



KOBE REPORT draft
Report of Session 1.7, Thematic Cluster 1

Disaster Risk Management and Climate Change Adaptation

1. Summary of the session's presentations and discussions

Session 1.7 "Disaster Risk Management and Climate Change" was chaired by Fenella Frost of DFID on behalf the Vulnerability and Adaptation Resource Group (VARG) and focused on opportunities for building a more comprehensive risk management approach that addresses disaster risks and climatic changes within the development context.

For this purpose a discussion paper entitled "Disaster Risk Management in a Changing Climate" – authored by Frank Sperling (VARG Secretariat) and Francisco Szekely (ESMT) as a contribution to World Conference on Disaster Reduction on behalf of the VARG – was presented. The authors highlighted that climate change has important implications for disaster risk management by changing the magnitude and frequency of climatic extremes and also modulating environmental and socioeconomic conditions, which influence the vulnerability to natural hazards. Climatic changes are already being observed and are likely to be exacerbated in the future. This knowledge represents a challenge and opportunity to build risk management approaches that address current vulnerabilities to natural hazards, but are also able to adjust to changes in environmental conditions over time.

Disaster Risk Management and Climate Change Adaptation measures are both focused on reducing vulnerabilities. Since both approaches place an emphasis on risk management, they both seek and need the integration into development processes. Development processes can, by influencing social, economic and environmental conditions, reduce or enhance vulnerabilities to natural hazards and climatic changes. Generally, it is also the poor that suffer particularly from disasters and are likely to be most impacted by the adverse consequences of climate change.

Given the increasing overlap in conceptual focus between disaster risk management and climate change adaptation there is a true opportunity for enhanced collaboration and exchange for information. There is already considerable information about climate change available, including methodologies and tools for assessing risk, vulnerabilities and adaptation measures. This information can be combined with the current understanding of disaster risks and practical experiences addressing such risks. The capabilities for a more integrated approach are there. However, while some successful projects and programs have been initiated, there are very few systematic approaches that aim at bringing disaster risk management and climate change adaptation together.

In building a comprehensive risk management approach it is also important to be aware of important differences. Climate change adaptation is not only focused on extreme events, but also addresses changes in average climatic conditions and climate variability, which may affect vulnerabilities to natural hazards. Disaster risk management is concerned natural hazards, which includes hydro-meteorological and geological hazards. Hence, disaster risk management would ideally take a multi-hazard approach.

Based on the content of the paper, the authors highlighted some key barriers and challenges to a more comprehensive risk management approach. These include for example disparate policy and institutional frameworks that promote a separate treatment of disaster risk management and climate change adaptation, different funding frameworks, which in the context of disaster risk management are still heavily focused on disaster relief and preparedness rather than prevention, and incentive structures, that promote a short rather than a long-term perspective to risk. Key challenges include the need of elevating disaster risk management and climate change adaptation to a higher priority on the national policy agenda as well as developing a programmatic approach to integrate climate change, disaster risk management and development initiatives and funding mechanisms.

In conclusion of the presentations of the paper, Dr. Szekely reflected on his professional experience as former deputy Minister of Environment of Mexico when he had to deal with the impacts of Hurricane *Isidore*. In this context he stressed the need to identify champions that lead disaster prevention and climate change adaptation efforts. In order for measures to be effective clear communication structures are needed.

The presentations were followed by commentaries from Ar. Subbiah (ADPC) and Marcus Moench (ISET) who reiterated the importance of strengthening the coordination between disaster risk management efforts and climate change adaptation. Dr Subbiah stressed the need for improving the dissemination of information to stakeholders, such as farmers, who are vulnerable to natural hazards and climatic changes. While considerable information and forecasting tools are often available on climatic conditions, this information often resides in the scientific realm and there is a lack of intermediate institutions that help to translate such information into a format that can be used by end-users. Experience of ADPC working with IRI of Columbia University has shown that farmers can accept and are interested in utilizing probabilistic climate forecasts, if issues of uncertainty are explained to them and they can incorporate this information in their decision-making process. Dr Moench stressed that prevention measures and adaptation strategies are likely to be successful if they constitute measures that are incorporated in the daily life of the targeted population. For example, cyclone shelters will be better maintained and more visible to the population if they also have a daily purpose, such as being a school building.

