

COMPREHENSIVE SCHOOL SAFETY PRACTICES IN ASIA

Writers:

Ma. Bernadeth Lim, Ronilda Co, Cici Riesmasari, Kim Chanphearum, Ounkham Pimmata, Renar Berandi

Editors:

Ronilda Co, Cedric Hoebreck, Christine Apikul

Contributors/Key Informants:

Bangladesh

Mr. Golam Rabbani, Plan Mr. Balaram, Tapader, World Vision

Myanmar

Ms. Aye Aye Tint, MoE
Ms. Khin Myo Lwin, MoE
Ms. Aye, MoE
Ms. Jessica Chaix, UNICEF
Mr. Win Zin Oo, World Vision
Dr. Min Htoo, World Vision
Ms. Ler Pwe Paw, World Vision
Mr. Prem Lall, World Vision
Ms. Yu Mon Kham, World Vision
Ms. Lu Sam, Save the Children
Ms. Mitsuko Shikada, Seeds Asia
Mr. Thura Tun, ActionAid
Mr. Khual Tawna, Plan
Ms. Phyo Haymar Than Htun, Plan
Mr. Aloysius Rego, Independent Expert

For case stories of Cambodia, Indonesia and Lao PDR, the ASSI consortium would like to acknowledge the NDMOs, MoEs and other government offices, the national offices of Plan International, Save the Children and World Vision, United Nations agencies and NGO partners.

Philippines

Mr. Dexter Pante, DepEd

Mr. Roger Masapol, DepEd
Ms. Mariel Bayangos, DepEd
Mr. Jose Taguinayo Jr., DepEd
Mr. Jayson Lozano, Plan
Mr. Jose Abraham Ongkiko, Plan
Ms. Prudencia Martinez-Sanoy, Plan
Ms. Rachael Cristal Fermin, Save the Children
Ms. Yolanda Delas Alas, SEAMEO-INNOTECH
Mr. Romulo Halabaso, UNICEF
Mr. Fernando Balmaceda, UNICEF

Ms. Maricel Villar-Menez, World Vision Mr. John Peter Felix, World Vision Ms. Joyce Anne Dumayag, World Vision Ms. Florabel Labor, World Vision

Mr. Rangsun Wiboonuppatum, UNICEF

Thailand

Mr. Theerawut Worachat, World Vision Ms. Suttapak Suksabai, DDPM Ms. Chutikarn Boonyathi, OBEC Ms. Sairoong Saengjaeng, MoE Dr. Saipan Sriphongphankul, OBEC Ms. Amornthip Paksuchon, DDPM

Layout and graphic design: Lowil Espada

Photo credits:

Credits to the pictures included in this publication go to the Ministry of Education or the Organization whose work is being featured, unless otherwise indicated. illions of children in Asia face risks from multiple hazards. In order to save children's lives and protect damages in infrastructures and investments costs in the education sector, countries have committed to and started implementing school safety in line with various global and regional declarations and frameworks, particularly the ASEAN Agreement on Disaster Management and Emergency Response (AADMER), the Hyogo Framework for Action (HFA) and its successor, the Sendai Framework for DRR.

This report presents an overview of comprehensive school safety implementation in selected countries including Bangladesh, Myanmar, Philippines and Thailand. Case studies from pilot projects in Cambodia, Indonesia, and Laos are also featured. Good practices as identified by the Education Ministries and NGOs are presented. Challenges and lessons learned on school safety implementation as well as next steps are also presented. Information was solicited through c face-to-face interviews with key informants identified from the Ministries of Education and supporting organizations. It should be noted that due to limitation of time and budget, not all ongoing initiatives in the countries are captured in this document. In addition, not all stakeholders implementing school safety in countries have been interviewed and included in this report.

The practices featured in this report, are presented based on the Comprehensive School Safety Framework (CSSF). In Indonesia, Myanmar and Philippines, the Ministry of Education has developed and issued frameworks and policies which mandate and guide the implementation of comprehensive school safety, covering all the three pillars of the CSSF. Coordination mechanism involving various stakeholders has also established and well-functioning, in addition to programs and activities at the local level. In Bangladesh and Thailand, many initiatives at the school and community level have been implemented, while the school safety implementation framework of the Ministry of Education will soon be completed. In Laos, on-going initiatives include development of DRR manuals for teachers, training them and officials on DRR in education. Guidelines for school building construction, was also approved by the Ministry of Education and Sports.

In all these countries, local and international NGOs and UN Agencies play significant roles in advancing and strengthening comprehensive school safety at national and school levels. Their major roles include:

- provision of technical and/or financial support in the development of guidelines and tools for ensuring the safety of school buildings and facilities
- strengthening disaster preparedness through establishment of early warning systems, organization of school disaster management teams and building their capacities to assess risks, and develop and implement DRRM plans



- provision of technical and/or financial support in integrating DRR/CCA in the curriculum
- provision of technical support in the development of comprehensive school safety framework, establishment of school safety baseline, priorities in line with AADMER and the Sendai Framework for DRR, and monitoring and evaluation tools to track progress
- advocacy geared towards policy development and reform to strengthen and institutionalize comprehensive school safety

The following recommendations were drawn from the challenges and lessons learned in implementing school safety in the countries featured in this document.

- The leadership of the Ministry of Education in establishing a comprehensive school safety framework, policies, guidelines, and coordination and communication mechanisms at all levels, help in ensuring that all efforts and existing resources are pulled to enable more coherent and effective implementation towards the attainment of school safety goals in the country.
- DRRM programs and activities with corresponding budget support have to be institutionalized to
 ensure that capacities of current students, teachers and personnel are continuously built and enhanced.
- Integration of DRR in the education sector plan from national, local to school levels (e.g. school improvement plan) supports implementation of comprehensive school safety with clear goals, targets, strategies, monitoring and management, and allocation of funds.
- Having school safety champions at the local level is key in ensuring the sustainability of interventions.
 At the school level, strong leadership demonstrated by the school head is important to encourage other schools and community members to actively participate in school safety initiatives.
- Turning DRR managers as advocates of DRR is important towards effective implementation of school safety programs. In doing this, provision of technical support, guidance and encouragement from immediate supervisors is required.
- It is also important to involve community members and other stakeholders (e.g. PTA, and local government officials, youth and schoolchildren, CSOs working in the area, health workers) in school safety activities. Coordinated efforts of different stakeholders working in the education sector and DRR can help maximize resources, at the same time have a wider reach and obtain more effective results.
- Facilitating change in the behavior of key stakeholders in the community and schools who are at-risk of hazards is important in advancing school safety programs.
- Children of different ages and grade levels can play an important role in preparing schools and themselves against future disasters.
- It is necessary to ensure that schoolchildren and teachers who were trained pass on their knowledge and skills to the next generation.
- Ensure that schools and facilities are disaster-resilient. Design and construction should abide with the national building code of the country. The development of a national guidelines for school construction and retrofitting will help standardize various efforts in the country. Design and construction should also be inclusive of children with disabilities. Capacity building of stakeholders involved in school construction and retrofitting should be undertaken to ensure the integration of DRR measures. In countries where the responsibility of monitoring school construction and maintenance is under the School Head/Administrator, it is necessary to build capacity and provide adequate funding.
- Institutionalization of school disaster management teams in collaboration with existing local government
 and non-government disaster management structures and groups, training them on risk assessment,
 as well as in the development, implementation, monitoring and evaluation of their plans, are key
 in scaling-up school safety efforts in the country.
- Creative ways to integrate DRR in extra-curricular and formal curriculum activities should be done
 to motivate teachers. This will address issues of teachers being overloaded with so many activities.
 Creative methodologies could also be documented and incorporated in the training for teachers
 (e.g. use games, role play, songs, dance and theatre).
- Integrating DRR in the in-service and pre-service training of teachers facilitate the institutionalization and scaling-up of a culture of safety in the country.



Table of Contents

- 1 Introduction
- 4 Method of Data Collection
- 5 School Safety Initiatives in Bangladesh
- 9 The Good Practices in Bangladesh
 12 CSO Initiatives in Implementing School Safety Programs in the Country
 18 Challenges and Lessons Learned
 18 Way forward

- 19 The Comprehensive School Safety Program in Myanmar
- 22 The Good Practices
- 30 Role of UN Agencies, NGOs and INGOs in the School Safety Program Implementation in Myanmar
- 37 Challenges and Lessons Learned
- 38Way Forward

39 Institutionalizing Comprehensive School Safety in the Philippines

- 43 DepEd's Good Practices
- 52 Role of NGOs in School Safety Program Implementation
- 60 Challenges and Lessons Learned
- 60Way forward

61 Advancing School Safety in Thailand

- 64 The Good Practices
- 66 The role of INGOs, Local NGOs and other Stakeholders in Thailand
- 70 Challenges and Lessons Learned
- 70 Way forward

71 case study Cambodia

80 case study Indonesia

- 97 Recommendations
- 99 Questionnaire

89 case study Lao PDR

Boxes, Figures and Tables

6	Box A.1	Other GoB initiatives related to school safety		
10	Box A.2	Members of the Education Network		
15	Box A.3	Children learn, share and practice their knowledge and skills – Helping to build safer schools and communities		
17	Box A.4	Tornado Group in Cox's Bazar Help Mitigate Problems from Floods		
45	Box C.1	Specific Functions of the DRRMO/DRRMS		
46	Box C.2	Roles and Responsibilities of School Heads and DRRM		

6	Figure A.1	Signing of MoU by DSHE and CDMPII
7	Figure A.2	Mock drill conducted during the NPDP 2012 (left); Rally during the NDPD 2015
8	Figure A.3	The model for DRR in Education and EiE in schools
13	Figure A.4	Earthquake preparedness session and mock drill participated by students
13	Figure A.5	IEC Materials produced though the NARRI Consortium: cyclone flipchart (left), and flood flipchart (right)
13	Figure A.6	Children share their stories during the consultations
14	Figure A.7	Household with the children participate in DRR activities as part of CCDRR
15	Figure A.8	Children can use available materials to be safe from flood (top); simulation exercise conducted by SDMC (bottom)
14	Figure A.9	Children prepare risk and resource map (left) and perform disaster-related folksong during a cultural event (right).
16	Figure A.10	Children participate in disaster management training
17	Figure A.11	Tornado Group Members help gather bricks for fixing the road (left) and take care of the seedlings planted along the roadside
19	Figure B.1	a) MAPDRR 2009-2015, b) Guidance on mainstreaming DRR
20	Figure B.2	Key programs and activities on implementation of CSSF in Myanmar
21	Figure B.3	a) MAPDRR 2009-2015, b) Guidance on mainstreaming DRR
22	Figure B.4	a) MAPDRR 2009-2015, b) Guidance on mainstreaming DRR



24	Figure B.5	MoE School Design
25	Figure B.6	Provisional MNBC
26	Figure B.7	Contents of the DRR Training Resource Pack developed in 2009 and revised and improved in 2010 and 2012
27	Figure B.8	DRR in Education Training Modules, Glossaryand Acti
29	Figure B.9	Teachers' received training on risk assessment, preparation of school disaster management plan, preparation of teaching aids and conduct of mock drills
29	Figure B.10	Mock drills done in schools
30	Figure B.11	(left) The official from MWSRR discussed the DM Law and regulation during the IDDR 2015; (right) Paintings of Children awarded during the celebration in Yangon
31	Figure B.12	Examples of community map and seasonal calendar prepared through the implementation of the "Safer Coastal and Urban Communities through Inclusive DRR in Myanmar" by MCCR
32	Figure B.13	(a) Action Aid Fellow conducting a session b) trainees from villages during a workshop on developing community map
33	Figure B.14	Children draw maps of their village in the Irrawaddy Delta, Myanmar. Save the Children is helping children identify the dangerous areas and safer places if there is another cyclone.
34	Figure B.16	Model for DDRAC and Trainings in Communities
34	Figure B.15	a) The MKRC; b) Students learning about mechanisms of hazards in MKRC; c)the WKRC

35	Figure B.17	A child-friendly school built in Myanmar; children learning in the school built
37	Figure B.18	Disaster risk game with teachers and students (left photo) and earthquake drills (right photo) conducted during the implementation of MDRR
39	Figure C.1	Standard classroom designs for 1-story (left) and 2-story (right) building
40	Figure C.2	The Comprehensive DRRM in Basic Education Framework
37	Figure C.3	The Guidebook on Enhanced SIP
44	Figure C.4	Summary of policies, programs and activities on school safety implementation
46	Figure C.5	Earthquake mock drills done in Schools
47	Figure C.6	Flow of Communication and Coordination among NDRMMC members and within DepEd
48	Figure C.7	TLS Design
51	Figure C.8	K-12 Learning Materials
54	Figure C.9	The SIP process flowchart incorporates the icons to easily show who should perform task
55	Figure C.10	School-based Disaster Management and JERT Bulletin, Tanay High School ¹¹
57	Figure C.11	Core Team Members Train other Teachers on DRR in Education
59	Figure C.12	Participants of CFDRR training in Iloilo City includes Resource person from MDRRMO, and BDRRMO, members of the BDRRMO, and School DRRM Team with selected schoolchildren
59	Figure C.13	Risk Map prepared by participants of the CFDRR Training in Barangay Ticud Elementary School, Iloilo, Philippines



62	Figure D.1	Children are trained to draw community map and identify hazards in their schools
62	Figure D.2	Guideline on Disaster Management and Education
63	Figure D.3	Key programs and activities on implementation of CSSF in Thailand
64	Figure D.4	Evacuation drill conducted in Muang Sam Pee Primary School in Lamphun Province
64	Figure D.5	Training of teachers on how to develop contextual teaching curriculum and plans
65	Figure D.6	Disaster Management Action Plan of Muang Sam Pee School ⁸
65	Figure D.7	DRR teaching and learning manual developed by OBEC with support from members of the TSSN
66	Figure D.8	Firefighting training provided to schoolchildren in 2013
66	Figure D.9	Raising awareness of schools on disaster preparedness in Nan Province, Thailand, November 22-23, 2015
67	Figure D.10	School Safety Guideline
68	Figure D.11	Alert Little Tun booklet for Children
69	Figure D.12	Coloring book for staying safe from floods for grades 1-3 and the user guide

1	Table 1	Impacts of disaster to the education sector in selected countries	
6	Table A.1	School Safety-related goals under specific programs in CDMP II.	
9	Table A.2	DRR Topics integrated in Grade Level Subjects	
10	Table A.3	Activities and Expected Deliverables	
21	Table B.1	Related Topics in Life Skills Subject	
21	Table B.2	Topics in the Core Curriculum Subjects in Some Lower and Upper Secondary Levels	
26	Table B.3	Indicative List of Agencies to be involved in the development and use of the National Construction Guideline according to Thematic Areas	
28	Table B.4	DRR in education trainings conducted in 2010-2013	
50	Table C.1	Topics Related to DRR in K-12 Curriculum and Other Resource Materials	
61	Table D.1	DRR integration in upper primary and lower secondary subjects (Grades 4, 5, 6)	
67	Table D.2	Current Projects Being Implemented by Plan Thailand	



Acronyms

AADMER	Agreement on Disaster Management and Emergency Response
ACDM	ASEAN Committee for Disaster Management
ADM	Alternative Delivery Mode
ADPC	Asian Disaster Preparedness Center
AIP	Annual Implementation Plan
AMCDRR	Asian Ministerial Forum on Disaster Risk Reduction
AOR	Area of Responsibility
APG	AADMER Partnership Group
ASEAN	Association of South East Asian Nations
ASSI	ASEAN Safe School Initiative
BDRRMO	Barangay Disaster Risk Reduction and Management Office
BERT	Bulilit Emergency Response Team
BMZ	German Federal Ministry for Economic Cooperation and Development
BoE	Board of Education
BRACED	Building Resilience and Adaptation to Climate Extremes and Disasters
CCA	Climate Change Adaptation
CCDRR	Child Centered DRR
CDMP	Comprehensive Disaster Management Program
CDRR	Child Focused DRR
CDSP	Char Development and Settlement Project
CESR	Comprehensive Education Sector Reform
CLAP	Coastal Livelihoods Adaptation Project
CLDRR	Child Led Disaster Risk Reduction
COCOPEA	Coordinating Council of Private Educational Associations
CSO	Civil Society Organization
CSSF	Comprehensive school safety framework
DANIDA	Danish International Development Agency
DDMC	District Disaster Management Committees
DDPM	Department of Disaster Preparedness Management
DDRAC	DRR Community Centers
DEDP	Division Education Development Plan
DepEd	Department of Education

DFAT Australian Department of Foreign Affairs and Trade



DFID Department of International Development **DIG** Disaster Imagination Game **DM** Disaster Management **DM** Department Memorandum **DO** Department Order **DOH** Department of Health **DPRE** Disaster Preparedness and Response in Education **DRR** Disaster Risk Reduction **DRRMO** Disaster Risk Reduction and Management Office **DRRMP** Disaster Risk Reduction and Management Plan **DSWD** Department of Social Welfare and Development **EBEIS** Enhanced Basic Education Information System **ECCD** Early Childhood Care and Development **ED** Education and Disability **EED** Education Engineering Department **EIE** Education in Emergencies **EL** Education and Language **EOC** Emergency Operation Center **ESAO** Educational Service Area Offices **EXECOM** Executive Committee **FSAP** Fire Safety and Awareness Program **GAD** General Administration Department GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit **HFA** Hyogo Framework for Action **HVCA** Hazard Vulnerability Capacity Assessment **IDDR** International Day of Disaster Reduction **IFRC** International Federation of Red Cross and Red Crescent **IMCS** Instructional Materials Council Secretariat **INEE** Inter-Agency Network for Education in Emergencies **INGO** International NGO **IUCN** International Union for Conservation of Nature JERT Junior Emergency Response Team JESWG Joint Education Sector Working Group JICA Japan International Cooperation Agency JICA Japan International Cooperation Agency **KAP** knowledge, attitudes and practices

LAC Learning Action Cell

LGU Local Government Unit MCCR Myanmar Consortium for Community Resilience MDRR Myanmar Disaster Risk Reduction MDRRMO Municipal Disaster Risk Reduction and Management Office **MEC** Myanmar Education Consortium MNBC Myanmar National Building Code **MOC** Ministry of Construction MoDMR Ministry of Disaster Management and Relief **MoE** Ministry of Education MSWRR Ministry of Social Welfare Relief and Resettlement NARRI National Alliance for Risk Reduction and Response Initiatives **NCTB** National Curriculum and Textbook Board **NDMC** National Disaster Management Council **NDPD** National Disaster Preparedness Day NDRRMC National Disaster Risk Reduction Management Council **NESP** national education sector plan **NFE** Non Formal Education NFESWG Non Formal Education SWG **NGO** Non-government organization NPAII National Plan of Action II NRC Norwegian Refugee Council **NSCG** National School Construction Guideline **OBEC** Office of Basic Education Commission **OCD** Office of Civil Defense PEDP II Primary Education Development Program **PHIVOLCS** Philippine Institute of Volcanology and Seismology PTA Parents-Teachers Association RA Republic Act **RADAR** Rapid Assessment of Damages Report

RD Regional Director
RO Regional Office

SBDRRMO School Based Disaster Risk Reduction and Management Office
SBM School-Based Management
SCSWG School Construction Sub Working Group

SDC Swiss Development Cooperation



SDMC School Disaster Management Committee

SDMC School Disaster Management Committee

SDO School Division Office

SDPP School Disaster Preparedness Plan

SDS Schools Division Superintendent

SIP School Improvement Planning

SLIP School level improvement plan

SMC School Management Committee

SNAP DRR Strategic National Action Plan for Disaster Risk Reduction

SRC School Report Card

SWG Sub Working Group

TAO Township Administration Office

TE Teacher Education

TEO Township Education Officers

TLS Temporary Learning Spaces

TSSN Thailand School Safety Network

TWG Thematic Working Group

UDMC Upazilla Disaster Management Committees

UN United Nations

UNESCO United Nations Educational, Scientific and Cultural Organization

UNICEF United Nations Children's Fund

USAID United States Agency for International Development

WCDRR World Conference on Disaster Risk Reduction

WISS Worldwide Initiative for Safe Schools

WVF West Valley Fault



sia is the most disaster-prone region in the world. Millions of children are at risk to natural hazards such as typhoon, flood, landslides, and fires. They are especially vulnerable in disaster situations. They face particular risks to their health, psychosocial well-being, protection, nutrition, as well as access to education. Children who are going to school spend most of their waking hours in school facilities that are often neither constructed nor maintained to be disaster resilient. For instance, in Myanmar, 50 to 60% of public schools, including monastic ones were destroyed or damaged during the 2008 Cyclone Nargis, with total cost of damages and losses in the education sector estimated at USD 10 billion. More than 10,000 children died during the 2008 Sichuan earthquake due to the collapse of schools. More examples of impacts of disasters to the education sector in different Asian countries are shown in Table 1.

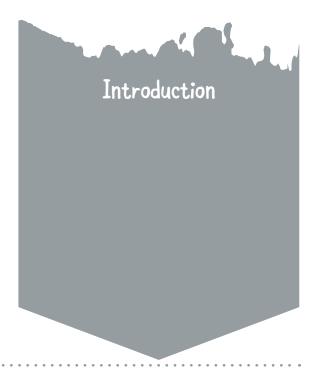


table 1	Impacts of disaster to the education sector in selected countries		
country	disaster event	impaces to the education sector	
Bangladesh	2007 Cyclone Sidr and flood	13,362 schools were affected fully or partially	
	Cyclone Alia	2,888 schools were affected fully or partially	
Myanmar	2010 Cyclone Giri	damaged over 350 schools economic loss in the education sector is estimated to be more than USD 100 Million	
	2015 July Massive Flooding	affected more than 200,000 children damaged 643 schools which costs USD 79.2 Million for reconstruction (33%) and renovation (77%)	
Philippines	2006 Durian typhoon	killed nearly 1,000 people and displaced more than 1 million In Albay, the hardest-hit area, 702 out of 704 schools were damaged affecting 357,400 enrolled children; 21,500 preschoolers were affected in 595 learning centers damage to education infrastructure was estimated to have reached \$66 million	
Thailand	2011 flood	2,934 educational institutions were fully or partially damaged by the flood 1,435,378 students were affected total damage of the education sector is estimated at 13,051 million THB (US\$430.5 million) and total losses are estimated at 1,798 million THB (US\$59.3 million)	

Recognizing that "disaster risk reduction (DRR) begins at school", school safety has been a priority of many governments in Asia. The World DRR campaign 2007-2008 was dedicated to safe schools. In 2010, the One Million Safe Schools and Hospitals Initiative was launched with the aim to raise social demand for safe schools and hospitals.

