

# BUILDING FINANCIAL RESILIENCE IN AFRICA: A HIGH LEVEL DIALOGUE

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URf



*Bring in the Suits*  
*(and dull disasters as a result)*

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# Motivation

- Disasters remain all too common:
  - Fast onset, such floods, earthquakes
  - Slow onset, such as drought or pandemics
- Africa more than its fair share
  - Floods, Drought
  - El Niño, Climate Change
  - Ebola
  - Causing loss of lives, livelihoods, assets
  - Conflict exacerbates impacts: Ethiopia 1984-85, Somalia 2011, Darfur
- Crises of huge political intensity, media attention, public appeals, well-intentioned actions and more
  - But usually too late, with too little coordination, underfunded
  - With realisation after that there is underpreparation and lack of resilience

# We can do better

Three ingredients:

1. A fast, evidence-based decision-making process
2. A coordinated, credible plan for post-disaster action agreed in advance
3. Financing on standby to ensure that the plan can be implemented.

Helping to overcome three flaws:

1. Slow, politicised, tactical decision-making process
2. Poor preparedness planning, done too late
3. Outdated financing model based doomed to be underfunded and costly

Learning from recent experiences such as drought response or Ebola

But also from recent progress: HSNP (Kenya), PSNP (Ethiopia), ARC



# Medieval financing



## Funding based on begging bowls

- National and sub-national governments and communities
- International appeals and voluntary contributions

## Consequences?

- Ambiguity on who really owns the risk, who should respond and how, leading to procrastination and delays
  - Ebola, drought responses?
- Incentives for poor information flows (historically cause of much suffering), for overstating need (appeals) or sensationalising need
- Incentives for creating benefactors rather than leaders, seen to be helping, gaining political capital, but not necessarily helping efficiently and effectively
- Few incentives to investment in planning or preparation, or in risk reduction

# Turn benefactors into committed leaders



# Committing to plans is a political choice

- All parties may do well to tie their hands – to ensure there is coordination, more efficiency, better financing
- But to ensure politicians buy into it, it better be a good plan:  
bring in the suits.... Different stakeholders
- The only way to develop effective risk financing for better outcomes is to have a plan

# Better planning and preparation

- Academics in their gowns
  - model hazards and its consequences
- Bureaucrats in their grey and black suits
  - Broker deals of who is responsible for what, setting up coordination
  - Start from outcomes, not inputs: who and what do we want to protect, who will be responsible? Who will do what?





- The uniforms, T-shirts and cargo trousers of the implementers and frontline workers – and the voice of the beneficiaries
  - Women and men of action, of delivery, of passion, adrenaline and commitment, not quite the planning types...
  - Stress testing, flexibility, information systems: lean, flexible but rule-based plans
- The pin-striped suits of the financiers
  - Not just add up the costs or show the trade-offs of what is feasible
  - Help with a risk financing plan: how to have the resources for plans under various contingencies: pre-arranged funding
  - Brings out costs and benefits of risk reduction and early response



# From planning to early action

- All four suits on board: scientists, officials, implementers, financiers
- To allow political commitment to become attractive
- Clarity about what is offered:
  - who owns the risk
  - who will have to respond and how it will be implemented and coordinated
  - in a credible way, based on evidence, technical and political feasibility
  - and a sensible and realistic financing plan
  - Incentives for preparedness and risk reduction better aligned with responses
- Will it allow and guarantee early action?
  - Planning still risks delays, procrastination, failure...

# Small flexible plans, clear triggers and rules

- Plans have to work
  - Every disaster will be (slightly) different
  - Adaptable systems, but clear rules of adaptation, not discretion
  - From top to bottom: Scalable delivery systems in place before hand
- Early action, not early warning: use triggers
  - Ebola
  - Droughts
- Make action the default.
  - Politician can stop or start if systems does not start

# Financing to match need and timeliness

- Budget reallocations and begging bowls take time
- Choice between Being Insurance and Being Insured
  - Speed, costs, opportunity costs, reliability
  - Decide on how to finance (small or immediate) plans beforehand, and take required portfolio of actions
- Learn from parametric insurance, and maybe use it
  - Easy, quickly verifiable triggers for action and cash mobilisation
  - E.g. payouts or budget releases based on rainfall forecasts, on predicted deaths from epidemics, etc.
  - Products such as catastrophe bonds, index-based insurance products, on top of contingent credit and cash contingencies...

# Ethiopian funeral societies as a finance model

- Ethiopia: decent burial very important. Importance of presence of friends and relatives. But expensive. How to finance if poor?
- Own savings plus begging?
- Set up group: edir/iddir
  - Contribute beforehand each month a small sum and save as a group to pay out when a funeral needs to take place of a close relative of member.
    - Pre-commitment: predictable fixed monthly contribution ensures that full sum can be covered
    - Rule-based contribution to funeral costs – very clear what will be covered



# An insurance-like financing system

- Set up before disaster
- Rule-based contributions before disasters take place
- Rules what insured need to do (moral hazard), including investments in preparedness
- Payouts after disasters fixed and simple, without lengthy verification of need
- Ensure that liabilities of the system (the risks that are taken on) are clear and that appropriate asset-matching takes place

# Examples from Africa show the way

- Africa Risk Capacity, provided local response and delivery plans get better
- CERF at UN (but no clear rules of payouts and still voluntary contributions)
- Index-based Livestock Insurance in Kenya
- Hunger Safety Net Programme in Kenya: scalable social protection
- Productive Safety Net Programme in Ethiopia: 8 million, strong system, government owned, basis for scalability (contingency fund, but rules for us not so clear)

# We can do better

## Three ingredients:

1. A fast, evidence-based decision-making process
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3. Financing on standby to ensure that the plan can be implemented.

