Public-Private Partnerships in Africa: Scaling Resilience Across the Continent

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Agenda

1. Understanding Catastrophe Risk in Africa
2. Role of Public-Private Partnerships
3. Types of PPP Risk Transfer schemes
4. Benefits of PPPs

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1 Understanding Catastrophe Risk in Africa

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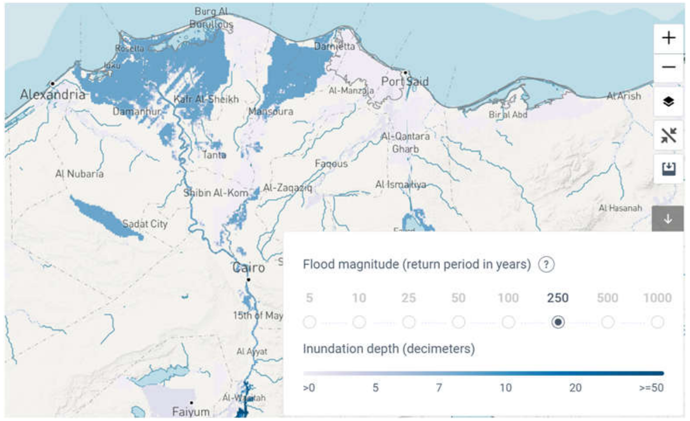
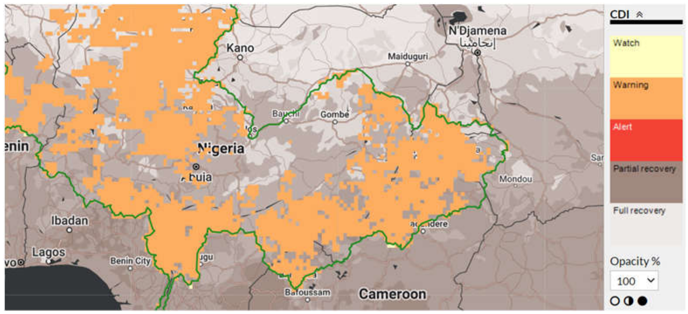
Understanding Catastrophe Risk in Africa

The Importance of Understanding Catastrophe Risk for Sound Decision-Making

- Africa is exposed to a large number of disaster events every year, affecting **economies and livelihoods differently and propagating over time**, sectors and geographies through various transmission channels.
- It is mostly exposed to perils such as: droughts and heatwaves, urban floods overall, and to a lesser extent tropical cyclones, earthquakes and locusts in specific areas.
- The continent is also most vulnerable to climate change, with above global average impact already being witnessed in certain parts and expected to worsen over the next decade.



Flood risk extent & depth, for 1-in-250-year events, Source: World Resource Institute



Combined Drought Index (precipitation, moisture and vegetation anomalies). Source: EU/JRC

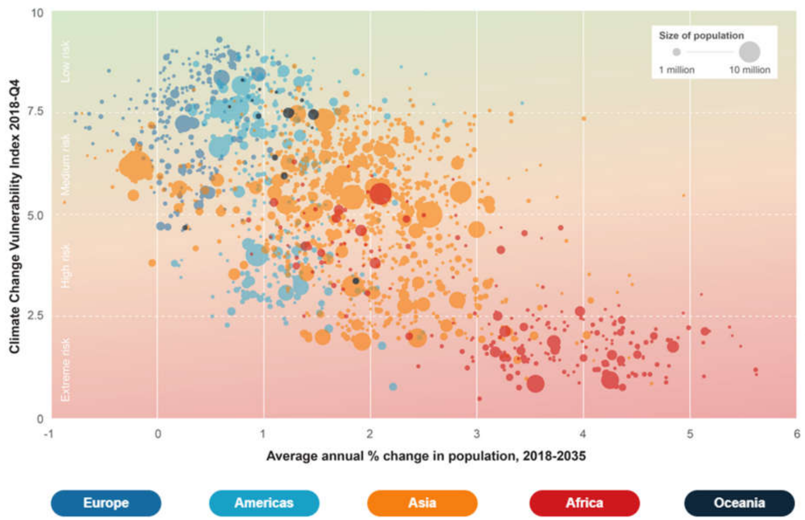
Understanding Risks & Costs

Climate Change : **Overview**

Examples of global impact from a 1.5ºC scenario

(sources: Gallagher Re, IPCC)

- More frequent and more severe catastrophe events
- Increases in average and extreme temperatures (+4ºC on average in Africa)
- 420 million people frequently exposed to extreme heat waves, and 65 million people to exceptional heat waves
- Increase in heat-related morbidity and mortality (e.g., urban heat islands)
- More extreme urban floodings in West Africa
- Global sea level rise of about +50cm by 2050
- Risks from some vector-borne diseases, such as malaria and dengue fever, to increase, including potential shifts in their geographic range



