

Institute and Faculty of Actuaries

Financial Protection Against Disasters

Disaster Risk Financing & Insurance Program

(A) WORLD BANK GROUP

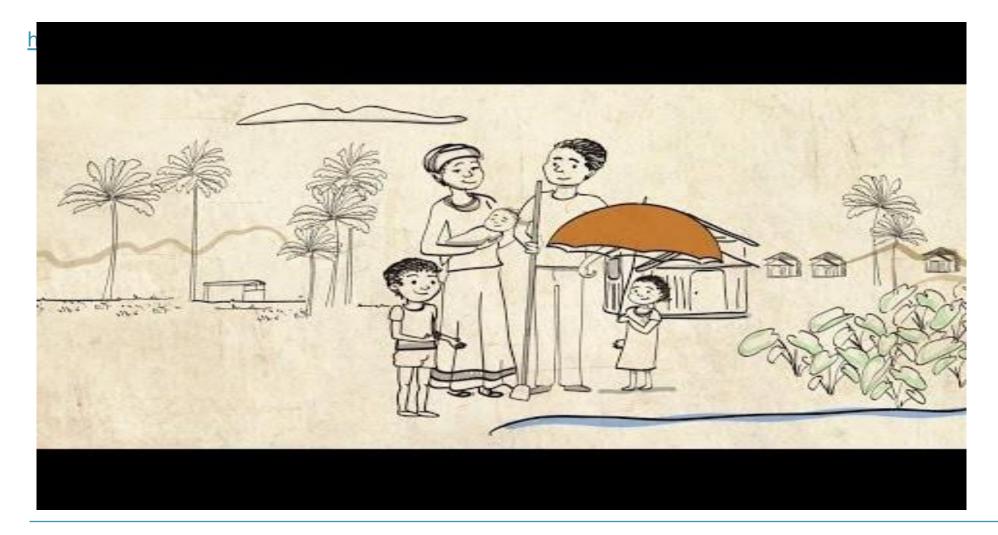
Government Actuary's Department

The role of actuaries in shaping and implementing better financial protection against disasters in developing countries

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Disaster Risk Finance Around the Globe



From Ex-Post Borrower to Ex-Ante Risk Manager

Proactively manage residual risk by planning ahead and setting resources aside to finance disaster response activities before disasters happen



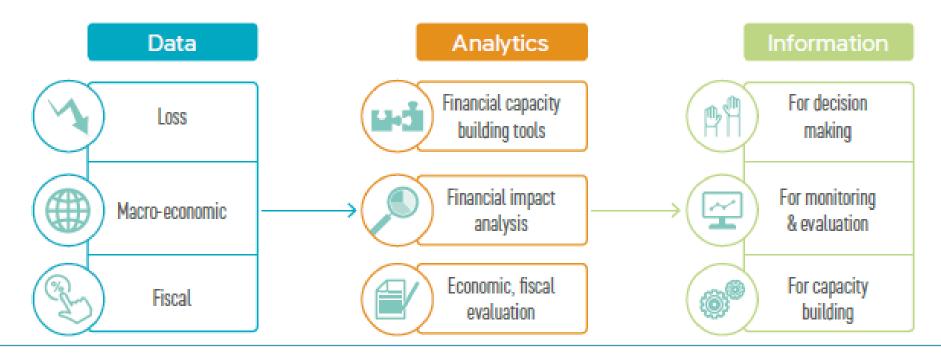
- International assistance
- Budget reallocations
- Debt issuance
- Post-disaster financing

PRE-PLANNED FINANCING

- Contingency/reserve funds
- Contingent financing
- Market-based risk transfer solutions

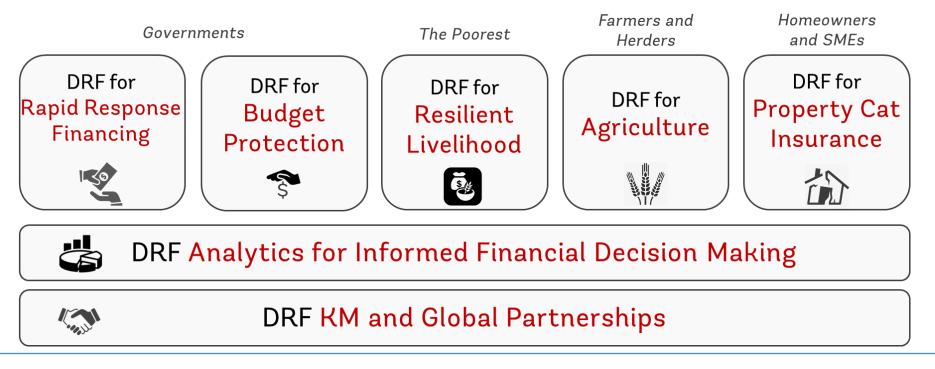
Disaster Risk Finance Analytics – World Bank Function

