Disastrous Adaptation

Climate Change Adaptation, Disaster Risk Reduction, & Financing

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ADAPTATION

- IPCCC: “The process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects..”
  - IPCC AR5 Chapter: “Impacts, Adaptation, and Vulnerability”

- legal literature: efforts “designed to increase the resilience of natural and human ecosystems to the threats posed by a changing environment.” Glicksman (2010)

- *Adaptation includes all of the efforts undertaken at multiple levels of governance to prepare for climate change, whether the intent is to maximize advantages or minimize disadvantages associated with climate change*.

No Longer Second Fiddle to Mitigation

CLIMATE FINANCE

- Poorly Managed & Inadequate Levels
- Multiple Financing Institutions:
  - GEF
  - Adaptation Fund
  - Least Developed Country Fund
  - Green Climate Fund
    - Bottom Line….

NEED FOR NEW AND ADDITIONAL INTERNATIONAL CLIMATE ADAPTATION FINANCING

But…

ADAPTATION PLANNING & FINANCING MUST BE LINKED TO DISASTER RISK REDUCTION

DISASTER RISK REDUCTION

- Disaster risk reduction is the concept and practice of reducing disaster risks through systematic efforts to analyze and reduce the causal factors of disasters. Reducing exposure to hazards, lessening vulnerability of people and property, wise management of land and the environment, and improving preparedness and early warning for adverse events are all examples of disaster risk reduction. (UNISDR)

