UR West & Central Africa
Abidjan, Cote d'Ivoire

November
XX
2019

WB/GFDRR-EU GLOBAL PARTNERSHIP ON DISASTER RISK FINANCING ANALYTICS

Taking informed decisions based on sound financial analysis

GFDRR
Global Facility for Disaster Reduction and Recovery

WORLD BANK GROUP

Reminder: four core principles of DRF

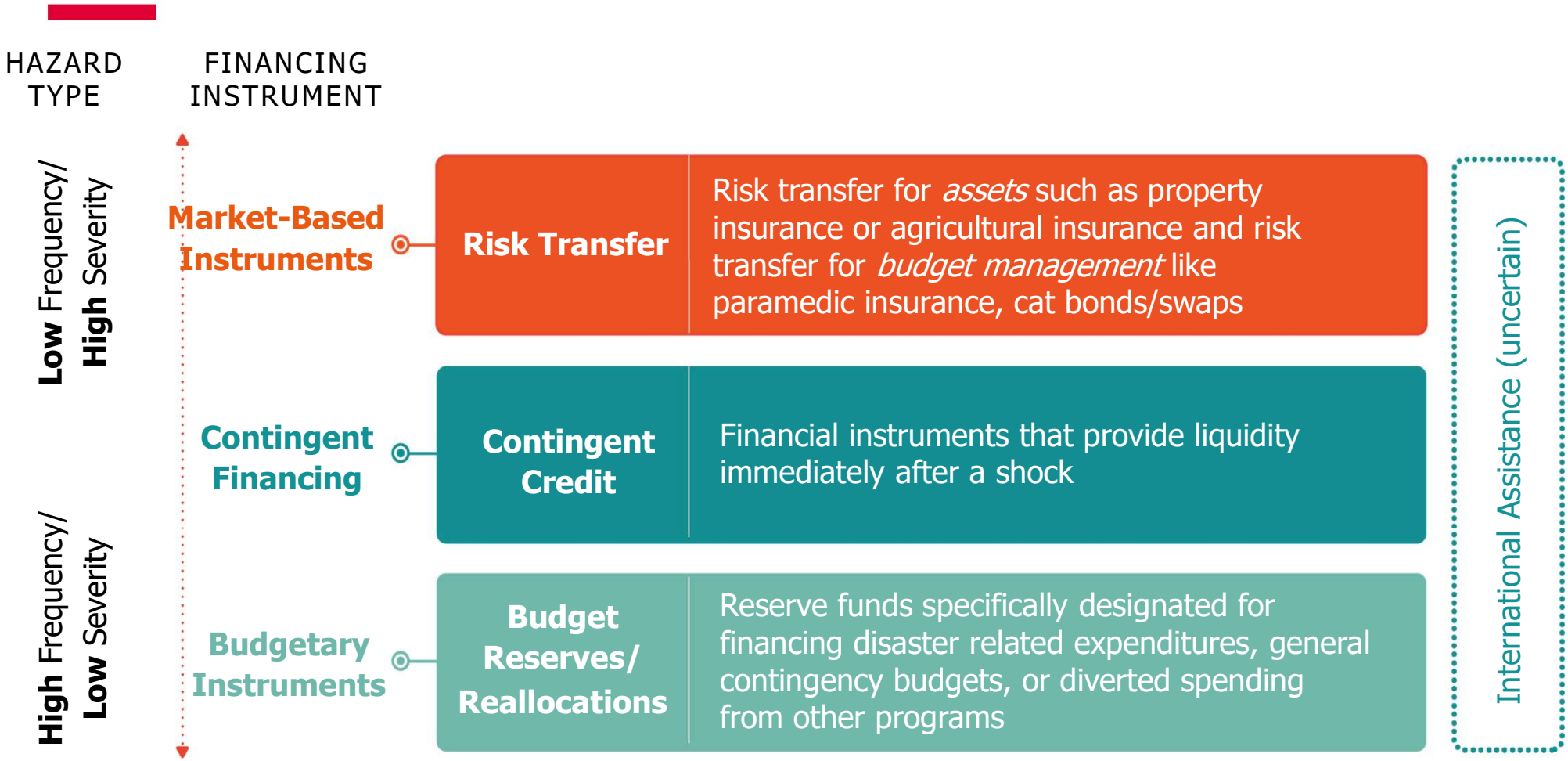
Timeliness of funding: speed matters but not all resources are needed at once.

No single financial instrument can address all risks.

How money reaches beneficiaries is as important as where it comes from.

To make sound financial decisions you need to have the right information.

