



## REPORT ON INDIVIDUAL EVENT

**Date of event:** 17.06.2009 – 8-9:30 a.m. **Your name:** Ian O'Donnell (ProVention)  
Luna Abu-Swaireh (UNISDR)

**Event type (tick the box):**

- |                                     |                  |
|-------------------------------------|------------------|
| <input type="checkbox"/>            | Pre-session      |
| <input type="checkbox"/>            | High-level panel |
| <input type="checkbox"/>            | Round Table      |
| <input type="checkbox"/>            | Informal Plenary |
| <input checked="" type="checkbox"/> | Special Event    |
| <input type="checkbox"/>            | Other            |

**Event name (write the name below):**

SE12: Measuring the impacts of Disaster Risk Reduction

**Number of participants –(Nepal RC, ISET, Andrew Maskrey and chaired by WB/GFDRR Saroj)** **Total: 90+ participants**

*(Please count or estimate this, as not all will be recorded in the list.)*

### 1) Key questions or issues raised, main challenges or constraints identified (say, max 5):

- JICA: a lot of focus on community activities but without methodologies/tools on measuring effectiveness of DRR –with focus on social benefits and cost of lives rather than only the benefit of infrastructure investments.
- ProAct: problem of finding out where risk is greater or less in each community. Is there a standard comparative risk assessment before the cost-benefit analysis to identify which communities are at higher risk?
- World Bank: which activities are more effective than others in cost-benefit analysis?
- ProVention: valuing human lives? How can we measure benefits in relation lives being saved? Process of cost-benefit in itself is helpful as working with communities is helping increasing participation and involvement.
- To measure impact on lives in terms of benefits we need to quantify how much cost would be planned for investments in saving “a life”.
- How do we really measure the economic impacts of social benefit?
- What do communities gain on the long term and what do they lose? What would be the impacts at the long-term on vulnerabilities and social benefits?
- Measuring cost by itself is challenging considering limitation of data on the human development level. Easy to quantify cost on the engineering side, but the cost on the social side is hard to quantify, impact of legislations and policies are hard to measure as the benefits would incur over long periods of times.
- Processes in undertaking the Cost-Benefit exercise are beneficial as the engagement of the different actors and stakeholders bring synergies, understanding and more awareness and then eventually encourage investments.
- Zurich Re insurance: We quantify what has a dollar value on it, but things that are not priced then we grade them in qualitative terms.
- Mercy Corps: what is the cost of Cost-Benefit Analysis?
- IUCN Oceania: what is the value-added, usability for Cost-Benefit Analysis?
- Indonesia DM: social aspects and economical aspects? Can we really measure cost of lives? What are the indicators to measure the social impacts of DRR?

- There are risks that can not be reduced - mortality risk associated with large mega events like volcanic eruptions or Tsunami where cost-benefit analysis will not be that accurate.
- Cost-benefit analysis brings a value-added when process is thought through and leads to policy-decisions rather than only quantifying investments and calculating benefits in an abstract sense.

## **2) Principal proposed solutions, messages or recommendations:**

Nepal RC has focused on two key questions – what is the impact of hazards on the community without the DRR program? What is the impact of hazards on the community with the DRR program? Nepal RC has seen a conservative estimate of a 1:15 ratio of cost to benefit for the community based programs that it reviewed. Have reviewed the costs and benefits through the lens of the Sustainable Livelihoods Framework. In general the community-based measures have performed well particularly in small floods, which are the most frequent hazard events. [Krishna, Nepal Red Cross]

Focus on helping communities to “do well” not just cope. [Marcus Moench, ISET]

### **Blending qualitative and quantitative**

**Methodology is critical.** ISET has used a process of Shared Learning Dialogues and qualitative analysis to set the framework for quantitative analysis. Iteration of analysis and dialogue is critical because there are new issues that are raised along the process that often translate into very practical courses of action. Yet if we just stop with the initial analysis, many of these courses of action may not emerge as suggestions. Broad strategies don’t always work; they depend on local conditions. So it is important to work through those local conditions. It is the qualitative analysis that should lead to the quantitative analysis. Otherwise it is very easy to quantify the things that are easy to quantify. [Marcus Moench, ISET]

**Identify distributional aspects of DRR measures.** Robust approaches address the systemic factors creating vulnerability. Warning signals that DRR may not work – dependence on specific event characteristics, long lead times, high initial investment, long-term institutional dependence, large distributional consequences. Measures that are successful often combine a mix of strategies. [Marcus Moench, ISET]

**Need to invest more in strengthening tools and capacities for measuring the soft side.** [Andrew Maskrey, UN/ISDR]

**Need simplified approaches** to CBA. [Daniel Kull, IFRC]

Need to frame issue back in terms of saving lives. [Representative from JICA] To address issue of valuing lives saved, it may be useful to use a parallel metric of how much you are willing to pay for life saved. [Marcus Moench, ISET]

**Need to target communities where risk is the greatest.** Is there a standardized methodology for comparative risk assessment for cost benefit is done. Otherwise agencies might tend to select locations where they can get the greatest cost-benefit ratio but not necessarily the most at-risk communities. [Charles Kelly, ProAct] For IFRC the priority is to address the most vulnerable not just the communities where the cost-benefit ratio may be the greatest. [Daniel Kull, IFRC]

It is the process itself not the result. How can we make the process transparent? [Margaret Arnold, ProVention] Marcus’ response talked about the need to present background information from the studies and have a mechanism for showing which criteria are being included and which are not.