At the 2013 Fourth Session of the Global Platform on DRR, the High-Level Dialogue issued a Communiqué that proposed to "start a global safe schools and safe health structures campaign in disaster-prone areas with voluntary funding and commitments to be announced at the 3rd UN World Conference on Disaster Risk Reduction (WCDRR) in 2015." The Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector (GADRRES)¹ has developed a **Comprehensive School Safety Framework**² (CSSF) that rests on three pillars:

- Safe Learning Facilities
- School Disaster Management
- Disaster Risk Reduction and Resilience Education

In response to the High Level Communiqué's call, a **Worldwide Initiative for Safe Schools** (WISS) has been formulated with the leadership of governments and GADRRRES. WISS targets, "As of 2016, every new school will be safe from disasters". WISS aims to promote national level commitment, action and implementation of school safety.



At the World Conference on DRR (WCDRR), 187 member states adopted the Sendai Framework for Disaster Risk Reduction 2015-2030 (SFDRR) that also emphasizes the role of education in disaster risk reduction. In committing to the SFDRR, countries and stakeholders also made specific commitments for school safety.

GADRRRES promotes a comprehensive approach to DRR education based on education policy, plans, and programs that are aligned with disaster management at national, regional, district and local school site levels. Its main purposes are to strengthen global coordination, increase knowledge, and advocate on risk reduction education and safety in the education sector. Members include the Global Facility for DRR, International Federation of Red Cross and Red Crescent Societies (IFRC), Inter-Agency Network for Education in Emergencies (INEE), Plan International, Save the Children, Southeast Asian Ministers of Education Organization (SEAMEO), United Nations Education, Science and Culture Organization (UNESCO), United Nations Children's Fund (UNICEF), United Nations Office for DRR (UNISDR) and World Vision, with the regional Affiliate, the Asia Pacific Coalition for School Safety.

² The full details of the CSSF is available at http://www.preventionweb.net/files/31059_31059compreh ensiveschoolsafetyframe.pdf

Other relevant frameworks, declarations and initiatives that ensure school safety include

- Hyogo Framework for Action (HFA 2010-2015) was endorsed by 168 countries and implemented 5 priority areas in order to achieve a substantial reduction in lives loss as well as in economic and environmental assets.
- The Children's Charter (2011) identified comprehensive school safety as first priority.
- Yogyakarta Declaration, was adopted by Asian governments during 5th Asian Ministerial Conference on DRR (AMCDRR), were the governments were urged to support local level efforts for safe schools.
- Bangkok Declaration was endorsed by the government during the 6th AMCDRR, and urged them to promote comprehensive school safety.
- ASEAN Agreement on Disaster Management and Emergency Response (AADMER)'s second phase of the work program includes a priority component on mainstreaming DRR in education and health sectors.
- The ASEAN Safe School Initiative (ASSI) project is one component of a regional undertaking by the ASEAN Committee for Disaster Management (ACDM), to standardize approaches to DRR and management with a specific focus on school safety. Under ASSI Phase 1, a series of in-country consultations and workshops involving a range of national and international stakeholders were conducted to gauge the progress of country-level initiatives towards a Safe School model. These consultations provide a country-level audit of school DRR in school curricula, disaster risk management (DRM) for schools, and existing vulnerability assessment guidelines.:

This report presents identified good practices on school safety in selected countries, particularly Bangladesh, Myanmar, Philippines and Thailand. It primarily captures the good practices of the Ministry of Education in these countries. In addition, the school safety initiatives of stakeholders such as UN agencies and international and local NGOs are also featured in so far as they support the identified good practices of the Ministry of Education. The school safety work of World Vision (WV) in Bangladesh, Myanmar and Philippines are currently supported by the Australian Government through DFAT; while in Thailand, the work of WV is being supported by WV Korea.

In addition, we would like to express thanks to ASSI PMT for sharing case studies in on the ASEAN Safe School Initiatives implementation in Cambodia, Indonesia and Lao PDR.

The practices featured in this report, are presented based on the pillars of the Comprehensive School Safety Framework.



n order to solicit information for the good practices featured in this report, face to face interviews were conducted with key informants from the Ministries of Education and from selected supporting organizations. Separate versions of the interview guide (Attachment 1) were prepared for MOEs and other stakeholders (including NGOs, INGOs, UN Agencies, etc.).

The key informants identified the following criteria in determining their good practices on school safety.

criteria in selecting good Practices

- Effective and has impact (such as children's knowledge enhanced with capacity to do mock drills, change in behavior of students and communities, etc.)
- Has the potential to be replicated and/or rolled-out or already has been done so, in other areas
- Sustainable, i.e., people concerned has owned the implementation, hence, will be continued with their own initiatives and funding
- Fosters clear and determined commitment of the duty-bearers to initiate such practices, from national, sub-national to school level
- Facilitates continuous functionality of sub-national and school-based DRR structures/committees that supports the implementation and enhancement of a risk-informed plan
- Facilitates continuous partnership and support of the humanitarian and development organizations, in whatever form, giving the government a wider platform for self-reflection to inform its policies and programs
- Promotes innovation, such as development of life-saving materials and early warning system

Due to limited time and resources, not all key actors in the school safety work in the country were interviewed. Only some were selected according to their availability and accessibility. Most interviews were conducted with DRR focal persons of the Ministries of Education, and Program Managers, DRR Specialists of other organizations. Some stories and information in the case studies were collected from secondary data, published reports as indicated in the footnotes.

he government of Bangladesh has undertaken initiatives through a range of disaster management platforms under the National Disaster Management Council (NDMC)³⁴. The national policy on disaster management 2010-2015⁵ recognizes the importance of school safety with a focus on developing and implementing a school safety program including national school safety plan and school building-level emergency response plans. The Standing Orders on Disaster also outlines the duties and responsibilities of the ministries and agencies at all levels of disaster management. It emphasizes the need to incorporate DRR issues into plans, as well as those with emergency management responsibilities to prepare contingency plans and train

their staff.

The National Plan of Action II (NPAII) (2003-2015) demonstrates Government's commitment to the Education For All (EFA) program which highlights the need for improving quality while retaining the focus on equitable access to basic education. Launched in 2010, the National Education Policy also seeks to build students' knowledge, social awareness and capacities with regard to issues in their environment and help build the nation's resilience against climate change and other disasters brought about by natural hazards. The National Children Policy 2012 also has a section on child protection during and after a disaster.

The Comprehensive Disaster Management Program (CDMP)⁶ under the auspices of the Ministry of Disaster Management and Relief (MoDMR) is implemented with thirteen other ministries, including the Ministry of Education (MoE). The CDMP works on strengthening disaster management and risk reduction at all levels by implementing national strategic priorities and plans. The CDMP II is also implemented to strengthen linkages and synergies between DRR and climate change adaptation (CCA) efforts. It has been working with MoE in incorporating DRR and CCA issues into text books for Grades 3-7. Under an MoU with the CDMP II, the Directorate of Secondary and

3 NDMC, chaired by the Prime Minister, is the highest forum for the formulation and review of disaster management policy.

4 NDMC, chaired by the Prime Minister, is the highest forum for the formulation and review of disaster management policy.

The NPDM builds on and is aligned with the objectives and priorities for action identified under various international conventions, such as the Hyogo Framework for Action (HFA) 2005-15, the United Nations Framework Convention on Climate Change (UNFCCC), and particularly, the SAARC Framework for Action (SFA) 2006-15. The plan has been developed on the basis of the GoB Vision and MoFDM mission to reduce the vulnerability of the poor to the effects of natural, environmental and human induced hazards to a manageable and acceptable humanitarian level. It Acts as basic guideline for all relevant agencies in strengthening better working relations and enhancing mutual cooperation.

6 CDMP is a program of GoB and UNDP supported by UK Aid and EU. The CDMP under the MoFDM, is undertaking a number of interventions aimed at strengthening and improving disaster management and risk mitigation capacities at various levels, and in promoting and implementing the national strategic priorities and plans set out by the Government. It is being successfully implemented with international partnership and cooperation. The program is making significant contributions in the areas of capacity building, professionalizing disaster management, partnership development, advocacy for CDMP is being implemented with the assistance from DFID, UNDP, and the EC. CDMP is a program of Government of Bangladesh and UNDP supported by UK Aid and EU

School Safety Initiatives in Bangladesh

figure a.1

Signing of MoU by Prof. Fahima Khatun, Director General, DSHE and Mr. Mohammad Abdul Qayyum, National Project Director, CDMPII done on 30 September 2013⁷



Higher Education (DSHE)⁸ have been conducting the following towards making schools safe from disasters:

- Develop 300 Master Trainers to train 4,650 School Teachers
- Orient 650 Field Level Educational Officers
- Develop teaching/training material for comprehensive school safety and evacuation for the master trainers
- Enhance earthquake awareness and preparedness in 2,600 schools and madrasas
- Work closely with Education Engineering Department (EED) for hazard and context friendly safe school structural design and develop a national guideline on school design and maintenance

Additionally, programs under the CDMP II that supports school safety are shown in Table A.1.

table a.1

School Safety-related goals under specific programs in CDMP II

program

goals/activities related to school safety

Disaster-proofing • of development funding •

- incorporate disaster management into school textbooks, primary to higher secondary following piloting of DRR-related materials
- training of trainers on DRR courses

Urban Risk Reduction ensure delivery of programs to raise awareness on earthquake risks in schools and communities

Other GoB initiatives that are related to ensuring school safety are presented in Box A.1.

60X 2.1

Other GoB initiatives related to school safety

- A Disaster Management Act enacted in 2012 led to the establishment of the Department of Disaster Management with a
 mandate to strengthen and coordinate DRR and emergency response as undertaken by governmental and NGOs, academic
 institutions and other organizations. MoE is working closely with CSOs on cluster approach to have effective response
 mechanism in place.
- Establishment of a Disaster Management Training and Public Awareness Building Task Force with representatives from CSOs and NGOs.
- Establishment of School Management Committee (SMC) and the parents-teachers association (PTA) to improve governance in schools. The SMC plays an important role by engaging local people in the educational and development activities of primary schools.
- Strengthening of the physical structure of schools located in hazard-prone areas especially in coastal and flood plain areas.
- School level improvement plan (SLIP) has been introduced under Primary Education Development Program (PEDP II). This
 was done to increase local participation in educational planning and ensure overall improvement of school facilities, learning
 environment and outcomes of the students through the participation of stakeholders in the process of decentralization of
 planning activities at school level.

⁷ UNDP (2013). Making schools safe from disaster. Available at http://www.bd.undp.org/content/bangladesh/en/home/presscenter/articles/2013/09/30/making-schools-safe-from-disasters.html

⁸ DHSE, under MoE, is responsible to guide and control the Secondary and Higher Education and to ensure proper implementation and administration of education policy.





Bangladesh has also been raising awareness of the public on disasters through yearly observance of the National Disaster Preparedness Day (NDPD), since 1997. Held every March of the year, the main objective of the event is to make the people become aware of and motivate them to manage disaster risk. Every year, a rally or gathering on disaster preparedness is being done followed by several activities such as forums/seminars, mock drills, TV shows on disaster preparedness (see Figure A.2). In 2010, the theme, "Easy access to information, will ensure safety during disaster" considered the lack of access of vulnerable communities to DRR knowledge. In 2012, the theme was "Student-Teacher-Mass, Let us Build Disaster Awareness", incorporating the participation of the masses/public, focusing on the youth of Bangladesh as they are the future builders of the nation. Several schools and college-based activities were conducted to promote a culture of safety in the educational institutes.

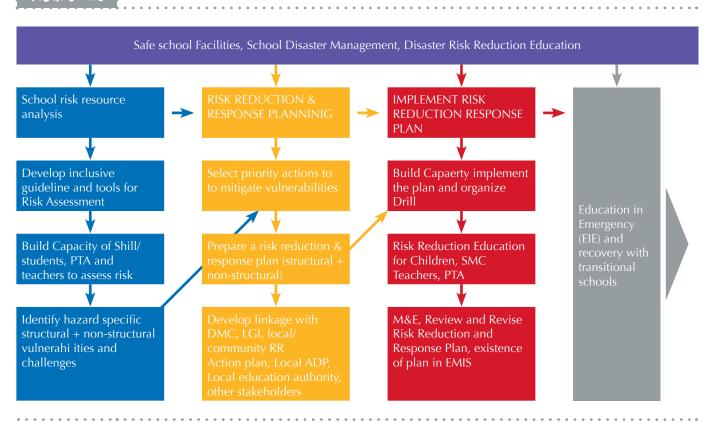
DRR and CCA has also been incorporated in several subjects such as Religion and Moral Studies, Bangla, English, Bangladesh and Global Studies, English Literature, Bengali and Geography subjects in various grade levels. Depending on the grade level and subject as discussed in detail in section 2.1, DRR topics are made part of the textbooks.

Lastly, the Framework for DRR in Education and Education in Emergencies (EiE)⁹ in schools was developed and is now under the process of review and approval by the MoE. The Framework will guide mainstreaming Comprehensive School Safety (CSS) in the Education Sector of the country. The Framework is inclusive and based on the three pillars of the global Comprehensive School Safety Framework (CSSF). Figure A.3 shows the logical connection of DRR and EiE with 4 main steps as follows:

- analyze disaster risk and resource and capacity of schools and catchment areas;
- develop risk reduction and response plan with corresponding budget;
- implement risk reduction and response plan;
- EiE and recovery with transitional schools.

Each step of the model consists of series of actions following the 3 pillars of the CSSF. Each step must have a systematic consultation with and participation of students, teachers, school management committee (SMC), PTA and Upazila education authority, Union Parishad/Ward Council and Local DMCs and CSOs. The consultation with and participation of different stakeholders addresses inclusion issues like gender, disability, minority, ethnicity, inclusivity etc. to ensure a favorable learning environment for all, including the disadvantaged sections of society.

⁹ The framework was developed by the DSHE; Directorate of Primary Education; Department of Disaster Management in Collaboration with CDMP, Education Cluster, DeSHARI, NARRI, CARITAS and ECHO.



Integration of Disaster Preparedness in the Curriculum

Since 2005 DRR has been progressively incorporated into some thirty-nine textbooks, through the National Curriculum and Textbook Board (NCTB)¹⁰. In 2014, MoE with financial and technical support from CDMP, further integrated disaster preparedness in ten textbooks. NCTB has introduced disaster and climate change-related chapters within the textbooks, for instance in the General Science and Social Science subject areas that cut across the three levels of primary school (grades 1-5), junior high school (grades 6-8) and secondary high school (grades 9-10).¹¹ Some DRR topics are also integrated in Religion and Moral Studies, Bangla, English, Bangladesh and Global Studies, English Literature, Bengali and Geography subjects in various grade levels. Examples of DRR topics and themes included in the textbooks of various subjects are shown in Table A.2.



table a.2 DRR Topics	drr Fobic	aro lo lovol	
SUPJECF		grade level	
Religion and Moral Studies	Earthquakes	3	
Bangladesh and Global Studies	disaster and disaster management	4	
Religion and Moral Studies	flood and drought	4	
Bangla Language	a poem on cyclones	5	
Bangladesh and Global Studies	climate and disaster	5	
Primary Science	climate change	5	
Social Science	natural disasters in Bangladesh (definitions of disaster, classification of different types of disasters; disaster planning)	6	
English Literature	fire as human-induced disaster	7	
General Science	floods, river bank erosion, drought in Bangladesh	7	
General Science	natural disasters (cyclones and tidal surges), diseases during disasters, prevention measures, warning signals	8	
General Science	objectives of disaster management, cycle of disaster management, national disaster management structure	9 and 10	
Bengali	disaster prone earth; Bangladesh and the world (different types of natural and human-caused disaster), UN contribution to disaster management; post-disaster management in Bangladesh	11	
Geography	rivers and flood control (definitions and effects of flood, flood control, salinity)	11	
Commercial Geography	flood control and drainage (floods in Bangladesh, effects of floods, flood control systems, government initiatives in Bangladesh)	11	

¹⁰ The NCTB, an autonomous organization under the MoE, has sole responsibility for translating policy into curriculum through textbook development, preprimary through grade 12.

¹¹ Grade levels 1-5, 6-8 and 9-10 represent ages 6-10, 11-13, and 14-15, respectively.

¹² Kagawa and Selby (2014). DRR in the school curriculum, the present and potential role of development agencies and the implications for HFA 2005-2015 successor. Input paper to the Global Assessment Report on Disaster Risk Reduction 2015.

- Student Representative (one student from each union)
- Teacher Representative (one head teacher from each union)
- Representative of SMC (one SMC member from each union)
- Education Authority-Primary (Upazila and District level, 2-3 representative from each level)
- Education Authority-Secondary (Upazila and District level, 2-3 representative from each level)
- Representative from CSOs (INGO, Media etc.; 1-2 representative from each category)
- Respective Government disaster management offices i.e. UDMC, UzDMC, DDMC, DRRO, LGED, UESC etc. (1-2 representative from each level)

Network members are selected in a participatory process. A President and Vice-President and a Secretary from education authority (primary and secondary) is selected. A network coordinator is also selected from the facilitating organization the South Asia Pacific (SAP) Bangladesh. Others are considered as general members.

Formation of District Level Education Network for Resilient Education in Schools

The Education Network (see Box A.2 for membership) was formed in Barguna District in September 2015. The goal of the network is for children who vulnerable to cyclone to enjoy their rights to education through collaborative actions on DRR and resilient education. Specific objectives of the network are:

 To maintain regular coordination among concerned stakeholders (education authority, government disaster management offices i.e. upazilla disaster management committees (UDMC), UZDMC, district disaster management committees (DDMC), CSO's and other stakeholders concerned) at district level for exchange of information/ learning from safe school initiatives.

fable a.3

Activities and Expected Deliverables

activities

- Inception meeting;
- Quarterly planning, sharing and reflection meeting;
- Develop supportive module on DRR and resilient education for schools;
- Advocacy for mainstreaming/inclusion of school safety concept in education policy (continuous process);
- Observance of DRR Day to increase awareness on DRR and resilient education;
- Exposure visit within and outside of Barguna for sharing learnings and good practices achieved through safe school interventions;
- Develop web portal for Education
- Network to demonstrate network's activities to a wider audience;
- Affiliation and regular coordination with related networks and government agencies at local, regional, national, even global level.

deliverables

- Representatives from schools, government, local government. bodies i.e. Union, Upazila and district, as well as CSOs took part in activities of the Education Network, and regularly shared learnings/
- recommendations on school safety initiatives;
- Quarterly coordination mechanism established at district level in promoting school safety and right to education;
- Necessary modules/guidelines developed and used as co-curricular activities in schools for DRR and resilient education; advocacy strategies are in place to support mainstreaming of the modules/ guidelines in the sector-development plan of primary and secondary education;
- Representatives from Education Cluster, NARRI
- consortia, DDM, MOWCA, Education Authority
- (primary & secondary) and CSOs shared learnings and recommendations on school safety initiatives in national level advocacy workshops.
- Identified good practices are documented and disseminated to wider audience (using website, mail communication, printing and electronic media)

- To strengthen the role of concerned stakeholders (education authority, government disaster management offices, CSO's and other concerned) to take the lead in implementation and monitoring of safe school initiatives.
- To support and strengthen advocacy initiatives of the Education Network to integrate DRR and resilient education in school curricula, and provide support to the vulnerable schools in their implementation.

To do this, the Education Network has the following Operational Strategy:

- develop periodic implementation and monitoring mechanism together with all concerned stakeholders (education authority, government disaster management offices, CSOs)
- · arrange regular coordination meeting at district level
- promote DRR knowledge, prevention and mitigation activities, preparedness and response
- plan for EiE at the school level through on-site support and exploring the probable options for capacity building and resource mobilization
- provide inputs in developing relevant modules or guidelines for DRR and resilient education
- develop a mechanism for sharing lessons and policy recommendations for advocacy at the national level

For effective implementation of the above strategies, SAP¹³ and Plan International Bangladesh coordinates the whole process, providing initial technical and financial assistance under the Child Centered Recovery and Resilience (C2R2) Project. C2R2 is implemented from August 2004. The Education Network will continue and secure further assistance from the GoB and CSOs in establishing a financial mechanism for sustaining the Network's functions. Initial activities and expected deliverables are summarized in Table A.3.

¹³ SAP-Bangladesh, a national NGO that has been providing technical and financial support to more than 350 NGOs in 34 districts. With the main goal to uphold the socio-economic condition of the poor in Bangladesh, it also directly implements projects/programs in Patuakhali, Barguna, Bagerhat, Sirajgonj, Jamalpur, Gaibandha,



he MoE has been partnering with CSOs in implementing school safety initiatives. CSOs and UN Agencies have taken several initiatives in preparing schools to reduce the impact of disasters through formation of SDMCs. The SDMCs consists of members from SMCs, teachers and students. They prepare school safety plans, conduct simulation and mock drills (e.g. shown in Figure A.4), first aid, search and rescue and fire safety, etc.

The National Alliance for Risk Reduction and Response Initiatives (NARRI)¹⁴ consortium is currently implementing the 7th DIPECHO Action Plan in 7 districts of Bangladesh with the financial assistance of the European Commission Humanitarian Aid and Civil Protection (ECHO) and Cordaid. It focuses on 4 areas: urban, rural, national level advocacy, and early warning system. NARRI's five-year strategy (2011-2015) promotes the development of comprehensive risk reduction programs and interventions at national and local levels, as well as contributing to coordinated actions, shared learning and good practices. It aspires to build disaster resilient communities through a process of empowerment, collaboration and capacity building. It targets three major City Corporations. In particular, it builds the resilience of schools against earthquake. The initiative includes the development of disaster management plans through active involvement of school teachers, students and the school management. Efforts are made to ensure that the school and community takes ownership of the plan and makes the necessary update in the future. The DRR message spreads as the students share information and knowledge to their parents, relatives, friends and neighbors. Figure A.5 shows examples of IEC materials developed by the NARRI consortium.

Other efforts on DRR in education such as those implemented by the International Union for Conservation of Nature (IUCN) and the German Development Cooperation (GIZ), focused on educating disaster-prone communities on DRR and CCA in Southern Bangladesh. In July 2012, through the implementation of the 'Coastal Livelihoods Adaptation Project' (CLAP)¹⁵, funded by the German Federal Ministry for Economic Cooperation and Development (BMZ), surveys on DRR and climate change which identified students' knowledge, attitudes and practices (KAP) were carried out in schools. The students shared their experiences in coping with disasters and recalled stories they have heard from their parents and others (Figure A.6). Based on the consultations, IEC materials in Bangla and English for teachers and primary and secondary students were developed. The education materials contained pictures focusing on weather and climate, climate change manifestations, adaptation, mitigation, key vulnerabilities and risks, local and Bangladesh specific case examples, cyclone warning signals,

¹⁴ NARRI was formed in September 2010 with the aim to strengthen the disaster preparedness and risk reduction efforts in Bangladesh and to contribute towards meeting commitments for the Hyogo framework of Action (HFA 2005-2015). Members including ActionAid, CARE, Concern Universal, Concern Worldwide, HelAge International, Handicap International, Islamic Relief, Oxfam, Plan International, and Solidarities International. NARRI provides coordinated emergency response with wider outreach programs. The consortium works closely with the Government of Bangladesh at both local and national levels, relevant ministries, development partners, and international and national organizations.

