



PROGRESS REPORT: FOCUS ON LATIN AMERICA AND BRAZIL

The first ENHANS Project events took place at the Meeting of the Americas in Iguassu, Brazil, on 9 –11 August 2010.



1. Symposium “International Collaboration in Earth and Space Sciences: Present Status, Needs, and Future Perspectives”

The symposium organized by the American Geophysical Union (AGU) and International Union of Geodesy and Geophysics (IUGG) was aimed to present recent achievements in international collaboration and to discuss new opportunities, especially those related to Latin America and the Caribbean countries. *A. Ismail-Zadeh* (IUGG Secretary-General) delivered a talk on international cooperation in geophysics reviewing the history of IUGG and new trends in cooperation between geo-unions. *A. Abreu* (Director of the ICSU Regional Office for Latin America and the Caribbean) discussed the role of the ICSU Regional Office for Latin America and the Caribbean in developing research projects related to the region. Particularly she mentioned the fruitful research collaboration in area of understanding and managing risks associated with natural hazards. *G. Good* (Director of the Center for History of Physics at American Institute of Physics) discussed the past, current and future aspects of international cooperation in Latin America. *J. Hess* (Executive Director at Geological Society of America) spoke on the development of a global geosciences initiative as an outcome of the International Year of Planet Earth. *P. Leahy* (Executive Director of the American Geological Institute) discussed how to communicate geoscience information to the public and the professionals, and *J. Bradford* (Vice President of the Society of Exploration Geophysicists) talked on the role of scientific societies in international collaboration. *I. Wainer* (Member of the World Climate Research Program, WCRP) spoke on the international climate research programs developed by WCRP. *J. Fucugauchi* (AGU International Secretary) concluded the symposium discussing the role of international collaboration in promoting geosciences research and education in developing countries.

2. Symposium “Natural Hazards and Disaster Risk in Latin America and the Caribbean”

The symposium was the central event of the “Extreme Natural Hazards and Societal Implications – ENHANS” project sponsored by the International Council for Science (ICSU) and co-sponsored by several international and intergovernmental organizations. The symposium was convened by O. Cordona (Colombia), A. Ismail-Zadeh (Germany), and V. Kossobokov (Russia).

A. Lavell (Costa Rica) spoke on new multidisciplinary research programme of ICSU “Integrated Research on Disaster Risk” and discuss the content and significance of the programme when looking at concrete examples of the social construction of risk in the Latin American and Caribbean region. T. Gibbs (Barbados) presented the paper on meteorological hazards and associated risks in the Caribbean. The talk was followed by the presentation “A scaling criterion to estimate and compare the volcanic hazard among different volcanoes” S. De La Cruz-Reyna (Mexico). O. Perez (Venezuela) spoke on earthquake activity and associated hazards in South America and the Caribbean and on socio-economic impact of severe earthquakes in these regions. I. Alcantara-Ayala (Mexico) discussed the anatomy of landslides disasters and presented case studies from Mexico and other South American countries. A. Soloviev (Russia) discussed problems in seismic hazard assessment and earthquake predictability, and V. Kossobokov (Russia/France) continued the discussion on predictability of extreme events presenting a paper “Natural Hazards At Extreme: Predictive Understanding Versus Complex Reality”. O. Cardona (Colombia) spoke on indicators of disaster risk and risk management in the Americas. F. Romanelli (Italy) presented scenarios-based seismic hazard assessment methodology and its implication to hazard evaluation in Valparaiso. H. Salmun (USA) discussed statistical prediction of storm surge in the New York Metropolitan area, and A. Rice (USA) spoke on multiple meteoroid impacts in Antarctica and implications for humanity.

Two oral sessions of the symposium was continued as a poster session of 25 papers.

3. Town Hall meeting: "Natural Hazards in Latin America and Caribbean (LAC): From Risk to Opportunity by Partnership of Science and Society"

The meeting addressed the following major topics: (i) how science (both natural and social) and society can form partnership for disaster reduction? (ii) how science and society partnership can convert natural disaster risk to opportunity? And (iii) what are the urgent issues of disaster risk in LAC cities and regions under intensifying natural and social pressure?

A. Lavell (Latin American Social Sciences Faculty – FLACSO and LA RED, Costa Rica; member of the ICSU Scientific Committee “Integrated Research on Disaster Risk” and ICSU Regional Office for LAC) spoke on increasing the salience of disaster risk management on the political agenda. Disaster Risk Management is still not of sufficient social and political salience given current and future predicted disaster trends and costs, and which climate change will probably add to. The talk will try to highlight why this may be so and what are the principle ways to place the theme more firmly on the political and social agenda.

K. Alverson (Director, Global Ocean Observing System, Intergovernmental Oceanographic Commission of UNESCO) spoke on the Global Ocean Observing System (GOOS) in Latin America and the Caribbean. The talk focused on the importance of sustained ocean observing

systems be in place both to prevent and mitigate disasters, where possible, but also in order to rapidly bring observing assets to bear in post disaster relief efforts. Both natural coastal inundation hazards, such as storm surge and tsunami, as well as anthropogenic hazards, such as oil spills, was discussed, focusing where possible on Latin America and the Caribbean, including the Gulf of Mexico. In the context of global sea-level rise, the presentation probed the interface between physical and social sciences in order to clearly distinguish between patterns of climatic and environmental change, and patterns of risk and vulnerability.

P. Boccardo (Director, ITHACA, Professor of Politecnico di Torino, Italy and Representative of the International Society for Photogrammetry and Remote Sensing) presented at first the ITHACA - Information Technology for Humanitarian Assistance, Cooperation and Action. Through its partnership with the U.N. World Food Programme (WFP) - the world's largest operational humanitarian agency - ITHACA is envisioned as a centre of applied research developing IT products and services in support of humanitarian activities especially during natural disasters. ITHACA is dedicated to scientific research, delivering methodologies, analytical services and technical tools, which improve the capacity of WFP and the wider International community in humanitarian early warning, early impact assessment and other related areas. He discussed geomatics and disaster management in the case of the recent Haiti earthquake disaster. Presentation highlighted issues and challenges associated with emergencies related to natural disasters. Taking into account the last earthquake occurred in Haiti, data acquisition, processing and information extraction were presented when humanitarian response is involved. Milestones gained and issues to be approached have been also discussed, with the aim to set up effective procedures suitable for technologic assistance to early impact and reconstruction phases.

Two panelists I. Alcantara-Ayala (Vice-President of the International Geographical Union) and M. McPhaden (President of the American Geophysical Union) mentioned how professional societies can assist in mitigation of natural hazards and disasters. The speakers and panelists answered questions of the attendees. The meeting's discussion was moderated by J.U. Fucugauchi (Mexico) and A. Ismail-Zadeh (Germany).

We are negotiating with SPRINGER to publish selected papers presented at the first ENHANS events focused on Latin America and the Caribbean.

A. Ismail-Zadeh

<http://www.enhans.org>

Karlsruhe, 17 September 2010