

Assessing Root Causes

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**What do we
mean when we
say a *disaster*
has
happened?**

These
are what
we mean:

Disaster

Death

Injury

Illness

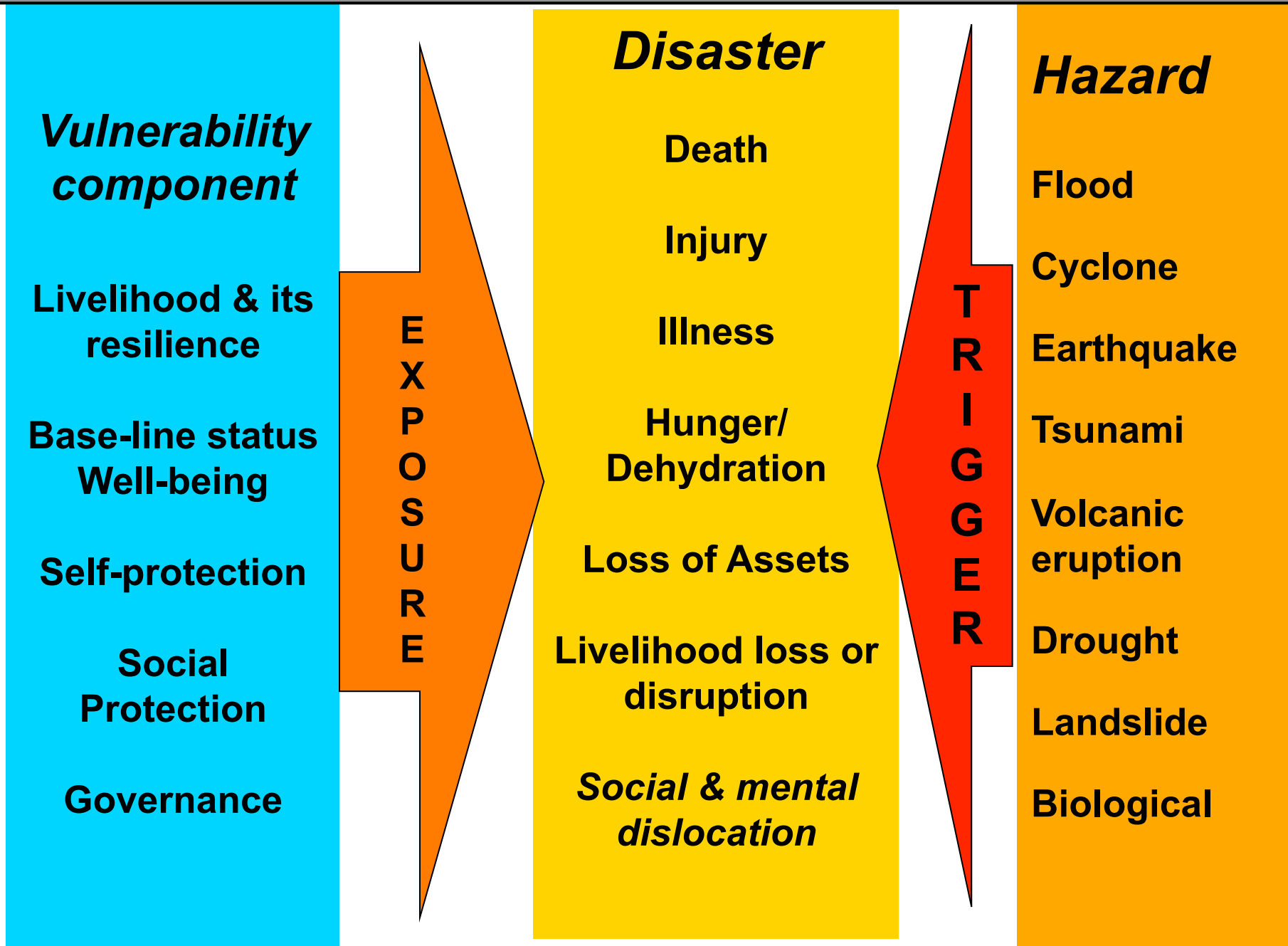
Hunger/ Dehydration

Loss of Assets

**Livelihood loss or
disruption**

***Social & mental
dislocation***

“Crunch” Pressure and Release (PAR) model



Vulnerability spectrum – different for each hazard

Capacity / “Resilient”