- Reductions in yields of maize, rice, wheat (-20% globally), and potentially other cereal crops, particularly in sub-Saharan Africa
- Countries in the tropics and Southern Hemisphere subtropics to experience the largest impacts on economic growth
- Hotspots for Africa: Heat/drought in specific countries (Northern- and Southernmost), Floods in West/Central Africa, Tropical cyclones in S-East Africa

Climate Change Vulnerability Index

2/3 of African Cities exposed to Extreme Risks

Amongst 10 cities most at risk, 8 are in Africa

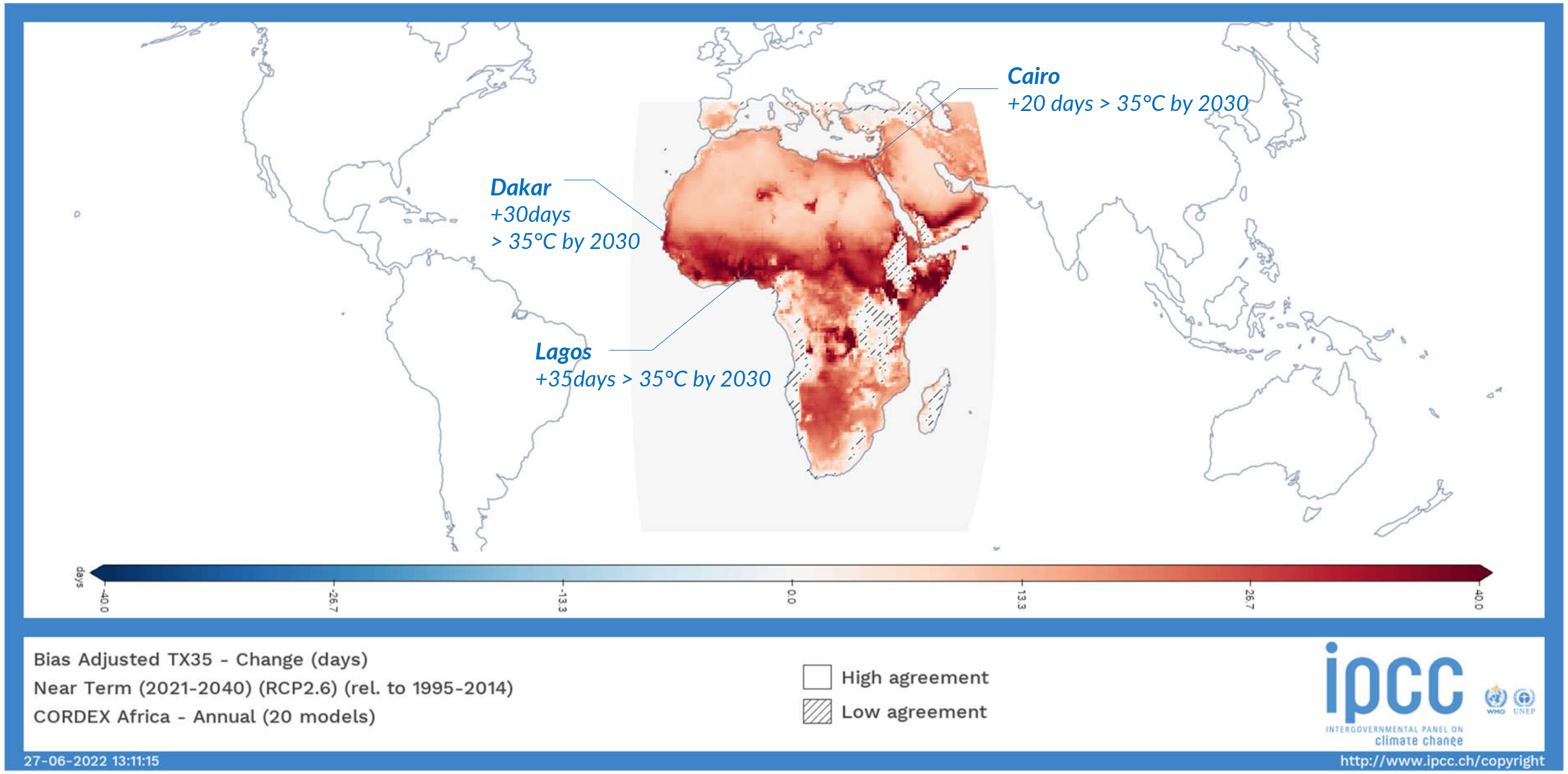
Top 3 being Bangui (CAR), Monrovio (Liberia), Mbuji-Mayi (DRC)