- Strengthen developing countries financial management of disaster risk by providing quantitative financial and economic information and tools for decision making
- Resourced through actuaries, economists, financial engineers, risk modelers, public finance specialists

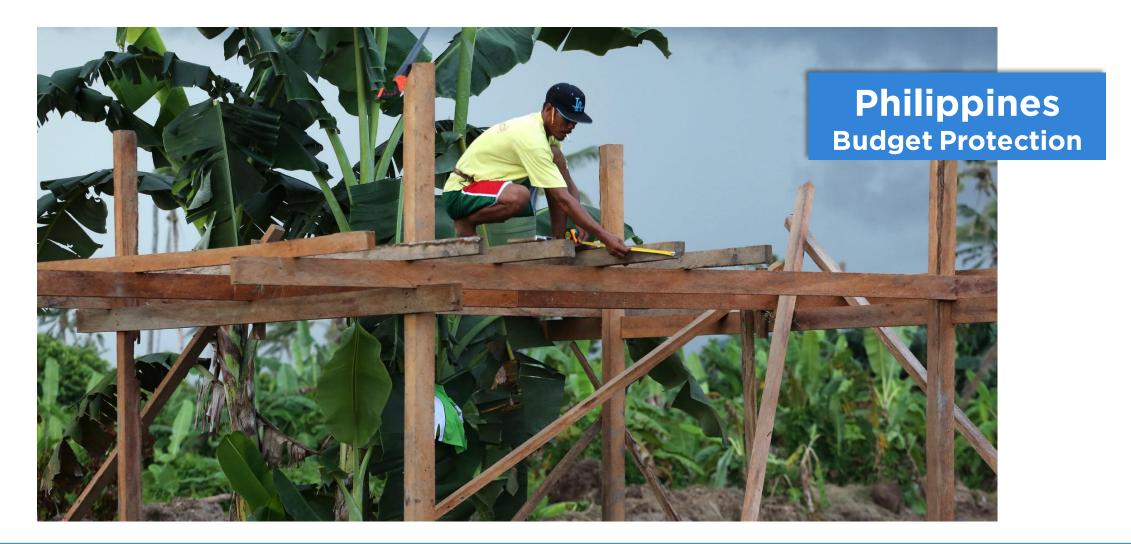


Disaster Risk Financing and Insurance Program

- Objective is to increase financial resilience of countries through minimizing the cost and optimizing the timing of meeting post-disaster needs.
- DRFIP provides countries with Analytical & Advisory Services, Financial Services and Convening Services.



Actuaries supporting financial protection decisions



Actuaries supporting financial protection decisions



Actuaries supporting financial protection decisions



There is a large, growing stakeholder landscape in disaster risk finance for developing countries

INTERNATIONAL DEVELOPMENT COMMUNITY

 International and regional development banks such as The World Bank Group (WBG), Asian Development Bank (ADB), Inter-American Development Bank (IDB), African Development Bank, Caribbean Development Bank (CDB)
 International development agencies (also referred to as international development agencies (also referred to as international donors) such as United States Agency for International Development (USAID), The U.K. Department for International Development, DflD), the German Development Agencies (GIZ and KfW), Agence Française de Development, Swedish International Development Cooperation Agency (SIDA), European Commission (EC), and Japan International Cooperation Agency (JICA)
 Others such as OECD

UNITED NATIONS

• Key mechanisms: General Assembly, UN Secretary General's Executive Office, the UN Economic and Social Council (ECOSOC), the Chief Executives Board (CEB), UN specialised agencies and programmes, various interagency coordination platforms and UN country offices

SOCIO-ECONOMIC GROUPINGS

 Intergovernmental organisations such as the G7, the G20, the Asia-Pacific Economic Cooperation (APEC), the Association of Southeast Asian Nations (ASEAN), the South Asian Association for Regional Cooperation (SAARC) and the Caribbean Community (CARICOM)

INSURANCE INDUSTRY AND ITS AFFILIATES

Primary (direct) insurers, reinsurers and brokers
Multilateral industry platforms, international think tanks and Associations

NON-GOVERNMENTAL ORGANISATIONS (NGOS) AND CIVIL SOCIETY ORGANISATIONS

There are different types of organizations, examples include:

 International Federation of Red Cross and Red Crescent Societies (IFRC), The Rockefeller Foundation, Save the Children, Oxfam, World Vision, and CARE

