

**Third Session of the Global Platform for Disaster Reduction
8-13 May 2011, Geneva
Statement of GEM, the Global Earthquake Model initiative, on Disaster Risk Reduction**

Many organizations, institutions and people, in particular in emerging and developing economies, have no access to advanced, reliable and inter-comparable seismic hazard and risk information that can be used to base mitigation behaviour and risk reduction policies on.

It is GEM's mission to engage a global community in the design, development and deployment of state-of-the-art models and tools for earthquake risk assessment worldwide. What GEM envisions and has started to work on, is the bringing together of science and technology, and national, regional, international organisations as well as individuals, in a global collaborative effort that aims to have a lasting impact on seismic risk assessment.

Recent events around the globe have taught us that there is still much to learn about the earth and its behaviour, and how that impacts us humans. Global knowledge sharing and collaboration is therefore of utmost importance. The only way to develop better models and tools, is to compare notes and learn from each other. Because there are many possibly hazardous faults still unknown, there are different approaches applied in different countries that could also work in others, and there are fascinating tools out there that can be used for communication of risk. We are therefore keen on stimulating open discussion and debate, so that collectively we improve our knowledge on earthquake hazard and risk and come up with tools that are able to capture that growing body of knowledge and support mitigation activities. We can then test the tools and models together, compare them with national and regional models, with existing tools, and improve where possible.

GEM therefore functions as a community effort, involving hundreds of organisations and individuals (experts, practitioners and scientists from all regions of the world) that work together on earthquake risk assessment. Towards the end of 2013, users with various levels of expertise from around the globe will be able to access the OpenGEM web platform to analyse seismic risk, including the consequences of earthquakes on society and economy, measured over space and time.

UN/ISDR is an important Associate Participant in GEM and there is close collaboration with the team working on the Global Assessment Report, which will be intensified in the run-up to the next version of the GAR. GEM is committed to the Hyogo Framework for Action, and addresses the priorities in the following ways over the coming years:

HFA1: Make DRR a national / local priority. We coordinate global and regional activities related to seismic risk, we support community participation and networking.

HFA2: Identify, assess and monitor disaster risks. We advance knowledge of seismic hazard and vulnerability, produce hazard and risk maps and indicators and widely disseminate these, develop and improve (open) global databases, promote open exchange of data and software, promote application of remote sensing, GIS, cost-benefit assessment, develop common methodologies for risk assessment.

HFA3: Use knowledge, innovation for a culture of resilience. We provide easily understandable information on seismic risk, improve dialogue between scientific communities and practitioners, offer training programmes / workshops, strengthen technical and scientific capacities.

HFA4: Reduce underlying risk factors. We promote development of financial risk-sharing mechanisms, aid revision and development of building codes, provide tools and indicators supporting decision-making, provide open databases + open source software / tools, being organised as a public-private initiative (GEM is a collaborative effort with partners from both government, the private sector and international organisations who will directly use the models and tools to address underlying risk factors for their constituencies).

HFA5: Strengthen disaster preparedness for effective response at all levels. We deploy and support coordinated regional programmes and work where possible with earthquake risk mitigation programmes.

In order to advance in earthquake risk assessment and provide the important tools and information that can actively contribute to disaster risk reduction, GEM believes that we need to work together and we need to do it in the open. The best and surest way to learn what approaches can better assess future earthquake occurrence or how to best estimate the impact of earthquakes on our society, is to build a common vocabulary and a common set of exploration tools, and to come together as a global community and openly exchange and test competing ideas. The best way to build global open databases is together with the people that gather the data in the various regions of the globe and understand the context. And the best way to advance our common knowledge is to learn and improve and develop tools together with the crowd. GEM was founded to do just this, and we welcome the world to join us.