



# Disaster Risk Finance Analytics

*Supporting countries to manage  
the cost of disaster and climate shocks*



Financial Losses from natural disasters continue to rise. Developing countries and their low-income populations experience the greatest impacts.



The Disaster Risk Finance and Insurance program leads the dialogue on financial resilience as a component of the WBG's support to vulnerable countries on better managing disasters and climate shocks.

Supporting Financial Management of Disaster Risk  
by Providing Quantitative Information & Tools  
for risk informed Decision-Making

DISASTER RISK FINANCING & INSURANCE PROGRAM



Federal Ministry  
for Economic Cooperation  
and Development



Ministry of Foreign Affairs



THE  
ROCKEFELLER  
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Education and Research SAE  
State Secretariat for Economic Affairs SECO



SWEDEN



UKaid  
from the British people

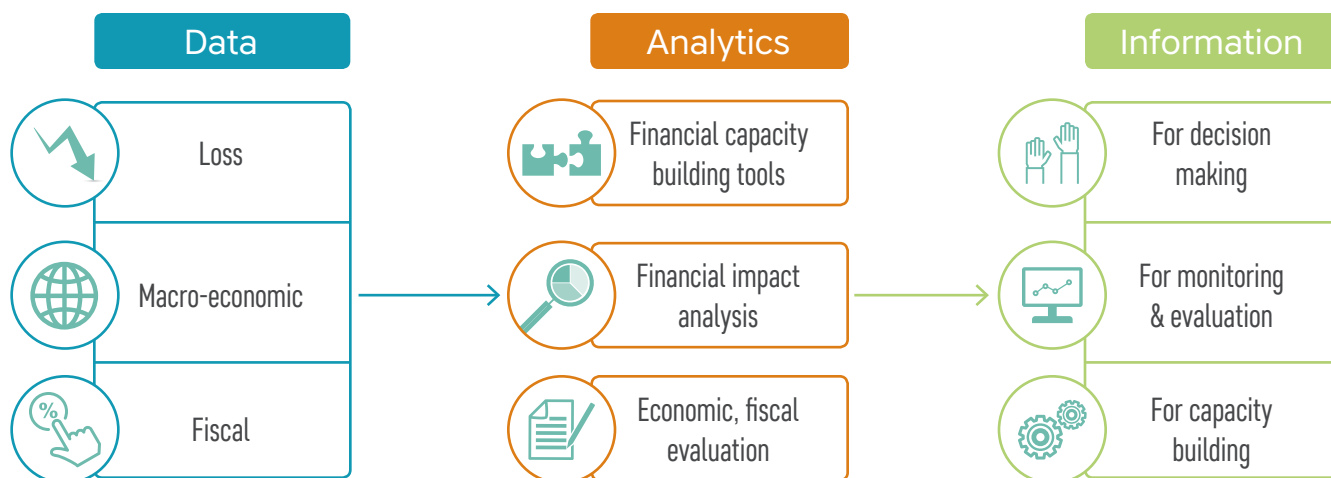


USAID  
FROM THE AMERICAN PEOPLE

# What we do

The **Disaster Risk Finance (DRF)**, part of the Disaster Risk Finance and Insurance Program (DRFIP), aims to strengthen the financial management of disaster risk by providing quantitative financial and economic information & tools for decision-making.

**Analytics bridges the gap between disaster risk data and risk-informed decision making.** Catastrophe risk data and information lay the foundation for financial protection solutions against natural disasters. This needs to be aggregated, refined and analyzed in order to inform this decision making. Analytics translate this technical information into useable information to facilitate decision making.



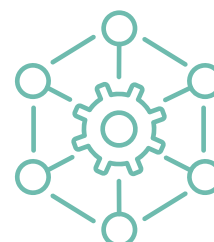
Governments, donors and development partners are increasingly in need of high quality analytics to proactively manage the financial costs of disasters. Objective analytics empowers stakeholders to take risk-informed financial protection decisions based on sound financial and economic analysis.



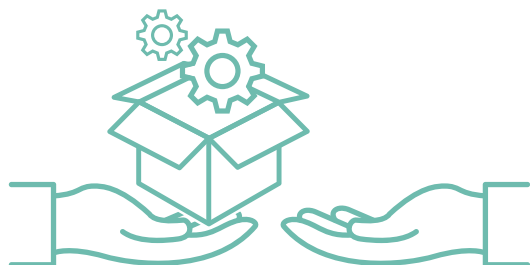
## Tools and Approaches

Some of the way we help governments or development partners....

