

# NEWS

PROVENTION  
CONSORTIUM

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*The ProVention Consortium is a global partnership of governments, international organisations, academic institutions, the private sector and civil society organisations dedicated to increasing the safety of vulnerable communities and to reducing the impacts of disasters in developing countries.*

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*ProVention News provides a brief update on current ProVention activities. For more information on the ProVention Consortium, including all project activities, partners and resources, please visit [www.proventionconsortium.org](http://www.proventionconsortium.org).*

## PROJECTS

### Applied Research Grants for Disaster Risk Reduction

The Applied Grants Programme provides small grants for innovative research projects in order to promote the development of young professionals from developing countries dedicated to reducing disaster risk. Research projects focus on the links between disasters, poverty and the environment and fall into three general categories: hazard and risk identification, risk reduction and risk sharing/transfer. Some 65 grants were awarded in 2003 to researchers from 27 developing countries.

All projects were completed in January 2004 and based on the grantees' final reports, a "Compendium of Final Reports" and a "Collection of Lessons Learned," have been published as working drafts. After a series of online regional symposia among the grantees, reports were reviewed and ranked by a panel of independent reviewers. The panel nominated fifteen of the most representative projects from the grants programme to be presented at a "Global Symposium for Hazard Risk Reduction," which will take place on July 26-28, 2004 at the World Bank in Washington, DC.

The Symposium will bring together young researchers and academics, policy makers and development practitioners to explore current research and learning on key thematic issues in hazard risk reduction, including:

- Earthquake early warning systems;
- Earth observation and GIS-based flood monitoring;
- Indicators for disaster preparedness;
- Coastal erosion vulnerability mapping;
- Communication strategies for industrial disaster risk reduction;
- Popular folklore on hazard and vulnerability.

More information on the Grants Programme is available from the ProVention Consortium Web site at <http://www.proventionconsortium.org/projects/appliedres.htm>. ■

## Global Natural Disaster Risk Hotspots project update

By Maxx Dilley

"Global Natural Disaster Risk Hotspots" is a ProVention Consortium project led by Columbia University and the World Bank. Funding was provided by the United Kingdom's Department for International Development, the Norwegian Ministry of Foreign Affairs and the U.S. Agency for International Development. Collaborators include the Norwegian Geotechnical Institute, the United Nations Environment Programme, the United Nations Development Programme and the Office for the Coordination of Humanitarian Affairs, among others.

Project deliverables include a global disaster risk assessment as well as place- and hazard-specific case studies. The global assessment evaluates risks of mortality and economic losses associated with six major natural hazards: drought, floods, wind storms, earthquakes, landslides and volcanoes. Global hazard assessments for drought and landslides were specially generated for this purpose by this project. Place-based case studies in Caracas, Venezuela, the Tana River Basin in Kenya, and Sri Lanka apply the same theory of disaster causality as in the global analysis to assess risks on more local scales with more explicit linkages to risk management.

In the global analysis, risks of mortality and economic losses are assessed as a function of the exposure of population and GDP-per-unit-area to the six hazards and of the vulnerabilities of these elements to each hazard as reflected in historical losses per hazard event in different regions and within country income classes. Risks of losses are assessed on a fine-resolution grid, so that the analysis is independent of national boundaries. Risks are assessed for each hazard individually and then for all hazards together.

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A two-day technical working session for the project team took place from March 10-12, 2004 in Washington, DC. This technical workshop was attended by report and case study authors in order to finalise the project and receive inputs from users on potential products that can be garnered from this initiative (e.g., country indices of vulnerability, categories of countries and priorities for Country Assistance Strategies and PRSP preparations, etc.). Several outputs are planned for this activity. The global analysis and the landslides report will be published as part of the Disaster Risk Management series through the World Bank in order to take advantage of its dissemination infrastructure. The case studies on Caracas, Kenya, Sri Lanka, and storm surges (and possibly the econometric analysis and drought in Asia) will be published as working papers. A synthesis report of about 20 pages will also be published electronically.