Source: Verisk/Maplecroft

Understanding Risks & Costs

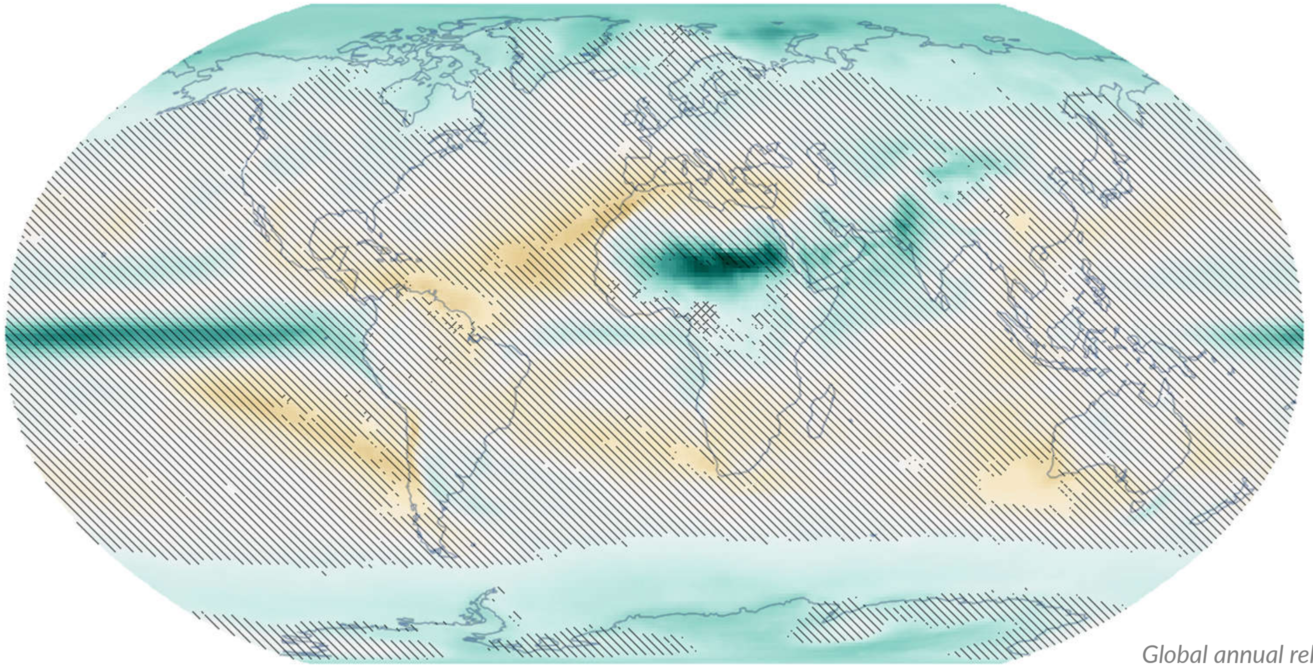
Climate Change : **Heatwaves**

Change in number of days > 35°C
2030 vs 2005



Understanding Risks & Costs

Climate Change : **Rainfall Patterns**



Projected rainfall changes for the African continent
(source: IPCC Working Group I)

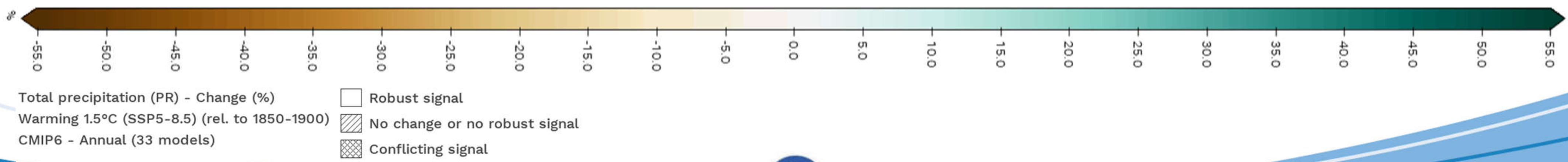
Projected **increase** in **rainfall** over regions with high or complex topography (e.g., Ethiopian Highlands) by end of 21st century under **higher warming levels**.

High confidence in reduction in rainfall across northern Africa and south-western parts of South Africa.

Medium confidence in rainfall decrease in western Sahel , increase along Guinea coast and Eastern Africa, reduction in mean rainfall but increases in rainfall intensity in Southern Africa.

Low confidence in rainfall increase in central Sahel.