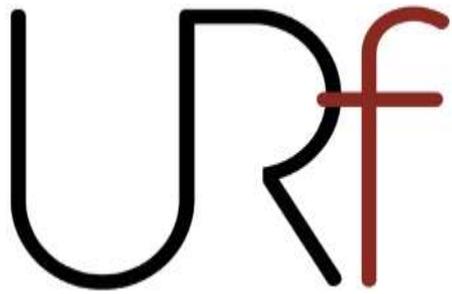
## Helping to overcome three flaws:

1. Slow, politicised, tactical decision-making process
2. Poor preparedness planning, done too late
3. Outdated financing model based doomed to be underfunded and costly

Extreme events and slow onset hazards will remain.

We can dull the disasters around us!





# *Building Financial Resilience in Africa*

CHRIS LANE

Strategy, Policy, and Review Department  
International Monetary Fund (IMF)



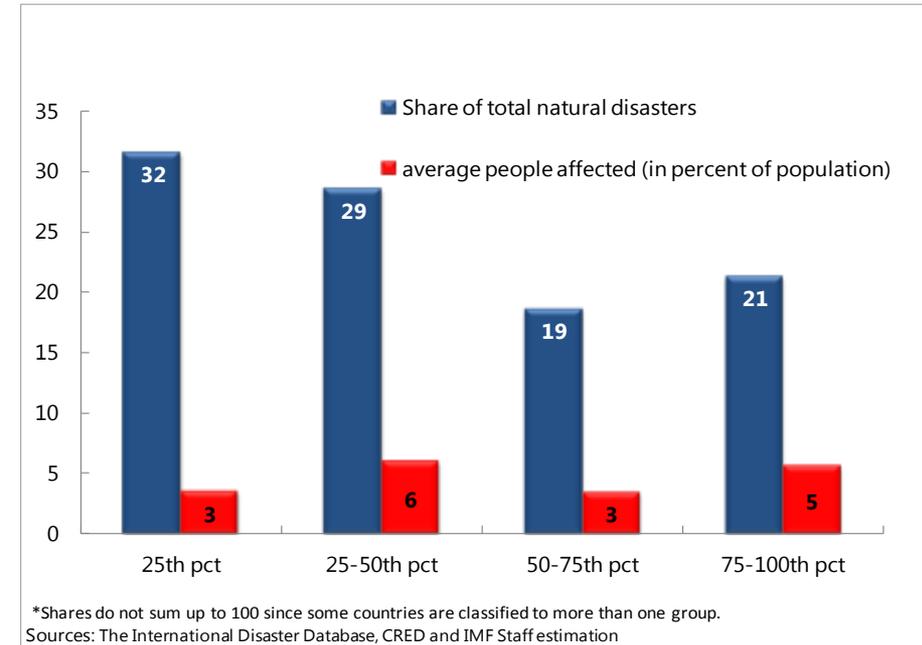
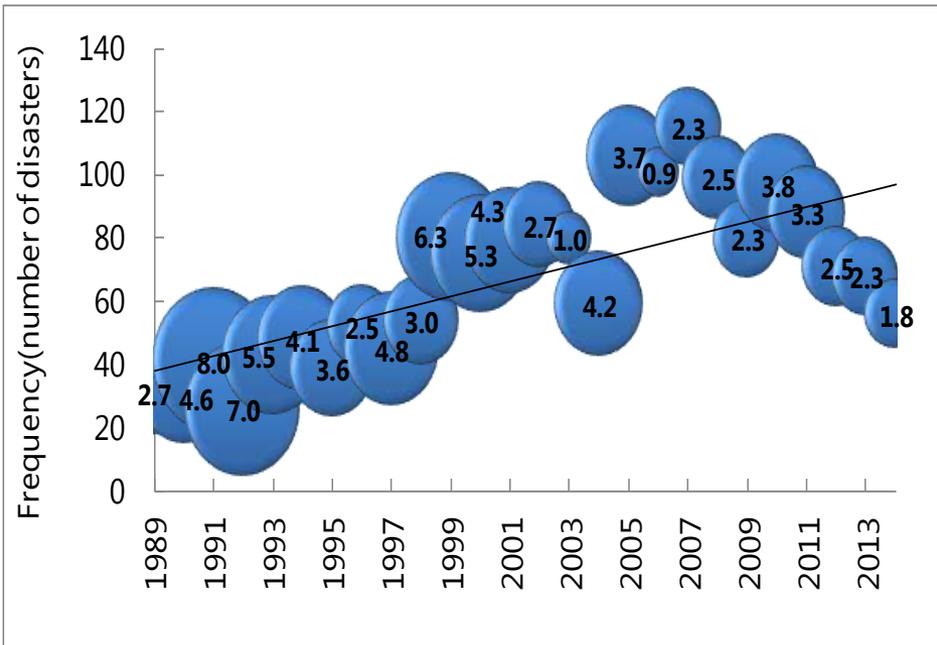
# Outline

- Disasters: trends and macroeconomic impact  
– IMF & WB Research & Analysis
- IMF toolkit in disaster situations (ex ante/ ex post)
- Integrating disaster and climate risk in IMF operations

# Natural disasters: Low Income Countries (LICs) most frequently affected

## LICs: Frequency of People Affected by Natural Disasters

## Natural Disasters by Income Distribution

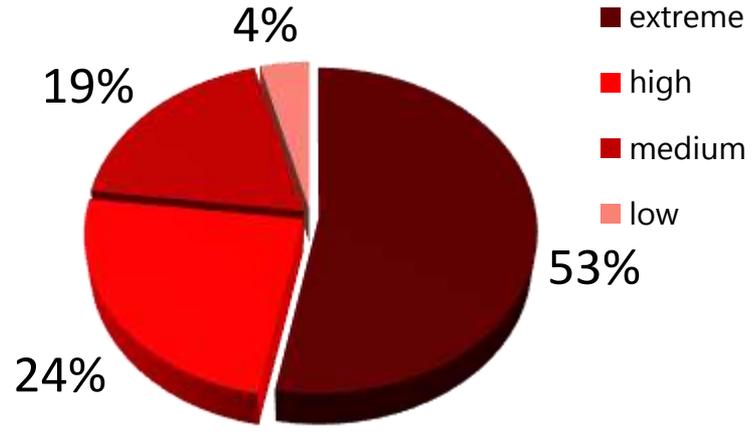


Source: EM-DAT Natural Disasters database.  
Note: Bubble size and the number indicate percent of LIC population affected.