Reminder: risk layering



THREE-TIERED RISK LAYERING STRATEGY FOR GOVERNMENT

GFDRR Global Facility for Disaster Reduction and Recovery

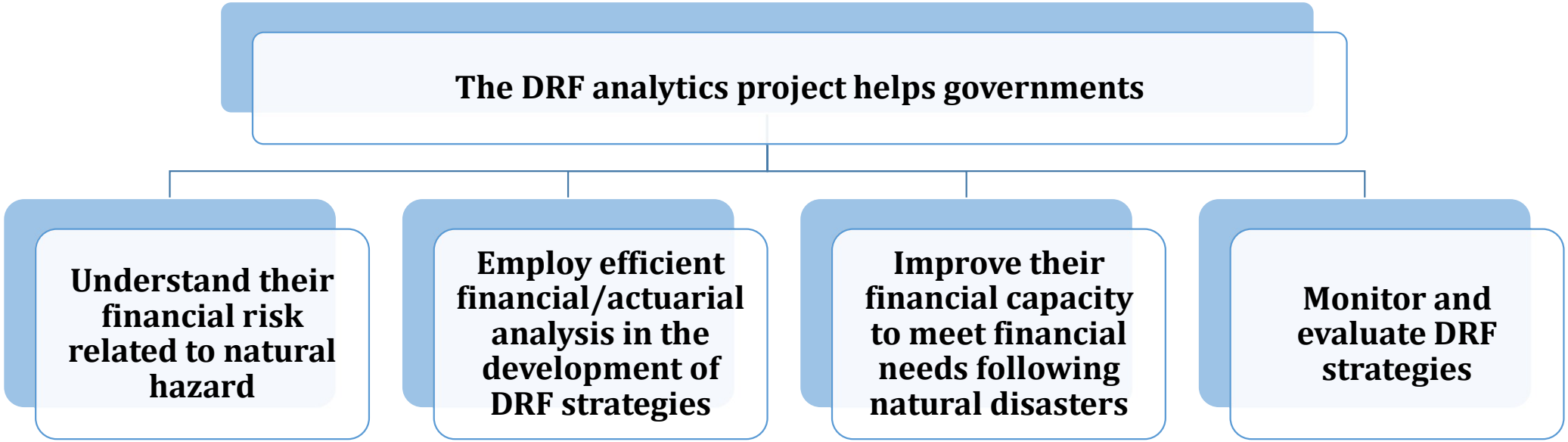
WORLD BANK GROUP

Reminder: five steps for strengthening financial resilience

1. Take stock of how disaster response is currently financed
2. Gather risk information/carry out risk assessments
3. Decide on policy priorities
4. Build financial protection strategy
5. Work with and improve existing processes for DRF

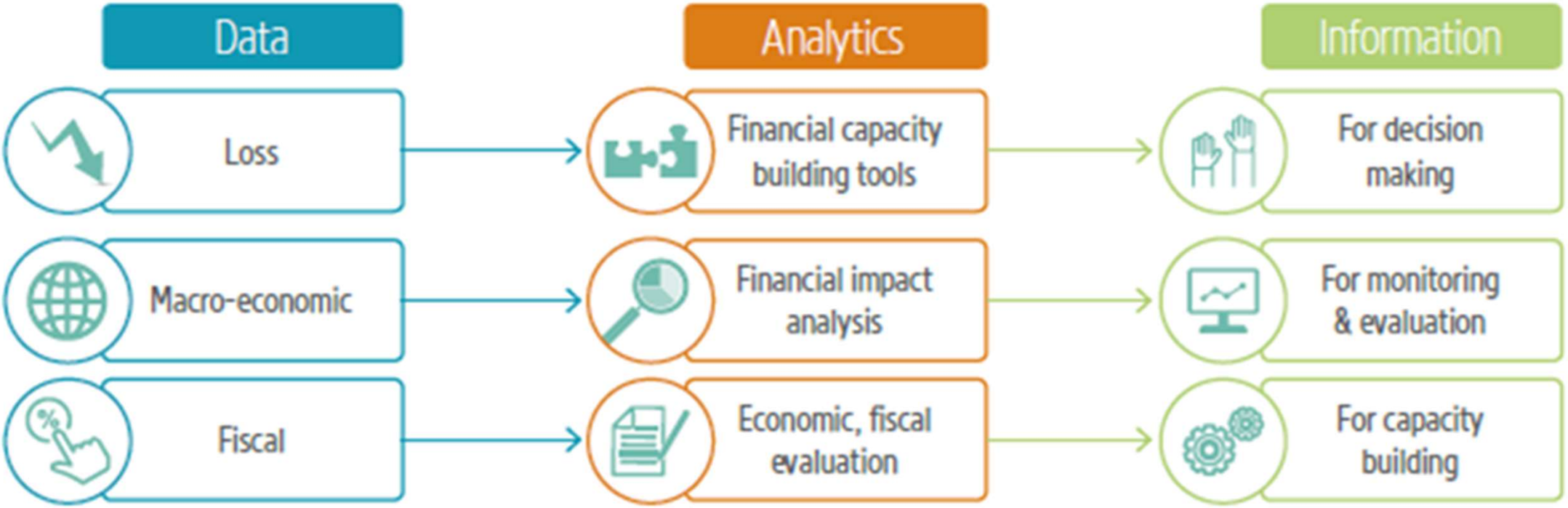
DRF Analytics: partnership

- Kick-off in March 2016.
- EU-funded, GFDRR-managed, and implemented by the World Bank's Disaster Risk Financing and Insurance Program.
- Objective: to **increase financial resilience** of countries against natural disasters.



DRF Analytics: concept

- Bridging the gap between risk data and evidence based decision making
- Analyze/evaluate risk and supports decision makers to better manage and prioritize risk



DRF Analytics: components

Country-specific Analytics	• Pilot countries selected in partnership with EC • Financial disaster risk assessment • Customized DRF Analytics tools to support DRF dialogue with client
Core/parent Analytic Tools	• Suite of generic, publicly available "parent" DRF Analytics tools
Knowledge Management	• Target policy-makers, donors and practitioners • Partner with universities/ professional associations • Online training platform
M&E Framework for DRF strategies	• Monitoring and Evaluation (M&E) Framework to assess the impact of DRF programs • Operational guidance note to implement M&E Framework

DRF Analytics: outputs

In pilot countries:

1. A **financial disaster risk assessment is conducted**, which quantifies financial and fiscal impact of disasters and reviews the financial protection strategy of the country;
2. Governments have **access to improved tools and technical information** to support DRF decision-making;

Globally:

3. **Generic DRF analytics decision making tools are developed**, that support countries globally in their DRF decision-making;
4. An online **training program and platform**, and university-based **training courses are developed**, targeting current and future policy-makers and practitioners;
5. **Training courses on DRF Analytics** are made available to governments and development partners;
6. A **DRF Monitoring and Evaluation Framework is developed** with which the impact of DRF programs can be assessed.

DRF Analytics: generic tools

- Development of two different sets of generic tools.
- "Phase 1 tools" include**:**
  - Emergency Funding Assessment Tool
  - Risk Financing Strategy Evaluation / Optimization Tool
  - Financing Crisis Response (& Social Protection) Tool
- The first three core tools have been created to help developing country governments to:
  - Understand their exposure to natural disasters;
  - Employ efficient financial/actuarial analysis in the development of disaster; risk financing ('DRF') strategies;
  - Improve capacity to meet financial needs immediately following natural disasters; and
  - Develop the ability to monitor and evaluate DRF strategies.