Vulnerable



Governance - power



Social protection



Self-protection



Baseline

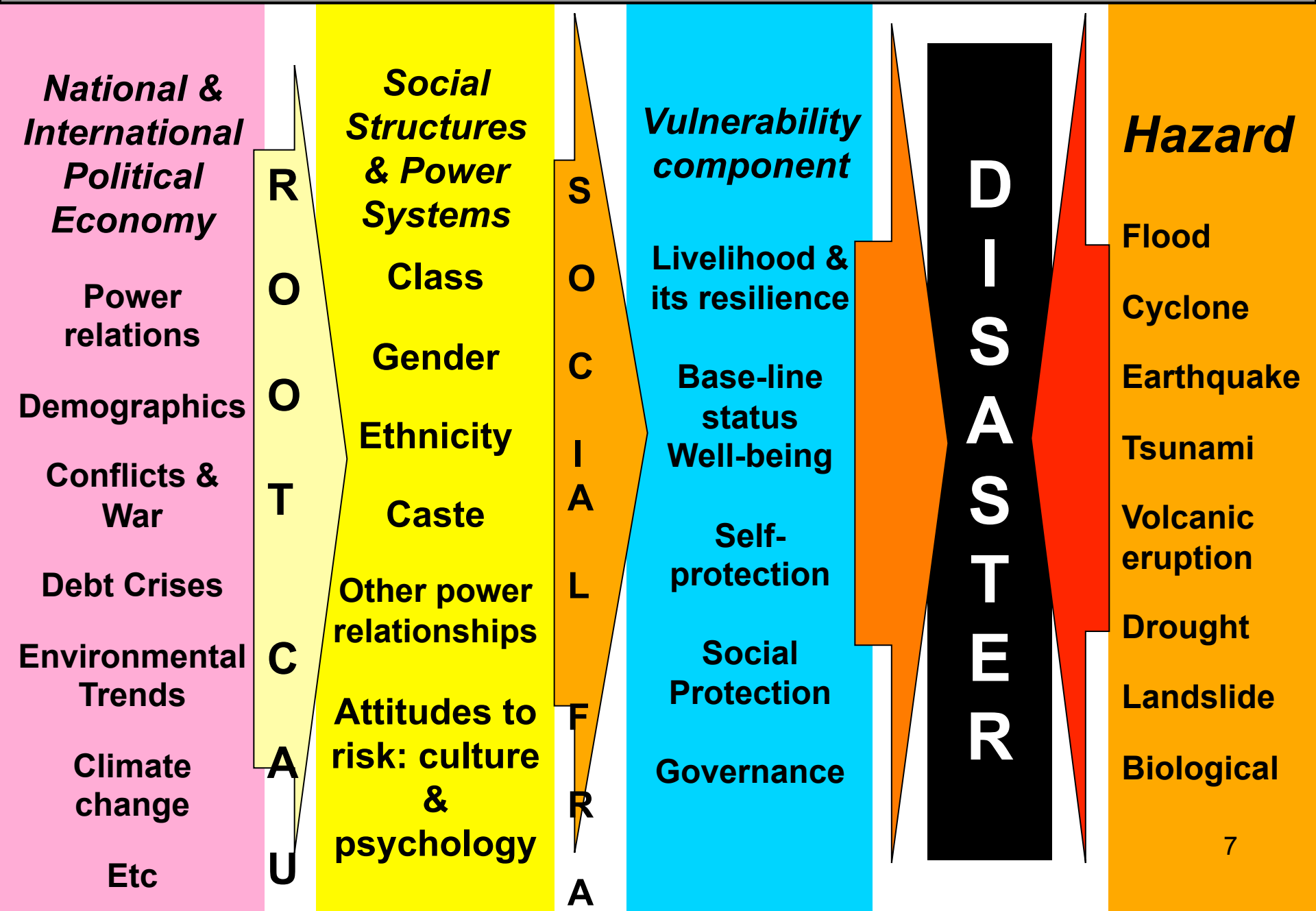


Livelihood

Vulnerability components	Sub-components	Main determinants	Measures & tools
1 Livelihood & its resilience	<ul style="list-style-type: none"> • Financial assets • Physical assets • Human capital • Natural capital • Resilience of linkages between people & their employment • Resilience of linkages between people's assets and income 	<ul style="list-style-type: none"> • Amount & quality of assets owned or accessible • Liability of assets to damage or loss by a given hazard • Dependence on employment or other income-generating opportunities 	<ul style="list-style-type: none"> • Household surveys of assets • Develop historical profile of impact of disasters on employment, assets, productive and self-providing activities; use as baseline to compare with future disasters
2 Initial well-being	<ul style="list-style-type: none"> • Nutritional status • Physical health • Mental health • Security • Identity – including with geographical location 	<ul style="list-style-type: none"> • Livelihood strength & resilience • Security and freedom from other stresses 	<ul style="list-style-type: none"> • Nutrition surveys • Physical health • Mental health • Security- subjective surveys of people's perceptions or objectively through reported number of incidents • Identity – subjective survey; note- a key determinant in motivation for Self protection
3 Self-protection	<ul style="list-style-type: none"> • Safely built houses • Safely located houses 	<ul style="list-style-type: none"> • Adequate income, which is the result of adequate livelihood • Access to relevant materials, technical knowledge and construction skills • Motivation to take necessary steps 	<ul style="list-style-type: none"> • Safe houses- observation against established standards for building techniques & materials related to local hazards • Safe location – against local risk map, probably developed with community • Motivation- through simple questions, e.g. “if gave \$1000 what would you spend it on?”

Vulnerability components	Sub-components	Main determinants	Measures & tools
4 Social protection	<ul style="list-style-type: none"> • Disaster-resistant social infrastructure: includes knowledge, information, access to productive resources, marketing and social networks • Collective interest community institutions • Disaster-resistant physical infrastructure: including schools, health structures, government offices, workplaces, water structures, bridges & roads • Community response plan for major disasters: including EW, evacuation & life-saving 	<ul style="list-style-type: none"> • Adequate revenues (for local government and community institutions) • Political will and motivation (e.g. to implement building codes, mitigation measures, to protect schools and infrastructure etc.) • Availability of relevant technical knowledge and ability to implement 	<ul style="list-style-type: none"> • Key infrastructure built in line with established building codes • Social infrastructure.... survey of KAP towards disaster risks...? • Venn diagram before and after programme? • Existence of plan, knowledge of key life-saving measures, simulations undertaken involving high % of community,..?
5 Governance	<ul style="list-style-type: none"> • Social capital of people • Political capital of people • Degree of openness of political processes in the country • Inter-group discrimination • Level of gender inequality and women's rights • Networks and institutions and their capacity to operate freely • Degree of freedom of press 	<ul style="list-style-type: none"> • Degree of democratic and press freedom and transparency • Rights of minorities and women • Level of inter-group rivalry and discrimination • Rights of organisation of NGOs and CBOs 	<ul style="list-style-type: none"> • Institutional analysis • Venn Diagram – distance and strength of stakeholders as perceived by community/households • Stakeholder analysis • Corruption index • Human rights index • Analysis of press, elections, • NGO & CBO activities and freedom to operate