¹⁵ This project has been replicated from the highly successful 'Char Development and Settlement Project' (CDSP) III funded initiative of the Government of Netherlands that was implemented in from 2008-2009 by IUCN Bangladesh in the coastal and offshore areas of Noakali region. The project and the popular mascot 'Rana Bhai', the climate change ambassador frog, were enormously successful in raising awareness about climate change and DRR.

figure 2.4 Earthquake preparedness session and mock drill participated by students



figure a.5 IEC Materials produced though the NARRI Consortium: cyclone flipchart (left), and flood flipchart (right)



Children share their stories during the consultations conducted in disaster prone areas in Southern Bangladesh, July 2012







preparedness and adaptation options including plantation of tree species suitable for cyclone winds, a disaster map of the country, local case studies, and history of the disasters in Bangladesh.

The following details some of the work of Plan International and World Vision which support school safety work in Bangladesh.

CCARR imPlementation in Fanguagesh

Since 2006, Plan Bangladesh has implemented Child-Centered Disaster Risk Reduction (CCDRR) programming in coastal, flood and earthquake prone areas of Bangladesh (Figure a.7). More than 250 vulnerable communities in Barguna, Lalmonirhat and Dhaka districts have been supported with DRR initiatives. The key components of this effort aim to increase awareness and build capacity of boys and girls and young people to deal with disasters; sensitize local groups and local government institutions to address risk reduction; and create awareness among national policymakers and other actors on the importance of boys' and girls' participation in risk reduction initiatives.

figure a.7

Household with the children participate in DRR activities as part of CCDRR implemented by Plan International





As an active member of the NARRI Consortium, Plan has been advocating for the adoption and implementation of the Education and EiE Framework to strengthen school safety in Bangladesh. Plan helped in the development and finalization of the Framework. Plan has been supporting comprehensive school safety implementation through programs and activities covering the 3 pillars of CSSF. Currently, projects are implemented covering some areas in the Southern and Northern part of Bangladesh with the following activities:

- Small-scale school construction, repair/retrofitting, and WASH and climate-smart solutions such as tree planting and use of renewable energy
- Strengthening of school level disaster management. School disaster management committees (SDMC), consisting of parents, students, teachers, health workers, government representatives (e.g. UDMC, fire department, etc.) are formed. Trainings on HVCA, mock drills, development of school safety action plans are conducted. Implementation of the action plans, are also monitored. Task forces on specialized needs such as early warning system and communication, first aid, fire-fighting, psychosocial care, and search and rescue, are also formed and trained.
- Good practices on school safety are also collected and shared. IEC materials and linkages to existing education networks at the local and national level are established (e.g. formation of District level education networks).

Box A.3 highlights the impacts of the implementation of project activities to children and the SDMC members, particularly gaining knowledge and skills to be prepared for future disasters.

Meem, a student of Grade V, can tell if a snake is dangerous or not from its biting marks. As a member of the First Aid Task Force, she was trained on how to deal with different kinds of injuries. Selim, around 10, knows what to do in case one is traumatized. He is a member of the Psychosocial Support Task Force. Beauty, Selim's classmate, explains the implication of one flag, two flags and three flags (denoting different levels of threat from cyclone).

Meem, Selim and Beauty are members of different task forces in Lobon Gola Government Primary School. School safety is a focus of the project and these task forces have been formed to provide the children with an opportunity to play a role in keeping their school and themselves safe. The children are quite excited about it as one can see from their enthusiastic exhibition of their learning. They feel empowered, strong and confident when they are given a responsibility or asked for their opinion. The enthusiasm of children seems to have touched their parents too. Merjina, around 35 and a single mother, was surprised when her 10 years old daughter, Sumaiya, asked her to get involved in this initiative of building safe schools. Merjina talked to a teacher of her daughter and became a member of the SDMC.

The principal responsibility of making schools safe rests with the SDMC, a platform of teachers, parents, SMC members and children. With the support of a trained Union Mobilizer the SDMC methodically analyzes the risks in the school, identifies solutions, and acts on them. Lobon Gala SDMC has actually materialized some of the identified solutions, thanks to the commitment of some of the SDMC members. Afzal Hossain is one of them. For Afzal the motivation was simple – working for the safety of his child and other children for their future. Such community involvement like that of Merjina and Hossain is not in vain. The SDMC has implemented some of their plans to reduce disaster risks:

- Constructed a link road that connects the school from the main road
- Put up a fence/barricade to protect the school field from going under water from nearby canal during the high tide
- Installed a solar panel

Part of the resources used came from the project while the rest was raised from the community. These are not massive interventions but educating children and creating space for them to take part in such efforts can go a long way to bring about positive changes.

figure a.8

Children can use available materials to be safe from flood (top); simulation exercise conducted by SDMC (bottom)



raising awareness and building capacities of children and communities to help build resilience - World Vision

World Vision has been working with schools and communities (in 4 regions) in Bangladesh to help build resilience of the communities that are prone to different kinds of hazards and risks. World Vision is also providing capacity building activities for SMCs in their program areas, such as risk assessment, development and implementation of action plans, and simulation drills.

figure a.9

Children prepare risk and resource map during a training held in Mongla in January 2011 (left), and perform disaster-related folksong during a cultural event (right).





figure a.10

Children from different areas in Dhaka participated in the Session organized by World Vision Bangladesh on 26 August 2015



In 2010-2011, World Vision Bangladesh implemented the Child-focused DRR (CFDRR) Project, an intervention for enhancing community resilience through empowering children and other adults in 10 target program areas. A total of 15,869 children were educated on DRR through participation in activities such as exercise drills, simulation and cultural events on DRR (Figure A.9, and 10), while 5,411 other members of the community attended the activities. IEC materials regarding disaster preparedness were also distributed to participants. In addition, 156 children cadre groups were also formed, educated on DRR knowledge, trained to respond to disasters, and provided with equipment such as hand mike, radio, rain coat and torch light for them to use in case of emergencies.

Results of the project activities include:

- Children are now aware of the risk in their communities.
- Children are taking initiatives to help provide solutions to community problems.
- Children are becoming confident to contribute in mitigating/solving problems in their community.

An example of how children contribute to their community is presented in Box A.4.

WV is currently implementing a DFAT-funded project which aims to:

- strengthen the DRR capacity of local government stakeholders and community members, and
- reduce the risk of flooding and water logging to mitigate threats to health and livelihoods of urban slums living near the river.

Members of 14 Disaster Management Committees (DMCs) in Kamlapur and Dhaka East have been trained on risk assessment, early warning systems, preparedness and response, disaster management planning. Learning exchanges are also organized and committees are provided with emergency equipment including megaphones, first aid boxes, fire stretchers and hammers. IEC materials are also developed and distributed to raise the awareness of community members. Community members are involved in the implementation of plans (e.g. conducting simulation exercise, and establishing early warning and communication systems). At the school level, WASH and garbage management committees are organized and trained to improve waste management, hence reducing the risk of flooding in urban slums near the river. Activities are complemented with health promotion activities, including dissemination of IEC materials for community awareness campaigns which are done in urban settlements and schools.

During the 3rd Urban Dialogue, ¹⁶ held on 25-26 August 2015, World Vision Bangladesh organized a Children's session where children shared their experiences in living in the cities. With more than 50 children participants, the problems they face in their daily lives and the kind of city they desire to live in were discussed. The prominent actor, dramatist and writer of Bangladesh, Mamunur Rashid served as a mentor during the session. The main issues identified by the children were eve teasing, sexual harassment, early marriage, school and education system, lack of playground, risk from disasters, traffic jam, water logging and waste management. The children were able to advocate and share their recommendations to key government officials who participated in the Urban Dialogue.

World vision plays an important role in: organizing committees for community and school preparedness; training them on risk assessment; developing school safety plans and monitoring implementation of the plans. In the implementation of action plans, World Vision provides technical assistance and help facilitate resource mobilization, where needed. It will continue to provide support in implementing comprehensive school safety in GoB.

b0X 2.4 Tornado Group in Cox's Bazar Help Mitigate Problems from Floods

In 2010, World Vision's Cox's Bazar area program facilitated the formation of a children disaster management group named TORNADO, with 26 members (12 girl and 14 boys). This was a result of disaster preparedness trainings. Among the TORNADO members are 11 Child Forum members who regularly shared their knowledge and skills with the rest of the group and community children. Since formation, they conducted a monthly meeting and participated in different activities of WV's program areas (e.g. cultural show, simulation drill, street drama etc.). During the flash flood that happened in July 2011, without any influence from WV, they actively helped gather flood situation information and took part in relief distribution activities. After the flood water declined, it was found out that the brick-soling road (15-20 feet), which is the only way that links Upazila and the market (serving 6 villages of nearly 500 households) was damaged. Seeing this, the "Tornado" group held a meeting to analyze the problem and came to a decision to repair the road. According to the plan in September 2011, they collected bricks from the road side and other places, and helped fill and repair the road. Seeing them, the nearby children also became motivated and helped them. The group also planted seedlings along the roadside to prevent future damage and took care of it regularly. The community elders witnessed their efforts, appreciated and supported them in their initiatives.

figure a.11

Tornado Group Members help gather bricks for fixing the road (left) and take care of the seedlings planted along the roadside





¹⁶ The main objective of the dialogue is to bring the undialogued urban issues in a discussion table and popularize towards a sustainable solution, collaborate among all levels of stakeholders including slum dwellers, children, academicians, government officials, donors and media working for urban development, bring the opportunities of 'learning by doing' through sharing the practices of the organizations.





he following are some of the challenges and lessons in implementing school safety in Bangladesh.

- Children of different ages and grade levels can play an important role in preparing schools and themselves against future disasters. This has been recognized in the implementation of programs and activities facilitated by CSOs as presented above. Children play active roles in raising awareness on DRR. They can be change agents as they are quick learners, very enthusiastic to learn matters that affect them, and apply what they learn.
- In advocating for school safety with the government, it is important to show them the benefits from implementing programs and activities.
- Limited funding is still a challenge with respect to accommodating all children in schools to participate in orientation, training and planning activities. Coordinated efforts of different stakeholders working in the education sector and DRR can help maximize resources at the same time obtain more effective results.
- At the school level, scheduling of activities is still a challenge due to busy schedules in carrying out activities under the formal curriculum. It will be helpful if preparedness activities will become part of the formal curriculum.

School safety work in Bangladesh has been on-going since the past decade. In order for efforts to be more coordinated and monitored comprehensively, an implementation framework is needed. A Comprehensive School Safety Framework has already been developed. However, it still has to be reviewed and approved by the MoE. Aside from this, the following are some of the next steps for the coming year.

- Having a national guideline for assessing the structural integrity
 of school facilities, and for construction and retrofitting of
 schools; adding features that are conducive and safe for learning
 will reduce disaster risks.
- Preparing schoolchildren, teachers and other workers in schools against disasters and other risks should be made compulsory in all schools. The SMCs and PTA could play a vital role in planning and implementing at the school level.

ince the wake of Cyclone Nargis in 2008, the Government of the Union of Myanmar (GoUM) made strong commitments to ensure school safety in the country. DRR integration in the education sector is outlined in related policies, guidance, action plans, and on-going programs and activities. The Myanmar Action Plan for Disaster Risk Reduction 2009-2015 (MAPDRR)¹⁷ (Figure B.1), a primary instrument for advancing DRR in the country, sets clear targets for mainstreaming DRR in education. With the goal to make Myanmar safer and more resilient against natural hazards, the MAPDRR serves as a framework for implementing DRR commitments at the global and regional level, mainstreaming DRR into development plans. It provides guidance on concrete actions, coordination and monitoring mechanism for DRR activities at the national down to the local levels.

Additionally, the Ministry of Education (MoE) and the Ministry of Social Welfare, Relief and Resettlement (MSWRR) published the "Guidance on Mainstreaming Disaster Risk Reduction into Education Sector-Rural Settings, Myanmar" (Figure B.1), providing key approaches and opportunities for mainstreaming DRR in the education sector covering structural, pedagogical, and non-structural aspects. The document also highlights critical factors to be considered and provides technical resources for inclusion of DRR elements in school construction. A School Safety Manual for school principals, teachers,

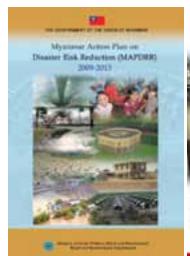
students, Parents and Teachers Association (PTA) and other concerned authorities and stakeholders, was also developed in 2009. The manual provides specific guidance on raising awareness on DRR, establishing school DM committees (SDMC), conducting hazard, vulnerability and capacity assessment (HVCA), preparing school disaster management plan, conducting mock drill and how to update and evaluate the plan and a checklist of school safety indicators.

Moreover, provision of education and health services for disaster victims, the need to undertake preparatory measures in hazard prone areas, as well as measures for education continuity and reconstruction of schools, are also outlined in the Disaster Management Law¹⁸.

Myanmar's Comprehensive Education Sector Reform (CESR) was launched by the government The Comprehensive School Safety Program in Myanmar

figure b.1

a) MAPDRR 2009-2015, b) Guidance on mainstreaming DRR





18 The Disaster Management Law was enacted in 2013 with guidelines and regulations on its implementation provided in 2015.

¹⁷ The MAPDRR was developed by an Inter-Agency Task Force of the Government coordinated by RRD, under the guidance of MSWRR, and comprising of senior officials of 18 departments of 12 Ministries of the Government of Myanmar, along with eight other organizations. ADPC provided overall technical assistance and secretariat support to RRD and the Task Force, with funding support from UK's Department for International Development (DFID) and the Royal Government of Norway. MAPDRR 2009-2015 is available at http://www.preventionweb.net/files/18657_myanmaractionplanondisasterriskredu.pdf

in 2012 to provide a strong body of evidence on which to base decisions around policy and planning. Implemented in 3 phases, the reform process involves strengthening the legal and policy framework for education, improving the quality of the education system, increasing access to education, increasing the number of teachers and the quality of their training and reforming the curriculum. A Rapid Assessment during the Phase 1 recommended a policy framework for implementation based on five broad child-friendly school indicators: inclusiveness, effectiveness, health, safety and protection, gender friendliness, and involvement of students, families, and communities.

figure b.2

Key programs and activities on implementation of CSSF in Myanmar

Pillar 1 resilient school facilities

- School designs have been improved to withstand hazards
- Disaster-resilient classrooms which also serve as evacuation centers and child friendly schools have been constructed.
- The provisional MNBC is in place and is being incorporated in the National School Construction Guideline
- National School Construction Guideline is being finalized by April 2016

Pillar 2 Sustainable school disaster Management initiatives

- School Disaster Management Committeess have been organized
- School disaster preparedness plans have been developed and implemented in schools
- Educational policy and political commitment through MAPDRR (2009-2015) ensure that DRR education is promoted in schools and communities
- Capacity building are being done for township and village administrators, using participatory approaches in developing their plans

Pillar 3 arrm integration in the curriculum

- DRR and resilience education has been incorporated in the Life Skill subject and core curriculum (Science, Geography, English)
- Series of "Master of Trainers for DRR education" was held in 2009 with 20-30 core members to implement DRR education training in the whole country
- Several teaching and learning materials have been produced by government and partner agencies

In its second phase, budgets and policies for the overall education reform were recommended covering specific areas of curriculum, primary and secondary education, teacher education, education policy, and administration, among others. In the ongoing Phase 3 of CESR implementation, the national education sector plan (NESP) that features the 3 pillars of the global Comprehensive School Safety Framework (CSSF) is being finalized. The NESP will support the implementation of the reform with clear objectives, strategies, targets and milestones, program activities, monitoring and management, and financial planning for a five-year period (2016-2021). In line with the CESR, the Government announced 12 new initiatives in the Education sector that subsequently increases the sector budget by approximately 10%. At the same time in 2014, the National Education Law was enacted by the Parliament to provide room for assisting schools, children and their families, providing emergency schools and education services to remote, conflict and disaster-affected areas.

The MoE has been leading school safety work in the Education sector, covering the three pillars of the CSSF. Key programs and activities are summarized in Figure B.2 below. Since Cyclone Nargis, school designs were improved and constructed to be more disaster-resilient. Child- friendly school and school-cum storm shelter designs were constructed and tested in several parts of the country. Based on these models, MoE has developed improved school designs that could withstand hazard impacts with budget allocation.

In addition, a provisional Myanmar National Building Code (MNBC) is in place and compliance is being promoted by the Government. Its incorporation in the National School Construction Guideline (NSCG) that is currently being finalized is under consultation with various stakeholders. Since 2009, capacity building for government administrators, education personnel and children were conducted. DRR education trainings that covered organizing SDMC, conducting risk assessments, preparing resource and hazards maps, developing school disaster preparedness plan (SDPP) and conducting preparedness mock drills, were conducted for township education officers (TEO), school principals and teachers. Inter-Agency Network for Education in Emergencies (INEE) Workshop was also conducted in order to have minimum standard for securing education in emergencies (EiE). School-based DRR activities are also implemented since 2009 to increase awareness, educate and build the capacity of children and adults to prepare for future emergencies.

DRR and resilience education has been incorporated in the Life Skill subject and core curriculum. Life Skills, a co-curricular subject is the main carrier across the primary and lower secondary levels (Table B.1). In the lower and upper secondary level, DRR topics have been included in General Science, Geography and English subjects (see Table B.2). Moreover, several teaching, learning materials, and complimentary materials for reading has been produced, some of which are shown in Figure B.3.

table b.1	Related Topics in Life Skills Subject			
level	· · · · · · · · · · · · · · · · · · ·	grade	lesson fobic	• • • • • • • • • • • •
Primary		Grade 5	Caution in Emergencies (floods, tsunami, earthquake, fire)	
Lower Secondary		Grade 6	Emergency! It is Flooding!	
		Grade 7	ade 7 Disaster preparedness (8 disasters-family plan, emergency kit, evacua	
		Grade 8	Earthquake, Landslides	
table b.2	Topics in Levels	the Core Currio	ulum Subjects in Some Lower and U	Upper Secondary
level	arage	lesson to	Pic SUbject	
Lower Secondary	Grade 6	Thundersto	rm General Sci	ence
	Grade 8	Storms	General Sci	ence
Upper Secondary	Grade 10	Earthquak	s English	
	Grade 11	Earth surfa	ce Processes Geography	
rigure L 3	-) A 4 A D D	DD 2000 2015	h) Guidanca an mainstreaming DP	







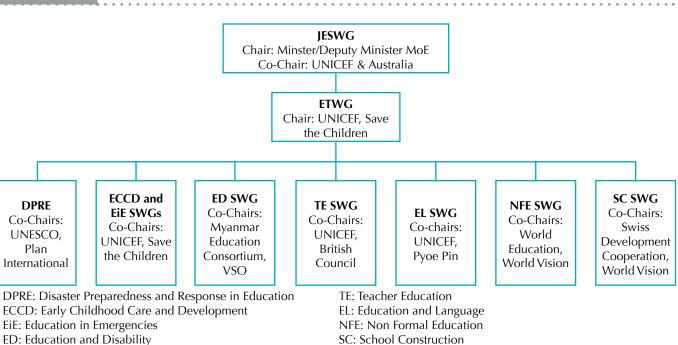


Establishment of Multi-Stakeholder Working Groups for Program Implementation and Monitoring

The implementation of school safety programs in the country is done through established working groups under the MOE¹⁹. The institutional arrangement shown in Figure B.4 provides venue for various stakeholders working on issues related to Education to come together and collaborate towards attaining common goals. The Working Groups (WGs) and the Sub Working Groups (SWG) are multi-stakeholder groups consisting of government offices, UN Agencies, INGOs, NGOs, professional organizations and academic institutions. The Joint Education Sector Working Group (JESWG)²⁰ is the high level mechanism for policy dialogue and coordination of the GoUM and development partners (DPs) in the education sector. Established in 2008, JESWG brings together the GoUM and DPs to tackle progress on education reforms. It is chaired by either the Minister or Deputy Minister of MoE to facilitate strong direction from the GoUM on education planning and ensure that decisions are made and followed through.

figure 6.4

a) MAPDRR 2009-2015, b) Guidance on mainstreaming DRR



¹⁹ With DM as cross cutting as well as stand-alone theme and involves all government Ministries and Department, MOE is responsible for the schools to ensure to minimize negative impacts of disasters. Overall DM in the country is under the National Natural Disaster Preparedness Central Committee (NNDPCC), chaired by the Vice-President with the Minister of MSWRR and the Minister of Home Affairs as Vice-chairmen, gathers all relevant ministers and leads all DM-related efforts. The National Natural Disaster Preparedness Management Working Committee (NNDPMWG) chaired by the Minister of MSWRR and gathering all relevant line departments including RRD operationalizes the steer provided by the NNDPCC.

²⁰ JESWG Terms of Reference is available at http://www.themimu.info/sites/themimu.info/files/documents/CoreDoc_TOR_Edu_JESWG_24Oct2013.pdf

Under the JESWG, the Education Thematic Working Group (ETWG) brings together education stakeholders across the country in an inclusive, neutral space for dialogue on technical issues. The ETWG also oversees the coordination of Humanitarian Response for the education sector. Chaired by UNICEF and Save the Children, within the general framework of the educational priorities and objectives of the Myanmar Government, the ETWG provides a regular opportunity for open dialogue between key education stakeholders in support of the priority areas in achieving the Education For All (EFA) in Myanmar; provide a mechanism which facilitates the coordination of educational activities; and provide opportunities for capacity building for the inter-agency and government-supported activities, including preparedness and recovery activities. Under the ETWG are a number of Sub-Working Groups (SWGs) in key technical areas as shown in Figure B.4. Co-chairs are designated to lead activities of the SWGs in collaboration with MoE. These SWGs consist of overlapping members from the government, UN Agencies, NGOs and INGOs who are working collaboratively in these cross cutting issues according to the vision and mission of each organization. The three SWGs that were established in the area of education, emergencies and disasters are the EiE SWG, the DPRE SWG and the SC SWG.