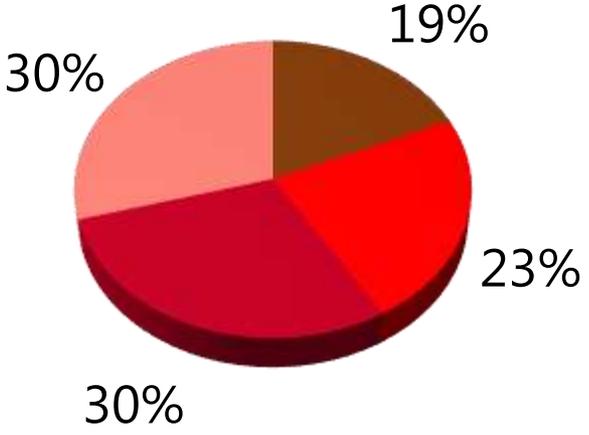
# LICs and Small States most vulnerable to climate change

## LICs and Small States: Climate Change Exposure Index in 2015

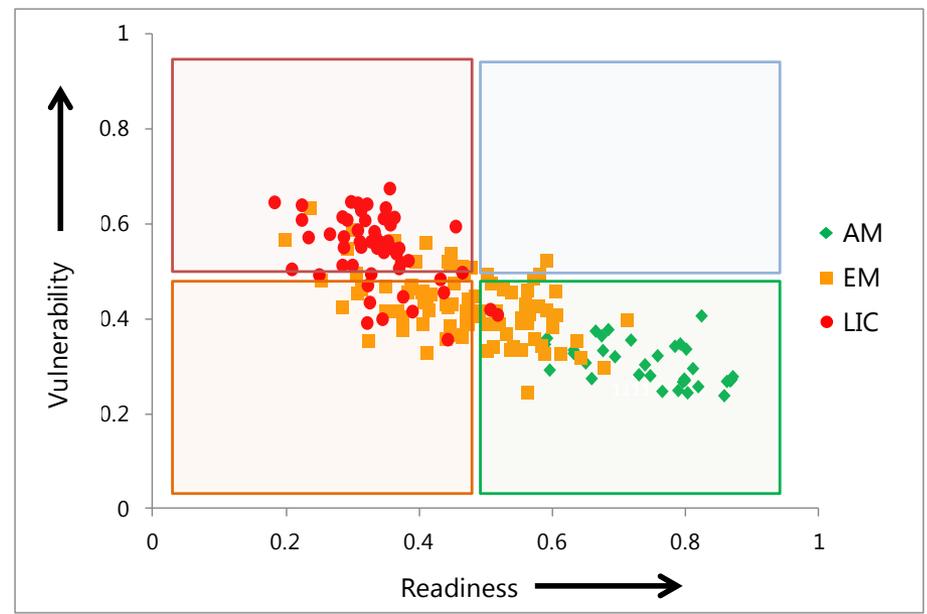
(Percent share of countries with vulnerability)