For more information on this project please visit: <http://www.proventionconsortium.org/projects/identification.htm>. ■

### ProVention Conference Announcement

The ProVention Consortium is organising a further conference on the role of insurance and other financial risk transfer mechanisms in managing natural disaster risks in developing countries. The conference will provide a forum to share knowledge, exchange views and experiences, promote good practice and innovations, and create opportunities for mutually beneficial linkages and partnerships between the private sector and organisations active in disaster reduction in developing countries. The conference will consider the potential of a range of mechanisms, including traditional natural hazard insurance, alternative risk transfer schemes and the use of micro-insurance. Specific attention will be given to the challenge of developing risk transfer and risk sharing initiatives in hazard-prone developing countries. The conference will take place at the Swiss Re Centre for Global Dialogue in Zurich on October 21, 2004. For further information on this initiative please contact the ProVention Secretariat. ■

## Measuring Mitigation

Does mitigation pay? The ProVention Measuring Mitigation project aims to address this critical question through the development of guidelines on how cost-benefit analysis, environmental impact assessment and related methodologies can be expanded to consider risks emanating from natural hazards. The ultimate objective of this project is to help ensure that risks emanating from natural hazards are considered as a matter of course in the design of all projects in hazard-prone areas, including more socially orientated as well as infrastructure projects, and that appropriate measures are taken both to reduce risk and to ensure that projects do not unwittingly create new forms of vulnerability.

The first phase of the project is intended to ascertain the need for an improvement in current development agency practices, based around a scoping study of project documentation and related guidelines and procedures and working through the different stages of the project cycle – from identification and appraisal right through to evaluation – to see how risks emanating from natural hazards are currently handled by donor agencies. It also examines broader risk assessment policies and guideline and briefly considers how other sectors undertake risk assessment (commercial sector, insurers, engineers etc).

The project team – John Twigg and Charlotte Benson – completed the first phase of research in July 2004 and produced a report “*Measuring Mitigation: Methodologies for Assessing Natural Hazard Risks and the Net Benefits of Mitigation*”, Working Paper and Policy Brief based on their research findings and conclusions. These project outputs will be published and posted on the ProVention website in September before the project enters a second phase where guidelines will be developed for policy makers and practitioners. ■

## Agreement signed between the Organization of American States and the International Federation of Red Cross and Red Crescent Societies.

An agreement between two ProVention partners was signed on March 13, 2004 in Washington by Dr. César Gaviria, OAS Secretary General and Markku Niskala, Secretary General of the International Federation of Red Cross and Red Crescent Societies, to establish a framework for co-operation between both organisations which aims at developing joint initiatives to support OAS member states in Latin America and the Caribbean in the field of risk reduction.

The first step in this collaboration starts in July 2004 in Central America, where both organisations have developed a programme to implement a disaster reduction project targeting semi-urban and rural areas in four countries (Belize, Costa Rica, Honduras and Guatemala). The programme, supported by ProVention, aims to strengthen the capacities of local authorities, Red Cross National Societies and communities to reduce vulnerability to disasters. Communities will identify and develop local risk reduction measures, with special attention to the protection of schools, primary health care facilities, community centres and potable water supply systems, which will help them to face different kinds of natural hazards, such as earthquakes, floods, drought, hurricanes and landslides.

“We are not going to re-invent the wheel. What we are going to do is to adapt the existing technical information and convert it into user-friendly tools, so that households and communities can apply it and identify and develop risk reduction activities aimed at reducing their vulnerabilities in the face of disasters”, says Xavier Castellanos, who is project manager and IFRC Regional Disaster Management Delegate for Central America and Caribbean region.