UNISDR
The United Nations Office for Disaster Risk Reduction

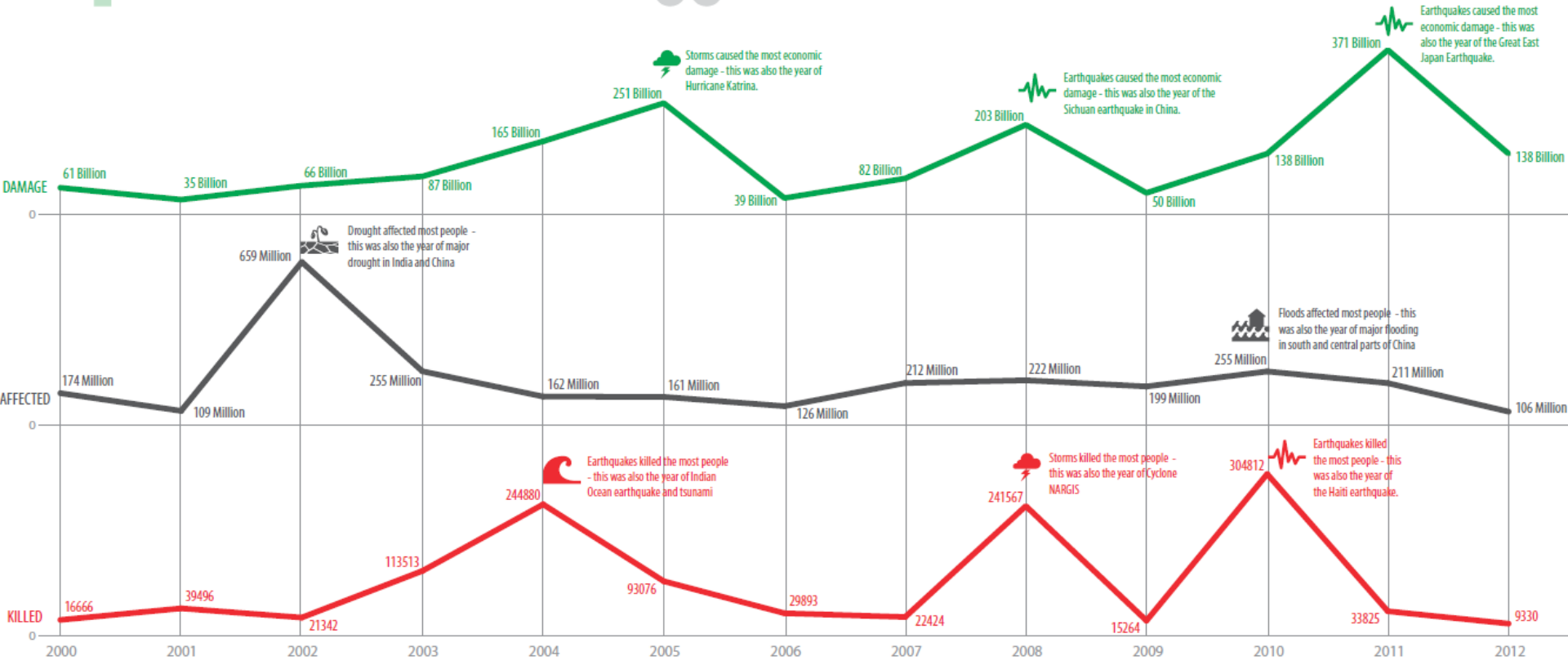
DISASTER IMPACTS / 2000-2012

*Disasters refers to drought, earthquake (seismic activity), epidemic, extreme temperature, flood, insect infestation, mass movement (dry & wet), storm, volcano, and wildfire / Data source: EM-DAT: The OFDA/CRED International Disaster Database / Data version: 12 March 2013 - v12.07
OCHA Humanitarian Symbol (2012): http://reliefweb.int/map/world/world-humanitarian-and-country-icons-2012 / **Find out more about UNISDR: http://www.unisdr.org**

$1.7 TRILLION DAMAGE (USD)

2.9 BILLION AFFECTED

1.2 MILLION KILLED



DISASTERS & CLIMATE CHANGE