### Rest of the World



## Vulnerability and Readiness Index

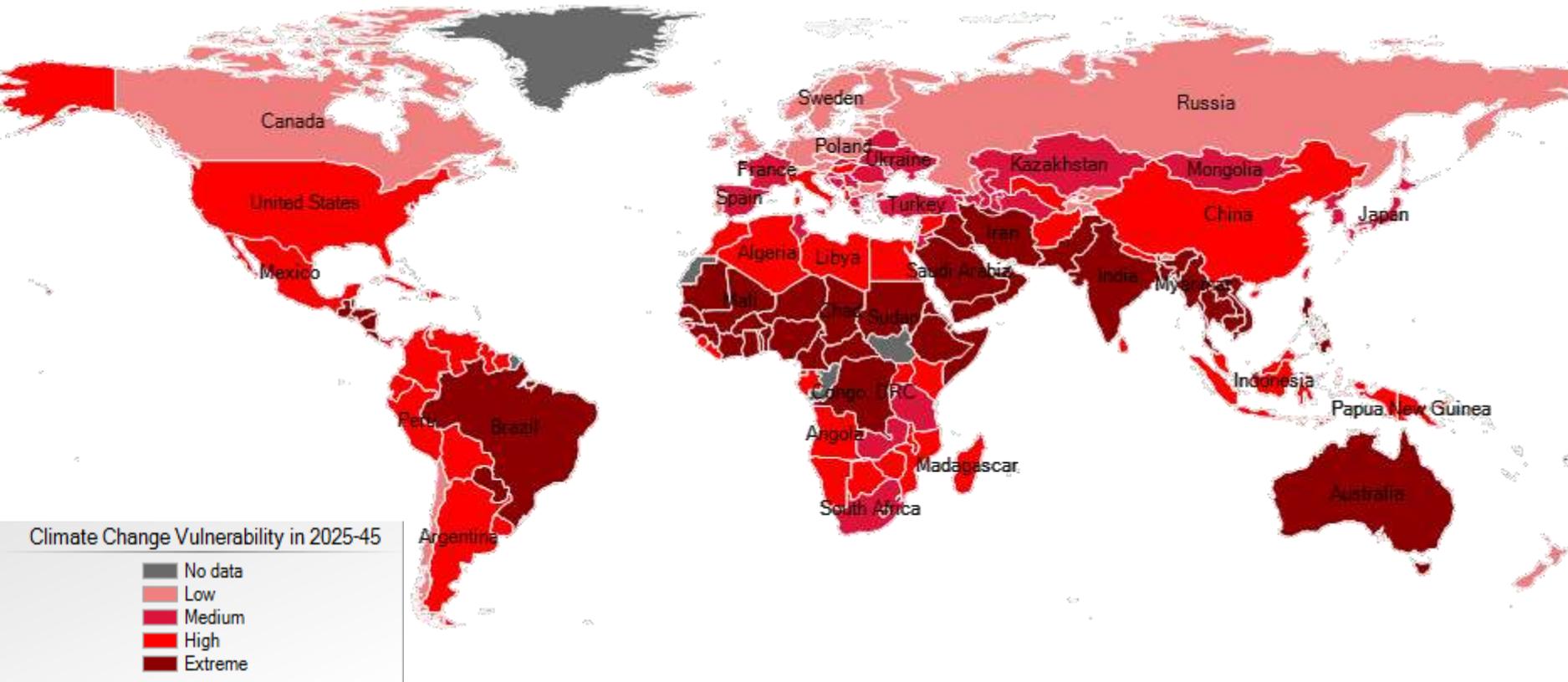


Source: NG Gain Global Adaptation Index, 2013.



# Vulnerability to climate change increases under business-as-usual

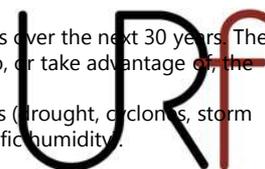
2025-2045



Source: Maplecroft 2015.

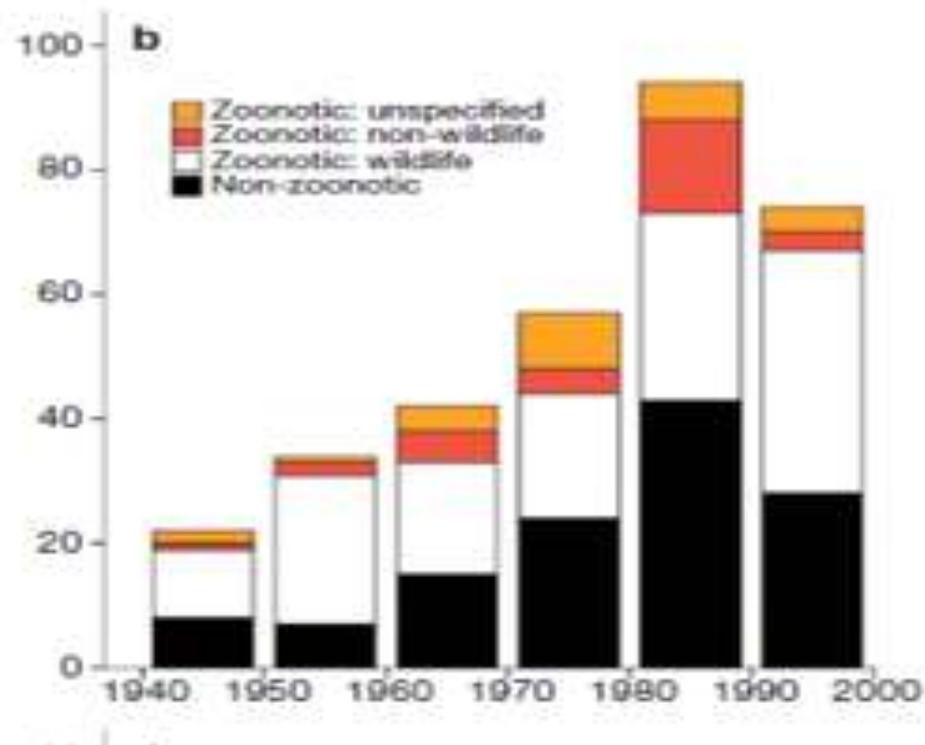
Note: The Climate Change Vulnerability Index evaluates the vulnerability of human populations to extreme climate related events and changes in major climate parameters over the next 30 years. The index combines the risk of exposure to climate change and extreme events, with the current human sensitivity to that exposure and the capacity of the country to adapt to, or take advantage of, the potential impacts of climate change.

We exclude the sensitivity and adaptive capacity indices and focus only on exposure index which captures the level of potential exposure to extreme climate related events (drought, cyclones, storm surge, wildfires, severe local storms, landslides, flooding and sea-level rise) and predicted change to baseline climate parameters (air temperature, precipitation and specific humidity).



# Emerging Infectious Diseases Rising

Number of Emerging Infectious Diseases per Decade by Transmission Type, 1940-2000



Source: Jones et al., Global Trends in Emerging Infectious Diseases, Nature, 2008.

# Macroeconomic Impact

## Natural disasters – Cross Country Analysis

**Raddatz (2007)** 40 LICs, o/w 32 in SSA. 1965-1997

GDP Impact: Drought & epidemics 4% Climatic disasters 2%,

**Loayaza (2009)** 94 countries 1961-2005

5-year impact- average drought 5%, storms 3%, floods can have +ve output impact

**Von Peter, von Dahlen & Saxena (2012)** 203 countries, 1960-2011

Median disaster 0.6-1.0 % impact, 2-3% cumulative

Data from Munich Re, on share of loss insured: Uninsured part of disaster drives macroeconomic cost, insured losses close to zero growth impact: threshold around 60% of losses insured.

Haiti 2010: 1% losses insured (GDP -8.6%) New Zealand 2010: 80% losses insured (GDP negligible impact).