The programme will be implemented by IFRC in close collaboration with local Red Cross National Societies in the four countries concerned and with the technical support of OAS. The project is also expected to involve the Regional Disaster Information Center (CRID) in Costa Rica, where community risk data will be stored and managed, and the Pan American Health Organization (PAHO) who will contribute technical expertise on the protection of health facilities. ■

## Social Vulnerability and Capacity Assessment

The subject of vulnerability and capacity assessment (VCA) is of particular concern to the work of ProVention and its efforts to improve the accuracy and quality of the risk assessment process. In recent years, considerable efforts have been made by both academics and practitioners to understand the complex nature of the social, economic and political factors that so often drive disaster vulnerability. A diverse range of assessment tools have been developed and field tested, mainly by NGOs and community-based organisations. However, despite the growing recognition of the benefits of VCA, the social element is often not factored into the main disaster risk assessment process. One reason is the lack of knowledge of the relative accuracy, effectiveness and quality of the assessment tools and data. A number of ProVention partners have, therefore, urged for a collective approach to strengthening VCA methods and practice through comparative analysis, interdisciplinary research and, above all, sharing of experiences between the community of actors involved in disaster reduction.

As a first step, ProVention organised a workshop, held in Geneva in May 2004, on Social Vulnerability and Capacity Analysis. The workshop brought together 26 leading academics and NGO practitioners active in disaster reduction to look critically at the use of social vulnerability and risk assessment tools and learn from case study experience. The event provided a valuable forum for learning and knowledge exchange on different VCA approaches, highlighting good practice, analysis of tools and data, as well as identification of gaps in methodologies. Workshop participants recommended priority action for follow up, including creation of a compendium of community risk assessment tools, a web-based inventory and good practice guidelines. The workshop proceedings and papers will be posted on the ProVention website in August 2004. ■

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## Financial Management of Disaster Risks Workshop at IIASA

With support from the ProVention Consortium and the World Bank's Hazard Management Unit, IIASA's Risk, Modeling and Society Project held a workshop on the financial management of disaster risk on April 21-23, 2004.

This pilot workshop focused on financial strategies for improving the response of the public and private sectors to natural disasters. The sessions examined:

- The macroeconomic, budgetary and poverty impacts of natural disasters;
- Elements of integrated disaster risk management;
- Experience with public and private mitigation schemes;
- Public-private insurance systems; and
- Pre-disaster instruments for financing disaster risks.

Experts from the World Bank and IIASA led the discussions and participants contributed their experiences and approaches into disaster risk management. An important component of the meeting was an interactive computer modeling tool (CATSIM) developed at IIASA for evaluating pre-disaster options for financing public sector risks.

Participating were high-level government ministers, policymakers and practitioners from five of the world's most disaster-prone developing countries – Colombia, India, Mexico, the Philippines, and Turkey – all of which are advanced in pre-disaster financial planning or are considering the development of advanced schemes. ■

## Urban Disaster Risk Reduction in Africa

Africa's problems are still predominantly perceived as "rural", even though two-fifths of its population now live in urban areas, and hence limited attention is given to disasters in the urban context and the processes of risk accumulation associated with urbanisation. Therefore, in order to stimulate more research on this subject and promote risk reduction in African urban centres, ProVention is collaborating with UNDP on an urban disaster risk reduction initiative. The project, lead by UNDP and carried out in partnership with the International Institute for Environment and Development (IIED), aims to integrate disaster risk reduction into urban development planning in Africa through supporting the activities of the African Urban Risk Analysis Network (AURAN), a newly-established network of leading academic institutions and NGOs from seven African countries (Algeria, Senegal, Ghana, Tanzania, Kenya, Zambia and South Africa).