- Climate change exacerbates disaster risks & puts additional stress on disaster response systems

- "Extreme events such as floods and drought cause extensive damage to many parts of society, and thus a critical issue for adaptation is the degree to which frequency, intensity, and persistence of extreme events change"

(Easterling III, Hured and Smith, 2004).

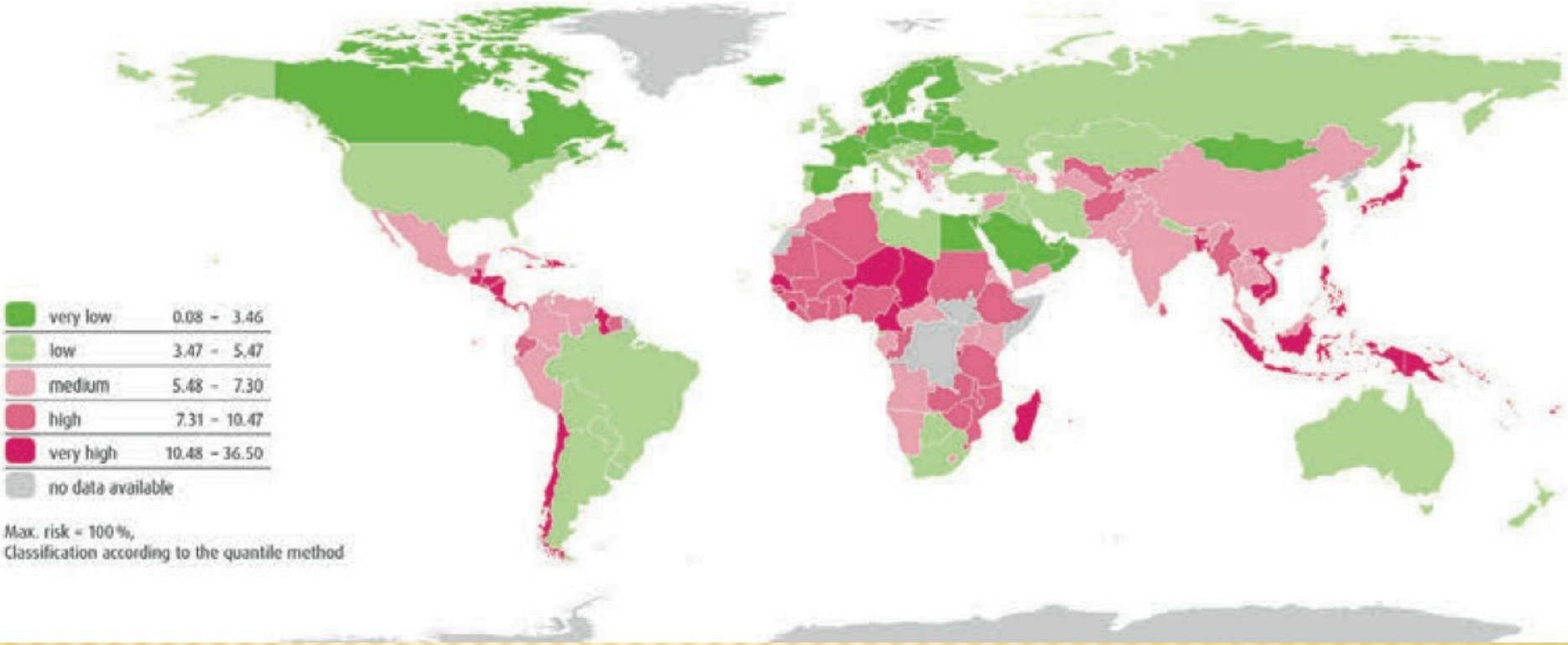
- Existing system for disaster mitigation & response already stressed
- Climate change exacerbates stress
- Need for better understanding of intersection between climate change and disaster
- Need for better understanding of levels of risk and vulnerability at the intersection of climate change and disaster