Tool 1: Emergency Funding Assessment Tool

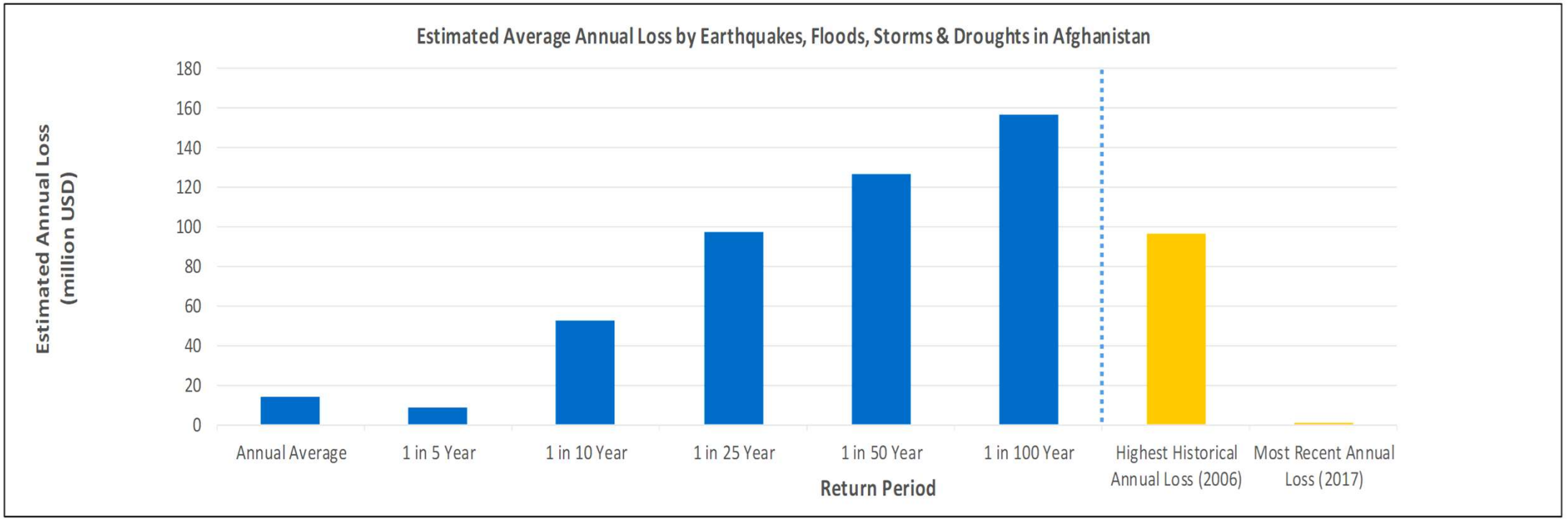
About the tool

- The purpose of this tool is to help developing countries to:
  - Use historical event data, relating to disaster losses, to estimate the potential financial response required following a natural disaster;
  - Quantify the resulting funding gap based on the assumed available funding in the country of interest;
  - Identify priority areas, populations, regions (depending on data availability); and
  - Understand the uncertainty and variability of the historical event data itself.
- Through the tool the user can investigate:
  - The expected size of loss for different sized perils;
  - The funding gap for different sized perils; and
  - The probability of the available budget being insufficient.

Tool 1: Emergency Funding Assessment Tool

Uses of the tool

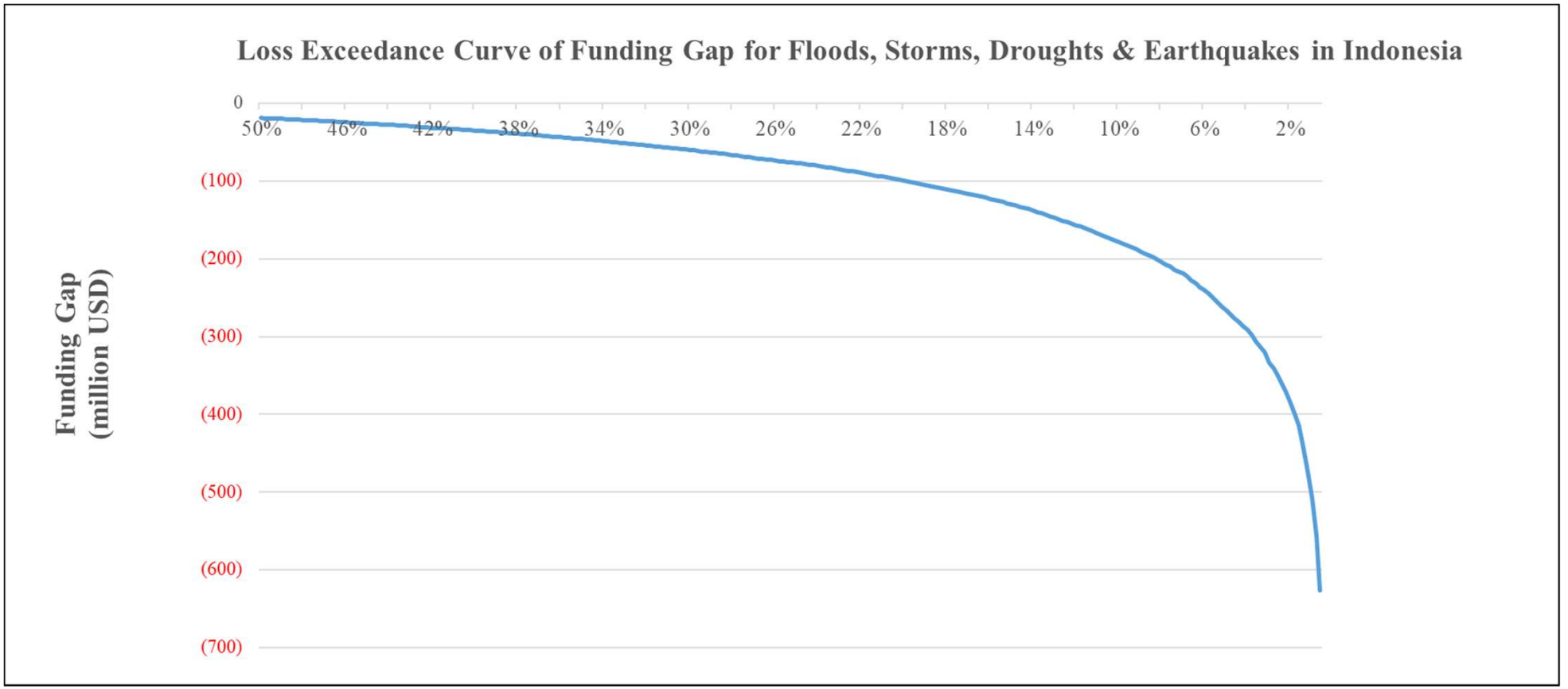
1. Estimate the expected size of loss for different sized perils