# Macroeconomic Impact II

## **Ebola:** Country Cases

2014-15 cumulative impact assessed in IMF programs

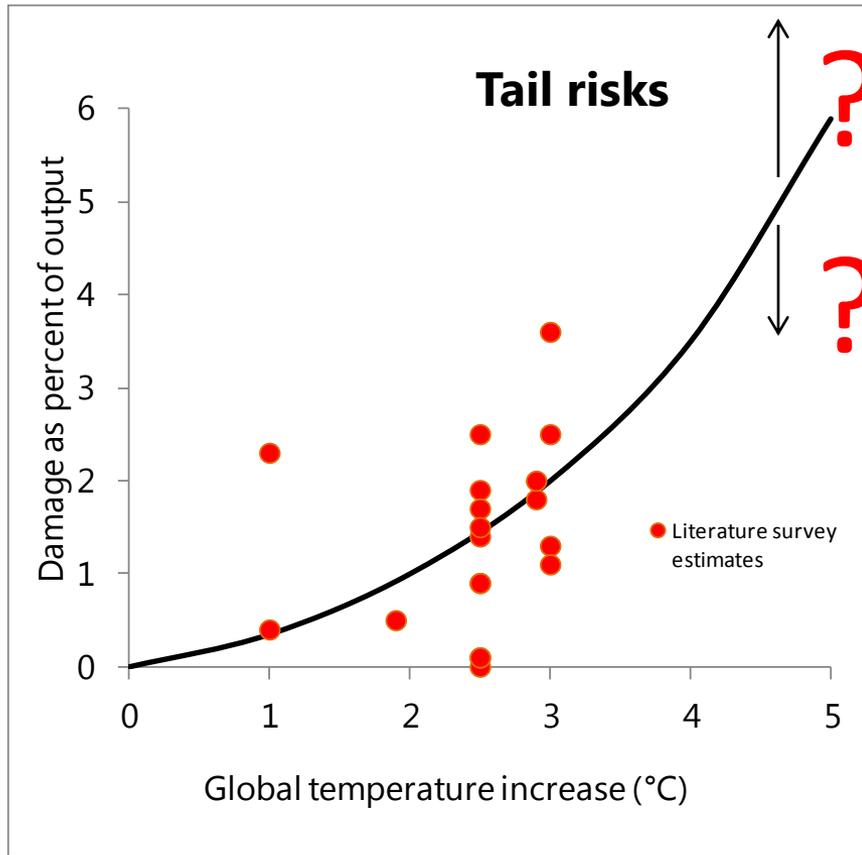
- GDP loss >10 percent of GDP
- Revenue loss: 4.8-10.9 percent GDP
- Expenditure increase 2.4-9.4 percent of GDP

## **Climate Change / Global warming:**

- 1°C temp increase reduces growth in low income countries by 1.3 percent (Melissa Dell et al 2012) based on past 50 years data. Channel via agriculture.
- Ongoing IMF research – Garcia-Verdu et al – impact of temperature rise on agricultural value added (total factor productivity) by crop, after controls. Effects most marked in SSA and North Africa & Middle East.

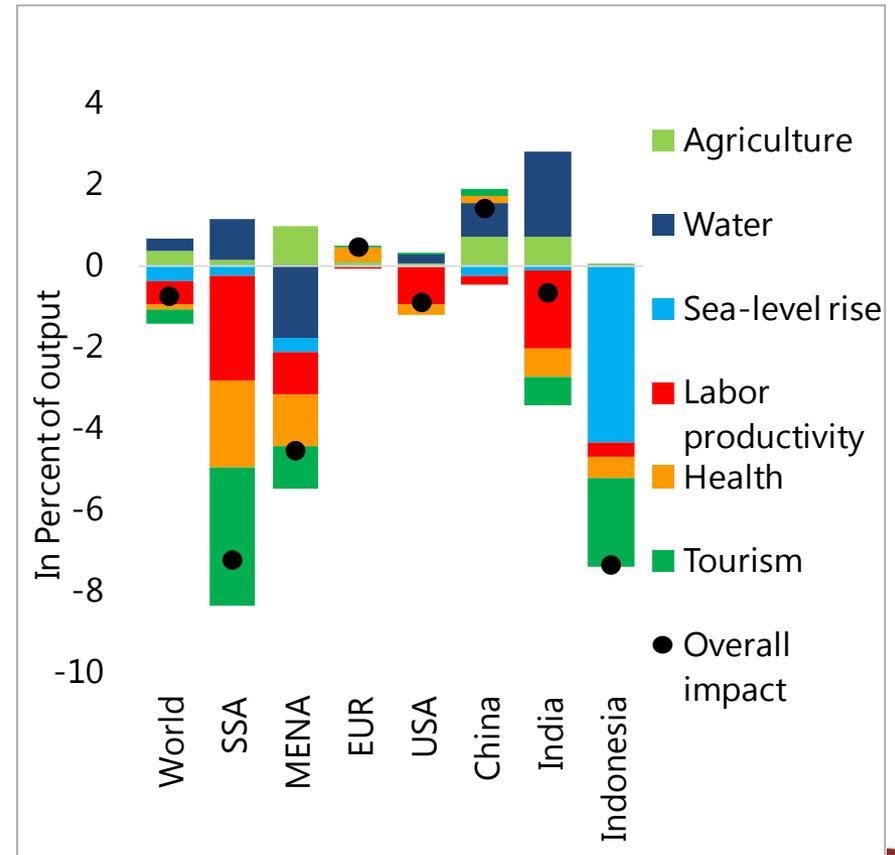
# Climate Change: Damages uncertain and vary regionally

## Impact on World Output



Source: Nordhaus 2013; Tor 2012

## Projected Impact in 2050 by Region



Source: Roson and van der Mensbrugge (2012)

# Fund Support – Ex ante

## Policy advice

- Risk identification and assessment, self-insurance, risk reduction, risk transfer (Risk assessment matrix)
- Build adequate fiscal and external buffers taking into account exposure to volatility and shocks (reserves, SWFs, contingencies)
- Where disasters recur, integrate risks in macroeconomic projections and debt sustainability analysis, e.g., St. Kitts and Nevis, Kiribati
- Financial sector development to increase disaster resilience in the private sector (mortgage markets, insurance markets)

# Fund Financial Support

## **Ex ante -Precautionary support – with conditionality**

SBA and since 2009 SCF (concessional finance), potential need for financing in event of shock, including natural disaster shock.

e.g. Kenya 2015 program- strengthen resilience (drought & security) draw if shocks materialize. Not drawn to date.