“Crunch” Pressure and Release (PAR) model





2014

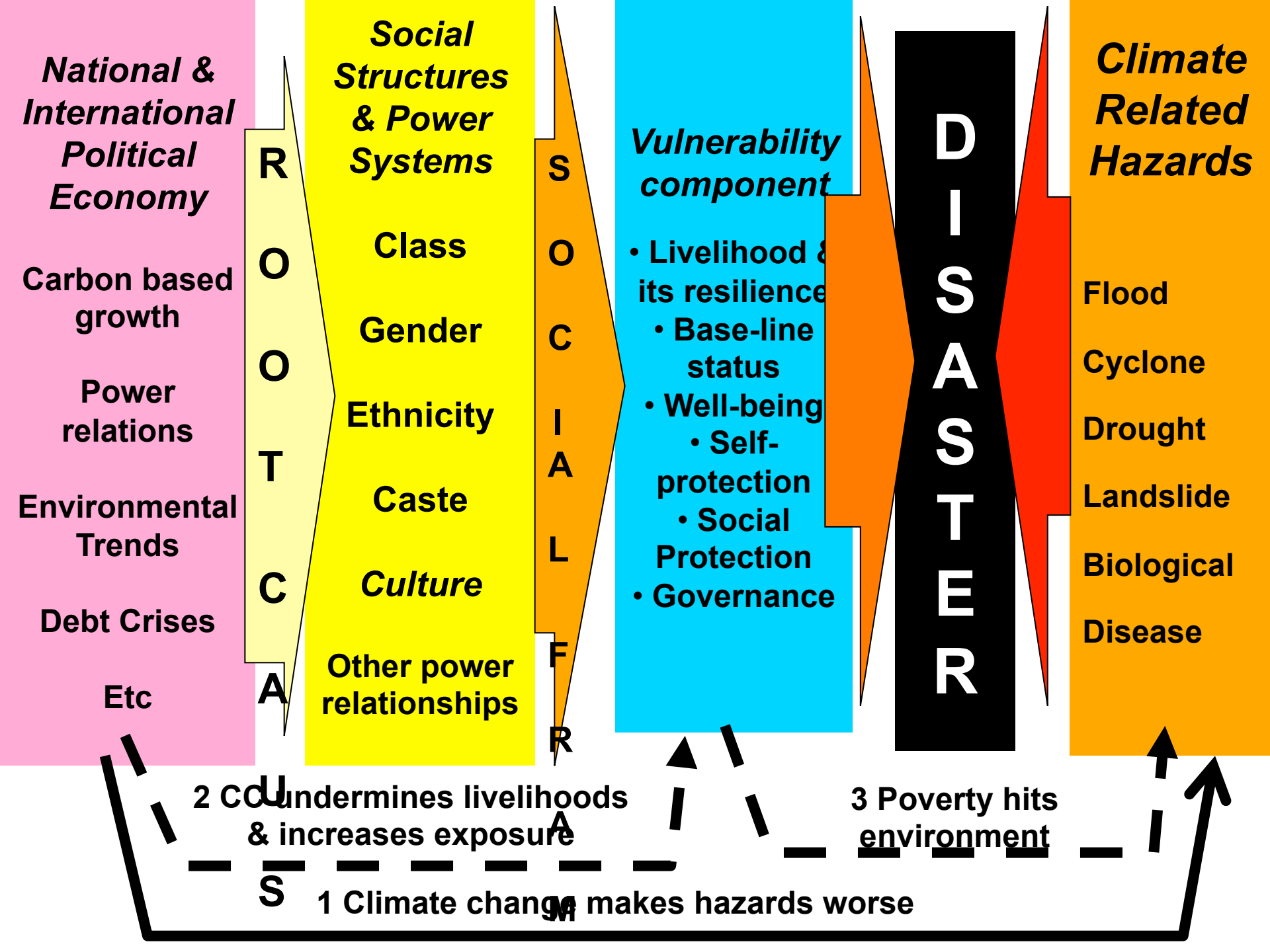
World Disasters Report

