

# **Integrated Disaster Risk Reduction Approaches in the Education Sector in Yunlin County, Taiwan**

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## **1. BACKGROUND AND OBJECTIVES**

It has been widely agreed that education for disaster risk reduction (DRR) must become an integral part of any educational strategy aimed at promoting and achieving sustainable societies. Considerations for disaster risk reduction education should not only focus on education curricula but should also include structural, non-structural safety, funding, human resources, legislative and implementation processes (e.g. curricula, safety measures etc) as well as early warning systems and risk assessments. Last but not least, a monitoring and evaluation system is essential.

A case study was conducted at Yunlin County, Taiwan to understand the current disaster risk reduction education status so as to develop integrated approaches for incorporating disaster risk reduction in the education sector by applying the five priorities of actions mentioned in the Hyogo Framework for Action (HFA).

## **2. METHODOLOGY**

The methodologies used for this study are i) a review of key policy documents DRR education related literature ii) interview with key informants officials and iii) a questionnaire survey targeting all public elementary and secondary schools at Yunlin county. The questionnaire was designed to understand the disaster risk reduction initiatives taken in the education sector in Taiwan and consisted of questions based on the HFA's five priorities for action namely i) institutional mechanism for DRR education, ii) legislative measures for DRR education (in risk assessment), iii) DRR education curriculum and training, iv) DRR education in early warning and information dissemination and v) recovery and response preparedness in the education sector. Out of the 184 schools, 123 schools replied (67% of total sample), of which 114 questionnaires were fully completed (93% of collected sample). The latter were analyzed using Microsoft Excel.

## **3. FINDINGS**

At the national level, the 'Disaster Prevention and Protection Act' (DPPA) was passed in 2000, which emphasizes the importance to promote DRR education and training, and in 2004, the 'White Paper on Education of Disaster Prevention' (WP) was proposed, providing specific guidelines in implementing DRR education. In 2007, the 'Cultivation Plan of Disaster Education and Experiment' (2007-2010) was implemented to promote incorporation of DRR in school curricula. Since implementation is voluntary, implementation varies between schools. Schools were classified into coastal (C), mountainous (M), rural (R) and urban (U) area to find out the differences in DRR education relating to environmental factors. Majority of schools responded that funding was insufficient for implementing DRR in schools. General land-use planning and building safety guidelines were applied to school. Furthermore, majority of the schools do not have disaster recovery plans (C: 55%; M: 54%; R: 55%; U: 67%) and few schools take measures to ensure class continuity (C: 20%; M: 23%; R: 14%; U: 15%). In addition, it was not a common practice to keep emergency supplies in the schools. From the questionnaire survey, no specific differences were observed in the DRR education initiatives between the schools.

## **4. CONCLUSIONS**

Legislative measures are necessary to promote integration of DRR into the education sector. In addition to guidelines of implementation, it is important to have specific funding allocation for DRR. Findings from the case study showed that current land-use planning and school safety focuses on seismic capacity. However, resilience capacity towards other natural hazards such as typhoon, flooding and land subsidence is equally essential and should be included in land-use planning and school safety considerations. Following disaster, damages stalls access to education and it is necessary for schools to develop suitable disaster recovery plan and to have appropriate measure to ensure class continuity. Last but not least, DRR education and measures should be local-context specific.