



KOBE REPORT draft
Report of Session 4.3, Thematic Cluster 4

**financing disaster risk - Exploring new mechanisms for enhancing
Physical and Financial Protection (PFP)**

1. Summary

There can be no doubt that disaster risk and poverty are linked, and that unless we better address disaster risk reduction, progress towards the Millennium Development Goals will not be achieved. This requires a comprehensive approach, including assessing and understanding clearly what risks are faced, doing what can be done to reduce those risks, and planning ahead for the financial impacts. Disasters are generally seen in terms of their human and physical destruction, but rarely understood to be a result of underlying deficiencies in the economic and financing infrastructure of the affected region. In the Asian Tsunami and other disasters, the great majority of financing disaster is Ex-Post– the financing of disasters after the fact, in a most inefficient manner. Emergency reconstruction loans for example have totaled over \$38 billion over the last 20 years. A much more efficient approach is Ex-Ante risk financing combined with physical risk reduction measures. However, the bulk of development funding seeks to be and is devoted to improving physical and social infrastructure, rather than post-disaster emergency relief. Therefore, in designing a funding vehicle, if the natural hazard risk charge (ie, actuarial cost of the earthquake, wind or flood damage) is included in the overall financing, with associated insurance or contingent credit, then a new vehicle is created in which the natural hazard risk is first transferred, and then “built down” to an acceptable level. In the early part of the term of the financing, a significant part of the finance cost is allocated to risk transfer but, as the risk is mitigated by improved physical and social infrastructure, then the risk is reduced with time, and less of the financing cost is used for risk transfer. The result is a single combined financial vehicle, termed Physical-Financial Protection (PFP), that has two tranches, financial protection and physical protection, which vary during the life of the instrument, as one form of protection replaces the other. This is a new concept in the international development field, and has high potential in developing economies for reducing the impacts of natural disasters. A point to be made is that risk transfer must go beyond externalizing the costs of a disaster’s consequence. Transfer has tended to be one of “free riding” in at least three levels: from the private sector to government for inappropriate investment in risk reduction in economic, productive and financial activities; from affected governments to the international community; and from risk venture financial institutions to states and the buyers of insurance by requesting subsidies from the first and increasing the cost of insurance from the second. More experience is needed to shape the services which help reduce the impact of disasters. These services must transfer risk in affordable ways that encourage individual and collective risk reduction.

2. Primary issues are:

- How to provide financial protection in a manner that also encourages reduction in the physical risks of death and destruction, rather than allowing ‘free rides’ where countries and individuals rely on post-disaster emergency relief?
- How to provide this combined financial and physical protection in an effective affordable vehicle?

- How to communicate and educate people and decision-makers about their disaster risk and the opportunities to manage this risk?
- While one application for physical-financial protection (PFP) vehicles is at the national level, can this concept also be applied at the *micro* level, analogous to micro credit?
- What are the most efficient vehicles to accomplish PFP? How should these be structured?
- What are the obstacles to PFP?

3. a) Suggested targets and indicators to measure accomplishments

The targets for PFP are all those at threat due to natural hazards – schools, hospitals, housing, commercial and industrial facilities, and infrastructure such as transportation and utilities. Indicators are diverse, and include:

- The population protected by PFP vehicles
- The number of PFP vehicles that are implemented
- The number and/or value of the built environment that are protected by PFP vehicles
- The actuarial value of the protected provided by PFP

b) Existing indicators with reference

A number of financial protection vehicles have been recently developed, such as various ‘Cat Bonds’ and contingency credit vehicles. A much greater number and economic value of physical protection vehicles (ex-ante and ex-post) have been developed since WW2. Ex-post emergency disaster relief is increasing, in an almost out-of-control manner. No cases of PFP are known in the development environment.

4. Partnerships

Partnerships to support the implementation of PFP are under consideration.

5. a) Name, affiliation and contacts of presenters and titles of presentations:

- **Charles Scawthorn**, Professor and Head, Multihazards Disaster Prevention Laboratory, Department of Urban Management, Kyoto University, Japan (scawthorn@quake.kuciv.kyoto-u.ac.jp): *New Forms of Disaster Protection– combining financial and physical protection*
- **Margaret Arnold**, World Bank, Washington DC, USA (marnold@worldbank.org): *Financing Disaster Risk: The Role of the World Bank*
- **Ricardo Zapata**, ECLAC (Economic Commission for Latin American Countries), Mexico DF, Mexico (ricardo.Zapata@cepal.org): *New Mechanisms for financing physical and financial protection*
- **Eugene Gurenko**, World Bank (on leave): (EGurenko@munichre.com): *Catastrophe Risk at the Country Level: The Role of Risk Financing*
- **P.K. Mishra**, National Capital Region Planning Board (Min. Urban Development, Govt. India), New Delhi, India (pkmgdsma@yahoo.com): *Some Aspects Of Financing Disaster Risk In India*
- **Joanne Linnerooth-Bayer**, IIASA, Vienna (bayer@iiasa.ac.at): *Risk Transfer for Developing Countries - A Role for the International Community*

5. b) Name, affiliation and contact of person filling in the form:

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