Focus on culture and risk

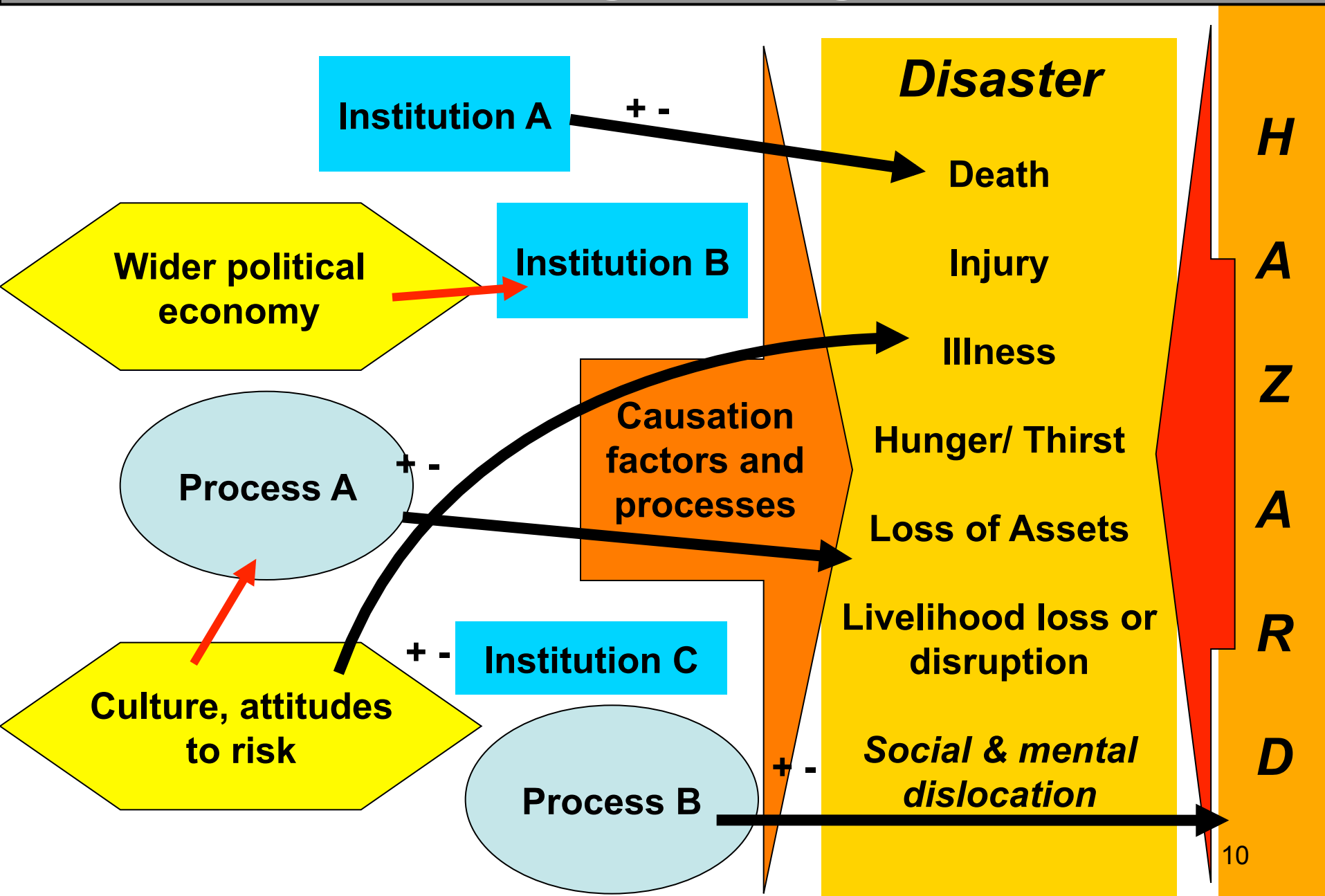
www.ifrc.org
Saving lives, changing minds.

