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**Title of the Session:** Disaster Risk Reduction Education and Earthquake Risk

**Date:** 22/09/2014 to 28/09/2014

## **Summary**

The role education plays in disaster risk reduction is of foremost importance. Education is the fundamental “bedrock” of a successful Disaster Risk Reduction (DRR) program. The goal of developing “disaster-resilient communities” is widely understood to rest heavily upon the success of disaster risk reduction education. This conforms to the third priority of the Hyogo Framework for Action (HFA-2005-2015) which highlights ‘Using knowledge, innovation and education to build a culture of safety and resilience at all levels’.

In countries with high exposure to natural hazards such as earthquakes, there have been attempts to promote learning about disaster threats in order to increase public knowledge and change behavioral patterns to protect lives. The integration of both formal and informal education through schools is the one way to ensure that safety messages reach into every home and community and that learning is sustained into future generations.

## **Context**

There are, both formal education in DRR integrated into curricula for all age levels, as well as informal education introduced through ‘co-curricular and extra-curricular activities’ that begin at school. Formal curriculum integration may be introduced in the form of elective courses or modules that plug into other existing courses. DRR can also be systematically and more slowly infused into the curriculum by elaborating its full scope and sequence and designing the entry points in the course of the ‘curriculum adoption cycle’ for all subjects and age levels. Informal education can take many forms, offering fun and engaging ways including earthquake drills, after school activities, etc. to introduce important knowledge, skills and competencies for students of all ages (Petal and Izadkhah, 2008).

It seems that the adoption of HFA has played an instrumental role in progressing DRR education in many countries. In some instances, the impact has been indirect and achievement of its effective functioning has progressed less rapidly than elsewhere. Another challenge is that DRR initiatives often compete with other immediate needs of society, consequently receiving lower priority, resulting in action on the risk reduction issues being deferred. These constraints, combined with limited available budget, may militate against timely implementation. However, the influence of the HFA action plan and its predecessors should not be ignored, though there is still substantial scope for improved DRR in schools.

## **Way Forward**

In a country such as Iran, where the threat of earthquakes applies across the country, the importance of retrofitting and strengthening school buildings is of high importance. This is particularly important with overall school attendances of 12.3 Million students as at 2013. Furthermore, the continuous implementation of formal and informal DRR education through schools, with linkages to community-based risk reduction, offers the development

of a “culture of safety”, with societies less vulnerable and more resilient to the impact of disasters.

The effectiveness of HFA on development of DRR capacity and awareness can be inferred from the direct and indirect DRR initiatives in Iran as well as in increasing existence of disaster management plans and programs. The use of simulators can be a practical means of increasing children’s awareness and responsive capacity to earthquakes. Similarly, the expanded and interactive use of “disaster drills” can also be another tool to enhance the children’s awareness and responsiveness, since children are typically observed to enjoy participation in such drills. The “disaster drills” can be performed randomly (without prior notice) in schools to create a more realist environment which also allows the practical preparedness of pupils and students to be estimated. Furthermore, the DRR activities should be integrated more systematically and holistically into the school curriculum in order for pupils to improve interface with these activities. Teachers should receive additional training focused on specific DRR topics. For example, in Iran, currently, teachers are taught only with the student instruction materials contained in the curriculum, rather than with teacher support and “training of trainers” materials. Consequently, the teachers’ knowledge is limited and curriculum content-based. Teachers typically teach DRR topics for periods, little or no “follow-up” of objective evaluation. There is an apparent gap which can be only adequately addressed by increasingly systematic, sustained and reinforced continuing professional development, by all teachers. The regular involvement of parents in family drills can also be one of the objectives of these trainings. The role of mass media in introducing programs for children with themes of disaster preparedness will be important in order to further sensitize children and their families to key disaster parameters. Additionally, a systematic approach to practical earthquake preparedness in schools should be emphasized. This initiative needs to include regular, formally structured monthly meetings arranged by the school principals to review practical earthquake preparedness and response management. The curriculum should furthermore aim to provide practical responses to other potential disasters in the country such as floods and droughts in addition to earthquake

Post HFA, it is imperative that teachers, school principals and education authorities understand and believe that within the foreseeable future, the occurrence of a disaster event, is considered to have significant likelihood and therefore they need to practically endorse the provision of sustainable DRR initiatives in schools as a safety priority.

#### *Further Reading*

Petal, M. and Izadkhah, Y.O. (2008), “Formal and informal education for disaster risk reduction”, *International Conference on School Safety*, Islamabad, Pakistan.