"THE MORE GOVERNMENTS, UN AGENCIES, ORGANIZATIONS, BUSINESSES AND CIVIL SOCIETY UNDERSTAND RISK AND VULNERABILITY, THE BETTER EQUIPPED THEY WILL BE TO MITIGATE DISASTERS WHEN THEY STRIKE AND SAVE MORE LIVES" BAN-KI MOON

Map C

WorldRiskIndex

WorldRiskIndex as the result of exposure and vulnerability



WorldRiskIndex overview

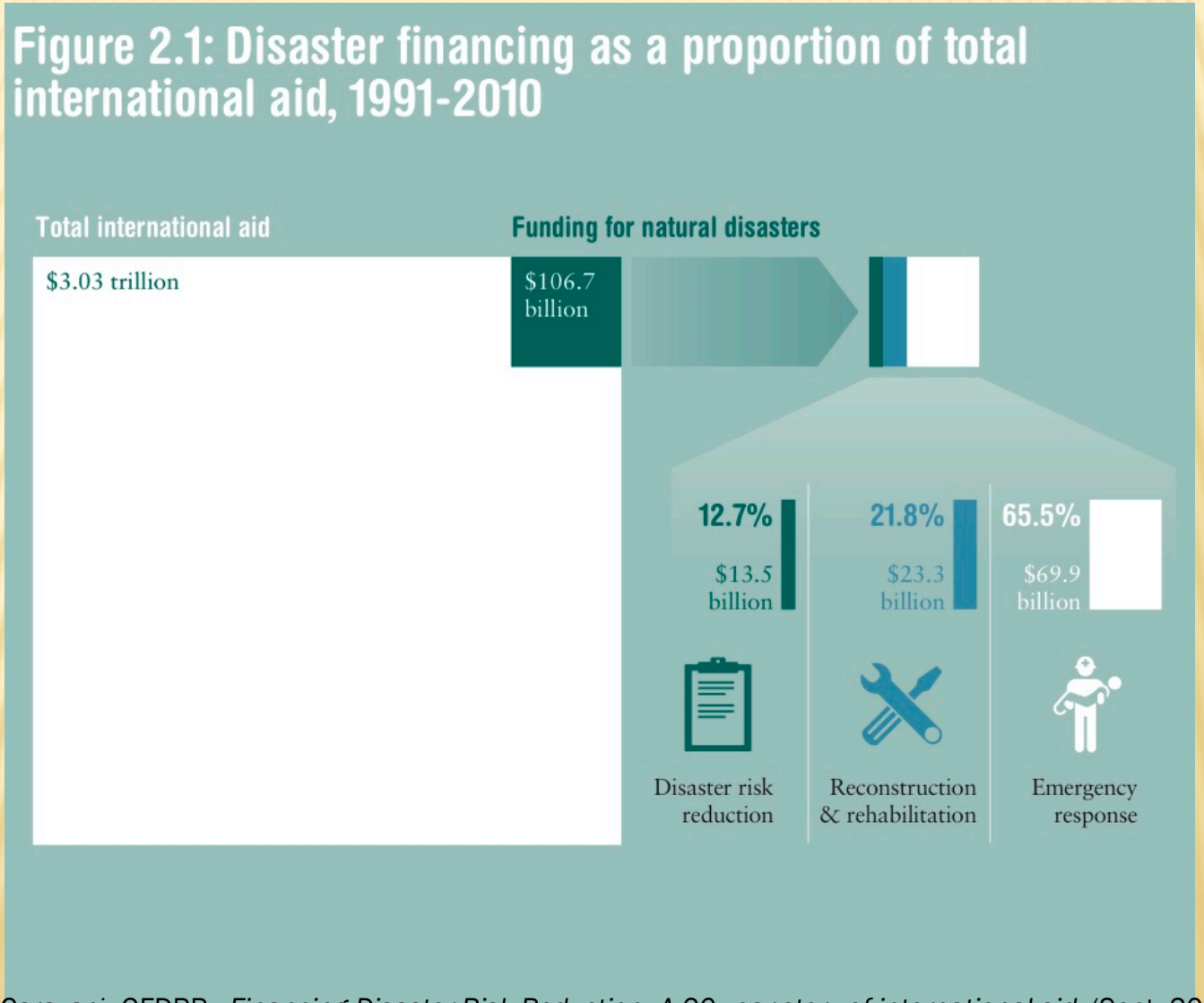
Rank	Country	WorldRiskIndex	Exposition	Vulnerability	Susceptibility	Lack of coping capacities	Lack of adaptive capacities
1.	Vanuatu	36.50 %	63.66 %	57.34 %	36.40 %	81.16 %	54.45 %
2.	Philippines	28.25 %	52.46 %	53.85 %	33.35 %	80.03 %	48.17 %
3.	Tonga	28.23 %	55.27 %	51.08 %	29.15 %	81.80 %	42.28 %
4.	Guatemala	20.68 %	36.30 %	56.98 %	37.92 %	80.84 %	52.19 %
5.	Bangladesh	19.37 %	31.70 %	61.10 %	40.28 %	86.05 %	56.96 %
6.	Solomon Islands	19.18 %	29.98 %	63.98 %	45.37 %	85.44 %	61.12 %
7.	Costa Rica	17.33 %	42.61 %	40.68 %	22.98 %	64.61 %	34.46 %
8.	El Salvador	17.12 %	32.60 %	52.52 %	32.10 %	75.35 %	50.13 %
9.	Cambodia	17.12 %	27.65 %	61.90 %	41.99 %	86.96 %	56.74 %
10.	Papua New Guinea	16.74 %	24.94 %	67.15 %	56.06 %	84.22 %	61.16 %
11.	Timor-Leste	16.41 %	25.73 %	63.76 %	54.16 %	81.10 %	56.02 %
12.	Brunei Darussalam	16.23 %	41.10 %	39.48 %	17.97 %	63.08 %	37.40 %
13.	Nicaragua	14.87 %	27.23 %	54.63 %	37.79 %	81.70 %	44.41 %
14.	Mauritius	14.78 %	37.35 %	39.56 %	18.94 %	61.68 %	38.07 %
15.	Guinea-Bissau	13.75 %	19.65 %	69.94 %	53.21 %	89.71 %	66.90 %
16.	Fiji	13.65 %	27.71 %	49.28 %	25.33 %	75.43 %	47.08 %
17.	Japan	13.38 %	45.91 %	29.14 %	17.55 %	38.28 %	31.58 %
18.	Viet Nam	13.09 %	25.35 %	51.64 %	27.98 %	76.87 %	50.05 %
19.	Gambia	12.23 %	19.29 %	63.39 %	46.54 %	83.19 %	60.45 %
20.	Jamaica	12.20 %	25.82 %	47.27 %	27.07 %	72.17 %	42.57 %
21.	Haiti	12.00 %	16.26 %	73.79 %	62.24 %	91.04 %	68.08 %
22.	Guyana	11.81 %	22.90 %	51.56 %	29.02 %	79.47 %	46.18 %
23.	Dominican Republic	11.50 %	23.14 %	49.69 %	29.75 %	74.44 %	44.89 %
24.	Niger	11.45 %	15.87 %	72.12 %	61.03 %	86.79 %	68.54 %
25.	Benin	11.42 %	17.06 %	66.89 %	52.91 %	82.07 %	65.71 %