 International Federation
of Red Cross and Red Crescent Societies

<http://www.ifrc.org/world-disasters-report-2014>



Reverse engineering model



Disaster preparedness	Hazard mitigation (with climate adaptation)		Vulnerability reduction (climate smart), development	Preparedness for response
Hazard Impacts	1 “Hard”	2 “Soft”	3 Gender, health, education, rights, organization	4
A Death	A1	A2	A3	A4
B Injury	B1	B2	B3	B4
C Illness	C1	C2	C3	C4
D Hunger/ water	D1	D2	D3	D4
E Loss of assets	E1	E2	E3	E4
F Livelihood loss or disruption	F1	F2	F3	F4
G Social and mental dislocation	G1	G2	G3	G4



2013

Reverse Engineering: 2009 Cyclone AILA



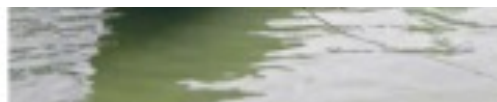
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The document is prepared by AIDMI to support the research study on Reverse Engineering: Case of Aila cyclone (2009) under the project on Setting Climate Smart for Disasters in partnership with ICSD and IDS with support of START – CDKN. The document is prepared in line of questions of FORIN methodology.



Cyclone impacts

- Mortality has been reduced significantly (also in India)
 - 1970 Bhola 500,000?
 - 1991 Cyclone 140,000
 - 2007 Sidr 10,000?
 - 2009 Aila 10,000?
- Warnings
- Evacuations (volunteers)
- Polders/ sea walls (since 1960s, plus recent increase in investment)
- Cyclone shelters (communal: govt. + Red Crescent)
- Household *killas* (self-built or NGO)

Key issue: protect assets & livelihoods

- Cyclones damage homes, crops, fields, livestock, assets, bring illness, hardship
- Sea water incursions with the surge render the farmland too salty for crops for several years
- People are therefore displaced: typically they live on roads, other elevated areas, move to towns and cities (some to Dhaka), or in relief camps
- There is no other farmland for them to go to

Research approach

- What happened to livelihoods of cyclone victims after 2009 (and 2007?)
- Is it possible to protect existing assets and livelihoods of vulnerable people from cyclones?
- Have existing LH diversification approaches been successful?
- Is it possible to introduce more non-farm livelihoods?
- What can be done to 'bypass' existing power relations, especially land tenure?