Global annual relative change (%) in total precipitation



Understanding Risks & Costs

Climate Risk impacting economies and livelihoods in various ways

Households

• Loss of crop production leading to reduced consumption and income from sales
• Death of livestock leading to complete loss of livelihoods for pastoralists
• Inability to repay loans leading to default and impact on future borrowing
• Distress sales of assets and descent into poverty traps

Businesses

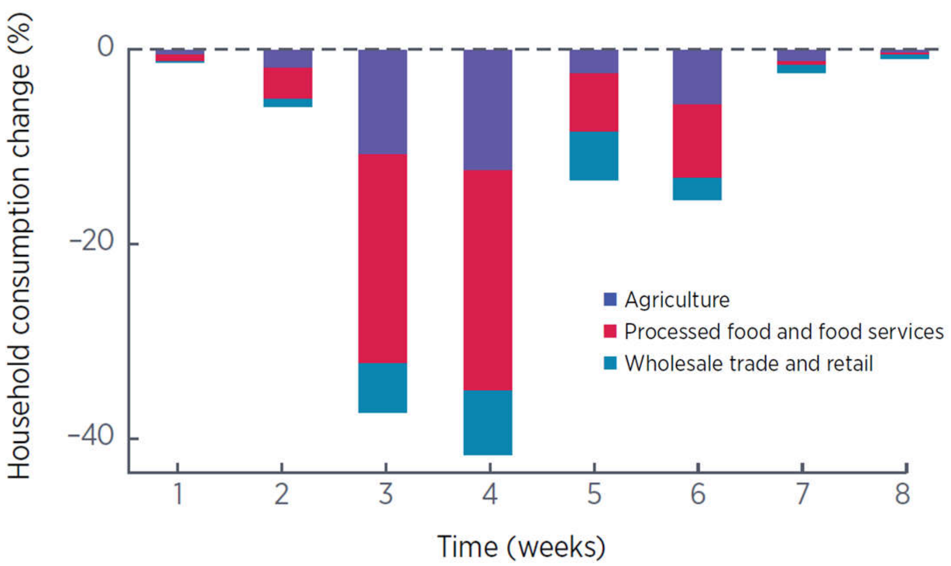
• Financial institutions: Inability to recover loans. closure of revolving funds, need for recapitalization, etc.
• Input dealers and grain purchasers/packer processors face business interruption and closure in extreme drought or flood situations

Government

• Widespread food insecurity, rising food prices, social unrest
• Budgetary pressure and reallocation to finance ex-post disaster relief and compensation for affected populations
• Increased costs of food imports
• Dependence on humanitarian assistance
• Borrowing and increased national debt

Impact on consumption from long-duration floods in Tanzania, highlighting cascading effects

(e.g., on suply chain, soure : World Bank, Colon et al, 2019)



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2 Importance of Public-Private partnerships

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Public-Private Partnerships

Why we need to bring together Public and Private Stakeholders

- In the absence of financial response, **these costs double or triple up over time**, creating significant burdens on economies and societies
- **Significant financing** is required to face the losses associated with disaster events, but public finance alone cannot meet that scale/ The role of the private (re)insurance industry is essential in addressing financial resilience at scale.
- It is therefore essential to **mobilize and prioritize ex-ante risk financing from both public and private** partners, to create a resilience ecosystem where **interests are aligned**, creating a financial ecosystem with balance between aspects such as:
  - short-term profitability vs long-term sustainability
  - premium affordability vs uncertainty loading factor and healthy margins for insurers
  - Economic loss coverage vs protecting the most vulnerable populations

Public-Private Partnerships

Governments, Insurance Industry and other Stakeholders

Governments are on the front line, they face both **explicit** (costs of repairing and reconstructing damaged public assets and infrastructure, state-backed loans/guarantees) and **implicit** (moral or commonly recognized but nonlegal public obligations) disaster-related liabilities. They can also experience a decline in **revenue** as a consequence of a disaster-related slowdown in economic activity, which they must manage simultaneously with the disaster.

Better management of contingent liabilities as part of broader fiscal risk management requires leadership by **Ministries of Finance**, in close collaboration with line ministries and **disaster management agencies**, to develop financial protection measures.

Development partners also play an important role in helping governments develop and implement financial protection strategies, whilst – since recently – providing **premium financing as well.**

The **insurance sector**'s role is key in bringing risk capital, innovative financial solutions, and new technology, as well as enhanced mechanisms to target beneficiaries. They also provide the analytics/risk quantification, data and exposure/loss reporting framework which is essential to sound design and sustainability of the schemes.

Public-Private schemes

Recipes for Success and Lessons for bringing risk pools to scale

Political commitment is both a precondition for successful catastrophe risk pools and a by-product of collaboration. Pools require strong political commitment from the participating countries as well as development partners' support, especially during the design and preparation stage.
The development and implementation of the pools also facilitate regional policy dialogue and improve collaboration between participating countries and development partners.