IFRC is working to integrate cost benefit into VCA process. Hard to measure progress which may take 20 years to happen in some cases, but we need to do it. [Daniel Kull, IFRC]

Measuring the costs by themselves is challenging. [Andrew Maskrey, UN/ISDR]

Usually CBA has been used in the past to justify whatever anyone wants to justify. The core usefulness is in answering the question Does what I am doing relate to what I am trying to achieve? [Marcus Moench, ISET]

**Important to recognize that there are a set of risks which we cannot reduce.** Need to focus our efforts on the events where we can have the most impact. Unfortunately it is the rarer events about which we often have the best information. The more extensive events where we can have a local impact are often the events about which we have the least information. [Andrew Maskrey, UN/ISDR]

While the need for CBA of community initiatives requires further investment, this is an area of work that has already shown that it can have a significant impact. However if you quickly scan HFA and different national policies, it is amazing to find that the community is only mentioned briefly in different paragraphs. Why is this happening? Is it just a disconnect between the policy dialogue and community practice? [Saroj Jha, World Bank]

### **3) Conclusions by the Chair of the event:**

- While need for cost-benefit at the community-based DRR still needs further investigation however the CBDRR still is an area where progress and change has been made.
- Communities are not systematically featured in public policies at international level but rather sporadically mentioned here and there where there is a need to mainstream at highest level the CBDRR where the highest impact can be incurred.
- Regardless of the question about substantiating the value of community-based work and other DR approaches, please continue to do work on community-based DRR: This has the highest impact. Goal should be that 80% of resources should benefit communities.
- There is no sustainable development without DRR, so it's more of investing in sustainable development not only investing in DRR.

### **4) Your additional thoughts on the event:**

*(E.g. on tone and success of event, unresolved issues, commitments made by participants, etc.)*

There is no conclusive thought on the validity, comprehensiveness and accuracy of cost-benefit analysis considering limitation of data, consensus on what cost and for what benefit and the un-quantifiable elements on social and human front.

### **SUMMARY of PRESENTATIONS by PANELISTS:**

- Cost-benefit of Community-based DRR – case of Nepal RC society.
  - Useful as a tool for M&E to measure impact
  - Results are useful to mobilize communities
  - Useful to understand more about DRR benefits and to influence future interventions
  - To produce analytical evidence of micro level benefits versus the cost
  - IFRC societies to learn and to develop skills around CBA methodology.
  - CBA work evaluated:
    - Structural activities (mitigation works)
    - Non-structural activities (emergency revolving funds, public awareness campaigns)
    - Livelihood activities (income generation activities such as buying and rearing livestock for sale)
  - Field work aimed at gathering data to construct two scenarios:
    - What is the impact of hazards on the community with and without the DRR programme?
  - Findings demonstrated that:
    - programme generated a cost of 1:15 on conservative assumptions

- Impact on nature: without DRR land eroded by flooding, soil eroded by poor farming practices. With DRR: land protected.
  - Impact on physical structure
  - Social impacts – without DRR no strong coordination with local authorities and no strong unity within the community. Hard to measure social behavioral change
- **I-S-E-T: DRR and climate adaptation: Quantifying the Benefits.**
    - Adaptation is not about coping – in well adapted systems, people and the environmental and other features they value are doing well.
    - **Risk to Resilience Project:** case studies from India, Nepal and Pakistan.
    - Shared learning process
    - Cost-benefit analysis = investment in risk reduction can generate high rates of return- however this can be simply over-rated sometimes.
    - Not all DRR is robust with different assumptions and climate change.
    - Not all approaches benefit everyone – structural protection displaces impacts on those outside protective structures and can lead to behaviors that increase vulnerabilities. Early warning does not reach everyone.
    - Qualitative analysis will help lead to more accurate results of quantitative analysis
    - Robust approaches address the systematic factors creating vulnerabilities, have low dependence on specific climate projections, respond to recurrent sources of variability. Many of such robust approaches are community-based.
    - Warning signals that DRR may not work if it depends on specific event characteristics (certain disaster); long lead times, high initial investments, long term institutional dependence, large distributional consequences.
    - Climate risk management requires: a mix of strategies (distributed CBDRM as well as centralized, systematic as well as targeted; and risk spreading as well as risk reduction; approaches that are tailored rather than standards.
  - **Andrew Maskrey – GAR**
    - Who pays the cost? And who gains the benefit? If the benefit will go to those most at risk, the rural poor, the vulnerable, then you run into a political question of who is willing to really pay the cost.
    - How can we get a political momentum to mobilize the costs to benefit those most need/most vulnerable.
    - Legal accountability and legal frameworks
    - Technically – a lot invested in measuring C-B-A in hard investments but less on the soft part and measuring the impact of social investments in DRR.