Tool 1: Emergency Funding Assessment Tool

Uses of the tool

2. Estimate the probability the available funding is insufficient to cover the losses arising from natural disasters.



Tool 2: Risk Financing Strategy Evaluation / Optimisation Tool

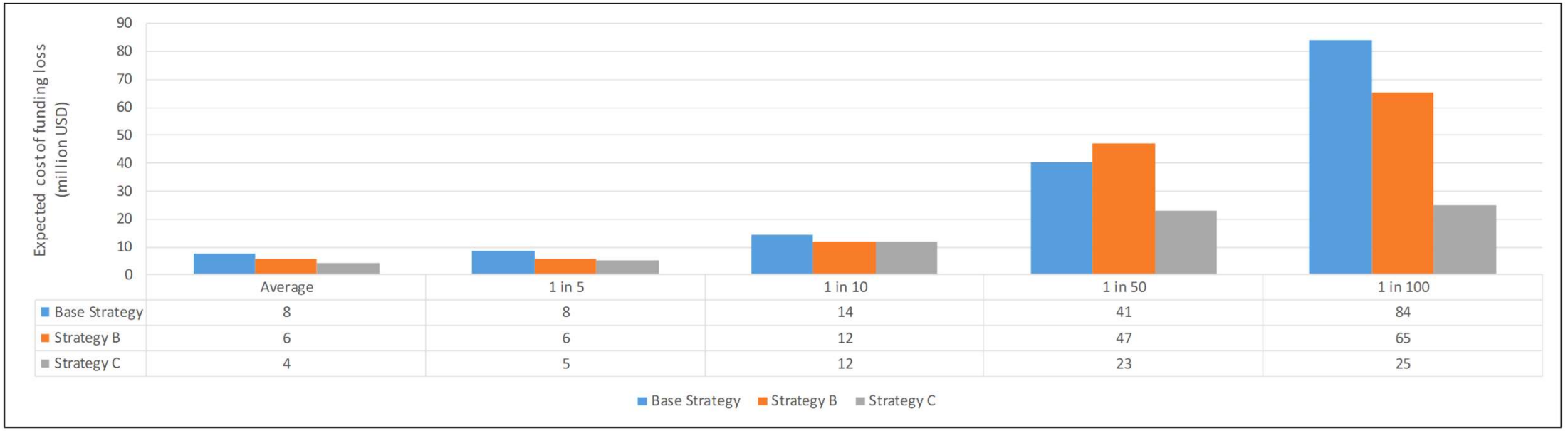
About the tool

- The purpose of this tool is to help developing countries to:
  - Estimate the cost of risk financing instruments;
  - Compare the cost-effectiveness of various DRF strategies; and
  - Optimise the appropriate mix of risk transfer and risk retention instruments for a given contingent liability (a potential liability that may occur depending on the outcome of an uncertain future event).
- Through the tool the user can investigate:
  - The cost-effectiveness of different user-defined DRF strategies;
  - The appropriate mix between risk transfer and risk retention;
  - A sensitivity analysis on the economic assumptions; and
  - The optimization of their strategy to plan for risk financing.

Tool 2: Risk Financing Strategy Evaluation / Optimisation Tool

Uses of the tool

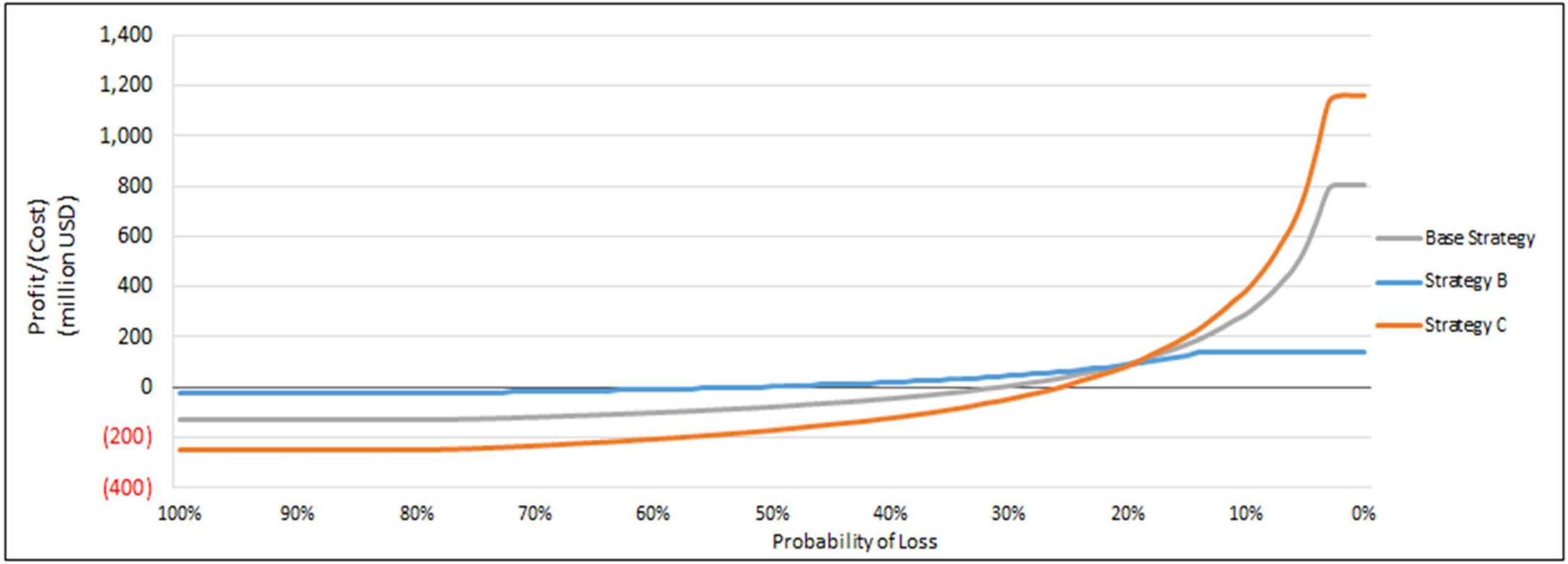
1. Compare the cost-effectiveness of up to 3 different DRF strategies.