The project, due to be launched in August 2004, will involve community-based action research to identify risk accumulation processes, community risk reduction projects, policy reform initiatives aimed at decision-makers and urban managers and inter-city exchanges. A wide range of topics will be addressed by AURAN through a focus on disaster risk in 7 urban centres, including fire risk in informal settlements in Cape Town, environmental health and disaster monitoring in Accra, Urbanisation and Risk Accumulation in Dar Es Salaam, Livelihoods and Urban Risk in Lusaka, the need for Integrated Disaster Management in Algiers and Flood Risk Management in St-Louis, Senegal. It is hoped that through these activities the project will also encourage far more action by international agencies, local governments, NGOs and community organisations to identify and act to reduce risks in urban areas in Africa. ■

## Strengthening Community Flood Resilience through Local Partnerships in Sudan

This ProVention initiative aims at linking key actors in the field of disaster preparedness & mitigation in Sudan in order to reduce the risk and impacts of floods, particularly through strengthening community resilience. Project activities have involved the development of a disaster preparedness training curriculum, establishment of a country wide working group on floods and organisation of a national workshop on flood risk reduction involving all major stakeholders. Community level activities have focused on awareness raising and micro-mitigation measures. Lead partners include the Red Crescent in Sudan, NGOs and UNEP.

An innovative feature of this initiative has been dialogue with

local business corporations, such as Coca-Cola Khartoum and Nile Petroleum, on the impact floods on local business and potential role of the private sector in risk reduction efforts- as a corporate social responsibility investment and effective business practice to protect facilities, work force and avoid business interruption.

At the community level, the project is supporting a Community Based Self Reliance (CBSR) Training Programme in the Red Crescent branches of Khartoum State and Kassala State. This programme seeks to promote self-reliance in disaster prone areas through the training of community leaders, development of Community Disaster Preparedness Plans and establishment

of Community Disaster Preparedness Committees responsible for mobilising local support for risk reduction activities. The CBSR initiative is helping to improve co-operation and coordination among local civil society organisations involved in community based disaster management. It is anticipated that this capacity-building focus on strengthening the resilience of communities will in the long term contribute to reducing the need for seasonal relief and reconstruction operations. ■

## NEW PUBLICATIONS

### Understanding the Economic and Financial Impacts of Natural Disasters

by Charlotte Benson and Edward Clay. The book can be downloaded or purchased on-line from [http://publications.worldbank.org/ecommerce/catalog/product?item\\_id=3089607](http://publications.worldbank.org/ecommerce/catalog/product?item_id=3089607)

Reported disaster losses have risen rapidly over the last few decades, triggering a growing awareness of the potential damage caused by natural hazards. However, there is limited knowledge or understanding of their broader macroeconomic significance or the problems they pose for long-term development.

Drawing on evidence from Bangladesh, Dominica and Malawi, Understanding the Economic and Financial Impacts of Natural Disasters explores these macro-economic and development issues. The report examines the short and long-term economic and financial impacts of natural disasters, the factors that contribute to underlying sensitivities, and identifies opportunities for improving the economic management of risk and disasters as they unfold. ■

### Learning Lessons from Disaster Recovery: The Case of Honduras

By John Telford, Margaret Arnold, Alberto Harth with ASONOG, Published June 2004, World Bank Disaster Risk Management Series No. 8, 67 pp., available from World Bank Publications, P.O. Box 960, Herndon, VA 20172-0960; (800) 645-7247; (703) 661-1580; fax: (703) 661-1501. [www.proventionconsortium.org/files/Recovery/Honduras.pdf](http://www.proventionconsortium.org/files/Recovery/Honduras.pdf)

This report summarises the findings of a Honduras country case study, which was conducted during September and October 2002 as part of a ProVention Consortium initiative aimed at learning lessons from recovery efforts following major natural disasters. The key purpose of the review was to identify lessons learned and good practice, how these lessons can be replicated, as well as how constraints to good practice can be overcome. The study examined four main areas: policies related to disaster recovery/management; systems for disaster recovery; resources for recovery; and impacts of recovery efforts. ■

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## PROVENTION PARTNER IN THE SPOTLIGHT

ProVention News includes a profile of different partners of the Consortium. This edition focuses on the Earthquakes and Megacities Initiative, a non-governmental international scientific organisation dedicated to advancing disaster risk reduction in megacities.

