

# Progress made with school curricula, education material and relevant training in disaster risk reduction and recovery concepts and practices

Professor Kevin Ronan, University of Central Queensland, summarises the findings of research into the progress of including disaster risks concepts into school curriculum and training programs.

The promise of initiatives aimed at children and youth is the subject of a Background Chapter authored by an Australian/New Zealand team (Ronan 2014), following an Input Paper from the larger research team (Ronan *et al.* 2014). The Chapter and Input Paper documented both progress and challenges related to the HFA Priority for Action 3, Core Indicator 2, being 'School curricula, education material and relevant training include disaster risk reduction and recovery concepts and practices'.

One thing that research and desk review, policy analysis and wide consultation with national and international actors confirmed clearly was that the HFA process has stimulated a tremendous amount of progress globally, including in Australia and New Zealand. For this Core Indicator specifically, documented progress has been achieved across all major areas; policy and implementation, curriculum and training, and research and evaluation. The advances documented are worth celebrating and also provide a platform for enhanced gains in the next 20 years in the post-2015 DRR framework. Examples of changes across the HFA include:

1. Well over half of reporting countries report DRR being included in their national curriculum at one or more levels (primary, secondary, university, professional programs).
2. Progress has been made on the indicator rating, currently at a 3.3 out of a possible score of 5 for the 146 countries reporting.
3. There is increased prominence of DRR curriculum and training in national policy across an increasing number of countries.
4. There is development and guidance related to curriculum frameworks e.g. Technical Guidance document (UNESCO/UNICEF 2013).
5. There is a promising development of the Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector (GADRRRES) through the development of a whole-of-school framework and related sets of indicators being:
  - Comprehensive School Safety models (GADRRRES) which is based on 3 pillars of complementary action: Pillar 1 Safe Learning Facilities; Pillar 2 School Disaster Management; Pillar 3 Risk Reduction and Resilience Education

- CSS and its 3 Pillars and a hierarchical set of proposed indicators, and
  - incorporating a strengths focus, including a resilience metaphor, to accompany a risk reduction ethos.
6. The increased proliferation of DRR in school curriculum in many countries (UNESCO/UNICEF 2012):
    - While these tend to be project-focused, they have potential through the use of, in the words of one key stakeholder consulted, 'basic project management wisdom' that moves them from project-based and time-limited to explicit steps towards longer-term, wide-reach, sustainable implementation.
    - Progress also includes a much increased number of DRR subject matter in education materials available at PreventionWeb<sup>1</sup>.
  7. There has been an increase in research and theory, including:
    - published evaluations of CC-DRR education programs have increased 36-fold since 2000. Those that use pre-post designs have typically found positive changes in knowledge, risk perceptions, child and family interactions, and DRR/preparedness activities (as reported by both children and parents), reductions in children's disaster-related fears and other risk reduction and resilience-enhancing improvements, and
    - other developments in research and theory development have occurred through other means, including an increase in masters- and doctoral-level training programs and resultant theses produced, and through other literature, including scholarly products promoting research, practice, theory development (e.g. Ronan & Johnston 2005<sup>2</sup>).
  8. Attempts at larger scale implementation of features of DRR curricula/CSS initiatives (e.g. New Zealand, a primary school all hazards program, 'What's

1 PreventionWeb. At: [www.unisdr.org/we/inform/preventionweb](http://www.unisdr.org/we/inform/preventionweb).

2 Volume 2 of this book is currently in the planning stages with the publisher.

the Plan, Stan?'), Turkey (DREAMS project), and attempts at larger-reach teacher training (e.g. Turkey DREAMS project, Australian Aid program-funded DRR in education programs in Laos PDR using School Disaster Management teacher training material disseminated through DVDs).