Sound operational design maximizes impact and generates public goods. Pools can encourage the participating countries to develop pre-agreed disaster response plans to ensure timely, transparent, and efficient use of funds following disasters.
The creation of risk pools has also driven the development of public goods such as data infrastructure, risk models, and improved institutional capacity.

Financial sustainability allows catastrophe risk pools to provide access to cost-effective insurance as part of a strategic approach to financial protection. Pools can offer cost-effective insurance solutions in various ways, including through risk diversification, joint reserves and facilitated access to international markets. The benefits of pools can be enhanced by combining different financial instruments to address different needs. The participating countries are encouraged to shift toward proactive risk management by up-front premium payment.

Donors Engagement

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Example of donors' contribution: the InsuResilience Global Partnership

InsuResilience GlobalPartnership

The InsuResilience Global Partnership :

- Launched in 2017 at COP23 and is a collaborative initiative of G20 and V20 countries.
- Includes multilateral institutions, the private sector, civil society organizations, and academia.
- Aims to scale up the use of climate and disaster risk finance and insurance solutions in developing countries.
- Enables faster, more reliable, and cost-effective responses to disasters, contributing to strengthened resilience.
- Its vision and activities align with post-2015 frameworks that recognize the importance of strengthening wider resilience.

Federal Ministry for Economic Cooperation and Development

The Program Alliance :

- The programs covers a broad spectrum of solutions.
- The Partnership takes into account different country risk profiles and corresponding gaps in financial protection mechanisms.
- As of April 2019, the Partnership supports 25 programs.
- The programs are implemented in 78 countries.
- One of the programs supported by the Partnership is GRiF.
- The Partnership facilitates collaboration between the public and private sector.

InsuResilience Solutions Fund

The InsuResilience Solutions Fund

- The Fund aims to catalyze joint initiatives by national public entities and the private insurance sector.
- The InsuResilience Investment Fund is a PPP set up by KfW on behalf of BMZ.
- The Investment Fund combines private debt and private equity investments.
- The Investment Fund aims to connect the value chain and provide technical assistance and funding for the development of markets in climate insurance.

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3 Risk transfer solutions

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Fostering an integrated Ecosystem

Practical Solutions Implementation Framework

addressing wide range of climate and systemic risks, through turnkey solutions covering

- *Policy*
- *Regulatory*
- *Legal*
- *Actuarial*
- *Budgetary*
- *Fund Raising*
- *Exposure Mapping*
- *Risk Modelling*
- *Structuring*
- *Placement*
- *Claims*
- *Comms and M&E*

Creating the ecosystem

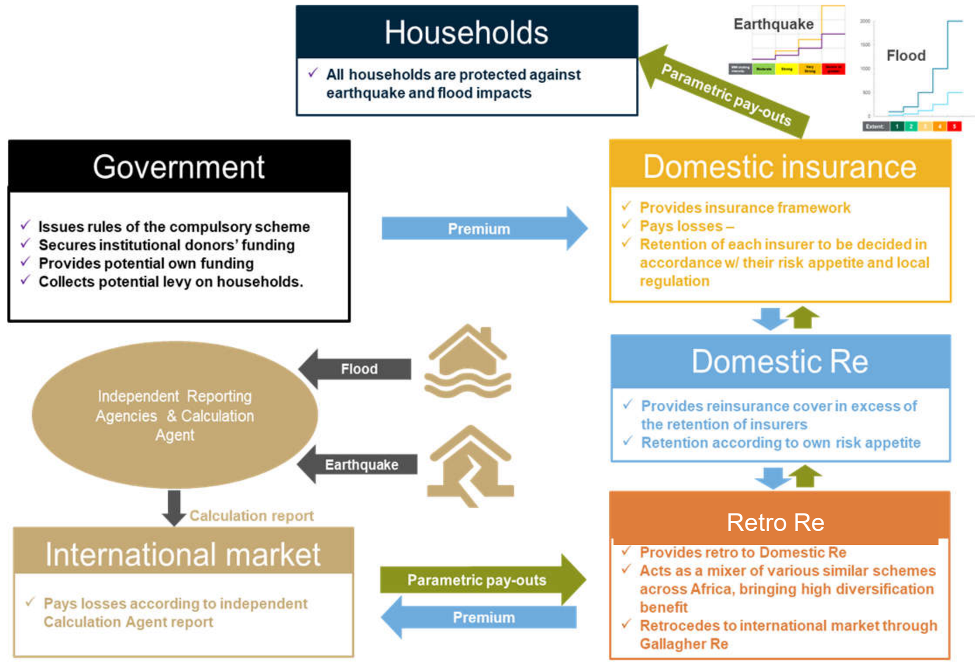
Facilitating governance, roles, agreements, mechanisms and communication across stakeholders, supporting decision-making every step of the way through state-of-the-art risk & financial analytics

Implementing practical solutions

Focusing on executing design, implementation & operationalization activities in accelerated timeframes (e.g., 18-24 months)

Promoting sustainable growth over time

Building on previous experience, aiming to reach scale and achieve regional momentum, as a long-term partner



Example of country project supported with risk analytics, legal and regulatory framework review, governance and PPP structuring, pricing and funding scheme design. This has been successfully performed in a number of countries and regions and - building on lessons learnt - offers the potential for at-scale deployment across Africa.