The DPRE is a SWG of the Education Thematic Working Group (ETWG) that is tasked to coordinate with its members, share information and implement DRR education activities in Myanmar. Specific support to the Government of Myanmar include:

- Recommending existing resource materials and best practices on DRR in Education relevant to Myanmar
- Sharing information on DRR among members and also with related working groups
- mainstreaming DRR into the education sector and promoting DRR practices implemented in schools of Myanmar
- Facilitating the conduct of training, seminars, workshops
- Implementing a model on DRR in education at the school level

The DPRE²¹ conducted an analysis on the state of DRR in the Education sector and have identified areas of opportunities in implementing the 3 pillars of the CSSF. The DPRE has ensured that comprehensive school safety is an integral part of the education sector reform including areas of policy development, curriculum reform, school construction, quality standards for education, teacher's training, etc. As the education reform, just like the broader reform process in Myanmar, is dominated by a focus on "quick wins", this requires the DPRE to respond quickly and in a flexible manner to opportunities and to anticipate areas where its advocacy efforts and technical expertise can be mobilized.

The School Construction SWG was initially formed in 2009 as School Construction Discussion Group by Education Cluster members (now the ETWG) to facilitate information sharing on technical issues of school construction. The Group was first formed by UNICEF, Welt Hunger Hilfe and Norwegian Refugee Council (NRC) and was later extended to include Myanmar Red Cross, Caritas, Swiss Development Cooperation (SDC), Amurt, World Vision, JEN, Bridge Asia Japan and Concern. Immediately after Nargis, with the construction of 38 transitional schools in the delta undertaken by UN HABITAT, the Group became dormant. Reactivated in 2014, the SCSWG²² is now working on the development of a National School Construction Guidelines. The SCSWG has identified six thematic areas where technical and financial support to Government is needed. These thematic areas include:

- Inspection and Vulnerability Assessment of existing schools and facilities
- Maintenance and Retrofitting of existing schools and facilities
- Use of Schools as Emergency Shelters
- Safe construction of new schools and educational facilities
- Safe and continuous access to schools for all children
- Climate smart investments to enhance water, energy and food security in schools.

²¹ DPRE was originally formed in 2008 under the Education Cluster, now the ETWG to build the capacity of schools in DRR. Led by UNESCO, the DPRE had its first meeting in August 2008, and was endorsed by MoE who became de facto Honorary Chair of the Group.

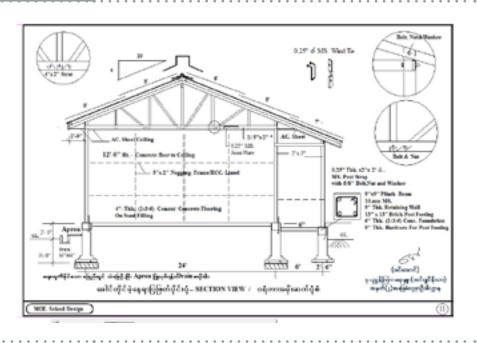
²² A TOR was prepared and available at www.themimu.info/sites/.../CoreDoc_TOR_SC_SWG_of_ETWG.doc

The DPRE, SCSWG and the other SWGs are linked to the DRR Working Group (DRR WG)²³, the primary mechanism for networking, coordination and joint action on DRR by its 63 member agencies with UNDP as the chair. Particularly, overlaps in memberships and common interests on school safety and their wider links to the mainstreaming of DRR in Education makes coordination among these SWGs with the DRRWG an on-going process.

Multi-Stakeholder Engagement in the Development of a National School Construction Guidelines

The development of a national guideline on safe school construction was identified as a priority in the Guidance on Mainstreaming DRR into the Education Sector published in 2009. After Cyclone Nargis in 2008, a number of organizations²⁴ in close partnership with MOE, developed designs and constructed schools to standards resilient to disasters. Other organizations have also constructed schools according to their own standards and guidelines.

FIGURE 6.5 MOE School



In 2012, the MOE has prepared a manual outlining the construction design for a low-cost and simple one-level school design (60 feet in length) with estimated cost of about USD 21,600 (Figure B.5). The Myanmar Education Consortium (MEC)²⁵ minimum standards framework for quality programming has developed criteria for safe, healthy, inclusive and child-friendly learning environments. In spite of these positive developments, different construction standards are used by different organizations in

²³ The DRRWG, building on the implementation of its DRR Sector Plan and workplan developed in 2010, now operates under its new Strategic Framework 2013-2018 with the vision of "a disaster resilient Myanmar where everyone is safe" and mission as "collective efforts of a diverse mix of partners for disaster resilience through sharing, learning and working together

²⁴ Including SDC, UNICEF, MRCS, Metta, World Vision, Malteser, Save the Children etc.

²⁵ MEC was founded by three INGOs including Save the Children, Burnet Institute and World Vision. It focuses on 2 programs areas: Early Childhood Development, and Non-Formal Education

different locations and there are no official guidelines for school construction as yet, that would account for the diversity of hazards in Myanmar.

Also, apart from a checklist on school safety provided in the School Safety Manual 2009, and an inspection checklist and the form on vulnerability assessment from floods which is included in the Guidance on Mainstreaming DRR document, there is no school safety assessment methodology and checklist. The basic guidelines that exist do not incorporate user-friendly instructions for including DRR concepts, nor vital monitoring and evaluation components. Guidelines on retrofitting and maintenance of schools also differ across the country, in addition to a lack of institutional expertise on DRR practice and management, particularly relating to construction, retrofitting and maintenance of schools. Moreover, in line with the CESR, more school constructions will be done in the coming decade. Hence, concerted efforts are required for safe construction of new schools, as well as on the assessment and retrofitting of existing schools.

Recognizing these needs, a number of agencies namely SDC, Plan, UNESCO, UN Habitat, World Vision, IOM, MRCS and MEC developed proposals and initiatives. Under the leadership of SCSWG²⁶, a stock-taking²⁷ of actors, mechanisms, past and ongoing initiatives on safe school construction, was conducted in consultation with the members.

In order to develop one construction guideline that will serve as the standard to be followed for school construction at the national level, synergies on the funded work of different organizations and the potential and necessity for harmonization was discussed. A comparative analysis of the proposals by World Vision and SDC was done and possible harmonization was discussed and agreed among members of the SCSWG. This led to the development of a concept note entitled "Development of National Guidelines for Construction of Safe Schools and Learning Centers in Myanmar". The concept has been circulated to all parties and was discussed in one of the meetings of the SC SWG. The project is implemented under MoE in cooperation with associated Ministries²⁸ and supported technically and financially by World Vision-led Australian

FIGURE 6.6 Provisional MNBC



Department of Foreign Affairs and Trade (DFAT)-funded project and SDC, in collaboration with UN Habitat and MES MNBC project (see Figure B.6), Plan-led EU-funded ASSI Phase 2, IOM led USAID-funded CDMP in Rakhine, UNICEF and UNESCO.

With the SCSWG leading the process, the features of the guideline will contain principles for structural design standards, planning and implementation process of safe school construction, safety and risk reduction measures including safety of construction workers during the process, operational and maintenance policies, cost benefit analysis and estimates of incremental costs of resilience compared with costs of retrofitting and reconstruction, vital monitoring and evaluation, promotion of social inclusiveness especially for children with disabilities and female students. The National Guideline is being finalized by April 2016. An indicative list of organizations involved in the

²⁶ Members recommended of up to 20, SCSWG consists of organizations (government ministries and departments, UN Agencies, NGOs, organizations in and outside of Yangon, relevant networks) with an interest in any aspect of school construction, especially the thematic areas.

²⁷ The stock-taking was conducted by SDC on behalf of the SC SWG in 2014

²⁸ Such as the General Administration Department (GAD), Rehabilitation and Reconstruction Department (RRD), Ministry of Construction (MOC), and Ministry of Religious Affairs (MORA)

development as well as in the use of the guideline was also identified according to the six thematic areas and presented in Table B.3.

Lable b.3 Indicative List of Agencies to be involved in the development and use of the National Construction Guideline according to Thematic Areas				
tochsed fremafic area tol engagement PA	government ministries required to be associated	additional actors and mechanisms required to be associated by the sc swg		
Inspection and Vulnerability Assessment of existing schools and educational facilities				
Maintenance and Retrofitting of existing schools and educational facilities				
Use of Schools as Emergency Shelters	MSWRR, State Governments in coastal areas	UNESCO IOC DPRE and EiE		
Construction of new schools and educational facilities including Guidelines	MoF, MNPED, DRD	ADB, World Bank, JICA, KOICA, Australia, UK		
Safe and continuous access to schools for all children	MSWRR/DSW, MoC	Disabled peoples organizations, EiE, E & D and DPRE WGs		
Climate smart investments to enhance water, energy and food security in schools	MoECAF, DRD	MCCA, Development NGOs interested in nutrition and renewables, private sector in solar power, FSWG, LIFT		

Nationwide Implementation of School-Based DRR: Enhancement of Teachers' Capacities, Development of School Disaster Management Plans, and Conduct of Simulation Drills

figure b.7

Contents of the DRR Training Resource Pack developed in 2009 and revised and improved in 2010 and 2012



Teachers have been trained since 2009 to enable them to teach DRR lessons in their classes, develop and implement school disaster preparedness plan, and to help them in the preparation of DRR teaching and learning materials. In 2009, the DPRE Resource Pack²⁹ (Figure B.7) containing materials for risk assessment, individual school disaster management plans, drills and practices, teaching and learning materials, recovery and support, was developed. A training manual was also developed and trainings on how to use the resource packs were conducted. Schools in townships were visited by monitoring teams from MOE, French Red Cross, Save the Children, and World Vision. Schools were encouraged to do develop the following: risk assessment, plan, evacuation map, drills and lesson plans.

²⁹ The DPRE resource pack was first developed by MOE and Save the Children in early 2009. It gathers key materials developed by MOE as well as NGO resources and pamphlets on DRR. It was distributed in all schools in May 2009 for the first time. The resource pack was later revised and updated by UNESCO and Plan in partnership with MOE and the revised version distributed in all schools in September 2009, accompanied by a training of teachers and management staff, for which a TOT manual was developed. The resource pack was re-printed a third time by UNICEF and RCC and distributed once again to all schools, with no significant change to the content.

In addition, the DRR in Education Training Materials (Figure B.8) were developed and used in conducting trainings of trainers as well as principals, school teachers and student, and teachers in education colleges. The training materials consist of 7 training modules, DRR Basic Vocabularies (Glossary), an activity book and 9 disaster awareness posters on Cyclone, Climate Change, Earthquake, Fire, Flood, Tsunami, Road Safety, Landslide, and Tornado.

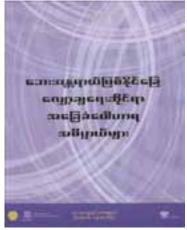
The training modules are a series which include the following topics:

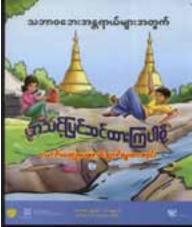
- Introduction to DRR in education
- Localizing DRR in education
- Identifying, assessing and monitoring disaster risks
- Building a culture of safety
- · Reducing the underlying risk factors in the education sector
- Preparing for effective emergency response and recovery in education
- Implementing community based disaster education

figure 6.8

DRR in Education Training Modules, Glossary and Activity Book









Using these modules and other training materials, a number of organizations have trained over 10,000 teachers in different colleges and schools across the country. Table B.4 shows details of the trainings conducted in 2010-2013 using these modules. Trained teachers pass on their knowledge and skills to students in schools, and simulation exercises are conducted (Figure B.9, B.10).

table b.4	DRR in educ	ation trainings conducted	d in 2010-2013		• • • • • • • • • • • •
dafe	no. of training/ Workshop	no. and ParticiPating townskiPs/states/ regions	Participants to the training/ Workshop	no. of Participants	officifies officiales
January- February 2010	76 roll-out DRR training- workshops	8 Townships- Bogalay, Dedaye, Kyaiklat, Laputta, Mawlamyinegyun, Ngaputaw, Pyapon, Kunchangon	School Principals Teachers (at least 1 from all basic education schools (primary, middle and high)	2,102	
May 2010		5 States – Kachin, Kayin, Mon, Rakhine, Shan 7 Regions – Ayeyarwady, Bago, Magway, Mandalay, Sagaing, Tanintharyi, Yangon	Teacher educators from 20 Education Colleges	100	Received DRR Materials
September 2010		Kawmhu Township	Teachers	138	
January 2011		25 village schools in Twante Township	Teachers	52	Education resource packs distributed to schools
November 2011			MoE officials, DPRE members		INEE introduced
July 2012		Central Nay Pyi Taw	Educational Administrators (Directors-General, Deputy Directors- General, State/ Region Education Officers, Principals of Education Colleges); RRD, MSWRR, Save the Children	54	
August 2012		Hmawbi Township	Teachers	198	
September 2012		Magwe Region	Township Education Officers	50	

September and October 2012	3 Townships -Wakema, Myaungmya, and Ma- u-bin	Teachers	1,000
	1Region- Ayeyawady		
November 2012	2 States - Mon and Kayin	Township Education Officers	47
December 2012	1 Township - Seikyi- Kanaung-to	Teachers	40
	1 Region-Yangon Region		
January 2013	1 Township - Mandalay	Region/State Education Officers, District and Township Education Officers	200 participants

figure 6.9

Teachers' received training on risk assessment, preparation of school disaster management plan, preparation of teaching aids and conduct of mock drills





figure b.10 Mock dril

Mock drills done in schools







takeholders working in the education sector in Myanmar, include NGOs, INGOs, UN Agencies, and Professional Groups. They provide massive support towards ensuring that DRR is integrated in all areas: education policy reform, school reconstruction/retrofitting, capacity building for DRR, community and school-based organization for DRR management, development of DRR integrated learning materials and resources for teachers, etc. The participation of these Stakeholders in the JESWG, ETWG, DRRWG, and SWGs as featured in section 2.1, have facilitated the implementation of the massive work on the education sector reform, preparation and development of the NESP, disaster-resilient school construction designs, training for teachers, organization of SDMCs, preparation of SDPPs, etc.

Since 2008, the DPRE, under the umbrella of the ETWG has been working on mainstreaming of DRR in the education sector. Under the joint leadership of MoE, UNESCO and Plan, the group has produced tools and implemented activities at all levels to promote a comprehensive school safety approach. The DRR resource pack and Training Materials that are used for building the capacity of teachers in Myanmar as detailed in Section 2.3, was developed initially with Save the Children's support, then later by UNESCO and conduct of trainings were supported by members of the DPRE.

(left) The official from MWSRR discussed the DM Law and regulation during the IDDR 2015; (right) Paintings of Children awarded during the celebration in Yangon





On 22-23 December 2014, the MoE and the DPRE, with support from the ETWG, DESWG and SCSWG organized a National Workshop on Mainstreaming DRR in Education in Nay Pyi Taw, gathering officials from MoE, MSWRR, MoC, and representatives from UN agencies and NGOs. The workshop aimed to ensure that Myanmar's progress on comprehensive school safety be effectively reflected and furthered through the ongoing education reform, in particular the NESP. In October 13, 2015, the DRRWG and MSWRR, jointly organized the celebration of the International Day of Disaster Reduction (IDDR), where hundreds of Stakeholder groups participated in celebrations conducted in Yangon and Nay Pyi Taw. The celebration, with the theme "Knowledge for Life" advocated disaster preparedness at all levels, featuring the disaster preparedness work at school level including training the children to prepare and respond to disasters. During the celebration in Yangon, The DM Law was discussed and children

were also given awards for their active participation in preparing and advocating for building resilience in schools (outputs shown in Figure B.11).

Specific consortia and alliances such as the Myanmar Consortium for Community Resilience (MCCR)³⁰, and the Building Resilience and Adaptation to Climate Extremes and Disasters (BRACED) Alliance³¹ consists of stakeholders working together for building capacities in schools and communities, facilitating development of SDPPs by working with the Township officials, village people, school teachers, etc. The MCCR has implemented the "Safer Coastal and Urban Communities through Inclusive DRR in Myanmar" during 2014-2015 which aimed at consolidating and embedding inclusive DRR approaches at local, regional/state and national levels, targeting institutions and vulnerable communities in coastal and urban areas to have increased capacity to prepare for a range of hazards and manage disaster risk. Examples of community map and seasonal calendar outputs are presented in Figure B.12. The Consortium supports the following:

- inclusive community-based DRR strengthening of institutional mechanisms for disaster management
- city level hazard mapping and earthquake risk assessment
- small-scale disaster mitigation activities at community level and in schools
- information, education and communication and advocacy
- linkages with the national DRRWG, GoUM and other key stakeholders.

figure b.12

Examples of community map and seasonal calendar prepared through the implementation of the "Safer Coastal and Urban Communities through Inclusive DRR in Myanmar" by MCCR





On the other hand, BRACED Myanmar Alliance starting this year to 2018, is implementing a UK Department of International Development (DFID) funded program that will enable 350,000 vulnerable people particularly women and children in Myanmar to become more resilient to climate extremes and future disasters. The program will support more than 2,000 government officials to enable their capacities in the resilience building approaches and tools. Robust model of community resilience will be implemented

³⁰ MCCR is supported by the European Commission's DIPECHO IX Action Plan for South East Asia, works to increase the safety and resilience of coastal and urban communities through DRR efforts. It builds on the successes of two previous DIPECHO Consortium projects implemented from 2010-2013. With members, including (Action Aid, Plan, ACF International, OXFAM, UN-Habitat, HelpAge International, and Social Policy and Poverty Research Group), the Consortium is operational across six regions/states including Ayeyarwady, Yangon, Sagaing, Bago, Tanintharyi and Rakhine.

³¹ The BRACED Alliance was established based on principles of collaboration and partnership. The combination of alliance partners represents a wide range of experience skills and experience to ensure the effective implementation of comprehensive set of resilience building activities that complement and leverage each other. Partners include Plan International, Action Aid, World Vision, UN-Habitat, BBC Media Action, Myanmar Environment Institute.

through a set comprehensive project in DRR, climate change adaptation, safe schools and resilience that allows communities to prepare, respond and recover to from climate extreme events. Target areas include 158 villages of 8 townships in Rakhine, Kayin, Mon and Shan States as well as in the Mandalay, Yangon and Ayeryawaddy regions in Myanmar.

Specific works of some interviewed UN Agencies and NGOs working in Myanmar are featured in the following sub-sections to provide an overview of how these stakeholders have been providing support to the GoUM towards attaining school safety goals.

actionaid fellows help train townships and villages conduct participatory planning process and prepare their village book

One of the work of ActionAid³² focuses on providing technical support and training on risk assessment and participatory planning in schools and communities. Fellows facilitate the formation of a Village Book. Village Book consists of school profile, emergency contacts, school calendar, maps of safe place, route and resources, maps of hazards, list of assets and action plans which are endorsed by the Township Administration Office (TAO) and school head. Figure B.13 shows the training on how to prepare the Village Book which was conducted by Fellows for volunteers from 116 villages in Meiktila

Township. Upon the request of the General Administration Department (GAD) and the Planning Department, the training program was designed to encourage more communities as well as local governments to initiate people-centered development processes through systematic planning and project implementation. Village books are targeted to be prepared in 116 villages in 58 village tracts, 30 villages of which ActionAid is already working with. Fellows shared their knowledge with the village volunteers, explained the development of a Village Book and key development concepts, as well as facilitated group work on preparing social maps, problem trees, and other participatory tools. The training was supported by local government officials from TAO, Township Development Supporting Committee, Township Planning Department, and Rural Development Department.³³

figure 6.13

(a) Action Aid Fellow conducting a session b) trainees from villages during a workshop on developing community map





³² ActionAid Myanmar is working in Kachin, Kayah, Kayin and Rakhine states and Ayeyarwaddy and Mandalay divisions with local partners. ActionAid is promoting a fellowship programme to support the development of young leaders who are trained to facilitate processes of participatory and empowering change in communities, which helps communities to become more self-reliant. Fellows are young energetic men and women who are committed to working towards grassroots development.

³³ Thant Zin (2015). Fellows train Volunteers on Village Book Process. Available at http://www.actionaid.org/2015/10/fellows-train-volunteers-village-book-process

development of school safety toolkit for myanmar as Part of assi Phase 2 implementation -Plan myanmar Plan Myanmar³⁴ has been training school children to be prepared for disasters, helping raise awareness and making schools safe. Plan's work in Myanmar has so far directly benefited over 194,000 people with its core activities including education, ECCD and DRR. Plan has been working in 96 schools

(30 in Kyuak Phyu Rakhine; 40 in Taungup, Rakhine; 6 in Sittwe, Rakhine; 5 in Pyapon, Ayerwaddy, 5 in Latputta, Ayerwaddy; 10 in Ngayoke Kaung, Ayerwaddy). They have helped developed SDPPs with established SDMCs. As part of the implementation of ASSI Project in its second phase, Plan is developing a School Safety DRR toolkit for Myanmar context based on the SEAMEOINNOTECH "Toolkit for Building Disasterresilient School Communities in Southeast Asia"35. A Series of meetings and workshops have been conducted at different levels: CSOs at the community level, and MoE at the National level to finalize the school safety toolkit. Upon completion, World Vision and Plan will train teachers on how to use the toolkit and pilot in 12 schools in Yangon and Rakhine States. The toolkit will also be disseminated to a total of 140 schools in hazard- prone areas. The project will contribute to an overarching goal of ensuring children to be more resilient to disasters and have a safe and secure learning environment. Interventions will aim to contribute to the following:

- developing a common framework for school safety, rolled out through training and technical support on safe school tools and guidelines
- strengthening knowledge and collaboration among Education and DRM experts to advance initiatives at national and sub-national level.

child-led drr framework
allows children to help in
building community resilience
- save the children myanmar

The Child-led DRR (CLDRR), where children play leading roles in their communities to identify and minimize disaster risks and hazard and to

better prepare for disasters (see Figure B.14 for an example of activity), is a tool used by Save the Children since 2009. The CLDRR activities are implemented in the townships of Yangon (Kyounchangone) and Ayeyarwaddy region (Mawlamyinegyun, Hlaingbon, Laputta, Pyarpon and Myaungmya). Since 2014, 1,552 children and 388 adults from 97 villages received the CLDRR training: 14,000 children and 5,000 adults from 97 villages were involved in community risk reduction activities; 105 schools were renovated; 1,700 adults from 105 villages benefited from the Safer Technique training.

acfivify centre - seeds Philqing frught fre dir ton the dir ton the fine the dir ton the first seed to the first seed to

Seeds Asia has been working in Myanmar since 2009. It is at the forefront in providing DRR education to figure 6.14

Children draw maps of their village in the Irrawaddy Delta, Myanmar. Save the Children is helping children identify the dangerous areas and safer places if there is another cyclone.