Tool 2: Risk Financing Strategy Evaluation / Optimisation Tool

Uses of the tool

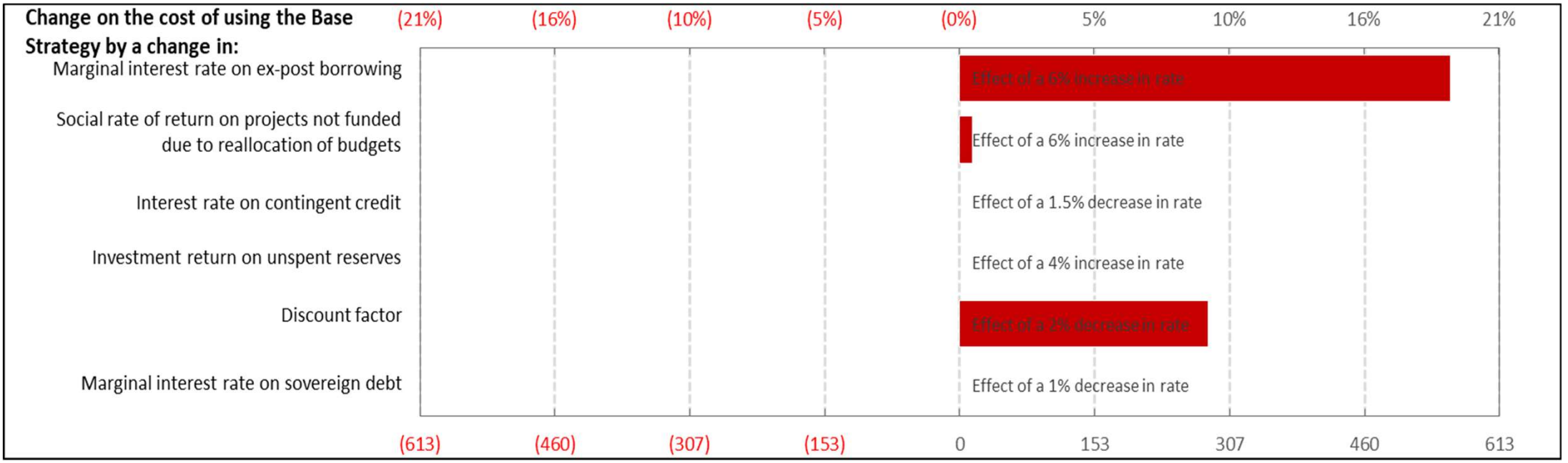
2. Investigate the profit /cost of transferring risk through insurance.



Tool 2: Risk Financing Strategy Evaluation / Optimisation Tool

Uses of the tool

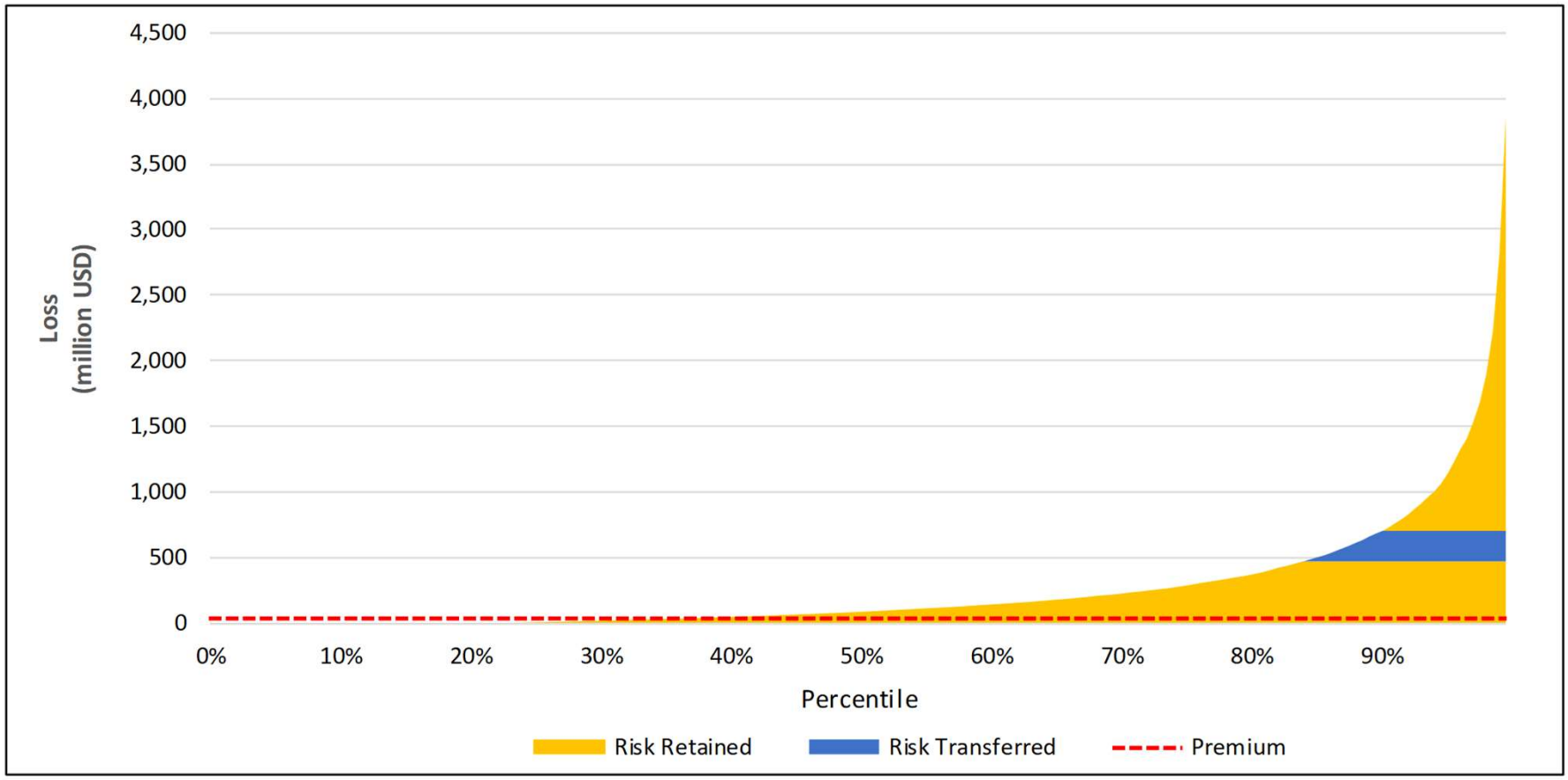
3. Investigate the effect of assumption changes on the expected cost of funding the losses for the base strategy.