Risk Transfer Solutions

Parametric Solutions for Africa's Unique Needs

Complexity

Basis Risk

Indemnity	▪ Pays on actual loss ▪ Requires a complete claims management infrastructure (adjuster, etc.) ▪ Requires high data quality and quantity
Modelled loss	▪ Claims settlement based on a pre-determined catastrophe model and complex calculations Requires solid data, time and budget to build the Cat model
Parametric index	▪ Simplified modelled loss and transparent ▪ Uses a publicly available hazard index at predefined reference points
Pure parametric	▪ Pays on threshold intensity exceeded for specified area, from verifiable independent agency ▪ Large basis risk potential: trigger loss could be a wide range of actual losses

Coverage with a parametric index:

- Effective in ensuring **rapid compensation** in the event of a disaster
- **Ideal for protecting uninsured people** (no insurance policy)
- Ideal where **accurate exposure data is limited**, particularly for uninsured and public property exposures

Risk Transfer Solutions

Example of pools in the African continent

Indemnity based

Algerian Cat. Insurance Pool - ACIP

- International reinsurance markets
- Domestic reinsurer
- Domestic insurers
- **Beneficiaries:** Insureds

Trigger: Declaration of national disaster by Algerian authorities

Perils: EQ, FL, windstorm, landslide

Indemnity & Parametric based

Moroccan MCEIR and FSEC Regime

International reinsurance markets

Private insurance scheme for insureds

- Domestic reinsurer
- Domestic insurers
- **Exposure:** insured Property, Casualty, Motor

Indemnity, per policy

Public compensation for un-insureds

- FSEC solidarity fund
- **Beneficiaries:** uninsured Property & Casualty

Compensation, per Law 110-14

Trigger: Declaration of national disaster by Moroccan authorities

Perils: EQ, FL, windstorm, landslide

Parametric based

African Risk Capacity - ARC

- International reinsurance markets
- ARC
- **Beneficiaries:** African governments

Provides drought insurance to African governments based on parametric indices

Perils: drought & Tropical Cyclone

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Risk Transfer Solutions

Overview of perils covered by schemes in North Africa & Europe

Perils	CAT Assurance & Réassurance	CCR	DASK	Groupe Caisse Centrale de Réassurance CCR / CCR RE	PAID	FLOOD RE	African Risk Capacity
Flood	✓	✓	✗	✓	✓	✓	✗
Earthquake	✓	✓	✓	✓	✓	✗	✗
Landslide	✗	✓	✗	✓	✓	✗	✗
Tsunami	✓	✓	✗	✓	✗	✗	✗
Volcanic eruption	✗	✗	✗	✓	✗	✗	✗
Falling astral body	✗	✗	✗	✓	✗	✗	✗
Cyclonic storm	✓	✓	✗	✓	✗	✗	✓
Hydrothermal activity	✗	✗	✗	✓	✗	✗	✗
Drought	✗	✗	✗	✓	✗	✗	✓
Political Violence	✓	✗	✗	✓	✗	✗	✗

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4 Benefits

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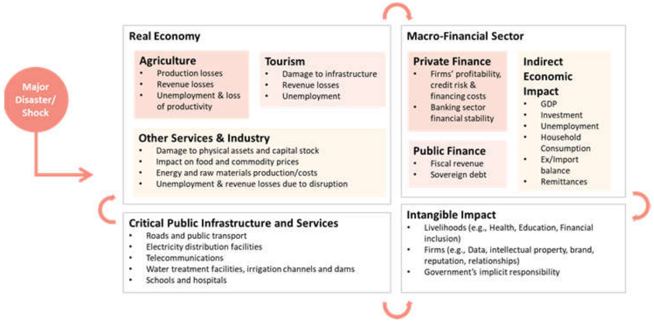
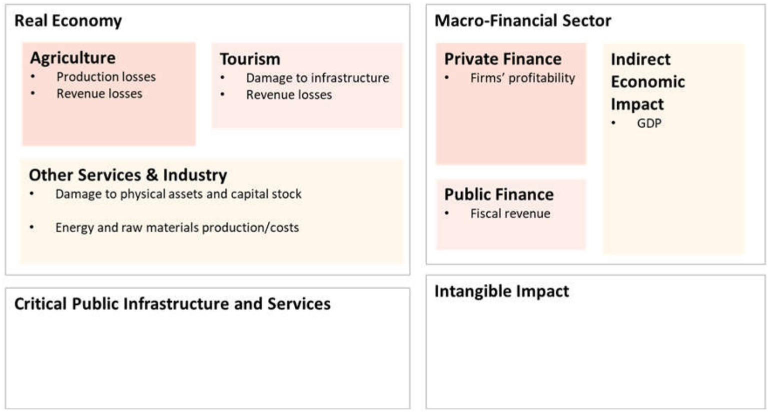
Benefits