- 34 Plan started working in Myanmar in 2008 to provide emergency relief to communities affected by Cyclone Nargis. Together with local partners, its operations soon evolved to long-term recovery from building and renovating schools to training teachers and households in trauma healing techniques. DRR training has also been rolled out to children, parents and teachers to help ensure communities are better protected in future.
- 35 The toolkit is designed for high-risk school communities in Southeast Asia within the context of ESD while presenting key concepts and examples on DRR and the strategic actions taken by countries in integrating these in education and local governance. It is intended for school heads and teachers to help them coordinate, setup, maintain and sustain effective DRRM programs in their respective school communities. The toolkit is broadly anchored on the Minimum Standards for EiE set forth by INEE.

children. In 2009-2012, through the Mobile and Water Knowledge Resource Center (MKRC and WKRC) they have provided teaching aid materials that demonstrate different hazards (Figure B.15). They have also implemented with the Myanmar Engineering Society capacity building on DRR in cyclone affected areas. Through MKRC and WKRC, 31,311 people Yangon, Ayeyawardy, Rakhine, Sagain, Bago, Mandalay were trained on DRR.

a) The MKRC; b) Students learning about mechanisms of hazards in MKRC; c)the WKRC

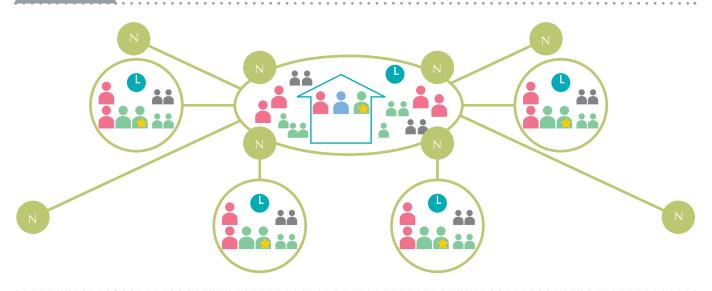






At present, Seeds Asia has established DRR Community Centers (DDRACs) in 6 communities. DRRACs serve as the center of DRR activities in the community to provide information and knowledge, technical and human resources for making the community resilient to disaster, through the utilization of linkages and networks. A DDRAC is established through a series of processes that include needs assessment, identification of the place for building the center while building rapport with the community, selection of DDRAC members to become DRR leaders, and finally, operation of the DRRACs. Members are initially selected from existing organizations in the community such as the Township/Village Disaster Preparedness Committee or Village Disaster Preparedness Committee, the School Disaster Management/Preparedness Committee, Rural Development Committees, Women Groups. Selected members undergo extensive training on DRR such as conducting HVCA, participatory planning and implementation, monitoring and evaluation, simulation exercises, first aid, search

figure b.16 Model for DDRAC and Trainings in Communitie



and rescue, and many others. After completing the trainings, the members undergo examination. Those who pass the examination become official DRRAC members, who train and teach others in the community. The operation of DRRACs is presented in the model in Figure B.16. Children both school goers and non-school goers are taught and trained. The DRR leaders build networks in other villages or areas by sharing their knowledge and training to others.

incorporating child-friendly school standards in the design and construction of schools - unicef myanmar

In 2009-2012, UNICEF was involved in the design and construction of child-friendly schools that can withstand the impacts of hazards. It helped MOE in the construction of 50 child-friendly schools (example shown in Figure B.17). The main objective of the

initiative was to develop a design and model that is financially feasible which MoE could benchmark. Child-friendly schools that were constructed consisted of reinforced concrete structure on wooden piles, interlocking brick with reinforced concrete substructure and light weight construction. Using this construction framework, UNICEF has supported the construction of 49 child-friendly model schools in nine cyclone-affected townships including Ngaputaw, Labutta, Mawlamyingyune, Bogale, Pyapon, Kyaiklatt, Dedaye, Kawhmu and Kungyangone. UNICEF will continue to provide support to GoUM in ensuring that children are safe when hazards strike. As co-chair of JESWG, co-Chair of ETWG and member in other SWGs, it will continue to work with GoUM in ensuring that DRR is integrated in the NESP and related policies, in the current curriculum revision and development, and in the construction of schools.

figure b.17 A child-friendly school built in Myanmar; children learning in the school built



mainstreaming arr in the SChool and community and leading the development of the national school construction guideline-World Vision myanmar

World Vision Myanmar, implemented the Myanmar Disaster Risk Reduction (MDRR) Phase 1 project from May 2012 to Jan 2014. Funded by OFDA, MDRR was implemented in 13 schools (primary and middle level) in Amapura, Pyigyitagon, and Loikaw Townships. The project involved: DRR awareness raising, development of

SDPPs, and training and conducting mock drills for school children (see Figure B.18 for some of the activities). A total of 4,666 school children benefitted from this project. Second phase of MDRR implementation was done in 6 villages and 6 schools in Myeik, Myitkyina and Waingmaw Townships from February 2014 to July 2015. More than 3,600 people from schools and communities benefitted from the DRR activities and

trainings that were conducted. Now, MDRR is being implemented in its third phase, covering other schools in different regions and townships. In addition to MDRR, a total of 1,478 government staff (teachers, health staff, township administration staff, members of Fire Brigade) received the capacity building trainings provided by World Vision in the implementation of its CBDRM project. As a result of the trainings, school teachers were able to lead the development of their SDPPs with school profile, analysis of school vulnerability and capacity, roles and responsibilities of the SDMC, and one year action plan (e.g. awareness raising, training, special events, mock drill focusing on earthquake). The schools conducted monthly meetings to ensure implementation of their action plan. Community DMCs and CBDRM activities were linked with school DRR initiatives to ensure coordination and effectiveness.

figure b.18

Disaster risk game with teachers and students (left photo) and earthquake drills (right photo) conducted during the implementation of MDRR



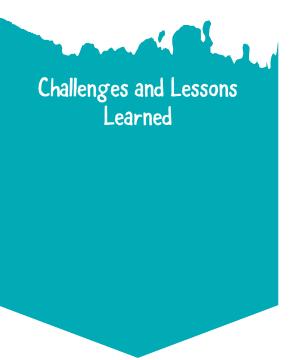


World Vision is currently implementing a DFAT-funded project on the development of a national school construction guidelines. As co-chair of the SCSWG, World Vision together with SDC leads the series of consultation with the members of SCSWG and MOE, on a regular basis. Development of the guidelines will address technical aspects of construction as well as social inclusiveness especially for children with disabilities and female students. The guidelines is being finalized and is expected to be completed by April 2016. Additionally, World Vision, being a founding member of MEC which is also funded by DFAT, DFID UK and Danish International Development Agency (DANIDA), works to inspire and empower education actors throughout Myanmar to reach and include all children in achieving high quality education. This is done through provision of capacity building, coordination, advocacy, and providing grants to existing civil society education networks in the country.

oday, many stakeholders from the education sector in Myanmar are aware of natural hazards and their impacts and have obtained basic knowledge and understanding about disasters and how to be prepared for future ones. Many school children have already been taught about disasters, how to prepare, and how to respond when disaster comes. The following highlights some of the major challenges and lessons learned from the CSSF work of the MoE and stakeholders in the country.

- Many schools still do not have early warning and preparedness plans in place, despite understanding the need to have SDPPs.
- A school disaster management program that is led by the MoE with corresponding policy support will help in establishing SDMCs and the development of SDPPs in all schools nationwide.
- Provision of budget for school level activities is also equally important.
- Development of SDPPs and community plans are still done separately. Linking these two plans is important for more effective and collaborative implementation. The concept of DRRACs implemented by Seeds Asia and the work being done by ActionAid Fellows (as featured in Section 3) are ways to establish the linkage. However, more financial and human resources are required.
- The responsibility of monitoring school construction and maintenance primarily lies with the School Principal, while funds for school construction and/or maintenance comes from the MoE, PTA, the School Board of Trustees, donors, and the community. Capacity building and sufficient funding is needed for school administrators to perform their functions of monitoring construction and maintenance of schools.
- Challenges of coordination with government counterparts for implementation of activities and programs at the school level often delay completion of activities. It is helpful to have focal points within MoE at the national down to the local levels who will serve as the main coordinator for school safety related programs and activities.

Busy schedules of teachers and students in schools sometimes make it difficult to implement DRR capacity building and awareness raising activities. Ensuring that DRR-related activities at the school level are part of school assessment and the curriculum can help solve this issue.





he implementation of CSSF in the country is now supported by related country programs and regulations, and established coordination mechanism under MoE. The INGOs and NGOs in the country are continuously committed to continue supporting the work in the country in line with their mission and vision. The on-going work and the next steps of moving CSSF implementation are as follows:

- Integration/infusion of DRR throughout the curriculum (core and life skills; formal and non-formal) and development and dissemination of guidelines for integration of risk reduction and resilience into carrier subjects are on-going. Since the addition of KG and Grade 12 in basic education system has made changes in the curriculum, infusion of DRR in the curriculum is on-going. Child-centered approaches will also continue to be used for the enhancement and improvement of creativity, critical thinking, practical application of learning and problem solving skills of the students. Trainings for primary school teachers on using these approaches will also be done in Project Townships.
- Construction of new classrooms as indicated in the New Initiatives under the CESR will be done within the coming years.
- Finalization of the National School Construction Guidelines is set by April 2016. Once finalized, the guidelines will be disseminated to local authorities, education personnel and private sector contractors. Trainings on the use of the guidelines will also be conducted.
- NESP 2016-2021 which includes the education sector, with proposed budget allocation for DRR integration is being finalized for endorsement by the GoUM.

ince 2007, in line with its commitment to the Hyogo Framework for Action, the Department of Education (DepEd)³⁶ has started to mainstream disaster risk reduction (DRR) into the education sector. The Department issued a policy that prioritizes the mainstreaming of DRR in the school system and ensures the implementation of programs and projects related to DRR.³⁷ This also provided the DRR Resource Manual which was developed for school administrators, heads or principals, supervisors and teachers in implementing DRR management projects. Mainstreaming DRR in the basic education sector complements other government school projects, such as integration of CCA into the education curriculum. In the same year a Handbook on Educational Facilities, integrating DRR in school construction, was launched to ensure safety of school facilities. The Handbook was revised in 2010, as the "Physical Facilities Manual", to guide school heads, supervisors, teachers and other stakeholders of DepEd for sound, efficient and effective management of school facilities and resources, and making them safe and conducive for teaching-learning activities. Since July 2010, 66,813 classrooms were constructed nationwide with more to meet the yearly demand. Disaster-resilient designs for 1-storey and 2-storey classroom buildings were also prepared (Figure C.1).

Institutionalizing
Comprehensive
School Safety in the
Philippines

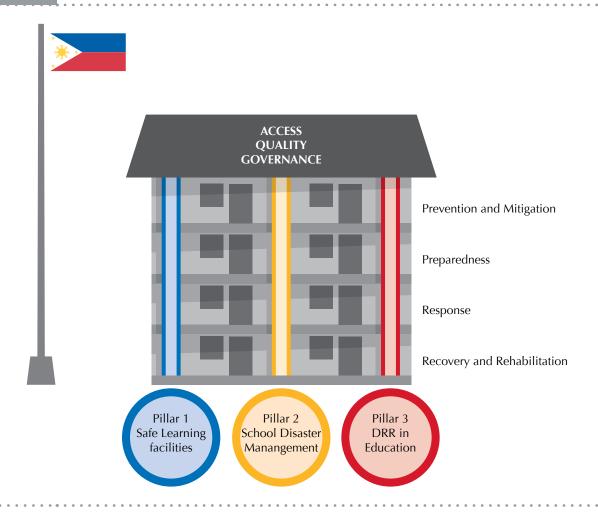
figure C.1 Standard classroom designs for 1-story (left) and 2-story (right) building





In 2011, in accordance with the "Philippine Disaster Risk Reduction and Management Act of 2010 otherwise known as Republic Act

- 36 DepEd is responsible for over 24 Million school children (SY 2014-2015), including supervision of all basic educational institutions, establishment and maintenance of a complete, adequate and integrated system of education, raising the standard of basic education and administrative efficiency in the delivery of educational services that are relevant and in pursuance to the national development goals. DepEd envisions highly competent, civic-spirited, life skilled and God-loving Filipino youth who will be the future contributor towards the building of a humane, healthy and productive society. An organization with around 47,000 schools, it is mandated to provide conditions where students lean in a child-friendly, gender-sensitive, safe and motivating environment.
- 37 Known as DepEd Order number 55, series of 2007 or DO 55, s. 2007, this is in line with ultimately integrating DRR and CCA in both formal and non-formal curriculum in the Philippines as pronounced in country policies and plans such as the Strategic National Action Plan (SNAP) for DRR 2009-2019 (SNAP DRR), DO 55 s. 2007, DO 82 s. 2010, and DM 276 s. 2010. http://www.deped.gov.ph/sites/default/files/order/2007/DO_s2007_055.pdf



(RA) 10121³⁸, DepEd created the DRR and Management Office (DRRMO) (DO 50, s. 2011) which acts as the focal point in planning, implementing, coordinating and monitoring activities related to Disaster Risk Reduction and Management (DRRM), Education in Emergencies (EiE) and Climate Change Adaptation (CCA). The following are other key policies related to DRRM that have been issued to guide DRR planning and implementation of DepEd at national/central office, regional, division and school level.

- Creation of a Task Force on National Greening Program
- Disaster Preparedness Measures for Schools
- Guidelines on the Use of the Quick Response Fund
- Enforcement of support to implement grant calamity loans to teaching and non-teaching staff in areas affected by calamities
- Quarterly conduct of the National School-based Earthquake and Fire Drills
- Continuing Fire Safety and Awareness Program (FSAP) in Schools
- Establishment of DRRM Coordinators nationwide and building their capacities to perform their duties and responsibilities.
- Integration of DRR in the data collection forms incorporated in the Enhanced Basic Education Information System (EBEIS). Using this information, schools have been mapped out for geospatial analysis.

³⁸ RA 10121 mandates all national government agencies to institutionalize policies, structures, coordination mechanisms and programs with continuing budget appropriation on disaster risk reduction and management from national to local levels.

In 2015, to underscore its commitment to the Sendai Framework for DRR, DepEd adopted the *Comprehensive DRRM in Basic Education Framework* to guide the implementation of comprehensive school safety at all levels. The DRRM Coordination and Information Management Protocols, was also established to provide guidance to DepEd field offices (region and divisions), schools and DRRM coordinators on their respective roles and functions relative to DRRM implementation.³⁹

The DRRM in Basic Education Framework (Figure C.2) is guided by DepEd's three major education outcomes—Access, Quality and Governance, which set the program and policy direction of the agency. The framework is based on the global CSSF and the four thematic areas of RA 10121, namely, Prevention and Mitigation; Preparedness; Response; and Recovery and Rehabilitation.

The three pillars of the Comprehensive DRRM in Basic Education Framework include:

Safe learning facilities

physical and other related structures of the schools as well as the establishment
of temporary learning spaces that can be used during possible displacement
brought by disasters and/or emergencies. This involve education authorities,
architects, engineers, builders and school community members in safe site
selection, design, construction, and maintenance (including safe and continuous
access to the facility).

School Disaster Management

 establishment of an organizational support structure such as the DRRMO and DRRM Coordinators in all regional and division offices of DepEd. This covers the setting up of systems, processes and standards to operationalize the 4 thematic areas in the context of basic education

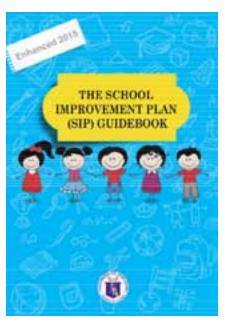
Risk Reduction and Resilience Education

integration of DRRM in the school curricula and in extra-curricular or school
activities as well as providing necessary material support. This also covers the
conduct of orientations, workshops, and trainings for learners and personnel
related to DRRM.

In 2015, DepEd also issued the Guidelines on the Enhanced School Improvement Planning (SIP)⁴⁰ Process and the School Report Card (SRC), which guides schools in

³⁹ The CSSF was developed by the Global Alliance on DRR and Resilience in the Education Sector (GADRRES). Members of GADRRES includes: UNISDR, UNICEF, UNESCO, IFRC, PLAN International, SAVE the Children, World Vision International

⁴⁰ The planning process in the enhanced SIP has become more responsive using the tools in the continuous improvement process which gives more emphasis on analyzing qualitative and quantitative data by listening to the voice of the learners and other stakeholders, reexamining the school processes, and doing root cause analysis. The SIP, formulated in collaboration with the community, is a roadmap that lays down the school's specific solutions to corresponding identified priority improvement areas covering a period of three years. The SIP is the basis for the school's Annual Implementation Plan (AIP) and other specific plans such as the Child Protection plan, DRRM plan, and Learning Action Cell (LAC) action plan, and must contribute to the attainment of the goals of the Division Education Development Plan (DEDP).



preparing the enhanced SIP (guidebook shown in Figure C.3) and SRC. The SIP policy, aims to strengthen School-Based Management (SBM) by

- further devolving the governance of education to schools
- · -empowering school teams and personnel
- -expanding community participation and involvement, and
- -making the delivery of education services to the learners more responsive, efficient, and effective through an enhanced school planning and communication process.

s outlined above, several initiatives on school safety has been on going. The following details some of the best practices of DepEd. These, identified by interviewees include the 1) Development and implementation of a Comprehensive DRRM in Basic Education Framework; 2) Establishment of the DRRMO at the national/central office, regions and division, and Coordination and Information Management Protocols; and 3) Integration of DRR and CCA in the Kinder to Grade 12 (K-12) Curriculum (Ages 5-17).

Development and Implementation of the Comprehensive DRRM in Basic Education Framework

After the 6th Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR), held in Bangkok last June 2014, DepEd decided to adopt the CSSF in line with its education outcomes and the country framework on DRR. In August 2015, known as the "Comprehensive DRRM in Basic Education Framework" was launched to guide DRRM efforts in the basic education sector towards ensuring safety and resilience-building in offices and schools, and to ensure that quality education is continuously provided and prioritized even during disasters and/or emergencies. The Framework, as shown in Figure C.1, aims to protect learners and education workers from death, injury, and harm in schools; plan for educational continuity in the face of expected hazards and threats; safeguard education sector investments; and strengthen risk reduction and resilience through education.

The framework institutionalizes DRRM structures, systems, protocols and practices in DepEd offices and schools, and provides common understanding and language in the implementation of DRRM in basic education at all levels. The framework sets the direction and priority areas for DRRM in DepEd while maintaining the prerogative of field offices to decide on what specific activities to undertake depending on their exposure to hazards, available resources and existing partnerships and linkages.

The DRRM in Basic Education Framework provides guidance in:

- The inclusion of DRRM in the school, division and regional education development plans;
- The implementation of DRRM for education practitioners' and partners' planning and programming at all levels;
- Defining the agency's preparedness, response, recovery and rehabilitation initiatives with respect to hazards affecting school operations;
- Serving as mechanism for engaging partners and aligning their thrust to DepEd priorities;
- Guiding collaboration with the private schools

All DRRM interventions at all levels should be incorporated in the plans of schools and offices as appropriate, and be allocated with the necessary budget. For the central office, the inclusion of DRRM in work and financial plans includes those that have DRRM-related initiatives concerning school engineering, learning materials, curriculum support, capacity building and advocacy, among others. In terms of monitoring



and evaluation of all DRRM programs, projects, and activities, efforts are ensured at all levels of governance. While all offices could conduct internal progress monitoring and process-evaluation, DRRM accomplishment reports, including encountered issues in implementation, are submitted quarterly to respective supervising or oversight offices. Schools submit to their division, while the divisions submit both to the region and the central office DRRMO (CO DDRMO). CO DRRMO have provided orientation on the Framework to field offices in 17 regions and 221 divisions in partnership with the Education Cluster and Office of Civil Defense (OCD).

Under the three pillars of the DRRM in Basic Education Framework, the following summarizes the policies, programs and activities that have been enforced and implemented.

figure c.4

Summary of policies, programs and activities on school safety implementation

resilient school facilities

- Adopted disaster resilient designs for classroom construction
- Designed temporary learning spaces as alternative to tents
- Strengthened construction monitoring process by engaging school heads
- Access-friendly schools for children with disabilities
- Assessment of Schoolbuildings' Structural Integrity and Stability (ASSIST)
- DRRM section in the EBEIS questionnaire
- 88% of schools were already mapped for geospatial analysis
- Establishment of the policy on Camp Management
- Establishment of the Quick Response Fund that can be used by disasteraffected Schools

Pillar 2 SChool disaster management initiatives

- Established DRRMO with DRRM coordinators in 17 regions and 221 division offices
- Established coordination with education partners & other government agencies
- Developed the School DRRM Manual
- Annual Conduct of School Risk Assessment
- DRRM integration in SIP
- Quarterly Conduct of Earthquake and Fire Drills and Road Safety Education for Children
- Continued implementation of 3-pronged school-based National Greening Program: Tree planting/ Reforestation; Vegetable garden in schools; Solid Waste Management
- Policy on student-led school watching and hazard mapping
- Policy on Family Earthquake
- Preparedness Homework

Pillar 3 Arrm integration in the curriculum

- Mainstreaming Concepts in the Elementary and Secondary School Curricula and extra-curricular activities
- Integration of DRRM/CCA in the new K to 12 curriculum
- Uploading of DRRM reference materials in the learning portal beginning 2015
- Training for teaching and nonteaching staff for DRR and CCA in K-12 Curriculum
- Strengthening support for psychosocial interventions

Establishment of the DRRMO and Coordination and Information Management Protocols

Roles and Functions of the DRRMO

The DRRMO was created in 2011 to institutionalize the culture of safety at all levels, systematize protection of education investments and ensure continued delivery of quality education services. The office is the focal point and coordinative unit for DRRM-related activities, under the functional direction of the Undersecretary for Regional Operations who is also Chair of the Education Cluster⁴¹. Since the creation of DRRMO, a DRRM Focal Point in each region and division has been assigned.

⁴¹ The Education Cluster started in 2005 as (Education in Emergencies Cluster) with about 20 member organizations. The cluster developed mainly on account of the needs surrounding emergency coordination after Typhoon Reming in 2006, and works on such areas as contingency planning. The members include World Vision, Plan International, Save the Children, ChildFund, GMA Network, ABS-CBN, DSWD, DILG, Union of Local Government Association in the Philippines, UNICEF, among others.

In October 2015, the DRRMO has been elevated to a DRRM Service with the assumption of its newly appointed Director. As a Service, the said office is hereby granted authority to hire full time regular staff and further establish and carry out fully its roles and functions.

With the elevation of the DRRMO to a Service, the post of a designated Focal Point in the regions and divisions has been replaced with a regular-hired DRRM Coordinator. The process of hiring regular staff (17 DRRM Coordinators for the regions and 221 for the divisions) has been ongoing at all levels, including the central office which currently has 10 staff, including the Director.

