

A scenic view of the Chicago skyline at dusk, featuring prominent skyscrapers like the Willis Tower. The city is reflected in the calm waters of Lake Michigan. In the foreground, a rowing team is captured in motion on the water, leaving a white wake. Two hot air balloons are visible in the clear blue sky above the city.

Managing risk to unlock growth
and prosperity

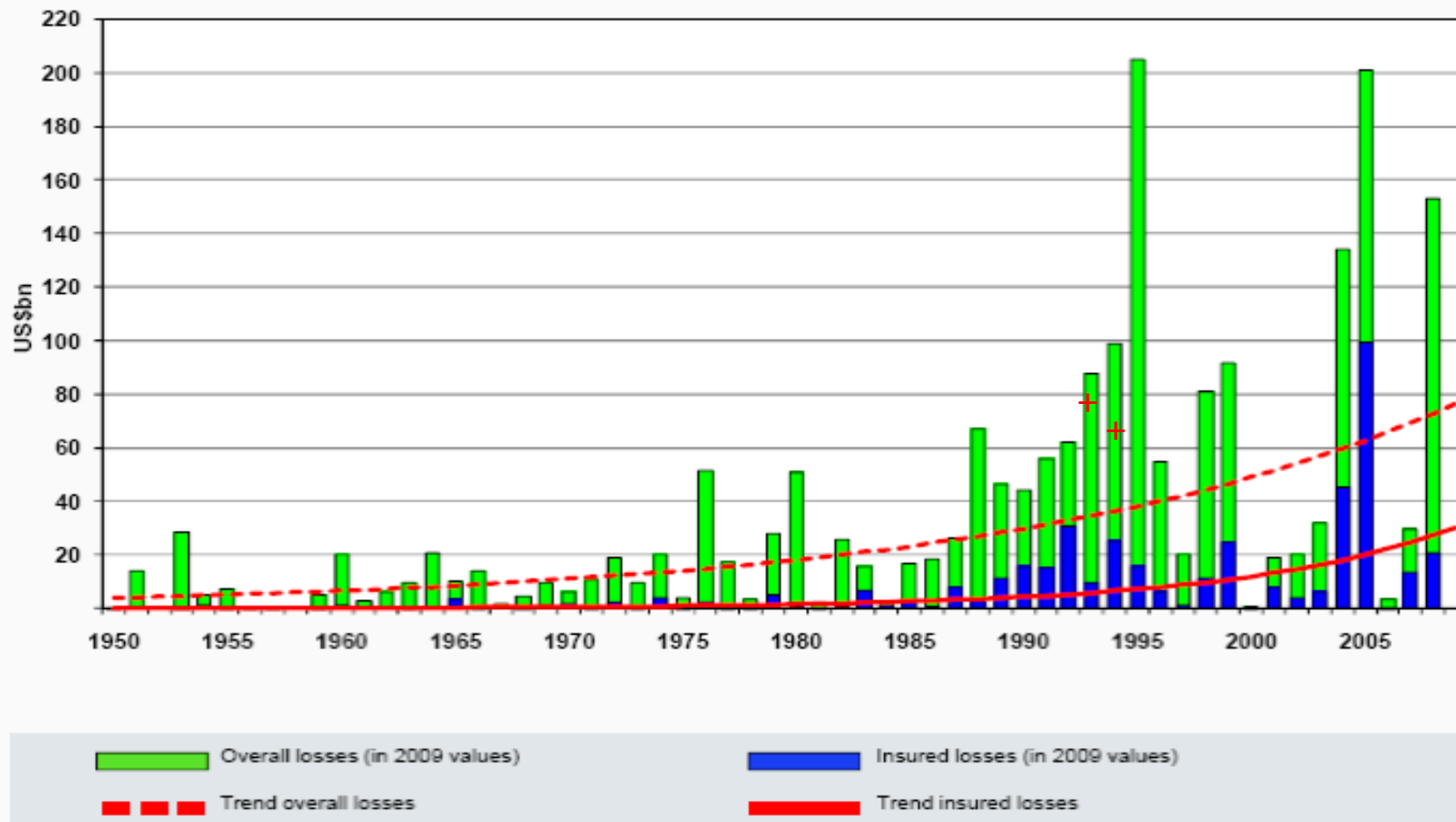
Are we looking in the right direction? Losses from natural disasters are increasing, but we may be missing the big story?