Direct Benefits



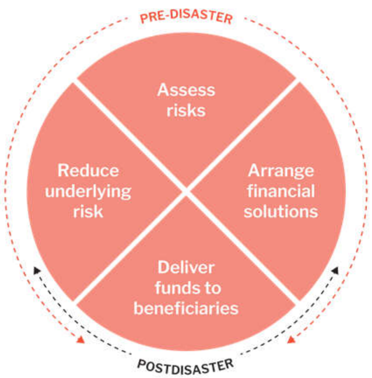
#01 Timely Response

Reduces Extent of Socio-Economic Impact



#02 Cost-efficiency

of pre-planned, ex-ante financing instruments (vs ex-post)



By mobilizing financing before disasters strike (e.g., insurance schemes), the net impact on governments, businesses and livelihoods is reduced significantly

#03 More impactful

response, towards better-targeted, most critical sectors and beneficiaries

Benefits

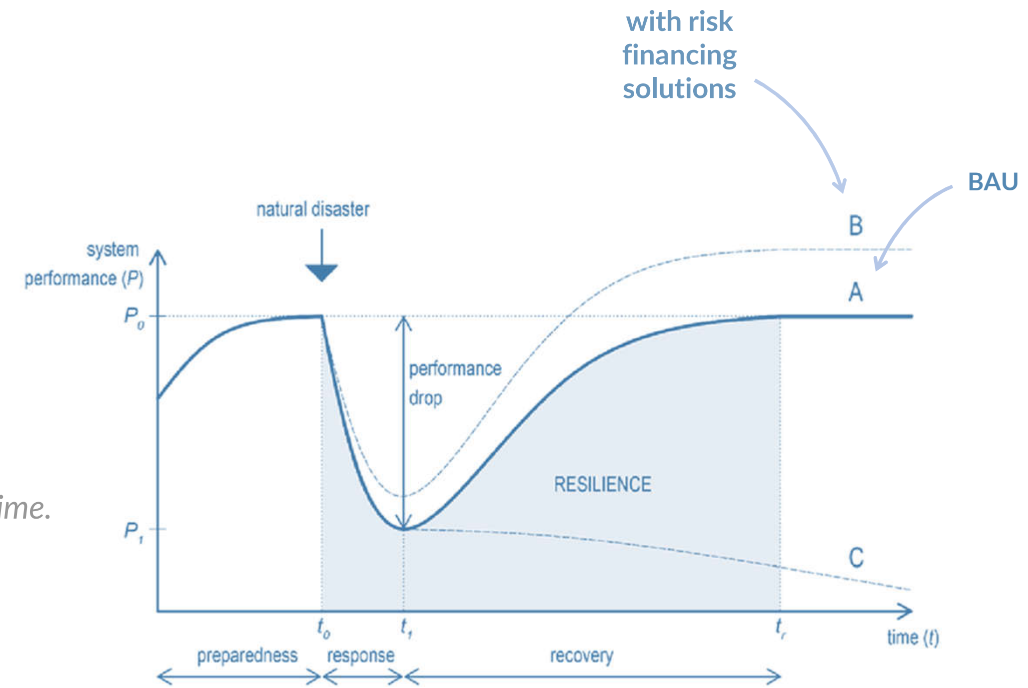
Returns

Expected Returns on Risk Financing & Insurance Investments

~ 200% to 400% on average

i.e., for every $1 invested (e.g., insurance premium, subsidies, budget line mobilization) a return of x2 to x4 is expected over time.

