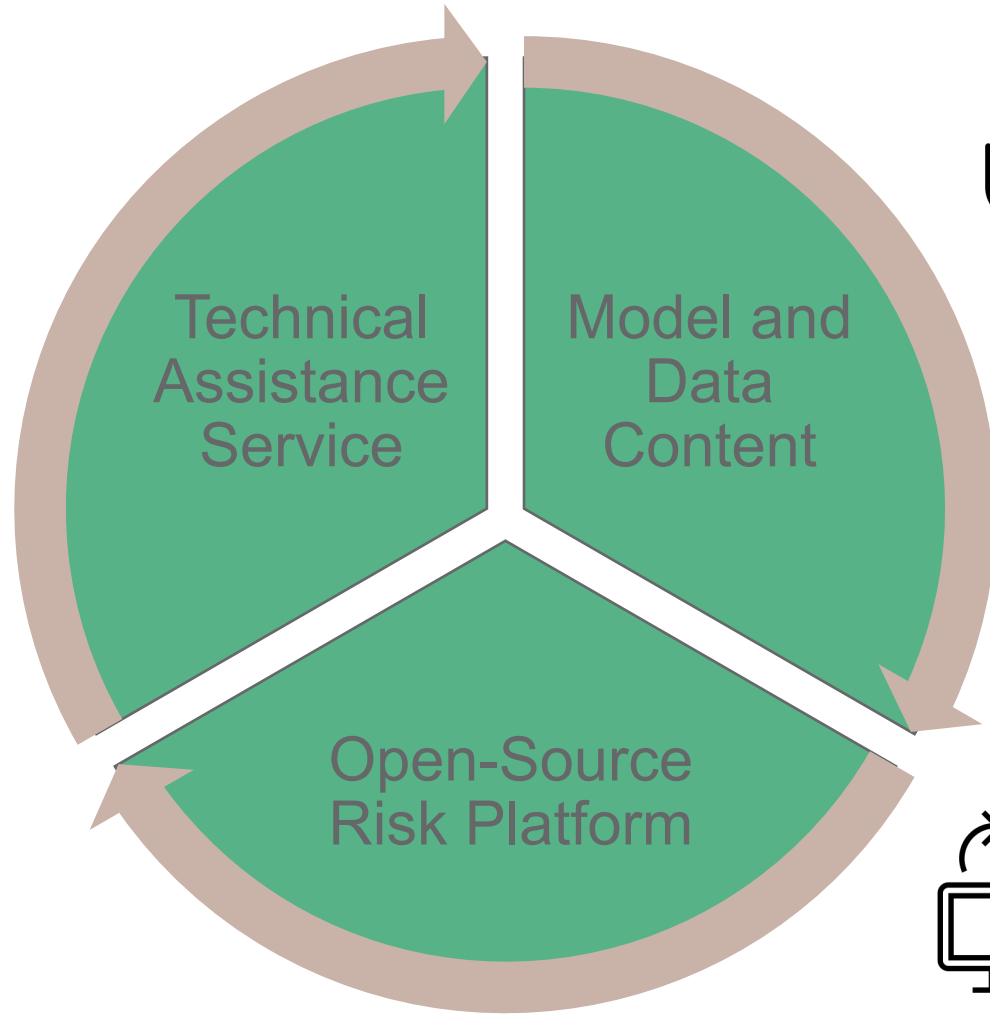
2. OPEN RISK MODELLING INFRASTRUCTURE

- 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



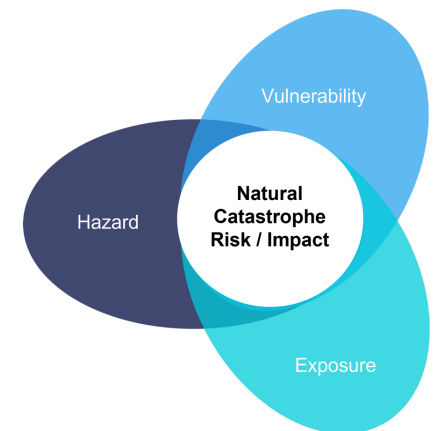
Models and data for public good:

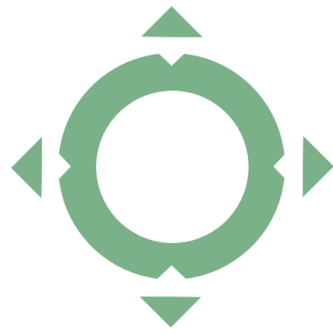
- > Filling strategic model/data gaps
- > Translating existing research
- > Emphasis on local data



Open risk modelling platform:

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





**Global
Risk
Modelling
Alliance**



**VULNERABLE
TWENTY
GROUP**

DF Insurance
Development
Forum



Federal Ministry
for Economic Cooperation
and Development

Funded by

KFW

Hosted by



**InsuResilience
Solutions Fund**

Managed by



Frankfurt School
of Finance & Management

German Excellence. Global Relevance.

Supported by IDF member companies:

AIG

AON

AXA

AXIS

RenaissanceRe

SCOR
The Art & Science of Risk

wtw

convex

IDF-Oasis technical projects

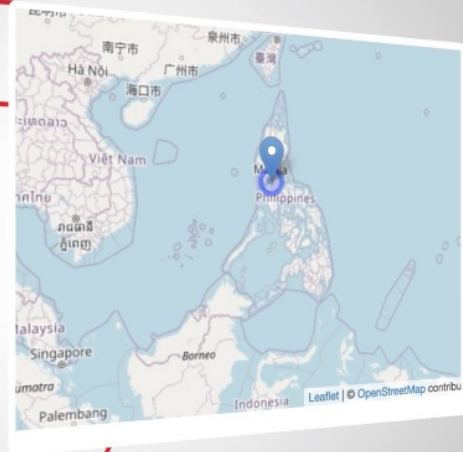
Completed 2021-2022	Planned for 2023
Oasis code roll, improved performance	
Oasis Risk Explorer I	
Oasis: Fragility Curves study	
IDF CatRiskTools	
Interoperability: ODTF	
OED improvements with World Bank	
Total spend \$350k	

IDF-Oasis technical projects

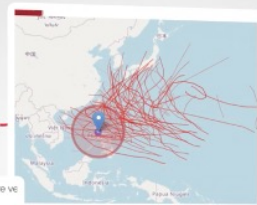
Completed 2021-2022	Planned for 2023
Oasis code roll, improved performance	Oasis dynamic event set generation
Oasis Risk Explorer I	Oasis Risk Explorer II
Oasis: Fragility Curves study	(Oasis: forecasting integration)
IDF CatRiskTools	Global Exposure Database
Interoperability: ODTF	Interoperability (ODTF continued)
OED improvements with World Bank	OED improvements with World Bank
Total spend \$350k	Total spend \$400k

Oasis Risk Explorer

Step 1:
Choose
Location
to Model



Step 2:
Choose your
hazard, region
and Selected data



available for Bangladesh and the Ginoza region in Japan. Future ve

Peril
Windstorm

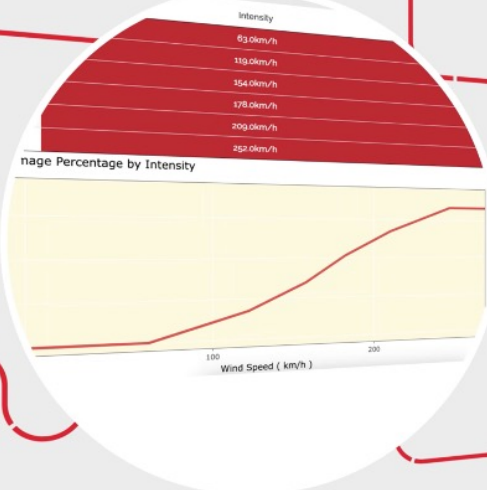
Data Source
IBTACS Historical Data

Region
North West Pacific

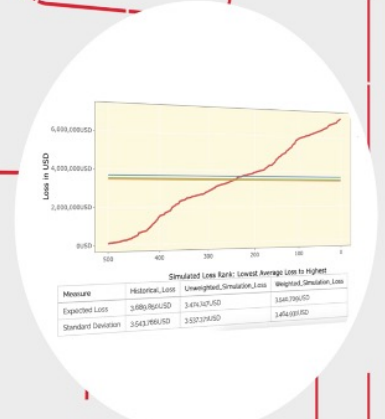
North West Pacific is the relevant region for your exposure
Meteorological Agency