WorldRiskReport 2014, UN Institute for Environment and Human Security (2014) at 40, *available at* https://www.ehs.unu.edu/article/read/world-risk-report-2014

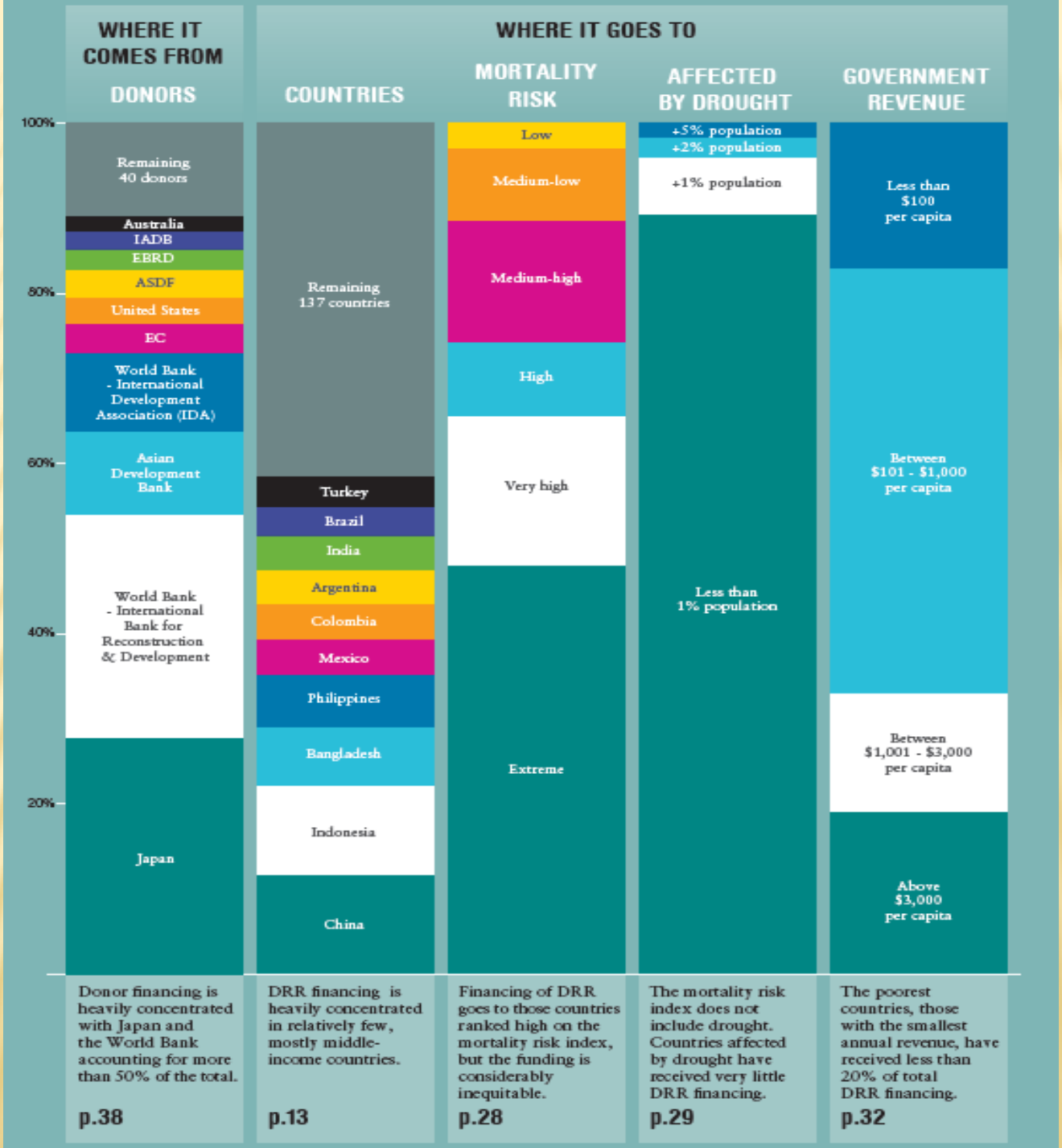
Moving forward with caution

HISTORICAL CHALLENGES & INEQUITIES IN DISASTER RISK REDUCTION FINANCING

"ALTHOUGH $13.5 BILLION OF FINANCING HAS BEEN MADE AVAILABLE, IT IS A FRACTION OF OVERALL AID, LESS THAN 40 CENTS IN EVERY $100"