## **Ex post – No conditionality – relatively low access to finance**

Emergency Natural Disaster Assistance (ENDA) (1973)

Exogenous Shocks Facility – Rapid Access (ESF 2008)

Rapid Credit Facility (RCF, 2010) Rapid Financing Instrument (RFI, 2011)

Augmentation of existing program (e.g. Extended Credit Facility)

## **Debt Relief. Catastrophic natural disasters in low-income countries**

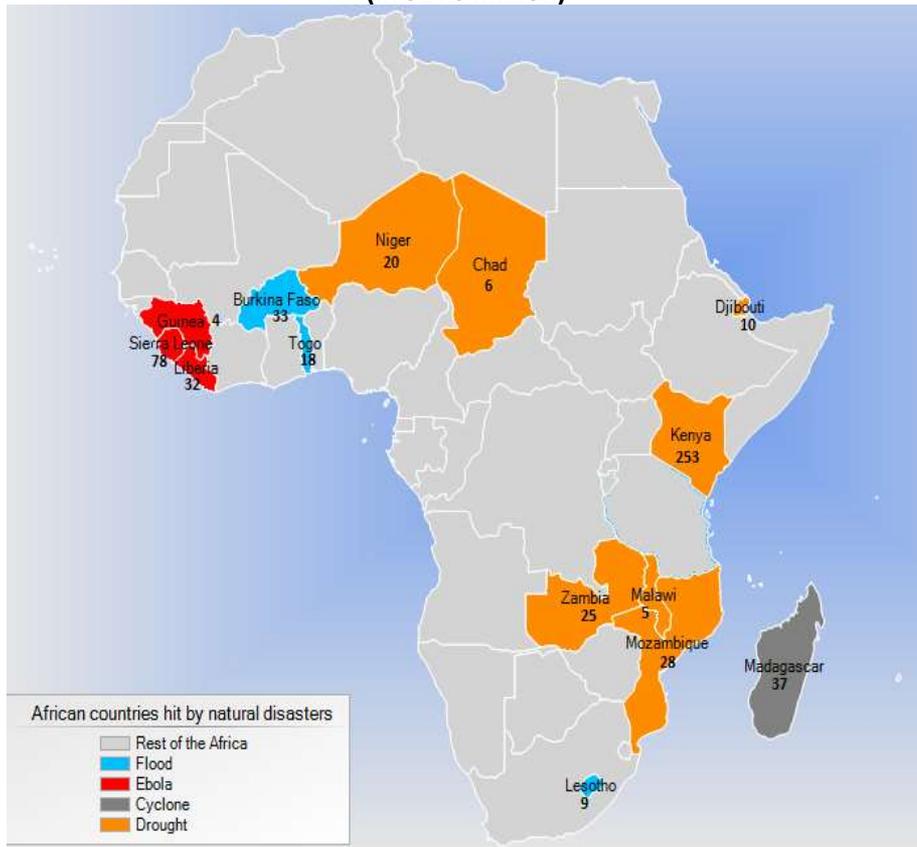
– IMF Debt Relief – (Haiti, Guinea, Liberia, Sierra Leone)

1. High damage: > 1/3 population affected, significant loss of capital and/or GDP impact
2. Public health disaster: significant threat to lives, economic activity and international commerce.

# Recent Fund support - Ex post

## Quick disbursing finance to strengthen national financial capacity

Recent IMF Lending in Context of Natural Disasters (Africa)  
(in SDRs million)



Source: IMF staff reports

Note: Augmentations under Extended Credit Facility or Rapid Credit Facility (Liberia, Guinea).

Trade offs: Ex ante vs Ex Post

Ex ante:

- Basis risk
- Appropriate incentives
- Predictability
- Defining triggers
- Ties up resources

Ex post:

- No conditionality
- IMF residual financing role
- Moral hazard

# How is the Fund integrating disaster and climate risk in its development policies and programs?

See merit in a more systematic effort to strengthen ex-ante resilience to natural disasters and climate change to improve macroeconomic prospects, esp. in low-income countries and small states and to channel climate finance to vulnerable countries.

- National ownership- disaster planning, risk assessment, risk reduction,
- Fund support – incorporate risks into macroeconomic framework, debt sustainability analysis incorporating infrastructure needs and mitigation options, advice on financial buffers, financial sector.
- WB/ MDBs / donors– needs assessment, project finance, risk mitigation instruments, sector policy reforms, fin sector devt.
- Private sector – insurance, risk transfer, financial market devt.