## Challenges ahead

The many developments to date predict future developments.<sup>3</sup> However, promise is still yet to be realised in a number of important areas. While these represent significant challenges, progress is more likely with increased relationships and co-operation across the sector, including UN-level, NGOs, universities, national, sub-national, and local levels. Drawing together input from across sources for this GAR15 Background Chapter (Ronan 2014), three major fronts are signalled as major priorities. These are:

- Promoting integrated, participatory, experientially-based DRR/CCA curricula, within a CSS framework, engaged by and custom-fitted to local cultures and communities, delivered at scale by systematically trained and capable teachers.
- Ensuring teachers are capable of producing documented outcomes across a range of indicators including primary/ultimate outcomes (life savings, reducing injury, improved psychosocial outcomes and longer-term resilience indicators) and secondary/instrumental outcomes (resiliency indicators, risk reduction competency indicators, safe school/school disaster/risk management outcome indicators). While there are over 35 studies published [see review of first 35 studies published by Johnson *et al.* 2014 and a recent study by Webb & Ronan 2014], most, in the past 15 years that document DRR-related impacts, have been limited to short-term impacts. Research that uses time-series and prospective designs are needed.
- Moving beyond the type of time-limited demonstration/research projects typically carried out by singular universities and agencies (Johnson *et al.* 2014, reviews of international, mainly agency-based case examples by UNESCO/UNICEF 2012, larger compendium of case studies listed in Ronan 2014) to those that inculcate a longer-term vision and set of concrete mechanisms that are 'custom-fitted' to a particular country and its political, policy and local contexts. These involve bottom-up and top-down mechanisms and involve more co-operation across the policy-practice-research sectors. Ones that are capable of effectively translating evidence-supported guidelines and principles into 'on the ground' disaster-resilience education and related programs that can be progressively implemented within a crowded curriculum and policy context. Projects themselves are a vital part of this process but their utility must be considered and framed differently. For example, one way is using projects

as part of a 'piloting stage' in the context of a larger multi-actor vision, and plan, for scaled, staged, sustainable implementation.

A number of other challenges and issues are documented in the Background Chapter (Ronan 2014) in policy and implementation, DRR curriculum practice and training, and research and evaluation. The Chapter is available from the author (k.ronan@cqu.edu.au).

## References

- Johnson VA, Ronan KR, Johnston DM & Peace R 2014, *Evaluations of disaster education programs for children: A methodological review. International Journal of Disaster Risk Reduction*, 9, pp. 107-123.
- Ronan KR 2014, *Many advances, continuing challenges towards HFA2 and Post-2015: Policy-practice-research summary and recommendations. Hyogo Framework for Action Thematic Review: Priority for Action (PFA) 3 – Core Indicator (CI) 2: School curricula, education material and relevant training including disaster risk reduction and recovery concepts and practices. Background Chapter prepared for United Nations Office for Disaster Risk Reduction and the Global Assessment Report on Disaster Risk Reduction, 2015. UNESCO/UNICEF: Paris/Geneva.*
- Ronan KR, Petal M, Johnson VA, Alisic E, Haynes K, Johnston DM, Handmer J, Towers B, Davie S, Ireland N 2014, *Hyogo Framework for Action Thematic Review: Priority for Action (PFA) 3 – Core Indicator (CI) 2: School curricula, education material and relevant training including disaster risk reduction and recovery concepts and practices. Input Paper prepared for United Nations Office for Disaster Risk Reduction and the Global Assessment Report on Disaster Risk Reduction, 2015. CQUniversity.*
- United Nations Educational, Scientific and Cultural Organization/United Nations Childrens Fund 2012, *Disaster risk reduction in school curricula: Case studies from thirty countries. Geneva/Paris: UNESCO/UNICEF. At: www.unicef.org/education/files/DRRinCurricula-Mapping30countriesFINAL.pdf.*
- United Nations Educational, Scientific and Cultural Organization/United Nations Childrens Fund 2013, *Towards a Learning Culture of Safety and Resilience: Technical Guidance for Integrating Disaster Risk Reduction in the School Curriculum (Pilot Version). Geneva/Paris: UNESCO/UNICEF. At: http://unesdoc.unesco.org/images/0021/002194/219412e.pdf.*
- Webb M & Ronan KR 2014, *Interactive hazards education program in a low SES community: A quasi-experimental pilot study. Risk Analysis: DOI: 10.1111/risa.12217.*

## About the author

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<sup>3</sup> A well-known maxim based on much research in psychology and related areas is 'the best predictor of future behaviour is past behaviour'.