The DRRMS represents DepEd in the National DRRM Council (NDRRMC) meetings. It is also the Convenor and Secretariat of the Education Cluster. In the event of any hazard, the DRRMs collects from and disseminates consolidated reports to all affected regions, divisions and schools. Before the hazard strikes the area concerned, the DRRMS collects information on hazard situation and advisories, baseline data of schools that are exposed to the hazard, prevention and mitigation measures as well as preparedness measures undertaken. During and after a disaster, the DRRMS collects information on personnel affected, personnel tracking, learners affected, schools used as evacuation centers, class suspension and resumption, classroom damages, temporary learning spaces and other interventions. Below are the specific functions of the office.

b0X C.1

Specific Functions of the DRRMO/DRRMS

- Act as the focal point for DepEd in planning, implementing, coordinating and monitoring of activities related to DRRM, Education in Emergencies (EiE) and Climate Change Adaptation (CCA)
- Develop and recommend policy standards and actions to DepEd management on DRRM/ EiE/ CCA matters
- Initiate and coordinate cooperation and collaborative activities
 with the national government agencies (NGAs), non-government
 organizations (NGOs) and civil society groups (CSGs), inter-agency
 and cluster groupings such as National Disaster Risk Reduction
 Management Council (NDRRMC) Technical Working Group (TWG),
 Education Cluster, Protection Group, among others, concerned with
 DRRM/EiE/CCA
- Develop and recommend policy actions to enhance the DepEd's resilience to disasters
- Create and operate an Emergency Operation Center (EOC) which will serve as the Department's operating and responding facility during disasters
- Serve as the clearinghouse for all DRRM-related transactions including production and issuance of EiE/DRRM modules, distribution of school kits, and offering of emergency aid or assistance

Roles and Responsibilities of Schools, Divisions and Regions

Schools are the primary source of data since they are DepEd's frontline service provider to the learners. With the leadership of the School Heads, schools are responsible in providing key information before, during and after a disaster. Schools are mandated to form their School DRRM Team which is headed by a designated coordinator. The SDRRM Coordinator is responsible in ensuring the integration of DRRM in the SIP.

The School Division Office (SDO), with the leadership of the Schools Division Superintendent (SDS) provides support to and leads schools in the implementation of DRRM initiatives. Additionally, the SDO, conduct close monitoring of safe site selection and construction of new school buildings, recommend possible class suspension to the local DRRM Council, if necessary, prepare for and facilitate possible deployment and provision of resources to affected SDO personnel and schools and integrate DRRM in the Division Education Development Plan (DEDP).

The Regional Office (RO), on the other hand, with the leadership of the Regional Director (RD) and RO DRRM Coordinator supports the divisions in implementing DRRM initiatives, and assists SDOs in making sure that a culture of safety is cultivated in its AOR, in addition to issuing policies and monitoring the implementation of prevention, mitigation and preparedness, response, recovery and rehabilitation measures; conducting policy research on DRRM implementation; maintaining close coordination and collaboration with Regional DRRM Council and other partners on

the conduct of preparedness activities and on response needs; and integrating DRRM in the Regional Education Development Plan (REDP).

Box C.2 illustrates the roles and responsibilities of School Heads and the DRRM Coordinators.

box C.2

Roles and Responsibilities of School Heads and DRRM Coordinators

- Ensure the establishment of an Early Warning System such as bulletin board for weather advisories, and bell/siren emergency signal among others
- Conduct an annual student-led risk identification and mapping within and around the school premises to ensure a safe environment that is conducive to teaching and learning
- Maintain close coordination with local DRRM Council on the conduct of preparedness activities and on response needs, among others
- Provide capacity building for teachers, non-teaching staff and learners on DRRM
- · Maintain, disseminate, and post relevant and updated emergency hotlines in strategic locations throughout the school
- Posting of safety and preparedness measures and evacuation plans
- Conduct disaster preparedness measures, including but not limited to quarterly multi-hazard drills applicable to the school's identified hazard such as earthquake, fire and flood
- Maintain the safekeeping of vital school records and learning materials
- Organize school DRRM team to support the implementation of preparedness and response measures
- Ensure the availability of updated baseline education data of the school
- Integrate DRRM in regular school programs and activities and school improvement plan (SIP)
- Pre-identify possible Temporary Learning Spaces (TLS) and alternative delivery modes of education
- Monitor the effects of hazards, including the use of the school as evacuation center
- Track all school personnel during disasters and/or emergencies
- Prepare and submit reports on the effects of any hazard
- Ensure implementation of the "Guidelines on the Implementation of Prescribing Rules on the Cancellation or Suspension of Classes and Work in Government Offices Due to Typhoons, Flooding, Other Weather Disturbances, and Calamities"
- Conduct rapid assessment of damages after every hazard and submit RADaR within 72 hours via SMS
- Facilitate immediate resumption of classes to track learners
- Monitor recovery and rehabilitation interventions being implemented in the school.

figure C.5

Earthquake mock drills done in Schools





Coordination during Emergencies

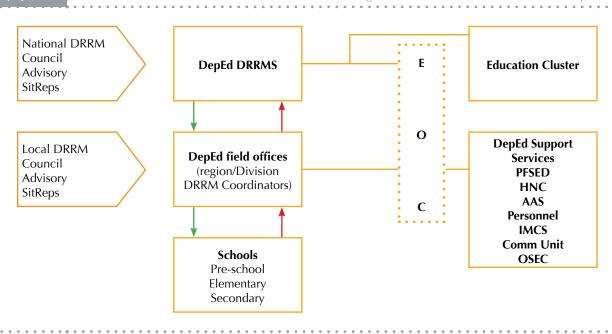
The structure in Figure C.6 provides an overview of coordination and reporting mechanism not only within DepEd but also with other partner agencies who are members of the NDRRMC. The DepEd Executive Committee (EXECOM), as member of the NDRRMC and lead of the Education Cluster provides strategic directions for the DRRM in Education system through the DRRMS. The strategic directions are being translated into operational directions.

The above communication and coordination flow aims to:

- Coordinate and monitor over-all effects of hazards and/ordisasters/emergencies to DepEdat all levels
- Coordinate response needs to members of education cluster and NDRRMC
- Generate consolidated report for DepEd management and external partners

figure c.6

unication and Coordination among NDRMMC members and within DepEd



For extreme weather events covering more than one region, the DRRMS will closely monitor affected areas through the field offices coordinating both with the DRRM Coordinators and DepEd local officials, particularly the Regional Directors (RDs) and the School Division Superintendents (SDS). Also, coordination with DepEd Support Services and Education Cluster members are done to mobilize assistance for affected areas. DRRMS consolidates and processes monitoring reports for EXECOM members.

Depending on the severity and impact of a disaster an Emergency Operations Center may be activated wherein the office heading the EOC shall coordinate all information to and from the different offices, institutions and organizations concerned. The EOC is a tool used to organize on-scene operations for disasters and emergencies, both natural and human-induced. The School Division Office activates and leads the EOC if 2 or more schools are affected; the Regional Office leads if 2 or more divisions are affected, while the Central Office's (CO) direct intervention is required if 2 or more regions are affected. However, the CO may and will intervene in cases where the impact is beyond the capacity of the corresponding office and/or as it sees fit, e.g. direct threat to life.

Early Warning

For Early Warning, the DRRMS sends warnings, alerts, tracking reminders and other information to all identified regions and divisions that are to be affected by the hazard. These messages are forwarded by the Division DRRM Coordinator to all schools to facilitate the gathering of reports. Upon issuance of an advisory by the National Disaster Risk Reduction and Management Council (NDRRMC) and other warning agencies such as PAGASA and PHIVOLCS, the DRRMS sends advisories, alerts and warning messages to all local DepEd key officials of regions and divisions as well as

Legend to Figure C.6 DRRM: Disaster Risk Reduction

Management

HNC: Health and Nutrition

Center

SitReps: Situation Reports ALS: Alternative Learning System DRRMS: Disaster Risk Reduction

Management System

IMCS: Instructional Materials Council Secretariat

EOC: Emergency Operations

Comm Unit: Communications Unit PFSED: Physical Facilities and Schools Engineering Division OSEC: Office of the Secretary

the DRRM Coordinators. All DRRM Coordinators and DepEd Region and Division key officials should acknowledge and/or respond to the advisories received from DepEd DRRMS. Also, the advisories on weather forecasts or any other environmental condition should be forwarded to schools by each DRRM Coordinator to their respective areas of responsibility (AOR).

Tracking of Local DepEd Key Officials

During disasters and/or emergencies, all local DepEd officials are required to report their status to ensure that their safety and local leadership are maintained. This will also guide the necessary provision of support from the immediate governing level.

Reporting of Local Disasters and/or Emergencies

The RDs and SDS and/or DRRM Coordinators submits regular and real-time updates to the DRRMS when their AOR is affected by any hazard and during disasters and emergencies.

Immediately after the occurrence of any hazard, all affected schools are required to report the effects in their respective AOR using the Rapid Assessment of Damages Report (RADAR) templates via SMS. All RADAR should be submitted within 72 hours after any hazard or disaster to facilitate the immediate determination of needs and necessary provision of assistance. There are two RADAR templates that are used in directly reporting school damages by the School Heads: RADAR 1 determines the damages to classrooms, use of schools as evacuation centers, and effects to personnel. RADAR 1 is used to assess if the schools can continue to fully operate after a disaster. RADAR 2 determines the damages to furniture, learning materials and computers. Results of RADAR 2 are used to assess the support needed by schools, if they are deemed capable of operating as indicated in RADAR 1. Note that RADAR submitted by the School Heads are done via SMS, email or fax. The SMS report uses codes that

figure C.7 TLS Design



corresponds to the RADAR questions. Immediate as well as recovery and rehabilitation assistance including school clean-up and minor repair, construction of Temporary Learning Space (TLS) with TLS design (Figure C.7), provision of learning materials, reconstruction of classrooms and/or repair of major damages are based on the RADAR submission of schools which are vetted by the SDS.

The consolidated classroom and school furniture damages is endorsed by the DRRMS to the Physical Facilities and Schools Engineering Division (PFSED) for detailed assessment, preparation of program of work and fund allocation for repair and reconstruction of classrooms. Meanwhile consolidated report on textbook damages is forwarded to Instructional Materials Council Secretariat (IMCS) to give them a rough estimate of the number of damaged textbooks in the divisions affected. Simultaneous to this, all schools prepare detailed listing of damaged textbooks (i.e. titles, number of copies, grade level, among other) for consolidation of the SDO and subsequent submission to the IMCS. Lastly, details on the damaged computers are also prepared by schools after submitting the RADAR to facilitate the validation conducted by the DepEd Technical Service.

The respective DRRM Coordinators, School Division Superintendents (SDS), and Regional Directors (RDs) ensure that all needs related to emergency education services are addressed. DepEd local officials and the DRRM Coordinators continuously collect information on the needs of the different schools under their respective areas, and indicate the interventions being provided. They also facilitate the request for assistance based on assessment results.

Divisions whose schools have not incurred damages and were not used as evacuation centers are required to submit a certification of no damages and no schools were used as evacuation centers to expedite the reporting process. The certification is an assurance that the SDO has contacted all their schools and verified that there is no reported damaged classroom, furniture, learning materials and computer, no casualty among school personnel and no school was used as an evacuation center.

Request for reports and subsequent reminders are sent to all local DepEd key officials of affected regions and divisions as well as the DRRM Coordinators through SMS. Simultaneous to this, the general public are involved in the collection of pictures of damaged schools through DepEd's social media site using Twitter and Facebook. All submitted reports are consolidated and reported to DepEd Management, NDRRMC, Education Cluster and affected regions and divisions.

DRR Integration in the K-12 Curriculum

Mainstreaming DRR in the basic education sector complements the other government school projects, such as integration of CCA into the education curriculum. Integration of DRR and CCA in both formal and non-formal curriculum in the Philippines are outlined in country policies and plans such as the Strategic National Action Plan (SNAP) for DRR 2009-2019 (SNAP DRR), "Reiteration of Related Implementing Guidelines on CCA and DRR at the School Levels", and DM 276 s. 2010. The SNAP DRR pinpoints Education and Research as a priority program aiming to integrate DRR modules at the primary, secondary, and tertiary levels, and support training of teachers on DRR by 2015. The DO 55 s. 2007, directs the utilization of DepEd's DRR Resource Manual as a guide for implementing DRR programs, mainstreaming of DRR concepts in elementary and secondary school curricula, and development of multi-media modules on disaster preparedness, among others. The DO 82 s.2010 directs schools to revitalize the various programs and projects on DRR including mainstreaming of DRR and CCA in school lessons. The DM 276 s. 2010 orders integration of CCA and DRR with environmental education into elementary and high school curricula. A memorandum was also issued to all accredited publishers of educational materials to authorize them to publish approved instructional materials on DRR and CCA.

Until 2010, the competency-based approach is the method used by DepEd in making sure that DRR and CCA are incorporated in the curriculum. The approach means that DRR topics and concepts are integrated only in existing subjects rather than creating a new subject. Points of entry in identified subjects are determined after the core DRR and CCA messages and concepts are identified. Subjects identified

include Science and Social Science for Grades 6 and 7. Lesson exemplars, teacher/student modules were developed, and DRR teaching aids to complement student/teacher modules were also selected from existing ones developed by NGOs. The lesson exemplars and teacher/student modules developed for the secondary curriculum contain strategies and methods of teaching DRR, while teacher/student modules serve as reference materials. These materials were tested and validated by experts from the Department of Science and Technology and Department of Environment and Natural Resources. The Instructional Materials Council-Secretariat, in partnership with the NDCC, now the NDRRMC have also reviewed and approved the materials for printing.

In 2013, the Philippine Basic Education System widely adopted the K-12 Program that covers Kindergarten and 12 years of basic education: 6 years of primary education, 4 years of Junior High School, and 2 years of Senior High School. The objectives of adopting the system are to provide sufficient time for mastery of concepts and skills, develop lifelong learners, and prepare graduates for tertiary education, middle-level skills development, employment, and entrepreneurship. With the change in curriculum program, entry points, for integration of DRR and CCA were also identified and the ones used in the past 10-year Basic Education program were also utilized. Now, DRR and CCA are integrated in the curriculum in a more comprehensive manner. In the Kindergarten curriculum, topics were integrated at all levels of competency required. In Grades 1-10 levels, integration was done in the Science, Health, and Social Science subjects. In Grades 11 to 12 levels, topics are integrated in the Earth Science subject. Table C.1 presents a summary of the DRR-related topics in corresponding grade levels and subjects, while Figure C.8 shows some of the learning materials.

table c.1	Topics Related to DRR in K-12 Curriculum and Other Resource Materials	
SUBJECE	description/topics in curriculum	alage level
	Physical Health and Development of Motor Skills	Kindergarten
	Personal Safety (personal hygiene, keeping from playing with hazards such as materials that can cause fire, sharp objects, road safety/safe road crossing, and child protection education)	
	Leaving with People in the Community (includes helping keep the environment clean, proper garbage disposal, etc.)	_
	Earth-Environment, Weather (Identification of weather and hazards experienced in the community and how to prepare, proper attire according to weather, taking care of the environment, etc.)	
Social Science	My Community (includes weather and disasters experienced in the community, proper attires according to weather conditions, what to do during and after disasters); Living in the Community (taking care of the natural resources and keeping community clean)	1 (1st, 3rd quarter)
	I am Part of my Community (doing ones responsibility and following rules in keeping order and taking care of the community)	2 (4th quarter)
	The Municipalities in my Region (identifying hazard-prone areas, what to do to prepare for future disasters)	3 (1st quarter)
	Physical Characteristics of my Country (climate and weather-related to country's geography, earthquake hazard, able to suggest ways to prepare for future disaster)	4 (1st quarter)
	Environmental Issues (Disaster risk mitigation, climate change, Environmental Issues and in own community)	10 (1st quarter)
	Physical Characteristics of my Country (climate and weather-related to country's geography, earthquake hazard, able to suggest ways to prepare for future disaster) Environmental Issues (Disaster risk mitigation, climate change, Environmental Issues and in	•

Science Earth and Space:	Types and effects of weather to daily activities, health, and safety; changes in the weather and safety and precautionary measures according to different types of weather	3 (4th quarter)
	Weather, weather instruments, measuring and recording weather components; simple interpretations about weather chart; safety precautions during different weather conditions	4 (4th quarter)
	(Processes that Shape Earth's Surface including weather changes and disturbances); Properties of Matter (Useful and harmful materials and how changes undergo)	5 (1st, 4th quarter
	Forces that affect changes on the earth's surface including Earthquakes, Volcanic Eruption, etc.	6 (4th quarter)
	Philippine Environment and its location with respect to the continents and oceans of the world; Earth material resources and using it in sustainable way; weather interactions in atmosphere	7 (4th quarter)
	Earthquakes and Faults and use of models to explain movements; tsunami generated by earthquakes; typhoons	8 (2nd quarter)
	Volcanoes, Climatic phenomena that occur on a global level	9 (3rd quarter)
	Plate tectonics	10 (1st quarter)
Health Injury Prevention, Safety and First Aid	Injury Prevention, Safety and First Aid	1 (4th quarter)
	Plate tectonics Injury Prevention, Safety and First Aid Home safety (hazardous areas and materials at home, safe use of chemicals); School safety 2	2 (4th quarter)
		3 (4th quarter)
Safety guidelines during disasters and other emergency situations (Typhoon, Storm Surge, Flood, Landslide, Volcanic eruption, Earthquake, Tsunami, etc.) Basic First Aid for Common Injuries and Conditions Concept of community and environmental health; Prevention and Management of Environmental and Health Issues; Collective action for the Environment; First Aid Guidelines and Procedures	4 (4th quarter)	
	Basic First Aid for Common Injuries and Conditions	5 (4th quarter)
	Environmental and Health Issues; Collective action for the Environment; First Aid	9 (1st, 3rd quarter
Earth Science	Natural Hazards, mitigation and adaptation (geologic processes and hazards, hydro meteorological phenomena and hazards, marine and coastal processes and their effects)	Senior High School (Grade 11-12)

figure C.8 K-12 Learning Materials







eynaldo Laguda, DepEd Undersecretary, in his statement during the 2015 World Conference on Disaster Risk Reduction (WCDRR), outlined that "partnerships, engagement and linkages are critical to the success of ultimately obtaining goals for our children". DRRMO staff confirmed during the interview that NGOs support the comprehensive school safety work in the country, consult DepEd before they do something and align their programs and activities to ensure sustainability. Among the many support provided by NGOs are: raising public awareness on DRR, CCA and related issues; building the capacity of schools in risk assessment, planning, implementation, monitoring and evaluation; provision of technical support and facilitation in the development and implementation of DRR-related resources and manuals, and reconstruction/retrofitting of schools. In orientations or trainings that are conducted by DepEd, resource persons are invited from partner NGOs. NGOs report to field offices on how many schools are engaged in their programs/ activities. DepEd's policy instructs teachers to re-echo in their schools what they learn from the trainings conducted by NGOs.

A major support that NGOs provide is capacity building for DRRM in schools. Specific support provided by interviewed organizations are detailed in the following subsections. Most of the cases featured here are the work of members of the Education Cluster that have aligned their work and are working closely with DepEd towards building a culture of safety with schoolchildren, teachers and non-teaching staff. With DepEd as the Convener, UNICEF as the co-lead, the Education Cluster together with government counterparts, has also advocated protecting the right to education of children affected by or displaced in times of emergencies. This has included undertaking rapid damage and needs assessments of education impacts in the wake of disaster to ensure that the sector is well-represented in emergency response efforts. The cluster has been instrumental in carrying out policy advocacy with DepEd on disaster management and preparedness, including mainstreaming risk-reduction measures into development policy, planning and program/project implementation. The Education Cluster provided technical assistance and inputs in the process of developing the 2008 DRR Resource Manual, Education Facilities Manual, the Enhanced SIP and School-led Hazard Watching Guidelines, among others. The Education Cluster is one among the few National Clusters that is actively engaged with partners even during non-disaster periods. It is also instrumental in the formation of Local Education Clusters.

emergency Psychosocial support for secondary school-aged students affected by typhoon yolanda unesco jakarta

UNESCO Jakarta Office with the support of the Government of Japan embarked on the project "Emergency Psychosocial Support for Secondary School-aged Students Affected by Typhoon Yolanda in the Philippines." The overall purpose of the project is to support the Government of Philippines' education system through the enhancement of national and local capacities in response to immediate needs of secondary school children affected by emergency

situations such as typhoons, earthquakes and/or floods. A collaborative effort to revisit existing tools, systems and policies in addressing post-disaster stress among school children, particularly secondary students, has been facilitated by this partnership with the Department of Education, their principals and teachers.

The Psychological Association of the Philippines was engaged by UNESCO Jakarta Office to revise the Psychosocial Intervention Training Manual published in 2007 by DepEd and the National Center for Mental Health of the Department of Health (DOH). The initial revision of the training manual was based on the gathered information and suggestions during the national the national and regional stakeholders meetings as well as school visits and teachers meetings. The draft revised training manual was piloted to selected secondary school teachers from three (3) most affected regions by typhoon Yolanda in the Philippines. Inputs were gathered from teacher participants for further revision of the training manual. An introductory training-workshop for DepEd regions 6, 7, and 8 (Western, Central and Eastern Visayas, respectively) have been scheduled from November-December 2015. The training-workshop will bring together selected secondary school teachers and key officials from DepEd central office and the said regions as well as various project partners.

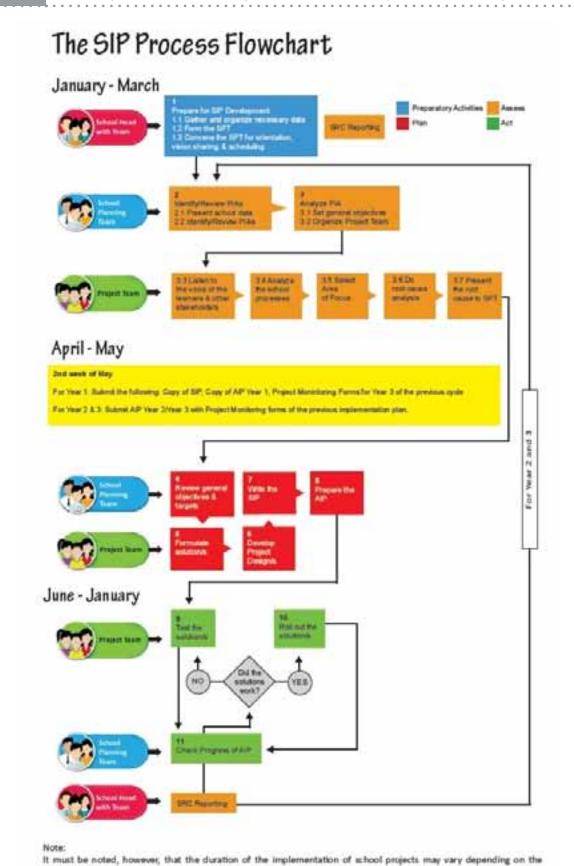
facilitation of the development of school improvement Plans, role out in other schools in 2015 - unicef Philippines

Aside from UNICEF 's⁴² facilitation of the creation of the Education Cluster and serving as co-chair, it has been supporting the school safety work in the Philippines in many ways. It has supported financially and technically, the development of the 2008 DRR Resource Manual.

