

Coping Capacity: Overcoming the black hole

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Thematic cluster 2: « visions of risk and vulnerability »

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- The concepts and results presented are work in progress
- We expect from this meeting and the discussion feedback to further pursue our research in this field

Rationale

- No valid, universally agreed method of measuring coping capacity
- Individual assessment of coping capacities is fundamental to reach a thorough understanding of a country's overall vulnerability to natural disasters.
- Purpose of this paper is to address this shortcoming by proposing possible elements of a methodology for coping capacity
- A Coping Capacity Index (CCI) could be
 - a support tool for assessing the global needs of a country
 - a strategic planning tool for humanitarian aid

Possible components of a methodology

- Characteristics:
 - Comparative approach ('country ranking')
 - Use of global indicators
- Point of departure: 4 proxy indicators from various sources (UN Habitat, World Bank, ECHO DRI, IFRC)
- Indicators aggregated at national level and ranked for each individual indicator
- Global final ranking across all indicators (ordinal scale, $\pm 25\%$ each) (sum of all indicators, divided by number of indicators available)
- Aggregating info and clustering countries into 4 different groups (high / medium / low / very low coping capacity)

Definitions

- Vulnerability: *A set of conditions and processes resulting from physical, social, cultural political, economic, and environmental factors, which increase the susceptibility of a community to the impact of hazards. (ECHO 2004)*
- Coping Capacity: *The level of resources and the manner in which people or organisations use these resources and abilities to face adverse consequences of a disaster. (ECHO 2004)*
 - *Individual coping capacity*
 - *Institutional coping capacity*

Basic Assumptions

It can be assumed that the coping capacity of a country is higher

- if institutional **disaster management measures** have been established by the government
- if the country has a high “density” of trained **IFRC volunteers** in relation to the total population.
- if the level of **investments in mitigation** measures per inhabitant is high
- Level of disaster-proneness should be taken into consideration as well

Indicators

1. Degree of institutional preparedness of a country (UN Habitat, Global Urban Indicator)
2. Financial volume of a country's mitigation projects (World Bank Disaster Management Facility)
3. Number of IFRC volunteers in a country (IFRC national society profiles)
4. ECHO's Disaster Risk Index (DRI)

Global Urban Indicator (GUI)

How can we measure?

- Count the number of affirmative answers to the 3 criteria of disaster preparedness
 - Existence of building codes
 - Hazard mapping
 - Insurance schemes for public and private buildings
- If there is more than one dataset per country, the values for each individual city are added and divided by the number of cities included in the data set.
- Data exists for 87 countries. The remaining countries do not appear in the UN Habitat data base and are attributed an “x” for “not available”.

World Bank Mitigation Projects

- The amounts of all mitigation projects in a country can be added and then divided by the population figure
- Then the list can be divided into four even sections (25% each) and ranked accordingly
- Countries which do not appear in the World Bank list of mitigation projects are allocated “0” instead of “x” because no money is given to these countries by the World Bank

IFRC Volunteers

- The population can be divided by the number of volunteers in the relevant country (inhabitants per volunteer)
- The list can then be ranked and divided into four even sections

ECHO DRI

- Disaster Risk Index has been introduced to complement results achieved by mitigation indicator
- Countries in a very high disaster risk category is attributed value “4”
high risk countries ⇒ value “3”
medium risk countries ⇒ value “2”
low disaster risk countries ⇒ value “1”

Preliminary results

- We were doing some preliminary tests which yielded a ranking ranging from
 - very low coping capacity (e.g. Haiti) to
 - high coping capacity (e.g. Philippines)

Limitations of methodology and results

- Only few proxy indicators available: risk of oversimplification
- Comparatively old datasets (UN HABITAT 1998)
- Missing data distorts results (e.g. Serbia/ Montenegro, FYROM)
- Data collected only at national level; regional coping capacity can be different (e.g. Chaco in Bolivia)
- Data only quantitatively measures coping capacity
- Mitigation project indicator: no funding for political reasons?
- Coping capacity can vary for different disasters
- Results very much depend on methodological approach
- Mix of indicators and indices

Conclusions

- First attempt to address a very complex phenomenon
- Combination of quantitative and qualitative assessment necessary
- Review the approach when new / updated datasets (IFRC, UN Habitat) become available in 2005
- Assessment of sub-national, family and individual coping capacity as well as indigenous knowledge. (Questionnaires?)
- Further research and refinement of methodology is necessary before it can be used as a full-fledged planning tool

Thank you for your attention



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