The 1:100:1000 “cure to damage” ratio for climate change

The amount being spent (public funds only) that increases the problem of climate change is currently a thousand times greater than the funds available to help overcome the problems (adaptation)

- **\$1 billion**

current estimate of what is available annually for public funding of climate change support to developing countries for adaptation (for mitigation estimate about \$10 billion)

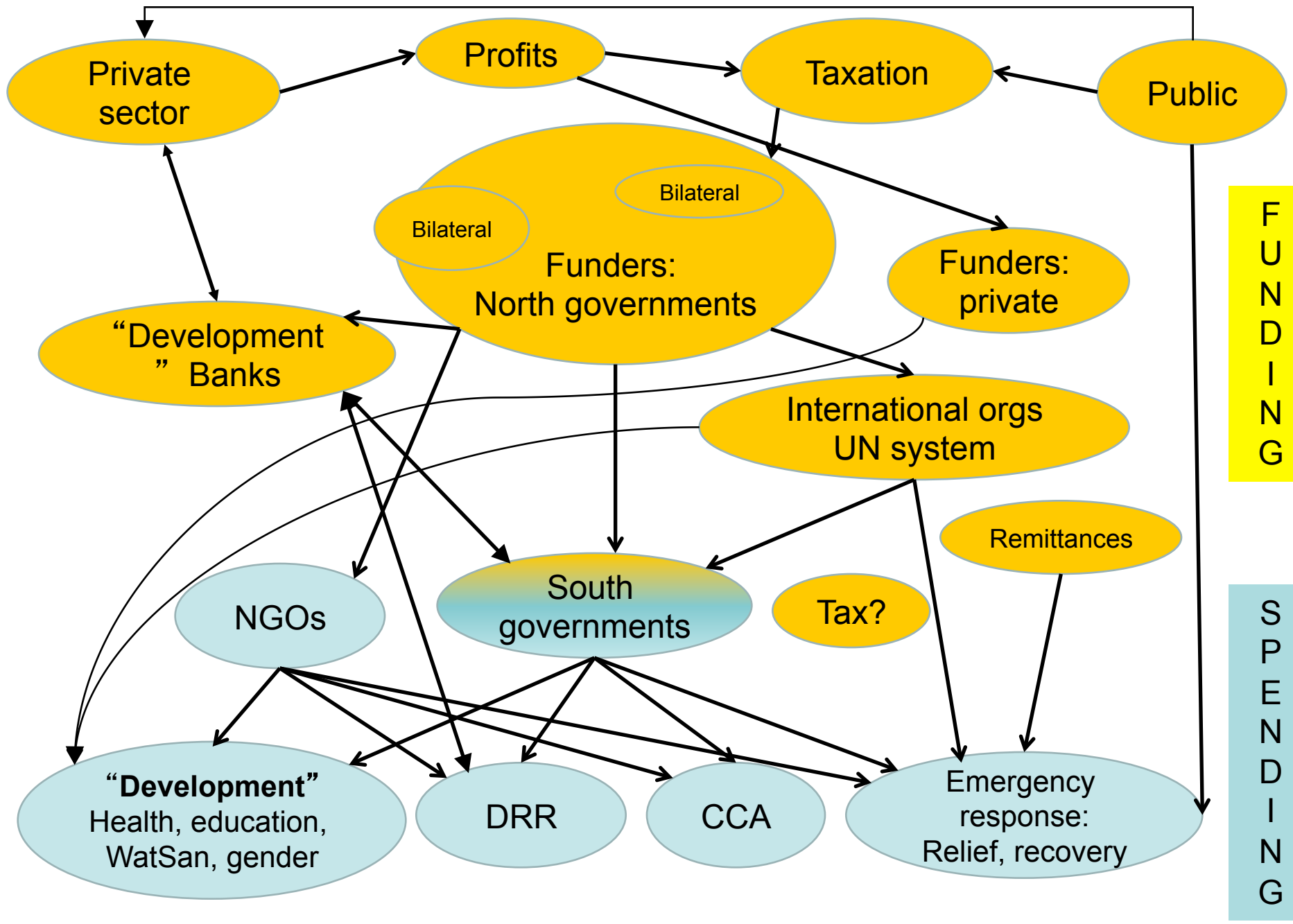
- **\$100 billion**

Most conservative estimate of what is required for adaptation (Green Growth report provides an overview of various needs assessments and does this for adaptation as well as mitigation)

- **\$1 trillion**

Conservative estimate of amounts of public funding available for harmful practices: subsidies for fossil fuels, water practices that deplete resources, fisheries and agriculture. Recent meeting at IMF upgraded the number to \$2 trillion

Source: *Inclusive Green Growth* World Bank 2012 and Rob van den Berg (Global Environment Facility). See also *Fifth Overall Performance Study of the GEF: Cumulative Evidence on the Challenging Pathways to Impact* www.gefeo.org



FUNDING

SPENDING

Preparedness and prevention *Externally-defined needs* Response