# Thank you!

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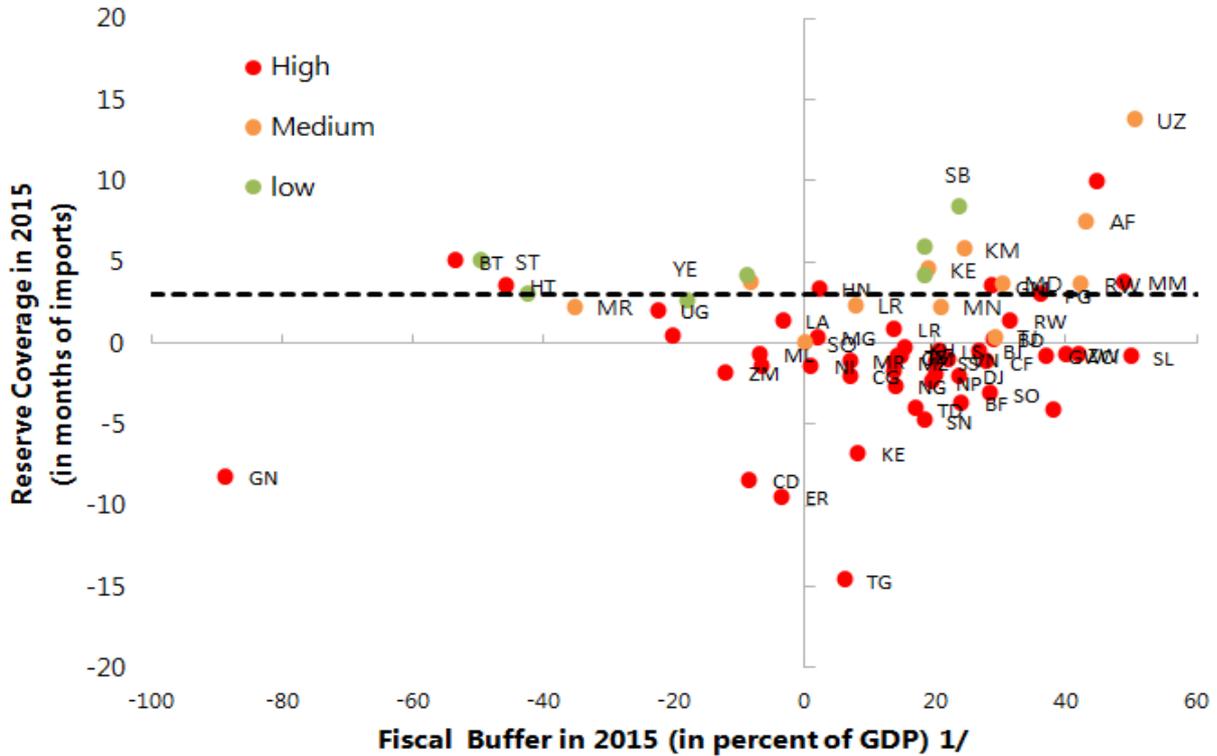
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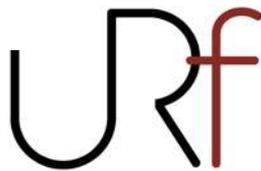


# Back Up Slides

# Buffers and exposure to climate change



Source: WEO, Maplecroft and IMF staff estimates.  
1/ The distance of public debt (% GDP) to DSF thresholds.  
Note: High, medium and low ranking is associated with the vulnerability of LICs to climate change based on Exposure Index by Maplecroft in 2015.



## Ex ante

Risk Identification and Assessment

**Strengthening Risk Assessment**

- Assess physical, institutional, and financial vulnerabilities
- Building realistic baseline given own probability of being hit with climatic disasters
- Incorporate disaster costs in national budget planning

Self Insure

**Building Buffers**

- Fiscal and external buffers
- Deepen domestic financial market to mobilize savings
- Build climate change funds

Risk Reduction

**Enhance Preparedness**

- Invest in climate-smart infrastructure
- Structural reform agenda to increase competitiveness, economic diversification to enhance potential growth
- Establish building codes, alarms, emergency response

Risk Transfer

- Boost insurance, reinsurance
- Arrange for global insurance, pooled insurance

## Ex post

Coping and Resilient Recovery

Emergency response and reconstruction

**IMF through Surveillance and Capacity Development**

- Integrate fiscal costs into macro framework and debt sustainability analysis
- Tailor investment and growth policies to build resilience, by enhancing PFM system and efficient public investment

**Climate Change Facilities and Funds, examples include**

Climate Change Fund  
Green Climate Fund  
Global Environment Facility  
Climate Investment Funds  
Africa Risk Capacity

**MDBs**

- Build better data for development
- Step up cooperation to reporting climate mitigation and adaptation finance

