To explore innovative ways to address human vulnerability to hazards(natural and human-made), the ProVention Consortium invited a special disaster management audience—the world's youth. The Consortium launched a program of Applied Grants for Disaster Risk Reduction in 2002. Sixty-five grants were awarded and fifteen projects have now been selected for presentation at this Global Symposium. This outreach program was managed by the World Bank's Hazard Management Unit (HMU) in collaboration with the Asian Disaster Preparedness Center (ADPC), Cranfield Disaster Management Centre (CDMC) and the University of Wisconsin—Disaster Management Center (UW-DMC).

This collection of working papers presents current research on disaster management issues and practice.

For additional regional information, please contact:

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P.O. Box 4, Klong Luang, Pathumthani 12120 THAILAND
Website — http://www.adpc.net/

Cranfield Disaster Management Centre (CDMC) Cranfield University (RMCS), Shrivenham, Swindon SN6 8LA, UK Website — http://www.rmcs.cranfield.ac.uk/ddmsa/dmc/view

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APPLIED RESEARCH GRANTS FOR DISASTER RISK REDUCTION

Global Symposium for Hazard Risk Reduction

Lessons Learned from the Applied Research Grants for Disaster Risk Reduction Program

26–28 July 2004 Washington, DC

WORKING PAPERS

July 2004



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Preface

On behalf of the ProVention Consortium, the World Bank's Hazard Management Unit (HMU) organized a competitive forum to support innovative disaster risk management projects and the promotion of competent young professionals (under 35 years of age) dedicated to reducing disaster risk in developing countries. The ProVention Consortium is a global coalition of governments, internationall organizations, academic institutions, the private sector, and civil society organizations aimed at reducing disaster impacts in developing countries. The Applied Research Grants for Disaster Risk Reduction program has been administered by the HMU in cooperation with three collaborating centers.

The program's objective is to support innovative risk management projects dedicated to reducing disaster risk and developed by disaster professionals in developing countries. Young researchers from around the world were invited to propose creative projects to reduce disaster impacts, and the most promising ideas were awarded small grants for implementation. The applications were screened by an independent panel of disaster management specialists, who nominated for award those proposals that best fulfilled the grant criteria in three categories. (1) hazard and risk identification, (2) risk reduction; and, (3) risk sharing / transfer. Sixty-five individuals and/or teams won grants of up to US\$5,000.

The ProVention Consortium launched the program in December 2002 and awarded the grants in June 2003. The young researchers completed their projects in January 2004. For more information about the grants program, please visit the website at: http://www.proventionconsortium.org/projects/ appliedres.htm.

Awards were granted to students and young professionals from the following 27 countries: Argentina, Armenia, Bangladesh, Barbados, Bhutan, Bulgaria, China, Colombia, Costa Rica, Georgia, India, Indonesia, Kenya, Mexico, Nepal, Nigeria, Pakistan, Philippines, Senegal, South Africa, Sudan, Tajikistan, Turkey, Uzbekistan, Venezuela, Vietnam, and Zimbabwe

After a series of independent and peer reviews, fifteen projects were selected as representative of the most innovative and sustainable activities, summaries and lessons learned from these projects comprise this document. Team leaders from these projects present their findings at the "Global Symposium for Hazard Risk Reduction," July 26-28, 2004 at World Bank headquarters in Washington, DC.

The fifteen selected project leaders have prepared Working Papers reporting the results of their research activities. Those projects have been arranged as scheduled for presentation at the Symposium. Following those papers, there is a complete list of all sixty-five projects with contact information for those involved in each. We encourage you to contact the project teams if you are interested in more details about the results and lessons learned

At the end of this publication, there is brief information about each of the collaborating centers: the Asian Disaster Preparedness Center (ADPC), Cranfield Disaster Management Centre (CDMC) and the University of Wisconsin-Disaster Management Center (UW-DMC).

ADPC was responsible for coordination and support for the grantees in two regions, East Asia Pacific and South Asia.

CDMC was responsible for coordination and support for the grantees in one region, Sub-Saharan Africa.

UW—DMC was responsible for coordination and support for the grantees in two regions, Europe & Central Asia and Latin America & Caribbean, they also had global administrative responsibilities for the grant application process, the independent review panel for grant awards, maintenance of the program's website for project sharing by grantees, the independent review panel for selection of representative projects, the regional webconferences for project peer review, project publications and the Symposium

Acknowledgements

The Working Papers in this publication were prepared as part of the Applied Research Grants for Disaster Risk Reduction program, which was organized by the World Bank's Hazard Management Unit under the umbrella of the ProVention Consortium. These papers are the basis for the "Global Symposium for Hazard Risk Reduction," a meeting held July 26-28, 2004 at World Bank headquarters in Washington, DC.

The ProVention Consortium would like to thank all who submitted research proposals and those sixty-five who were awarded grants, along with their team members and advisors. Next, we thank those who served as independent reviewers for the proposals and for selection of the most representative projects for presentation at the Symposium: William Anderson, Claude DeVille, Jim Good, Bruno Haghebaert, Ailsa Holloway, Terry Jeggle, Alcira Kreimer, David Peppiatt, Sheila Reed, Juan Pablo Sarmiento, John Telford, Paul Thompson, and Jaime Valdés.

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