### **E M I** Earthquakes and Megacities Initiative

[www.earthquakesandmegacities.org](http://www.earthquakesandmegacities.org)

by Fouad Bendimerad, Ph.D., P.E., Chairman of the Board, EMI. Email: [fouadmail@sbcglobal.net](mailto:fouadmail@sbcglobal.net)

The Earthquakes and Megacities Initiative (EMI) was first launched in 1998 and is registered as a not-for-profit organisation in the Philippines. EMI has the backing of three international scientific unions, as well as UNESCO and the International Lithosphere program (ILP). EMI's aim is to be the catalyst for disaster risk reduction, the facilitator of knowledge sharing and the promoter of research efforts focused on the reduction of the impact of major disasters on megacities. EMI fosters direct exchanges between researchers, practitioners and end-users in order to bridge the gap between science and applications, to create a

dynamic of cooperation and to bring about practical solutions that best fit the needs of megacities. EMI promotes a multi-disciplinary approach to disaster assessment and mitigation in order to develop sustainable and culturally compatible solutions.

EMI concentrates its efforts on building capacity of complex metropolises in developing countries, where the risk of earthquakes can be devastating to the population, economy, culture and environment. Today, half of the world's population lives in urban areas and 17 of the world's 20 largest cities are in developing countries. Within its programme, EMI promotes the establishment of comprehensive city-wide disaster management systems, and the development of tools for disaster assessment and disaster management such as information and communication technology (ICT) that enable megacities to understand their risk and take actions to reduce their exposure to disasters. The knowledge of hazards and risks builds institutional strength, increases accountability and triggers pro-active intervention. Institutionalisation of disaster mitigation at the local level remains however a distant goal; many megacities in the developing world have presently little if any capacity for disaster reduction. Disaster management practice in megacities is further hindered by the lack of competent standards and methods for sound practice. The fragmented conventional mono-discipline approach to the development of knowledge does not lend itself to practical methods in a field that requires integration of knowledge from several disciplines. The current mechanisms of knowledge transfer from researchers to the end-users are too inefficient to adequately disseminate knowledge to practitioners in developing countries, and have kept knowledge within a few experts. At the same time, the risk from earthquakes and other disasters keeps increasing, due to the upsurge of urban population, aging infrastructure, inadequate socio-political structures, and weakness of institutions. The body of knowledge and experience specific to megacities is meagre compared to the needs associated with the complex management environment of megacities.

The Cluster Cities Project (CCP) is EMI's flagship project and is critical to its mission because it is the forum that builds the infrastructure, creates a coalition among EMI's partners, and engages them in a process of disaster risk reduction. Through the CCP, EMI's partners build relationships, understand their role and responsibilities, acquire knowledge, and develop the motivation and the confidence to engage themselves and their institutions in disaster risk reduction. The primary targeted stakeholders are local government policy makers and the scientists. These are the two essential poles in the development of a broad coalition that expands towards other local, national, regional and international active agents that could consolidate and contribute to the coalition. Today, about 20 megacities from around the world participate in the CCP.

In 2004, EMI launched the 3cd Program (Cross-Cutting Capacity Development Program) as a long-term (2004-2009) inter-disciplinary programme designed to assist EMI's partner cities to implement sound practices for disaster risk management. The 3cd Program builds on the network of cities developed in the CCP. The 3cd Program is designed as a partnership endeavour open to all institutions that are interested in urban disaster risk reduction. Its detailed design will be developed in collaboration with all participating cities and partner institutions. Phase 1 (2004-2005) of the programme is being undertaken in partnership with the Earthquake Disaster Mitigation Research Centre (EdM) of Kobe, Japan, HNU at the World Bank and other partners. This phase assesses current practices of disaster risk management in megacities, identifying gaps and user needs, and undertakes several capacity enhancement activities in EMI's partner cities and institutions.

*More information on EMI, the Cluster Cities Project, the 3cd Program and other EMI's activities can be found in EMI's website: [www.earthquakesandmegacities.org](http://www.earthquakesandmegacities.org). ■*