Tool 2: Risk Financing Strategy Evaluation / Optimisation Tool

Uses of the tool

4. Explore the concept of optimising their strategy under different constraints.



Tool 3: Financing Crisis Response (& Social Protection) Tool

About the tool

- The purpose of this tool is to help developing countries to:
  - Use historical event data to estimate the number of people who will be affected by natural disasters; and
  - Estimate the financial cost associated with supporting them with a social protection scheme.
- Through the tool the user can investigate:
  - The number of people affected for different sized perils;
  - The estimated cost of introducing a social protection scheme; and
  - How long a social protection scheme budget will last following a disaster.

Tool 3: Financing Crisis Response (& Social Protection) Tool

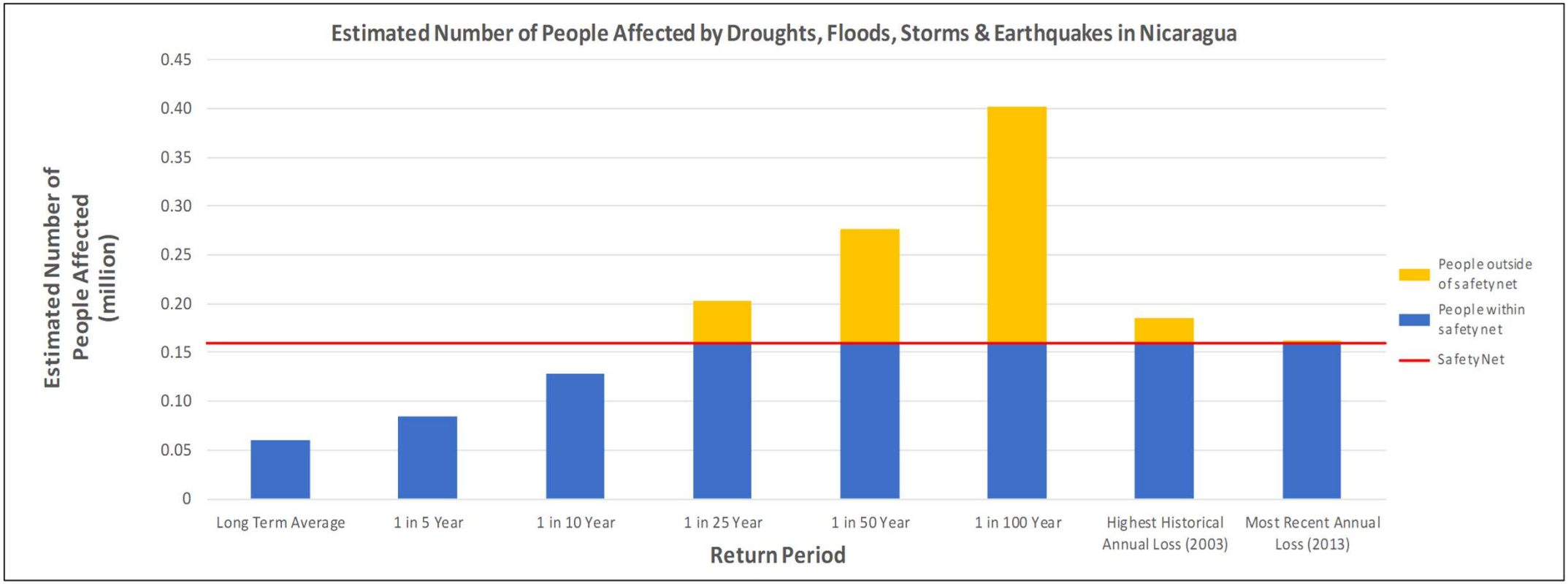
Questions the tools tries to answer

- How many people affected? How many supported by a given social protection scheme (SPS)?
- How likely is the number of affected to exceed the SPS's safety net?
- How long would it take for the SPS budget to run out?
- How does the chosen SPS compare to an alternative SPS?