TOKYO

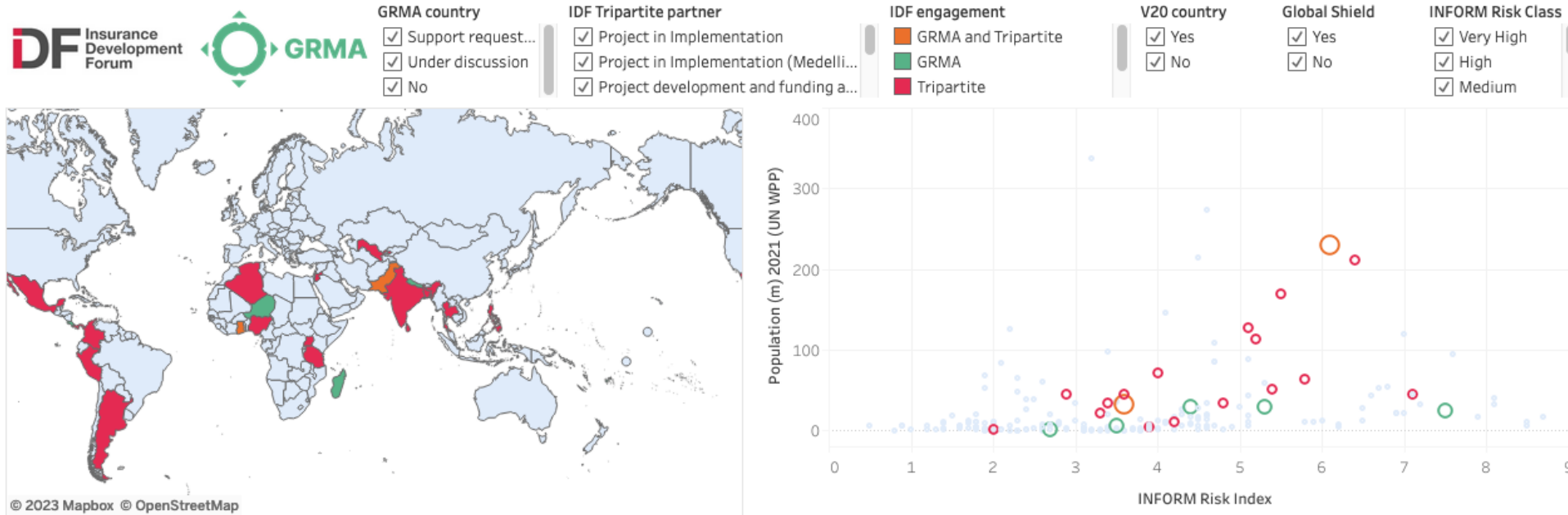
STEP 3
Assess
Vulnerability



S-S Category	Wind Speed (km)	Loss as Currency
1	119	2,000,000USD
2	154	4,000,000USD
3	179	6,000,000USD
4	209	8,000,000USD
5	253	10,000,000USD



RMSG Tools (insdevforum.org/rmsg-tools)



IDF engagement	Country	Grma	IDF Tripartite partner	V20 country	Global Shield Pathfinder	INFORM RISK CLASS
GRMA and Tripartite	Ghana	Under discussion	Project in Implementation	Yes	Yes	Medium
Tripartite	Pakistan	Support requested	Projects on hold/stopped	No	Yes	High
GRMA	Costa Rica	Under discussion	No	Yes	Yes	Medium
	Fiji	Under discussion	No	Yes	Yes	Low
	Madagascar	Support requested	No	Yes	No	High
	Nepal	Under discussion	No	Yes	No	Medium
	Niger	Support requested	No	Yes	No	Very High
Tripartite	Algeria	No	Project development and ..	No	No	Medium
	Argentina	No	Project development and ..	No	No	Low
	Bangladesh	No	Project in pre-application ..	Yes	Yes	High
	Barbados	No	No	Yes	No	Low

INFORM Haz/Exp	INFORM Capacity	INFORM Vuln	INFORM Risk
0 2 4 6 8	0 2 4 6 8	0 2 4 6 8	0 2 4 6 8

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?