In the subsequent open discussion of the meeting most participants displayed a great interest in linking disaster risk management and climate change adaptation efforts to reduce vulnerabilities and promote the sustainability of development processes. There is a need to build a comprehensive risk management approach which efficiently communicates and addresses the disaster risk and climate risks, was recognized.

Given that climate change will modify risk patterns it is important to promote risk management approaches that are capable of reducing current vulnerabilities to natural hazards, but can also address changing environmental conditions over time. Climate change adaptation should be part of a larger risk management approach that takes a multi-hazard focus and recognizes in its approach (in addition to socioeconomic trends) also environmental changes.

In order to promote such a comprehensive risk management approach within the development context it is important that the right incentives are in place for doing so and that the institutional structure allows for programmatic approach, which addresses multiple dimensions of risk. In this context it is necessary to explore strategic points of entry for addressing synergistically disaster risks and climate change adaptation issues.

In closing, the chairperson reiterated the opportunity of recognizing the inter-linkages between disaster risk management and climate change adaptation, given that both approaches focus on addressing vulnerabilities. It may not be enough to carry on development practices as usual. Environmental changes in conjunction with other pressures such as urbanization and population growth may make it difficult to reach some development targets if no risk mitigating measures are

taken. Hence, it is important to promote a comprehensive risk management component in development processes.

2. Primary Issues

- **There is a clear need to move to a more programmatic risk management approach, which captures and communicates comprehensively disaster risks as well as risks associated with climate and other environmental change within the context of development.**
- Climate change has important implications for disaster risk management by changing the magnitude and frequency of climatic extremes and also modulating environmental and socioeconomic conditions, which influence the vulnerability to natural hazards.
- Disaster Risk Management and Climate Change Adaptation measures are both focused on reducing vulnerabilities and can significantly benefit from each other by sharing risk assessment methodologies and practical experiences.
- There are currently only very limited systematic efforts that take a multi-hazard focus and account for climate change and other environmental changes.
- The capabilities for building a comprehensive risk management approach are there, if the right incentives and institutional framework are put in place

3. Suggested Objective and progress indicators

The suggested objective should be:

- **To establish a programmatic risk management approach, which captures and communicates comprehensively disaster risks as well as risks associated with climate and other environmental change within the context of development.**
- **An indication of progress is the integration of risk management components in (national and regional) development strategies and evidence of successful projects that address current natural hazards, but also have accounted for climatic changes over time.**
- **Real success will ultimately be the reduction of disaster risks and vulnerabilities as climate change occurs. Indicators should measure the degree of integration of disaster risk and climate change risk management in development processes and how this has led to successful vulnerability reduction over time, e.g. by reducing the occurrence and magnitude of disasters in a particular region in the face of comparable or increasing exposure to natural hazards.**

4. Existing partnership

Vulnerability and Adaptation Resource Group (VARG), an informal network of bi- and multilateral agencies, which was created to facilitate the information exchange on the impacts of climate change on development processes and possible remedial measures.

5. Other relevant comments

The draft discussion paper has been made available on the WCDR website under the section **WHAT S NEW**.

The suggested citation for the paper is:

Sperling F. and F. Szekely (2005). Disaster Risk Management in a Changing Climate. Informal discussion paper prepared for the World Conference on Disaster Reduction on behalf of the Vulnerability and Adaptation Resource Group (VARG). Washington, D.C.

6. Presenters and Commentators:

Fenella Frost, Chair Person, DFID, London

Frank Sperling, Presenter, VARG Secretariat, Washington, D.C.

Francisco Szekely, Presenter, European School of Management and Technology (Berlin), Berlin

Ar. Subbiah, Commentator, Asian Disaster Preparedness Center (ADPC), Bangkok

Marcus Moench, Commentator, Institute for Social and Environmental Transition (ISET), Boulder

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