Tool 3: Financing Crisis Response Tool

Uses of the tool

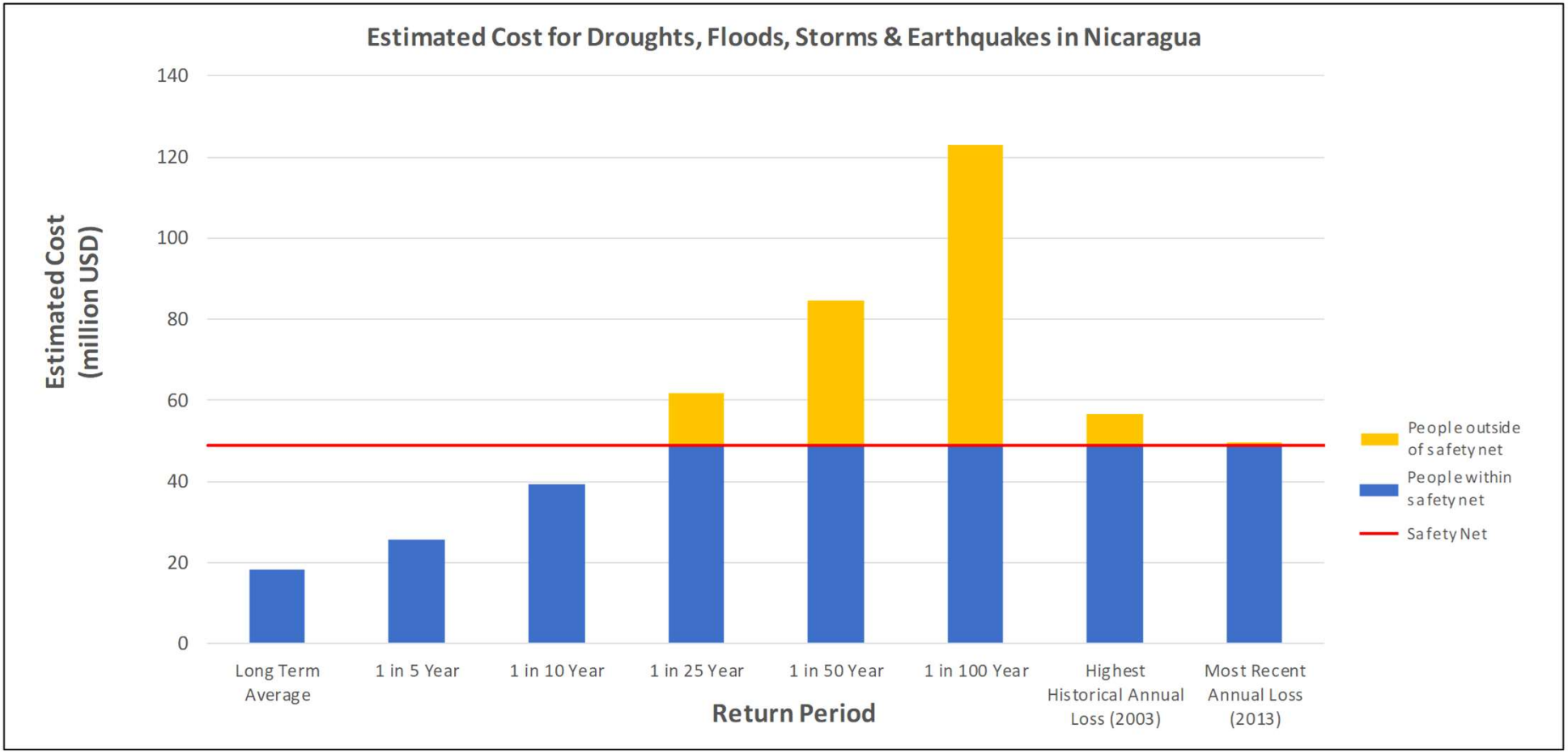
1. Estimate the number of people affected for different sized perils.



Tool 3: Financing Crisis Response Tool

Uses of the tool

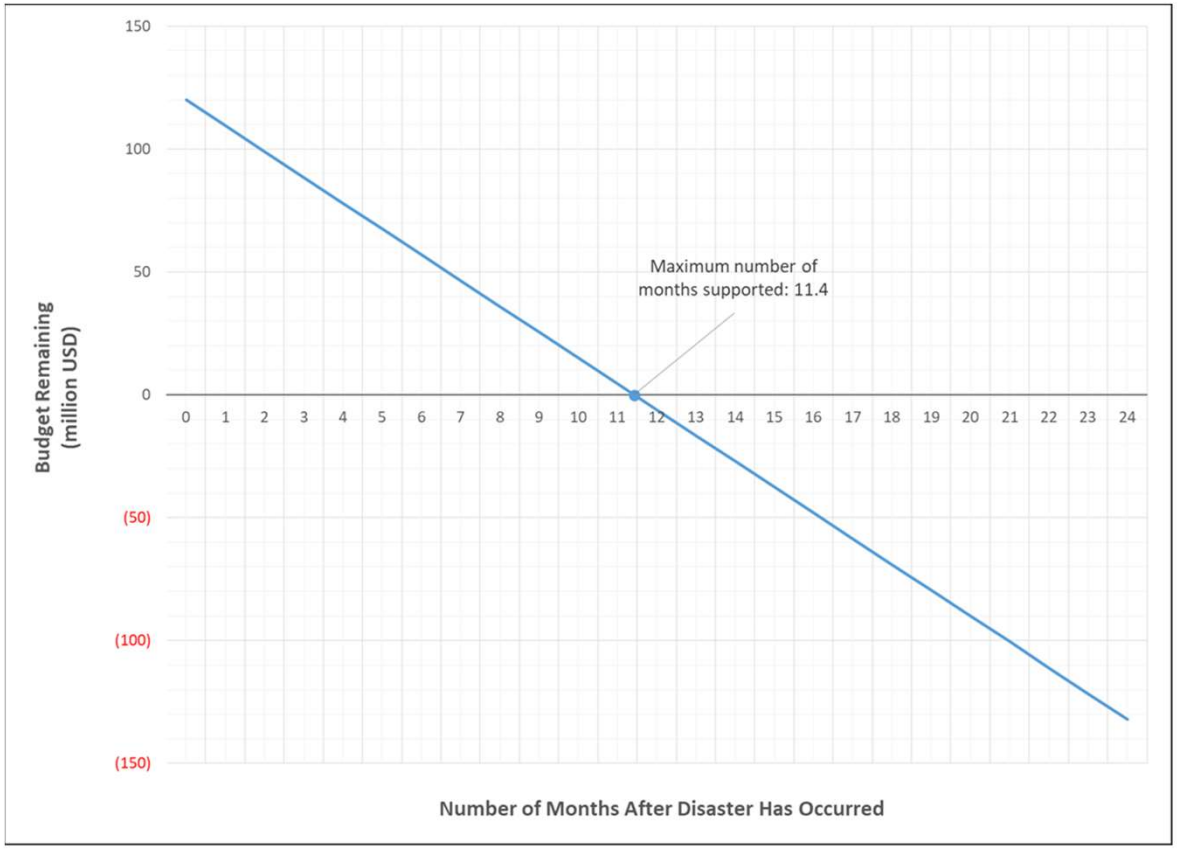
2. Investigate the estimated cost of introducing a social protection scheme.



Tool 3: Financing Crisis Response Tool

Uses of the tool

3. Investigate how long a social protection scheme budget will last following a disaster



Budget Available (USD)	120,000,000
Event Severity	1 in 10
Average Number of People per household	5
Cost per household per month in USD	50.00
Maximum number of households supported	200,000
Transactions costs (input as a percentage)	5.0%
Maximum number of months supported	11.4

DRF Analytics: summary

Why are we developing these tools:

- Help develop a **coordinated plan** for post-disaster action agreed in advance
- Fast, evidence-based **decision-making process**
- **Pre-planned financing** to ensure plan can be implemented

Key lessons learned:

- Necessity of **in-depth country engagement** to develop relevant, **demand-driven** analytics for informed decision-making and to manage expectations or **high reputational risk**
- Difficulty to design generic core tools, given **diverse group of users** and pilot countries. Cross-country applications feedback highly valuable
- Importance of **tailor-made capacity development** programmes to inform design and accompany development and delivery phases
- Importance of **M&E framework**, as part of continuous analytics tools / financial instruments enhancement

Thank you!