Source: Center for Disaster Protection & World Bank

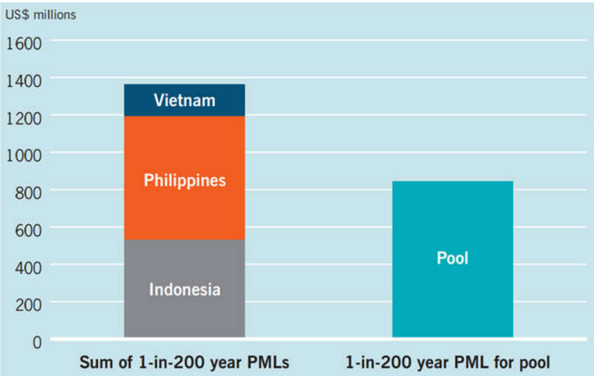


Benefits

Additional Benefits

Reduced cost of capital through risk transfer & pooling

Example: Indicative diversification benefits modelled for Indonesia, the Philippines, and Vietnam (World Bank, 2019)



Strengthening resilience of most vulnerable, *such as SME, agriculture and specific sectors*

Promoting insurance and financial sector development *through sustainable, national insurance schemes*

Paving the way to climate adaptation *efforts, through risk analytics and resilience framework*

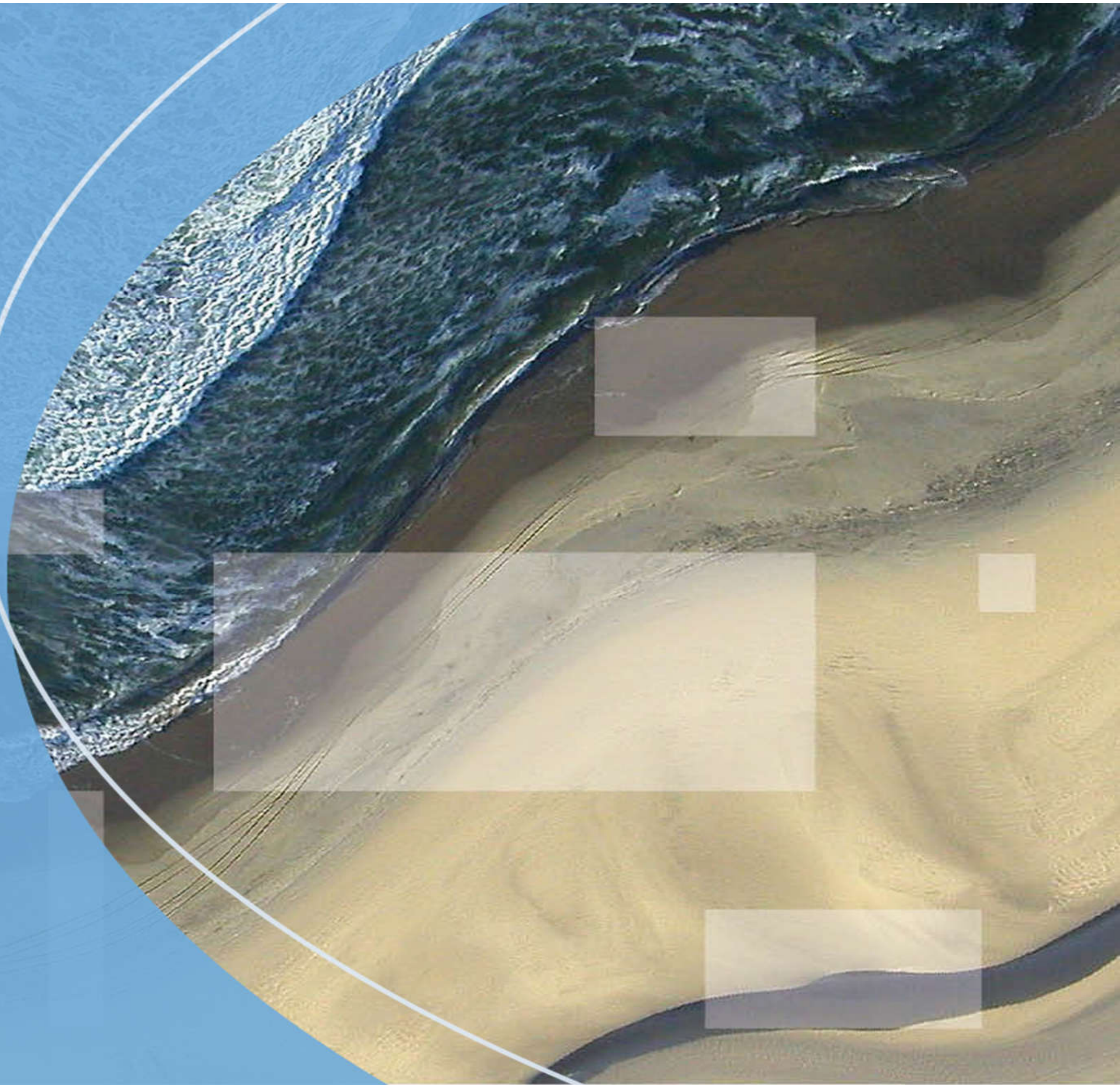
Increased financial stability *and safe investment environment*

Reducing risk of social unrest *through active government response*

Improving risk understanding *through large-scale data and model registries*

Protecting hard-won development gains *with risk transfer capital*

Thank you !



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