Recently, a major support it has provided to DepEd is the completion of the review of the SIP Guidelines. UNICEF Philippines worked with DepEd through the School Effectiveness Unit to enhance the DRR component in school improvement planning process that started in 2013. Guidance explicitly required that "gender balance be considered in organizing the School-Community Planning Team." It also called for a conscious effort to collect and analyze gender-disaggregated data on key educational indicators. The revised SIP guidelines embrace child-centered and child-friendly approaches as its core planning principles and encourage schools to conduct evidence-based planning through more comprehensive data collection and analysis of children's and communities' situation and needs (process shown in Figure C.9). Initial roll-out of the SIP and school district synthesis in UNICEF-assisted local areas in the ARMM was done. Twenty six (26) model elementary schools were trained and preparations began for the training of 228 schools in January to April 2015. UNICEF is also involved in strengthening school and community management of education programs with strengthening disaster risk reduction and climate change adaptation contents.

UNICEF also supports the strengthening of local capacities at municipal level in the delivery and governance of quality basic education services with an equity-focus and improved local accountability. For instance, an intervention supported was the capacity building of around 844 K-to-Grade 3 teachers, school heads, and supervisors on child development principles and learner-centered approaches in support of the K-12 curriculum implementation. UNICEF Philippines is working in 7 focus areas with 2,560 elementary schools and 397 secondary schools. It will continue to advocate and provide technical support in developing clear strategies and programs that are aligned with the CSSF, as well as support in the documentation and dissemination of effective practices and challenges in undertaking school safety.

⁴² UNICEF has a long history (60 years) in the Philippines. It is strongly identified with children and is well known, trusted, and respected at national and provincial levels of government and society for its development and humanitarian support. Its national and provincial partners are intimately familiar with its programs, evidenced by how easily they can describe its six country programs since 1989. Its immediate priorities for 2010-11 focus on supporting the GoP in addressing some lagging MDG goals, experimenting with new social policy development initiatives, and engaging key stakeholders in reflective exercises aimed at informing future directions



Thus, the implementation may be as short as three months or may last until two or three years, if necessary.

54

timelines set for each identified PIA.

Data gathering for year 2 and 3 shall be done from January to March.

organizing school-based drrmo, builit and junior emergency responders (bert/jert) and training them for disaster preparedness: the school based climate smart disaster risk -Plan Philippines

Plan Philippines⁴⁴ is involved in organizing and strengthening school based disaster risk reduction and management offices (SBDRRMO) and the Bulilit/Junior Emergency Response Team (JERT/BERT); equipping of schools with early warning system; training of teachers on alternative delivery mode (ADM) of teaching and learning, and reproduction of self-learning kits and guidebook for teachers.

In one of their projects, the School Based Climate Smart Disaster Risk, implemented with financial support from Prudence Foundation, Plan helped enhance preparedness of schools against human-induced and climate-related disasters such as the recurring floods triggered by typhoon and southwest monsoon. Model schools demonstrating certain level of resiliency against the impact of natural and human-induced hazards was built by integrating DRR into the school regular programs. DRR was integrated into the SIP, teachers were trained on DRR and were helped to enhance the teaching and learning environment and improve the child protection mechanisms in schools. In each school covered, school-based DRRMO (SBDRRMO) was established to facilitate planning and assessment, and lead the implementation of DRR programs/projects. Students were involved by first educating them on DRR and allowing them to participate in the formation of the JET/BERT to increase their awareness and involvement in preparing and responding to emergencies. Self-learning kits or modules were also reproduced and distributed to schools for use of children as homework or in evacuation centers when classes are suspended during emergencies in order to facilitate continued learning. The project covered 3 public elementary schools and 3 public secondary schools directly benefitting a total student population of 6,180 and 190 teachers. One of the participating schools, Tanay National High School, which has been conducting drills twice a month, has designated safe places in the school and is cultivating a culture of disaster preparedness. School-based early warning system was also established and life-saving materials such as life boats made from recyclable materials were developed. This school has now become a benchmark for other schools in the Municipality to learn from. The Students are providing support to other schools such as serving as resource persons, and showcasing emergency preparedness drills.

figure C.10 School-based Disaster Management and JERT Bulletin, Tanay High School⁴⁵





⁴³ DepEd (2015). The Enhanced SIP Guidebook. Available online at www.deped.gov.ph

⁴⁴ Plan has been working in the Philippines since 1961, helping poor children to realize their rights to health care, education, protection and a high quality of life. Plan is supporting development of teaching modules with teachers in DepEd Divisions such as in Davao, Davao Oriental (elementary, secondary and highschool level); Tanay, Rizal (elementary and secondary). Now, Plan is working with these areas in the enhancement of K-12 Curriculum.

⁴⁵ Phyo Haymar Htun, Plan International, Myanmar

awareness raising and advocating disaster Preparedness - save the Children, Philippines Save the Children works for the welfare of children in many ways. It supports DepEd in implementing school management activities, raise awareness and enhance capacity of children in preparing for disasters, and provides technical support in integrating DRR and CCA in the curriculum and other learning materials. Save the children also helps prepare children for future disasters.

In May 30, 2012, together with DepEd, Save the Children held the National Congress on School DRR in Pasay City to prepare children for the coming rainy season. Over 200 students, school officials, government agencies representatives and international and NGOs and development partners from all 17 regions of the country gathered together to learn about best practices on how to implement DRRM in schools. The Congress was a major component of Save the Children and DepEd's Mainstreaming DRR in the School System initiative, which started in July 2011 and piloted in 4 public secondary schools in Laguna province and Region 4A. Supported by the United States Agency for International Development (USAID), at least 4,000 students and 300 public secondary school teachers and DepEd officials were trained how to mainstream disaster preparedness in the school system. Student leaders from the pilot schools shared their experiences in coping with disasters, their enhanced knowledge and capacities in participating in project activities, and their contributions and involvement in preparing for future disasters and making their schools resilient to hazards. Simultaneous sessions and interactive booths that tackled topics on how to establish school DRRM groups, how to integrate DRR and climate change topics in the school curricula, and how to best involve children in disaster preparedness, among others, were exhibited. The interactive booths also showcased the different steps on how to begin DRRM activities such as identifying the risks in school, checking if there are exit doors in the classrooms, assessing if there are existing warning signals for floods, earthquake or fire, and many more.

Save the Children will continue to support the school safety work in the country. Save is the lead in implementing the next phase of ASEAN Safe School Initiative (ASSI)⁴⁶ in the country.

disaster risk reduction and resilience in education seeds asia SEEDS Asia⁴⁷ with the Hyogo Prefectural Board of Education (BoE) in Japan has partnered with DepEd in the integration of DRR in the curriculum. The project partnered with and funded by the Japan International Cooperation Agency (JICA) is called "Project for Capacity Building on Disaster Risk Reduction Education through Cooperation with Local Community in Cebu Province" and started in November, 2014.

The initial activity is to create a system to promote DRR Education at DepEd Region VII Office, and in the later part of the Project the focus will be on establishing two (2) DRR Education Model Schools at each Division of Danao City, Bogo City and Cebu Province (Daanbantayan Municipality), and then rolling out the models to other areas of Cebu Province with seven (7) as Promotion Schools.

To date, the project has implemented the following activities:

Established Steering Committee (Decision-maker/Advisory body of the Project) with members from DepEd Central-DRRM Services Office, DepEd Region VII, Cebu Provincial DRRM Office, Office of Civil Defense Region VII (OCD-7) and Department of Social Welfare and Development Field Office VII (DSWD-7);

⁴⁶ ASSI was initiated in 2012 by the ASEAN Disaster Management and Humanitarian Assistance Secretariat, together with PLAN, SAVE, World Vision and Mercy Malaysia who are members of the AADMER Partnership Group (APG). ASSI has been approved and endorsed by the ASEAN Committee on DM as part of its AADMER Work Program

⁴⁷ SEEDS Asia is an NGO established in Kobe, Japan in 2006 which aims to share the disaster-related expertise in Japan and from SEEDS India, its sister organization. The mission is to ensure sustainable development and human security of people and communities in the Asia Pacific Region through its activities

- Established DRR Education Core Team that are the implementers and promoters
 of DRR Education in DepEd Region VII with members from DepEd Region VII,
 DepEd Danao City Division, DepEd Bogo City Division and DepEd Cebu Province
 Division (Daanbantayan District);
- DRR Core Team Capacity Building Training (5 days) conducted in April 20-24, 2015 and Study Visit to Japan (10 days) conducted in June 3-12, 2015;
- Regular visit and sharing of knowledge and information of Japanese Experts to Project beneficiaries in Cebu Province (3 visits conducted already);
- Prepared Training and Development Program Design for the DRR Education Model Schools Teachers, Training Session Guides and DRR Education Integration Matrix by the Core Team members with assistance from SEEDS Asia for technical inputs;
- Training-Workshop of DRR Education Model Schools Teachers (5 days with 72 participants) conducted on Oct. 26-30, 2015 with the Core Team Members as trainers (Figure C.11);
- Drafting of iPlans with DRR Education integrated by the trained Model School Teachers (on-going).

figure C.11

Core Team Members Train other Teachers on DRR in Education





Pipeline activities of the project include the pilot testing of the iPlans with integrated DRR Education Activities for the next two (2) months by the trained Teachers, review and editing of the iPlans based on the pilot tests that will also undergo quality assurance checking and then rolling out to additional seven (7) DepEd Divisions in Cebu Province that will be called DRR Education Promotion Schools.

Arrm training for barrmo, sarrmo members and schoolchildren through the child-focused-arr program (cfdrr); building capacity of depea's arrm coordinators, frontline responders and schools -World Vision Philippines

The CFDRR is a community-based approach to DRR where children are at the heart of all the processes. About 6,662 children and 2,352 adults have benefitted from World Vision Philippine's⁴⁸ (WVP) CFDRR capacity building programs, workshops and trainings throughout the areas in the country where WVP operates. During the trainings, children and adults conduct disaster risk assessments using child-friendly participatory tools, exploring the hazards

⁴⁸ WVP recognizes that children's rights can be achieved through DRR and their participation is needed in DRR initiatives within their communities. It has been implementing CFDRR in the country since 2008.

they face, their vulnerabilities, as well as their capacities as a community. They also work on their disaster action plans after a comprehensive risk assessment of their communities. Children recommend solutions to adults and to the authorities in their communities to be integrated into the local government's Disaster Risk Reduction and Management Plan (DRRMP). The pictures on Figures C.12, C.13 show the participants and their outputs during a 3-day CFDRR training in Barangay Ticud, Iloilo City, Philippines, in July 2015. Resource persons from MDRRMO and BDRRMO provided lectures on the country's DRRM framework, local government unit (LGU)'s roles and the School-based DRRM work, among others. Efforts of World Vision to raise awareness and capacity of community officials about DRRM concepts are well-accepted and appreciated. Some evident impacts to the community working with DRRMO at the local level including school children, parents, teachers, LGU officials, are the change of behavior resulting from awareness of their risks and knowing what to do before, during and after a disaster. People are now aware of the hazards, resources and capacities in their community, plan what to do to address these risks and act locally to mitigate and prepare for impacts of future disasters. In addition, DRRM Coordinators are re-echoing what they have learned and are initiating actions and support even if they are not asked to do.

WV also supports school safety work in the Philippines through raising awareness and DRR education to children and their community. In Sorsogon, one of the most typhoon-prone provinces in the country, a project initiated by the partner community-based organization of WVP (Green Valley Development Program, Inc.) benefitted around 5,000 residents of the four coastal and urbanized barangays in the municipality of Casiguran. Each Barangay developed a DRRM Plan, risk map, and IEC materials. A continuous education on DRR through the Van-Aralan, a mobile vehicle which carries DRR resource materials from the local government and DepEd office was also an output of the project. This vehicle moves around the targeted schools and barangays to conduct modular sessions on CFDRR to children and adults. The partner communities of the project recognized the nature and character of the different hazards that they face, given that Sorsogon is prone to volcanic hazards, flooding, typhoon, landslides, and human-induced hazard like armed conflict as well. World Vision International plans to expand capacity building of teachers and schoolchildren on DRR to more schools in the country.

World Vision is currently implementing a DFAT-funded project targeting to:

- build the capacities of 70 DepEd DRRM Coordinators and Frontline Responders, Covering Western Visayas, Central Visayas, Eastern Visayas, and Davao
- enhance the capacity of 7 selected schools in Tagbilaran and Davao City to manage disaster risks

WV provides technical and capacity building support to DepEd DRRM Coordinators and Frontline Responders to conduct needs assessment, as well as develop and implement DRR plans. In the schools located in hazard-prone areas, DRR committees are being established, supported to develop risk assessments, DRR plans, and early warning systems linked to local government. Teachers and students are also trained in disaster preparedness and disaster simulations.

figure C.12

Participants of CFDRR training in Iloilo City includes Resource person from MDRRMO, and BDRRMO, members of the BDRRMO, and School DRRM Team with selected schoolchildren



figure C.13

Risk Map prepared by participants of the CFDRR Training in Barangay Ticud Elementary School, Iloilo, Philippines







he following are the challenges identified and the lessons that can be drawn from the implementation of school safety in the Philippines.

- Having champions at the local level is crucial in ensuring interventions to be implemented and sustained. These Champions help prioritize the implementation of DRR needs, and should come from DepEd central and local offices, LGUs in key positions, etc.
- Turning DRR coordinators at all levels as advocates of DRR is important. To do this, provision of technical support, guidance and encouragement from immediate supervisors is necessary.
- Establishing communication and coordination protocols is helpful in monitoring and evaluating DRR interventions at all levels.
- Change in the behavior of key stakeholders and people in the community who are at-risk of hazards, is important in moving forward school safety programs.
- It is helpful that NGOs and other partners are well-informed of the developments of comprehensive school safety work undertaken by DepEd, for them to be able to align what they are doing. This contributes to more effective and concerted efforts towards attaining common goals.
- At the school level, there will always be outward movement of people who were trained on DRR, due to reasons like graduating for students or change of jobs or assignments for school teachers. This has always been a challenge and is impacting the sustainability of school activities. It is then necessary to ensure that schoolchildren or teachers who were trained also pass on their knowledge and skills to the next generation. Institutionalization of DRRM programs and activities with corresponding budget support has to be sustained to ensure that capacities of current students, teachers and personnel are built.

hile school safety initiatives have gone a long way in the Philippines, many more need to be done to institutionalize DRRM in the education sector. With the DRRM in Basic Education Framework, the DRRM has still a lot of work to consolidate the achievements, develop, expand and strengthen new areas to fully institutionalize comprehensive school safety towards resilient communities and schools in the country.

The following are the main focus of school safety work in the next couple of years.

- Capacitate the DRRM Coordinators at all levels, train them to organize their teams, develop and implement their plans, and encourage them to work in the field.
- Orient more schools on the DRRM in Basic Education Framework and other DepEd DRRM initiatives, enhance their capacities on developing their plans, and implementing and performing their roles and responsibilities.
- Use school DRRM data to formulate policies and plans.
 Data have also been given to other government partners and researchers to aid the development of recommendations on DRRM interventions. DepEd's database will be improved, with more DRRM-related data and information to be integrated.
- SIP planning cycle will be supervised and implementation to be monitored and evaluated.
- Build human resources and release of new learning and training/ retooling resources for public school teachers in line with the roll-out of the new K-12 curriculum.
- Invest in physical facilities which targets the construction of 20,000 Senior HS classrooms and 455 Technical Vocational laboratories.
- Encourage greater private participation through completion and release of policy brief to key stakeholders (e.g. private school associations).

n Thailand, the Office of Basic Education Commission (OBEC)⁴⁹, under the Ministry of Education (MoE)⁵⁰ is responsible for the management of education from primary to high school (children of ages 6-18). Since 2007, OBEC has decided to prioritize the safety of students as they are vulnerable to different kinds of hazards. A Standing Order on "Mainstreaming DRR in Education" has been issued to promote disaster education in all schools, develop and disseminate textbooks and teachers' guide, and train school teachers on disaster education. This is reinforced by the country's Compulsory Action Plan as stated in their Strategic National Plan (SNAP) for DRR 2010-2019, which emphasizes the provision of knowledge on hazards and DRR to youth

DRR in Education is managed by 3 Bureaus under OBEC, namely the Bureau of Academic Affairs and Educational Standards, Bureau of General Administration Office, and the Bureau of Standard Protection Task Force Center.

at all levels.

In 2007, the Bureau of Academic Affairs and Educational Standards developed a DRR-sensitive curriculum with the support of the Japan International Cooperation Agency (JICA)⁵¹. The curriculum was

Advancing School Safety in Thailand

Bureau of Academic Affairs and Educational Standards

in-charge of developing teaching and learning curriculum

Bureau of General Administration Office

 in-charge of all programs and activities related to management of schools including ensuring that schools know and identify the risks and ways to manage the risks, knowing what to do before, during and after a disaster, and providing psychosocial support after the occurrence of a disaster

Bureau of Standard Protection Task Force Center

 in-charge of all education networks on DRR and other issues in the Basic Education sector, and in providing orientation on the 3 pillars of the global CSSF

⁴⁹ OBEC is responsible for proposing policies, development plans, standards, and core curricula for basic education; mobilize resources; develop administration systems, promoting and coordinate information networks for learning and teaching; developing educational innovation; supervising the monitoring, inspection, and evaluation of the provision of basic education; and conducting secretarial works of the Basic Education Commission.

⁵⁰ MOE is responsible for promoting and overseeing all levels and types of education; formulation of education policies, plans and standards; mobilization of resources for education; promotion and co-ordination in religious affairs, art, culture and sports in relation to education; as well as the monitoring, inspection and evaluation of educational provision.

⁵¹ JICA has been providing technical and financial support to integrate DRR in Basic Education curriculum and train ESAOs in disaster management and education. This was done under the implementation of the project "Capacity Development in Disaster Management in Thailand" which started in 2006-2008 (Phase 1) and ended in 2013 (Phase 2).

table d.1 DRR integration in upper primary and lower secondary subjects (Grades 4, 5, 6) **LOPIC** SUbject Social studies Physical geography Understanding the earth's physical structure, space relationships, understanding the relationships between humans and environment Science Living Being and Life **Existence Process** Life and Environment Evolution of the Earth Health Education Safety

Preventing and avoiding risky factors and behaviors, accidents, use of drugs, narcotics and violence

figure

to draw community map and identify hazards in their schools





developed to enhance the ability of students to understand how and why natural disasters happen and increase their awareness and preparedness for disasters. Table D.1 shows the topics where DRR is integrated in Social Science, Science, and Health Education subjects. An academic textbook about disaster preparedness and management was developed and provided to teachers and students. The textbooks contain information about different hazards including landslide, tsunami, and flood, while focusing on disaster knowledge, recovery, preparedness, and evacuation. A teacher's guide has also been produced to help teachers use activities such as hazard mapping, Disaster Imagination Game (DIG), and evacuation exercise. A guideline for teaching was issued by OBEC to encourage teachers to develop DRR textbooks.

Under the Bureau of General Administration, capacity building and other activities are conducted in schools (Figure D.1) through the management of the Educational Service Area Offices (ESAO)⁵² established nationwide. In 2012, an order was issued to School Administrators to ensure safety of students in schools. A guideline⁵³ for disaster management and education (Figure D.2) was developed to guide the School Directors in conducting simulation drills, providing capacities to schools according to the risks in their context. The guideline indicates the responsibility of OBEC, ESAO, and the schools. It also provides standards for disaster education promotion at ESAOs

There are 183 ESAO in-charge of primary level schools and 42 Department of Disaster Prevention and Management ESAO in-charge of secondary level.

The guideline was developed in a series of workshops with DDPM and other Ministries concerned with welfare of the students such as the Ministry of Health.

and school level. Through this guideline, ESAOs were encouraged to develop action plans on disaster management and education. This guidebook was launched and distributed to all 225 ESAOs and was piloted in schools.

Under the Bureau of Standard Protection Task Force Center, a teacher-learning material is developed according to the curriculum on the Basic Education. The textbook which was developed in a series of consultations with OBEC curriculum experts as well as experts from the members of the Thailand School Safety Network (herein referred to as TSSN), integrated DRR, CCA and other environment-related issues. This textbook is further featured in section 2.2.

As presented above, programs and activities under Pillars 2 and 3 of the CSSF has already been implemented in the country. Figure D.3 provides a summary of what has been implemented. Two years ago, when a school that was donated in the name of the Prince of Thailand collapsed due to landslide, MoE realized the importance of focusing on the first pillar of the CSSF which focuses on school facilities. In the coming years, OBEC will look at how to move

forward in making school facilities more resilient to hazards. This is also in line with the commitment of OBEC to uphold the safety of 32,000 schools, which it made in 2011 during the national launch of the "One Million Safe Schools and Hospitals" initiative⁵⁴ of the UN.

figure d.2

Guideline on Disaster Management and Education



figure d.5

Key programs and activities on implementation of CSSF in Thailand

Pillar 1 Safe learning facilities

- Checklist for assessment of school facilities to be used by School Administrators are being developed
- Some school retrofitting project in schools such as the project implemented by World vision (see Section 3)

Pillar 2 SChool disaster management

- Guidebook for management of schools have been develped and provided to all ESAOs in Thailand
- Guidebook on teaching and learning have been developed and used in schools
- ESAOs have developed DRR in education action plan
- Some schools practice hazard mapping and develop their action plans.