NatCatSERVICE

Great natural catastrophes 1950 – 2009

Overall and insured losses with trend

Munich RE 



Mismanagement of risk leads not only to losses, but also to missed opportunities

Figure 2: The Triple Dividend of Resilience

Investing in resilience reduces losses and damages in the case of a disaster. However, it can also yield development benefits regardless of disasters. Typically, standard disaster risk management investment appraisals fail to account for the 2nd and 3rd Dividends of Resilience.



*e.g. Rising land prices due to land use restrictions may harm poor

2nd dividend: risk management
promotes growth and
development

Households in developing countries face many shocks, often simultaneously

Shocks	Afghanistan		India	LaoPDR		Malawi		Peru		Uganda	
	U	R	R	U	R	U	R	U	R	U	R
One or more	16.4	48.9	61.6	34.4	72.1	40.0	66.8	20.7	34.4	29.7	56.2
Two or more	8.7	39.2	23.4	11.9	36.1	12.7	40.4	1.4	1.9	5.6	15.6
Natural disasters (drought, flood)	10.6	42.2	57.3	5.6	36.0	10.4	47.2	2.6	21.5	19.9	52.1
Price shocks	0.2	3.0	—	4.4	4.9	21.1	42.0	—	—	1.7	3.2
Employment shocks	6.4	4.3	—	9.3	3.1	7.7	3.4	6.4	1.5	1.9	0.7
Health shocks (death, illness)	6.9	14.0	30.2	23.2	33.8	10.1	18.0	9.1	8.9	11.8	14.9
Personal and property crime	1.8	6.6	0.9	5.8	1.9	8.5	8.4	3.2	3.1	6.6	8.7
Family and legal disputes	—	—	1.9	0.0	0.9	1.7	4.3	0.7	0.3	—	—

Source: World Development Report 2014

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Source: World Development Report 2014

Risk is costly even before the disaster hits



3nd dividend: some co-benefits
are not linked to risk
management



Mismanagement of risk leads not only to losses, but also to missed opportunities...

... so risk management is growth policy



THE TRIPLE DIVIDEND OF RESILIENCE

Realising development goals through the multiple benefits of disaster risk management

Background

Households in developing countries face many shocks, often simultaneously

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Risk is costly before the disaster hits

The ex ante cost of risk

If assets can be wiped out and there is no tool to manage bad outcomes, the incentive to invest is reduced:

- Selection of low-risk, low-return activities
- Less investment in good housing, efficient equipment, livestock, etc.
- Slower asset accumulation and poverty



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The “background” risk

Evidence that individuals subject to one risk will be less risk-taking in other domains

- Less shift to new technology
- Less entrepreneurship
- Less innovation and investment in firms



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Risk is costly before the disaster hits

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The cognitive tax

Evidence that individuals who are under stress are less capable of performing cognitive tasks

- Lower productivity
- Bad choices

Risk is costly before the disaster hits

Survey in flood zones in Mumbai

Stress due to...	Frequency	% of total	Average rank
<i>Hectic life</i>	152	76	1
<i>Housing condition</i>	79	40	2
<i>Lack of opportunities</i>	68	34	3
<i>Congestion</i>	125	63	3
<i>Transportation</i>	108	54	3
<i>Floods</i>	142	71	3
<i>Air pollution</i>	120	60	5
<i>No social networks</i>	19	10	5
<i>Monetary issues</i>	52	26	3

Source: Archana Patankar.

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Policies to improve risk management and promote “good” risk-taking include...

- **Prevention ex ante to reduce the level of risk**
 - Hard and ecosystem-based protection
 - Land-use planning
 - Improved building norms
 - Resilient infrastructure
- **Providing more opportunities in safe locations**
 - Transport infrastructure
 - Appropriate public transit price structure
 - Public services (schools, hospitals) in safe areas



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- **Helping individuals and firms cope with bad outcomes:**
 - Early warning and evacuation plans
 - Financial inclusion – access to saving and borrowing
 - Scalable social protection with appropriate targeting
 - Access to insurance at reasonable prices
 - Free basic services (health, education, etc.)
- **Helping people make the right decision**
 - Hazard and risk information provided in usable forms (accounting for cognitive capacity and numeracy)

From DRM measures to development opportunities

1. Understand the development goals

- What are the contextual development goals set by a certain country, city, locality or village?
- What are the threats to, and drivers of, development?
- What DRM measures are proposed and how do they relate to these goals, threats and drivers?
- Who are main beneficiaries? To what extent are individuals, groups, sectors or activities better protected because of DRM?

2. Stress test the measures under different possible climate futures and the principles of avoiding locking-in development paths that are, or may become, unsustainable under climate change.