- Analyze the potential fiscal costs and fiscal gaps from natural disasters
- Structure risk transfer / insurance products to best meet financial protection needs
- Choose between or combine different risk retention (e.g. a reserve fund) and risk transfer (e.g. insurance) instruments
- Evaluate the cost of a subsidized insurance program or scalable social protection program; (and how this might change with alternative coverage or product design)
- Evaluate reinsurance proposals from the private sector
- Evaluate the potential cost savings from pooling sovereign or subnational risk
- Evaluate the capital requirement for establishment and/or maintenance of a catastrophic risk pool



# How we support Governments

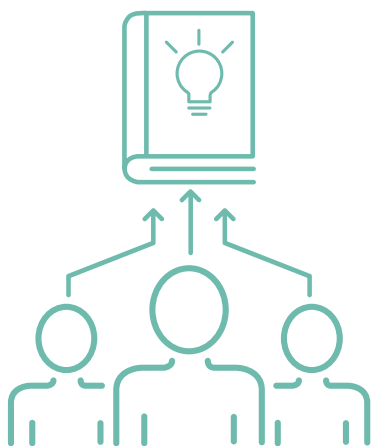
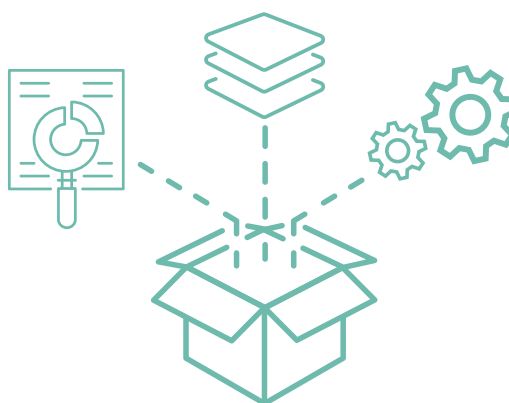


## Quantitative financial information and tools customized for clients

DRF analytics works with countries to design and develop customized analytic information/tools tailored to a country specific context. These are then delivered as part of a broader DRF capacity building package. Some of the tools we support governments with include: designing sovereign and agriculture insurance programs; defining and quantifying the cost of scalable social protection mechanisms etc.

## Economic and statistical methodologies for Disaster Risk Finance

Proven methodologies and standardized approaches are essential to conduct DRF analytics work. The DRF analytics function develops the economic and statistical methodologies needed for DRF analytics. For example, we have developed a framework for evaluating sovereign DRF strategies under the DRFIP Impact Appraisal Project.



## Policy dialogue and the establishment of good practices

There is rapidly increasing demand from governments and development partners for support in building financial resilience against climate risk and natural disasters. As losses from natural disasters continue to increase, so does the need to understand the development impact of these costs. DRF Analytics supports knowledge sharing and capacity building in this area.

# Impact



## Case Study: Philippines Sovereign DRF Strategy

DRF analytics supported the adoption of a Disaster Risk Finance and Insurance strategy in the Philippines in 2015. The DRF analytics function provided financial and economic analysis to support decision making for the second World Bank contingent line of credit (CAT DDO) approved for the Government of Philippines in December 2015. Should a disaster strike, the CAT DDO provides the Philippines with a US\$500 million contingent line of credit to help manage the financial impact. Design and evaluation of a sub-national insurance program in the Philippines is being supported by the DRF analytics function through aggregation and evaluation of sub-national catastrophe risk data and delivery of quantification financial and economic information and customized analytics tools.

## Case Study: Livestock Insurance in Kenya

DRF analytics supported a livestock insurance program in Kenya which provides insurance cover to 14,000 farmers in Kenya. In February 2017 GBP1.7 million was paid to 12,000 pastoralists – an average of nearly GBP140 per household – to compensate for the last seasons drought. The DRF analytics function supported the development of quantitative tools to assist in capacity building by providing key insights into the key drivers of the Kenya Livestock Insurance Program design.



## Partnership with the European Union and GFDRR

In December 2015, the European Union and the Disaster Risk Financing and Insurance Program of the World Bank, through the Global Facility for Disaster Reduction and Recovery (GFDRR), signed a partnership on DRF Analytics in order to help improve the understanding and increase the capacity of governments to make informed decisions on DRF based on sound financial analysis.

The project expects to catalyze the uptake of innovative risk identification, assessment, and financing tools within the development policy frameworks and agenda of several middle-income and low-income countries.

**World Bank Group Disaster Risk Finance & Insurance Program** is a joint program of the Finance & Markets Global Practice and Global Facility for Disaster Reduction and Recovery (GFDRR). It is a leading partner of developing countries helping governments, business, and households manage the financial impacts of disaster and climate risk without compromising sustainable development, fiscal stability, and wellbeing.

The DRF analytics function is generously funded by the European Union and brings together the fields of insurance, risk management, catastrophe risk modelling and development economics together with academic disciplines such as economics, actuarial mathematics, statistics and finance.

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GFDRR  
Global Facility for Disaster Reduction and Recovery