EU-WB/GFDRR GLOBAL PARTNERSHIP ON DISASTER RISK FINANCING ANALYTICS

Understanding Risk West and Central Africa
November 20-22, 2019

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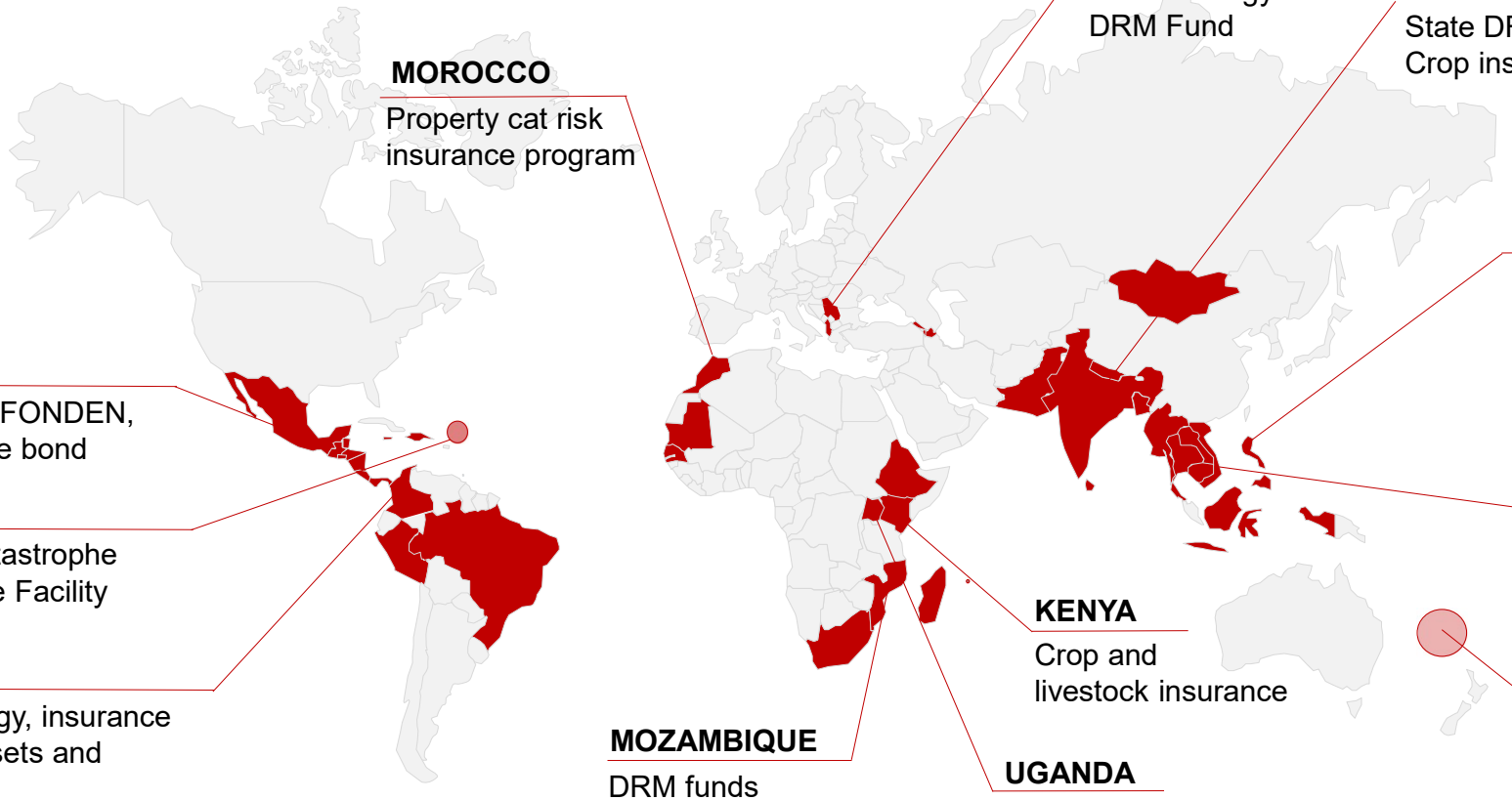
Annexes

DRFIP – Operational Engagement Worldwide

DRFIP is active in more than 50 countries



SERBIA
DRFI strategy
DRM Fund

INDIA
State DRFI strategy
Crop insurance

MOROCCO
Property cat risk insurance program

THE PHILIPPINES
DRFI Strategy, Local Disaster Resilience Insurance Fund, sovereign risk transfer

MEXICO
DRM fund FONDEN, catastrophe bond

CCRIF
Caribbean Catastrophe Risk Insurance Facility

VIETNAM
DRM Fund, insurance of public assets

KENYA
Crop and livestock insurance

PCRAFI
Pacific Catastrophe Risk Assessment and Financing Initiative

COLOMBIA
DRFI Strategy, insurance of public assets and concessions

MOZAMBIQUE
DRM funds
Crop insurance

UGANDA
Disaster risk finance component for social protection fund

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Technical Partnerships

Deltares
Enabling Delta Life

unitar

UFCOP
Urban Floods
Community of Practice

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JBA risk management

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DRF Analytics: results to date

1. Delivery of customized 'Philippines Catastrophe Risk Tool' (risk profiles and financing)
2. Supported the Reserve Bank of Fiji with preliminary analysis for insurance coverage against tropical cyclones for households in advance of COP23
3. Finalized and validated a first set of universal core tools
4. Expanded core tools development by leveraging remote-sensing & Big Data
5. Designed a DRF analytics training sessions as part of the DRF Executive education program; and delivered the training in Cambridge, UK; Dakar, Senegal (>70 DRF professionals).
6. Delivered the "Introduction to DRF Analytics" e-learning program