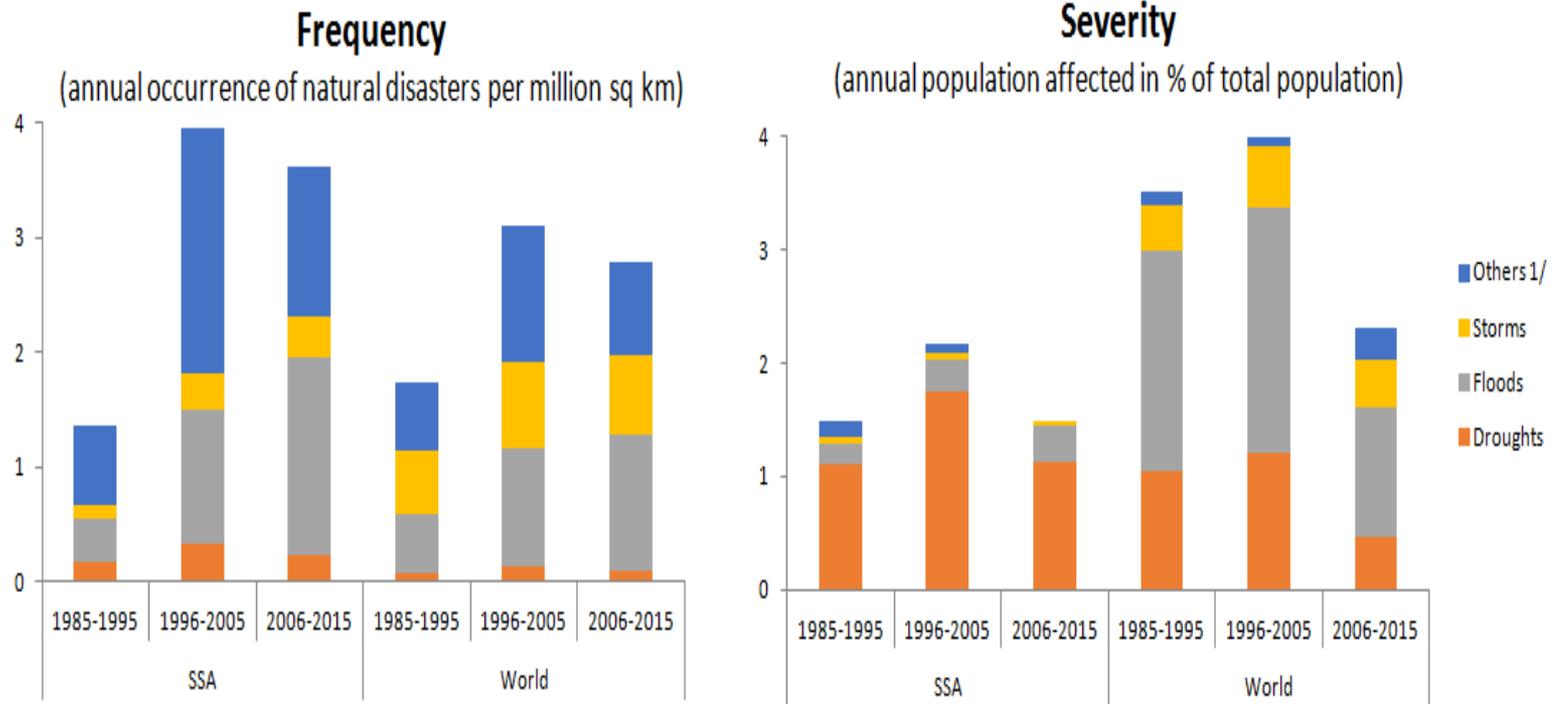
**Hedging instruments**

- Pacific Catastrophe Risk Insurance Pilot
- Ex ante pooling of global resources
- Indexed insurance

**IMF financial support-RCF, RFI, SCF, ECF**

• Other bilateral and multilateral support

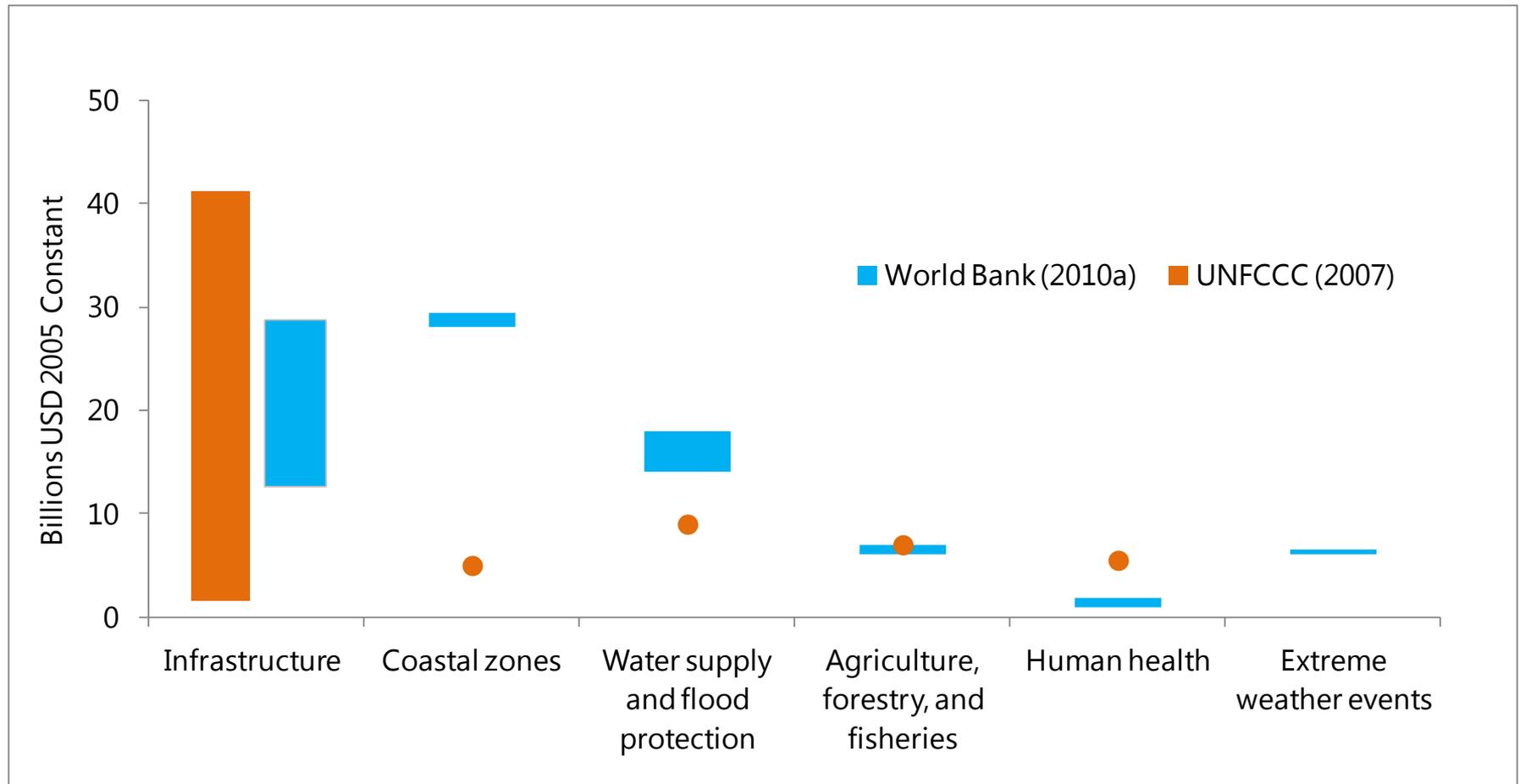
# Other slides



1/ Other natural disasters include animal accident, earthquake, epidemic, extreme temperature, insect infestation, landslide, mass movement (dry), volcanic activity, and wildfire.

Source: EM-DAT database, WDI, and WEO.

# Estimates of Adaptation Costs for Developing Countries



Note:

Base represent range estimates

Dots represent point estimates

Sources: UNFCCC (2007), World Bank (2012)

## Relative Risk of Emerging Infectious Disease, Zoonotic Pathogens from Wildlife



# Concluding: Role of the Fund

- Promoting policy dialogue
  - Fiscal policy expertise
  - Engagement with finance ministries
  - Analytical work offers actionable policy guidance on carbon pricing and broader energy price reform
  - Integrating into surveillance where macro critical
    - ✓ operationalizing initiative