Jan Kellett and Alice Caravani, GFDRR, *Financing Disaster Risk Reduction: A 20-year story of international aid*, (Sept. 2013) at 5, *available at http://www.odi.org/publications/7452-climate-finance-disaster-risk-reduction.*



Donor financing is heavily concentrated with Japan and the World Bank accounting for more than 50% of the total.

p.38

DRR financing is heavily concentrated in relatively few, mostly middle-income countries.

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Financing of DRR goes to those countries ranked high on the mortality risk index, but the funding is considerably inequitable.

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The mortality risk index does not include drought. Countries affected by drought have received very little DRR financing.

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The poorest countries, those with the smallest annual revenue, have received less than 20% of total DRR financing.

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Figure 15

Number of disasters per income group (1994-2013)

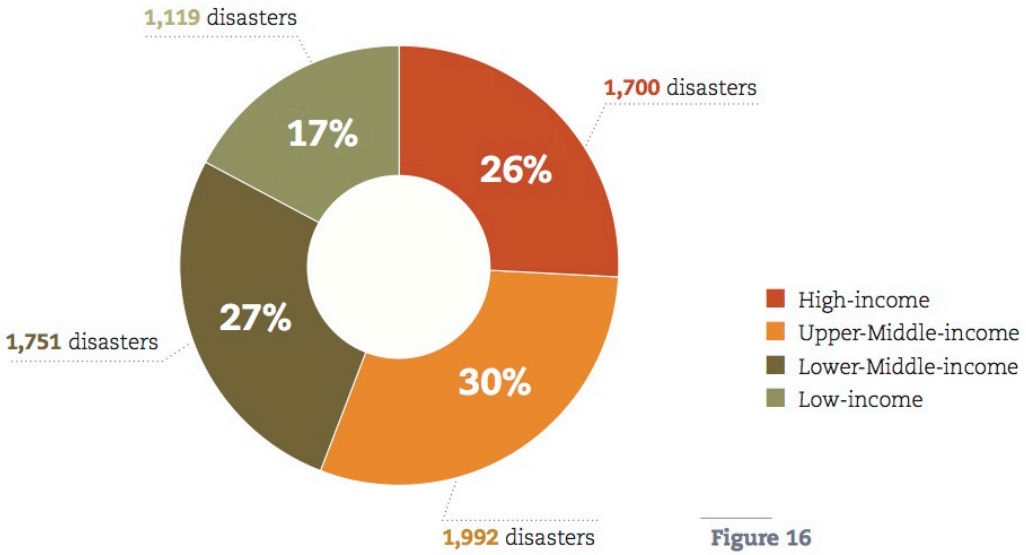
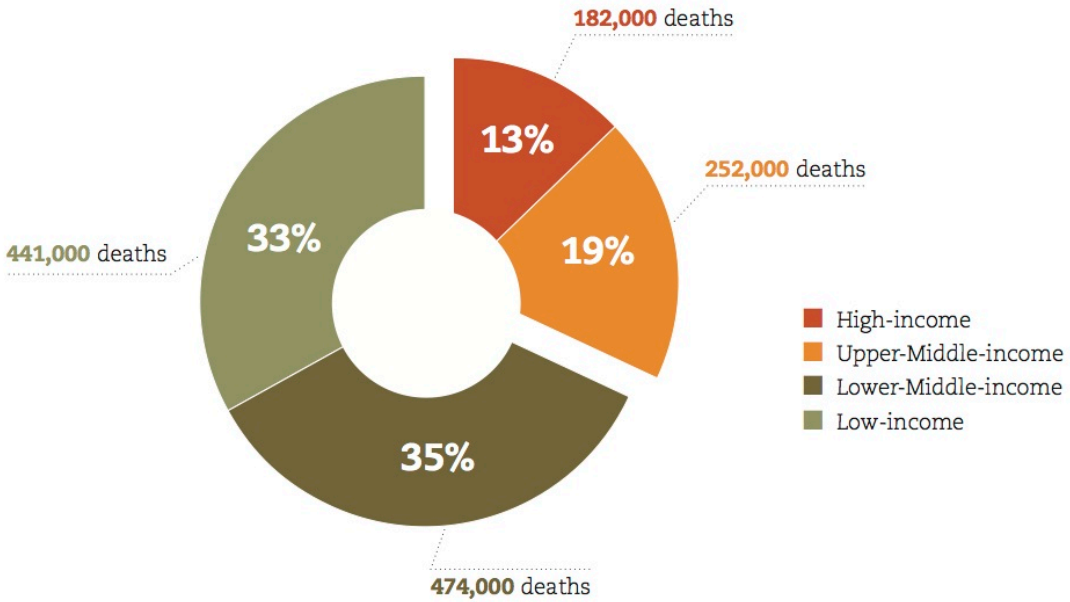