 Environmental NGOs such as The Nature Conservancy, Environmental Defense Fund, and the World Wide Fund for Nature Knowledge-based think tanks such as The Geneva Association, Ceres, World Resources Institute (WRI) World Business Council for Sustainable Development (WBCSD) SCIENTIFIC COMMUNITY, ACADEMIA AND CENTRES OF EXCELLENCE

GOVERNMENTS

(national to local levels, different ministries and public-sector institutions)

 International scientific contributions are coordinated by the UN through WMO, UNESCO and its Intergovernmental Oceanographic Commission, UNEP and the non-governmental International Council for Science (ICSU) and the Inter-governmental panel on Climate Change (IPCC). These have connected scientists, academia, and centres of excellence around the world to conduct and share research in a more coordinated manner
 The UNISDR Science and Technology Advisory Committee

to guide the development of HFA and subsequently Sendai Framework

 Academia, centres of excellence, research labs and engineering associations

OTHERS

Among these are: • Catastrophe risk modelling community • Traditional and social media organisations • Other institutions such as World Economic Forum (WEF)

Developing and implementing solutions typically requires a range of experts and stakeholders

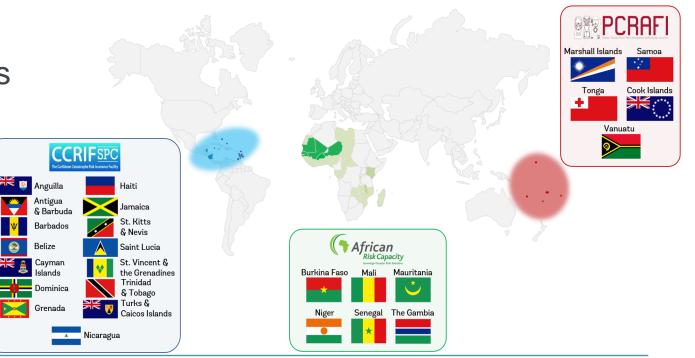
	Scientists	Implementers	Financial specialists	Senior officials
Plan	What potential shocks could be planned for?	 What will response be: 1. Logistics 2. Targeting 3. Communication, etc. 	Planning for how financial resources will flow (financial management)	Who to protect? Against what? How will protection be implemented?
Decision process	Can early warning data be used to trigger financing, or early action?	What should the decision process for implementation be?	What should the decision process for financing be?	Who will decide what, when?
Financing on standby	What is the likelihood of different potential events?	How much would response cost in different scenarios?	How will response expenditures be financed?	Who will pay and how?

Government-owned risk pools have been developed to get the most out of partnerships...

Existing sovereign catastrophe risk pools have been designed to:

- Strengthen regional/sub-regional cooperation and policy dialogue
- Take a collective and standard approach to quantitative analysis and modelling
- Improve information sharing
- Strengthen disaster response

 Use capital and reinsurance markets to transfer portfolio risks and reduce capital costs



Sovereign catastrophe risk pools around the world

pools \$46m annual premium

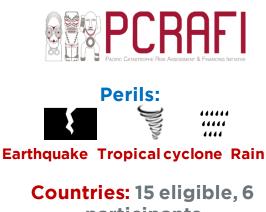


participants Payouts to Date: US\$70 million **31** countries

\$745m annual coverage



participants Payouts to Date: US\$34 million 30+ international reinsurers \$107m insurance payouts



participants Payouts to Date: US\$3.2 million

Source: World Bank Disaster Risk Financing and Insurance Program ¹²

The UK Government has just announced a new partnership – the Centre for Global Disaster Protection

Objective: to reduce the social and economic impacts of disasters, through

- Getting assistance to the people that need it more quickly and effectively in an emergency;
- Earlier action; and
- Speeding recovery

Three parts of this:

- Pre-disaster planning and systems;
- Pre-agreed finance; and
- Pre-agreed triggers and processes for action.

Centre for Global Disaster Protection

Activities:

- Providing training, risk analysis and financial analytics to help developing countries' better understand and make informed decisions about how to manage risks
- investing in data, science and research needed to design systems and plans that work for the poorest
- bringing together experts from finance and humanitarian communities to provide neutral advice
- Catalysing innovation in design of new, innovative financial tools including insurance that are right for disaster planning and deliver the most benefit for the poorest when disaster strikes.

Partnerships:

 UK Government (including DFID and GAD), World Bank, researchers, insurance industry, developing country governments, regional risk pools, etc.

Is there any interest in setting up an IFOA Working Party on Disaster Risk Finance

Areas for Potential IFOA Research

Feasibility StudyEvaluation GuidelinesIndex Development

Concept paper on a global risk pooling facility

Approach paper on how actuarial analysis could help governments to choose between different sovereign insurance instruments

Development of an index to assess the relative financial resilience of governments



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