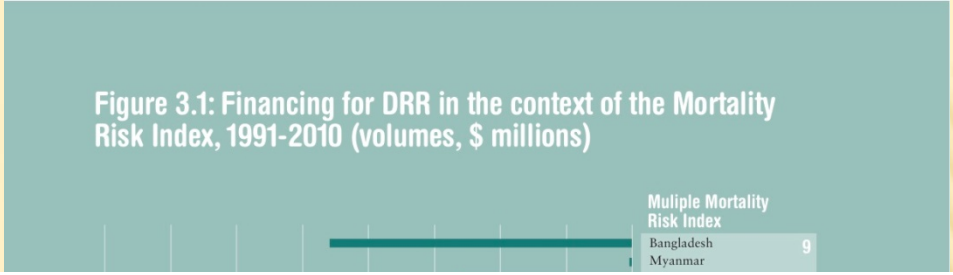
Figure 16

Number of deaths per income group (1994-2013)



The Human Cost of Natural Disasters: A Global Perspective, Centre for Research on the Epidemiology of Disasters, (2015)

- "There is no general trend towards funding of



The evidence from analysis of DRR financing over the past 20 years paints at best a bleak picture.

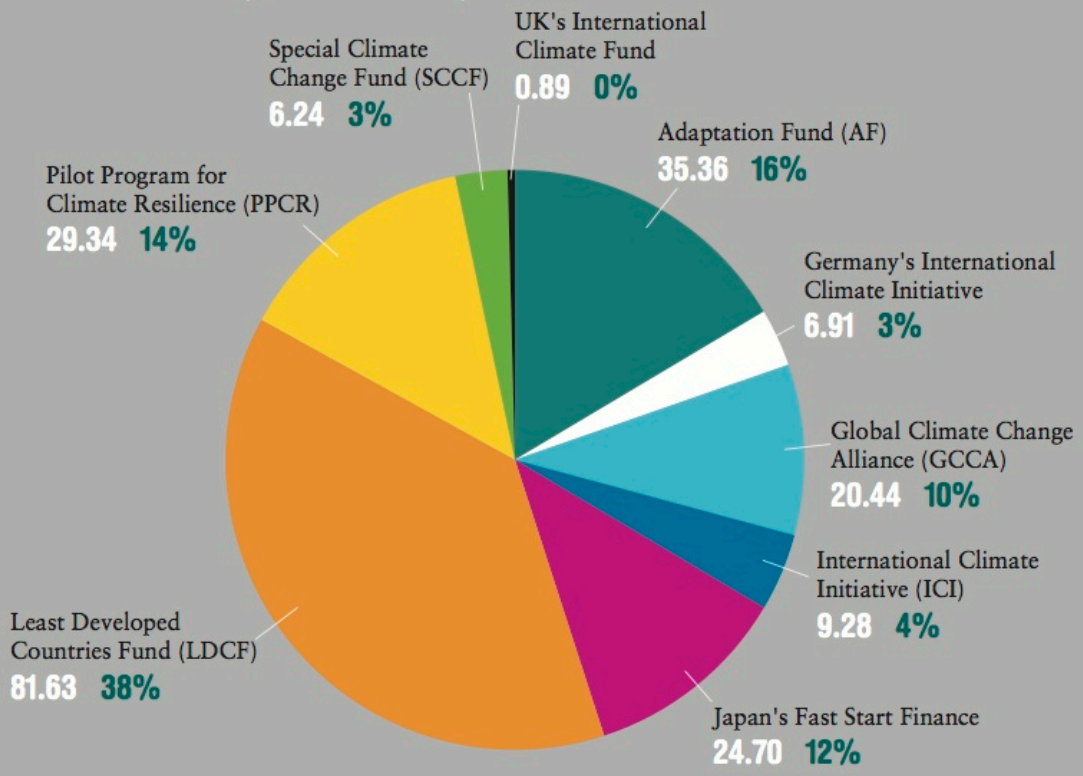
Overall volumes spent on disasters are a fraction of development aid, and within that the amount committed to reduce the risk of disasters is an even smaller proportion. Financing is heavily concentrated in a relatively small number of projects and in relatively few countries, with most recipients being middle-income countries. The overall volumes mask the very low amounts for the reduction of disaster risk in many vulnerable countries, especially those affected by drought, many of which are in sub-Saharan Africa. Many of these countries – some of which do not even make it into the top 50 recipients for DRR – see massive amounts on emergency response and reconstruction, but negligible amounts when it comes to reduction.

DROUGHT COMPOUNDS INEQUITIES…

MOVING FORWARD

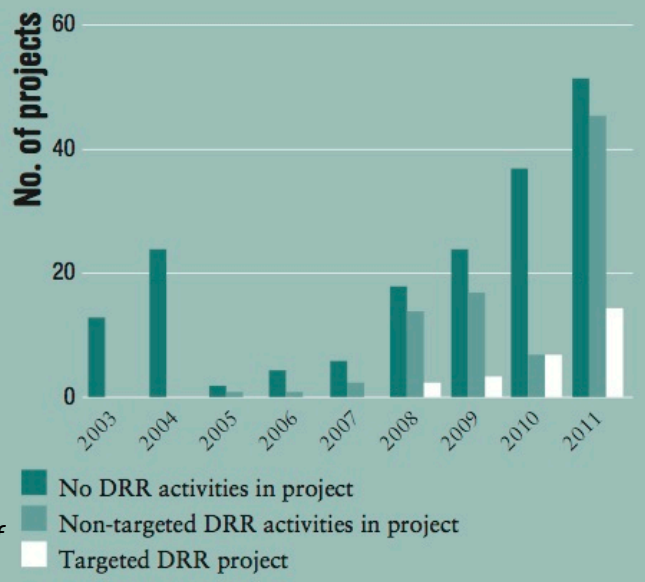
- Climate adaptation programs and financing on upswing
- Increasing calls for the adoption of DRR tools by Climate Adaptation programs and institutions (and vice versa).
- New adaptation efforts likely to rely heavily on the personnel and institutional knowledge present in existing Disaster & DRR programs.

Figure 2.19: Donors of adaptation financing targeted towards DRR, 2003-2011 ($ millions)



since 2010 the reduction of disaster risk has been recognised as part of the Cancun Adaptation Framework, with a focus on overcoming institutional barriers within countries.

Figure 2.17: Numbers of adaptation projects targeting DRR



Jan Kellett and Alice Caravani, GFDRR, *Financing Disaster Risk Reduction: A 20-year story of international aid*, (Sept. 2013) at 18, *available at http://www.odi.org/publications/7452-climate-finance-disaster-risk-reduction.*

CRITICAL JUNCTURE

suggests a much more even spread of financing to DRR from adaptation funding than from overall development aid; it could well be that this is in part because adaptation financing is largely driven by global funding sources (such as the many adaptation funds – LDCF, AF, PPCR, etc.). Evidence is hard to pin down from the data, but this 'global' prioritisation would appear to be quite different from what appears to be country-level demand-driven financing of DRR.

RELATED QUESTIONS

- …availability of data
- …conditionality of funding (what should be funded? who should decide? modes of oversight?)
- …definitions of disaster (sudden vs. slow onset)
- …availability of adaptation funding
- …institutional fragmentation (GEF, GCF, LDCF, AF)
- …consistency and communication of vulnerability and risk assessments


“Ours is the first generation that can end poverty, and the last that can take steps to avoid the worst impacts of climate change.”
- UN Secretary General Ban Ki-moon