Pillar 3 Arr and resilience education

- DRR is integrated into the national curriculum mostly in Social Science, Science and Health Education subjects
- Guidebook on teaching and learning have been developed and used in schools
- Textbooks and other teaching materials have been produced

⁵⁴ UNISDR Press release. 43,000 Thai schools and hospitals pledge to uphold safety at national launch of United Nations "One Million Safe Schools and Hospitals" initiative. Accessed at http://www.unisdr.org/archive/18604



Fostering Model ESAOs and Schools to Promote Comprehensive School Safety

Schools in Thailand, especially those in hazard-prone areas, now teach DRR in Education and train students to be prepared for future disasters. School Administrators take initiatives in schools and prepare action plans according to the risks they face. Preparation of school disaster preparedness plans was made mandatory since 2012 to all ESAOs in Thailand, based on the Guidelines on Disaster Management and Education issued by OBEC as presented in section 1. In order to encourage and support schools to take actions, OBEC in cooperation with JICA and DDPM launched the project on Fostering Model ESAOs and Schools in 2011. OBEC selected four regional key ESAOs and schools in the North, Central, North-Eastern and Southern part of Thailand. These were called the "Model ESAOs-Schools". The objective of doing this was to encourage the development of a comprehensive approach to enhance DRR and DRRM in education. Series of workshops in four regions were conducted to develop a teaching curriculum using the educational materials developed by OBEC as presented in section 1. Teaching and learning methods such as hazard mapping was introduced, and evacuation drills were conducted (see Figure D.5). Schools and ESAOs in the Northern part of Thailand (Baan Pong Sanuk primary school in Lampang Province and Baan Muang Sam Pee primary school in Lamphun Province) were recognized for outstanding practices of integrating disaster management into social studies and language studies subjects. In 2013, more than 1,000 educational officers and teachers benefitted from the series of workshops conducted by OBEC. They have learned how to design teaching and learning materials and use the disaster education materials, prepare hazard maps and conduct

figure d.4

Evacuation drill conducted in Muang Sam Pee Primary School in Lamphun Province⁵⁵



figure d.5

Training of teachers on how to develop contextual teaching curriculum and plans



⁵⁵ Photo taken from http://cbdrmthailand.blogspot.com/search/label/Disaster%20 Education

evacuation drills (see example in Figure D.6). In the same year, series of workshops were also conducted for ESAOs to develop their plans. That year, all ESAOs were able to prepare their action plans for disaster in education (see Figure D.7 for action plan by Muang Sam Pee primary school) with the following contents:

- Roles and responsibilities
- Risk analysis
- Identified target and assigned model schools
- Human resources development plan and plan to hold workshops
- Disaster preparedness and management pla
- Budget and network/coordination
- Curriculum/learning program

Establishment of Thailand School Safety Network, Serving as Strong Support in the Implementation of CSS in the Country

The TSSN is an integrated platform for coordination, collaboration and mutual capacity building among the network members to support the MoE in terms of building technical capacity on the three pillars of the CSSF. Since 2012, the Network has convened through a bi-monthly meeting to provide updates on the work being done by the members, share information and resources available and discuss programs and activities that can be done collaboratively. The TSSN has developed a DRR Teacher Manual (Figure D.8) that is now used nationwide as a resource material in teaching DRR and CCA to students. The Manual contains information on different hazards, how to be prepared against these hazards, building the necessary skills needed, etc. At present, members of TSSN include:

- OBEC
- Department of Disaster Preparedness Management (DDPM)⁵⁷
- UNICEF
- UNISDR
- Asian Disaster Preparedness Center (ADPC)
- International Federation of Red Cross and Red Crescent (IFRC)
- Plan
- Save the Children
- Raks Thai
- Right to Play
- Thailand Red Cross Society
- World Vision

figure d.6

Disaster Management Action Plan of Muang Sam Pee School⁵⁶



figure d.7

DRR teaching and learning manual developed by OBEC with support from members of the TSSN launched on 26 December 2014 in Phuket, Thailand



⁵⁶ Source is the same as in 54

⁵⁷ DDPM is responsible for the formulation of the Disaster Prevention and Mitigation Plan and the monitoring and evaluation of its implementation; coordination and support for disaster prevention and mitigation, including response and recovery; capacity building of government agencies and authorities and the private sector; and research and development for effective disaster prevention and mitigation. The SNAP on DRR 2010-2019 is produced by DDPM to ensure Disaster Risk Management is mainstreamed in the national plan within all government institutions and also is a national priority as has been stated in the Hyogo Framework of Action (HFA). It supports MOE in providing capacity building to teachers and students, in integrating DRR in the curriculum and development of textbooks and related materials.



ost organizations working on school safety in Thailand are members of the TSSN. They provide support to OBEC in school safety implementation in all 3 pillars of the CSSF as well as on education policy advocacy. The members of the TSSN also promote school safety in events such as the International Day of Disaster Reduction (IDDR) being held annually every October with particular theme. Some of the work that supports the implementation of CSSF in Thailand, are featured in the following sub-sections.

Providing technical assistance • and capacity building to schools to prepare for future floods - adpc

Since 2004, ADPC has been providing technical assistance and capacity building to governments in Asia in Mainstreaming DRR into the education sector. ADPC served as

the Secretariat of the Regional Consultative Committee (RCC) and developed set of guideline documents for mainstreaming DRR into the education sector. With regard to school safety implementation support in Thailand, ADPC's work focus on providing capacity building activities to primary schools in preparing for floods and developing their action plans. The project was implemented in flood-prone areas including Ayutthaya, Loburi, Chinat, and Nakornpanom. A total of 15 schools benefitted from the implementation of the activities. In addition, ADPC has provided technical support for the ASSI implementation in terms of reviewing current status of school safety initiatives in ASEAN countries including Thailand.

Provision of disaster
Preparedness trainings to
teachers and schoolchildren
through the regional centers
- Japan thailand

DDPM as the main agency responsible for DM in Thailand recognize that the safety of schoolchildren is a priority. DDPM operates in all 76 provinces and has 18 regional centers. Each regional center manages 4-5 provinces. Through these regional centers, DDPM conducts capacity building and awareness raising activities to teachers and children in schools.

figure d.8

Firefighting training provided by DDPM to schoolchildren in Muang Sam Pee School in Lamphun province, January⁵⁸



figure d.9

Raising awareness of schools on disaster preparedness in Nan Province, Thailand, November 22-23, 2015



Every year, budget is allocated to cover capacity building activities for about 3,600 children. Depending on the hazard profile of the areas where schools are located, trainings are provided including but not limited to identifying risks in the environment, preparing for future disasters, and helping others in need during emergencies (Figure D.9, 10). DDPM also provides technical assistance to OBEC in integrating DRR in the curriculum and developing teaching and learning materials, and serves as resource speakers in schools.

Provision of support in all 3 pillars of the CSSf implementation, working with Children and teachers in SCHOOLS - Plan international

Plan has been implementing disaster preparedness and risk reduction in areas that are vulnerable to different types of risks, benefitting children and

the community. Table D.2 provides a summary of the current projects of Plan which covers 29 schools in Ayudhaya, Pathumthani, Phang-Nga, Chiang Rai, Chiang Mai and Maesod Tak. In these projects, Plan is providing DRR awareness raising and capacity building activities (e.g. risk assessment, action planning and child-led activities), results of which will lead to policy advocacy.

figure d.10

School Safety Guideline



fable d.2	Current Projects Being Implemented by Plan Thailand					
Project name and funding source	imblemenfafion beliog of	aug namper ot scroois	Pillars of CSSf Covered in the Project implementation			
Prudence Foundation	Feb 2013- Jan 2016	Ayudhaya and Pathumthani - 5	Pillar 2, 3: e.g. capacity building for children and teachers on DRR; teacher training on curriculum			
Prudence Foundation	July 2014- July 2016	Phang-Nga - 4	Pillar 2, 3: e.g. capacity building for children and teachers on DRR; teacher training on curriculum			
SIDA/Plan Sweden	January 2015- June 2018	Chiang Rai – 6 Chiang Mai – 8 Maesod, Tak – 6	Pillars 1, 2, 3: e.g. capacity building for children and teachers on DRR; teacher training on curriculum, small- scale school risk mitigation projects			

Plan Thailand has developed a school safety guideline (Figure D.11), which aims to promote schools as a place where children and youth can grow safe and resilient. The guideline introduces school safety and provides information on how to set- up safe school teams, conduct risk assessment, develop action plan to implement. This guideline is distributed to schools, agencies and other stakeholders working on DRR. This is one of the materials currently being reviewed by OBEC with members of the TSSN, for possible adjustments and contextualization for use in all schools in Thailand.

Save the Children has been implementing DRR awareness raising project in the 2011 flood-affected schools in four provinces in Thailand. This is done by disseminating

⁵⁸ Photo was taken from www.cbdrmthailand.blogspot.com

raising awareness on arr through dissemination of child-friendly learning materials, training teachers, strengthening cssf implementation, and advocating to education Policy-makers - save the children

child-friendly DRR learning materials such as the Alert Little Tun (Figure D.12), and providing training for teachers in Mae Hong Son, Tak, Pathumthani, and Ayutthaya provinces. The project was expanded to urban areas covering Don Muang District, Rangsit Municipality, and Pak Kret Municipality. Save the Children produced and broadcasted an animation of the Alert Little Tun in collaboration with Thai Public Broadcasting Service to deliver child-friendly DRR messages reaching more beneficiaries at the national level. Twelve episodes were made part of the Ru Su Pai Pibat Programme.⁵⁹

In addition to this, Save the Children has also been conducting fire prevention

figure d.11

Alert Little Tun booklet for Children



trainings with refugee camp committees, refugee communities and schools. Save is also working with the regional DRR in Education initiative such as ASSI in ensuring reduction of disasterrelated injuries and casualties in schools as well as education continuity in emergencies. As outlined in its 2016-2018 Strategic Plan, Save the Children Thailand will work to improve technical capacity of the MoE in implementing CSS and strengthen the TSSN. With support from UNICEF, Save will develop a school safety teacher training package which will be tested and rolled-out in 5 regions across Thailand. Targeted participants are 50 OBEC educators/teachers,

who will serve as technical resources for CSS implementation. With the training package being developed, the TSSN will also be strengthened through trainings and collaborative efforts.

tunding support for the development of drr teacher manual, convening the thailand school safety network - unicef thailand

UNICEF Thailand has been advocating on children's concerns. UNICEF Thailand supported the MoE to convene NGOs and INGOs to participate in the TSSN. The TSSN has been working in areas addressing DRR issues, including school safety, and providing technical assistance on environmental sustainability. UNICEF also provided funding support for the publication of 100,000 copies of teaching and learning manuals on DRR in Education and climate change. A total of 70,000 manuals were distributed to schools under OBEC's jurisdiction and

additional 30,000 copies were provided to the Office of Private Education Commission. The manual was launched during the 10th year Commemoration of the Indian Ocean Tsunami, held on 26 December in Phuket, Thailand. UNICEF will continue to support school safety implementation in the country. UNICEF is planning to organize an expo to gather all Thai-based DRR learning/training materials and provide training to ESAO administrators. It will also collaborate with the Department of Disease Control of the MoPH which advocates drowning prevention in children as a national agenda. OBEC will plan and implement a drowning prevention project in ESAOs. The project is targeted to be done in flood-prone areas such as Sukhothai, Ayuthaya, Lobburi.

⁵⁹ Ru Su Pai Pibat Programme is broadcasted on the Thai PBS every Saturday at 5:00 pm for 30 minutes. The programme aims to raise awareness on disaster risk reduction and management; and document and promote DRR efforts across Thailand from communities, NGOs, and government. It is classified as 'informative programme' by the Thai PBS

retrofitting damages in schools, raising awareness through disaster education and establishing school disaster management teams - World Vision thailand

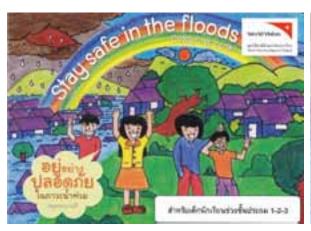
World Vision Thailand supports the implementation of school safety in Thailand under the school facilities and school disaster management pillars of the CSSF. In 2012-2013, 12 schools in Nonthaburi, Ayudhaya and Pathumthani benefitted from a school retrofitting project implemented by World Vision Thailand with financial

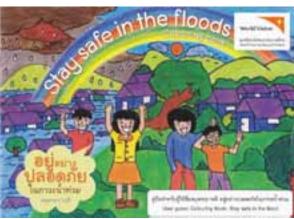
support from Seagate Corporation. The schools were assessed for damages and needs for retrofitting were identified. In some schools, the water system was fixed while for others, the toilets and access roads were reconstructed. As part of the project, coloring books with guide books (Figure D.13) were also produced for various grade levels and distributed to students. This raised the awareness of students on how to be prepared for floods. Versions of the coloring book for people in the community and for high school students were also produced and distributed in the project areas.

From 2015-2017, World Vision is leading the implementation of the second phase of ASSI in Thailand, with funding support from World Vision Korea. Expected outcomes of the project are:

- Support OBEC in establishing Thailand's School Safety Baseline, in coordination with UNISDR and ASSI members.
- Develop a national guideline on school safety.
- Establish disaster management teams in 20 pilot schools. The teams will be trained
 in conducting HVCA as well as in developing their action plans using the disaster
 management modules.

figure d.12 Coloring book for staying safe from floods for grades 1-3 (6-8 years old) and the user guide









he following are the challenges identified and lessons learned in the implementation of school safety programs and activities in Thailand:

- At present, it is a challenge to monitor activities in schools due to lack of strategy and tools.
- Working with network of organizations with a common mission helps in attaining goals in a more efficient and effective manner.
- Knowing what needs to be done and what resources and expertise are needed helps OBEC, MoE in leveraging from its pool of human, technical and financial resources.

ome targets have been achieved in the implementation of school disaster management and DRR integration in the curriculum. However, a lot of work still needs to be done, specifically on safe school facilities. The following are the current direction of programs and activities to be undertaken with the leadership of OBEC, MoE:

- A Framework for School Safety in the country will be developed.
- Capacity building activities as well as other needs in schools that will be identified by OBEC will also be included in programs and activities.
- Inventory of existing DRR, CCA and other related resources (such as teaching and learning materials, IEC materials, videos) to be completed.
- Build the capacity of ESAO Directors and staff to provide services to schools and students more effectively.
- Develop regular programs for conducting activities in schools such as simulation drills.
- Develop a mechanism to monitor and evaluate school level resilience. It is important to know what activities and programs are being implemented, and what needs schools have in order to know the resources and assistance to be provided. It also helps in prioritization of programs and resources on the part of MoE.
- A checklist for assessment of the safety of school facilities is being developed by OBEC with members of the Thailand School Safety Network. The checklist is being designed for teachers and school Directors to identify specific areas and facilities in the schools that are unsafe for students. This will help them identify mitigation measures and well as plan for actions in making school facilities safer for children.
- · Review existing school designs against withstanding hazards
- Assess the structural integrity of schools, prioritizing those in hazard-prone areas.

1. Safe School Implementation in Cambodia

Cambodia is one of the disaster-prone countries across South-east Asia. It is exposed to multi- hazards including floods, drought, forest fires, landslides, typhoons and epidemics. During 1993-2012, flooding has caused the greatest number of fatalities and has had a major impact on livelihoods in Cambodian rural communities. Disasters notably affect the education sector in the country, especially floods and typhoons. They cause fatalities, damages schools and hamper education continuity. Every year during July-December, floods hinder students' access to schools and it is estimated that 40-50% of students drop out of school because of flooding in Cambodia¹.

At the backdrop of DRR and school safety global commitments, namely the HFA, the Royal Government of Cambodia developed a Strategic National Action Plan for Disaster Risk Reduction as a road map to achieve the HFA in the country. The plan highlighted the education sector in two of its six components, which provided a framework for school safety efforts in Cambodia.² Subsequently, a number of initiatives were implemented, including the following:

- Through the "mainstreaming disaster risk reduction into the education sector" process under the Regional Consultative Committee on Mainstreaming DRR was integrated into the school curricula of Grade 8's Earth Science and Geography subjects. This initiative involved the Ministry of Education, Youth and Sport, the National Committee for Disaster Management, and non-governmental organizations (NGOs). School construction guidelines were also developed as part of this initiative.
- A child-friendly school policy was developed, which promotes child's basic rights, and emphasizes child-centered disaster risk reduction and school safety initiatives, including child protection from disasters.³

A number of school safety initiatives took place in the sub-districts that were stewarded by NGOs in collaboration with local and national governments. For instance, Plan International Cambodia, in partnership with local organizations and government agencies, started a school safety program in 2012 that aimed to reach 84 schools and benefit 95,000 students by 2017. Save the Children developed disaster risk reduction materials for grades 4, 5 and 6 for integration into the curriculum, and is currently looking to develop similar materials for junior and senior high schools.

To complement these school safety initiatives in the country, ASSI started in September 2014 under the lead agency of Plan International Cambodia. To better reach out to the rural areas that are highly prone to floods and storms, Plan International Cambodia partnered with a local organization, Padek. The objective of ASSI in Cambodia is to create policies and tools, and increase relevant stakeholders' capacity through:

- School safety training for government officials of the Provincial and District Department of Education, Youth and Sport, and teachers;
- Safe school assessments with teachers and students, including child-led hazard, vulnerability and capacity assessments, and the development of action plans;
- Pilot safe schools and provision of support for their action plans; and
- School-based micro projects to mitigate the disaster risks. The micro-projects include installment of hand rails for the floating school, and the provision of drinking water filter, first aid kit and traffic sign boards – all of which are needs identified by the school.

¹ Fumiyo Kagawa and David Selby, "Enhancing Child-centered Disaster Risk Reduction for School Safety: Insights from Cambodia, China, and Indonesia", Plan International, 10 February 2013.

³ Ibid

ASSI in Cambodia works in 15 schools in two provinces, Kampong Chnnang and Pursat, targeting to increase the knowledge, and gradually change the attitude and behaviour of about 75 teachers and 3,000 students. This case study will feature good practices and explore behavioural changes in three target schools and the community that they serve. The three schools are: Kolab Primary School and Kampong Luong Primary School in Pursat, and Yukhuntor Primary School, a floating school in Kampong Chnnang.

2. Good Practices and Behavioral Changes

2.1 Case Study 1: Kolab Primary School and Kampong Luong Primary School in Pursat

Kolab Primary School is a public school located in the Tonsay Koll Village bordering with four other villages. It has five classrooms where 351 students of grades 1 to 6 (of which 177 are girls) study with their ten teachers. According to the safe school assessment that the teachers and students conducted through the ASSI program, floods and storms are the major hazards that affect the school. Other hazards they face include the lack of access to clean water and traffic accidents.

In the safe school assessment that ASSI facilitated, the hazards and vulnerabilities were prioritised, and school-based disaster mitigation projects were planned based on results from the safe school assessment. The process was participatory and involved teachers, students and the school support committee, which consists of parents and teachers. They identified the following top hazards that affect the school and impede students' access to their education:

- Traffic accident preventing students from arriving at school on time and raising parents' concerns for their children's safety
- Flash flood holding up the study time and interrupting learning and teaching activities, and creating a muddy school environment that increases the risk of mosquito-borne diseases
- Clean water scarcity increasing the likelihood of typhoid and diarrhea
- Storm strong wind increasing the risk of injuries during school time



Figure 1. A hazard map developed by the students, teachers and the school support committee

To improve the school infrastructure, and create a safe and secure learning environment for the students, the school identified small-scale disaster mitigation projects for implementation during the ASSI program period and beyond. The range of mitigation measures include: the creation of traffic signs and traffic warning messages in high-risk spots, development of an information board about traffic safety, provision of loud speakers and helmets for use in times of disaster, and the organization of hygiene and sanitation campaigns that include hand washing promotion and provision of trash bins.

A school disaster management plan was developed through school safety trainings to teachers, in coordination with the District Training and Monitoring Team of the Department of Education, Youth and Sport.



Figure 2. School safety planning with teachers

The teachers' involvement in the safe school assessment and planning increased their knowledge on basic DRR concepts, as expressed by one of the teachers:

"I have learnt so much about school safety – a concept that I did not understand before: what is a hazard? How do we manage it? But now, I understand and can develop a school safety plan."

This process of risk knowledge exchange and sharing indirectly raised awareness of the parents who are part of the community. This highlights the importance of linkages and collaboration between the school and the community at large. Parents participating within the school support committee were supportive of the school safety initiative. They willingly participated in the school safety activities with their children, and learned the basic concepts of disaster risk reduction.

Kampong Luong Primary School, with 256 students and 8 teachers, is located near the river. The school and the community surrounding the school are exposed to flood risks. During the safe school assessment and hazard mapping, the school identified other hazards besides flood. For instance, the government had previously elevated the classrooms by about 5 metres above the ground to mitigate against flooding, and students now have to climb stairs to enter their classrooms. As identified in the safe school assessment, this elevated structure resulted in a new risk – falling from the elevation. Other hazards identified include traffic accidents, storms and broken wooden bridges.



Figure 3. School ground elevated to mitigate against flooding, which resulted in a new risk – falling from the elevation

A seasonal calendar was developed at the school to find out the type of disasters categorised by months, which resulted in the collation of a document, namely *School Safety Assessment and Planning Development*. The document includes the roles and responsibilities of each member of the school, and an evacuation plan.



Figure 4. A seasonal calendar and the School Safety Assessment and Planning Development publication

"The [ASSI] programme has changed the students' behaviour, on safe drinking water for instance. Before, students would drink from the river, but when the school identified the need for a water filter and clean water reservoir, and then installed them at the school, the children no longer drink from the river. The parents also feel safe to send their children to the school."

~ Mr. Nychetra, Principal of Kampong Luong Primary School

The school purchased the identified equipment and supplies to address the risk factors such as the water reservoir, life jackets, boat, generator, first aid kit and waste segregator. Through this process of a joint assessment involving teachers, students and parents, and then seeing the results of the joint assessment being acted upon, the program has raised student's awareness of the importance of DRR. It has also convinced program stakeholders that collaborative efforts result in positive change. Although disaster risk reduction is yet to be integrated into the curriculum, the principal plans to have a "Life Skill" theme in all the subjects in the school every Thursday.



Figure 5. Micro-projects to mitigate risks at the school

2.2. Case study 2: Yukhuntor Primary School, Kampong Chhnang

Yukhuntor Primary School is a floating school 44 kilometers from the Kampong Chhnang city center. This school was established by the community that lived in floating settlements by the river. After years of operation, the school was taken over by the government to provide education to children. It has 142 students and 5 teachers. It also has a school support committee and a student council. The community's livelihood is built mainly on fishing.

The school is frequently exposed to severe storms and the identified hazards that frequently affect education continuity include: students falling into the river due to poor barriers around the school, and the capsize of boats that students use to travel to and from school, causing drowning.



Figure 6. The floating school that sometimes move away due to the water level of the river. During the dry season, students can use the bridge to access the school

Following a hazards mapping exercise at the school with teachers, students and the school support committee, small-scale mitigation measures were identified such as: repairing the broken hand rails, constructing a bridge that connects the school to land, reinforcing the school foundation in the water, installing water reservoir, harvesting rain water and providing water filter to gain access to clean and safe drinking water, stocking life jackets, creating traffic signs to warn the passing boats to slow down during class times, and purchasing a larger boat to avoid overcrowding.

"Throughout the process, there has been an increase in school safety knowledge of the students. In Yukhuntor, for example, the students can now develop school safety plans. They are now aware that the maximum capacity of a small boat is 3-4 students, and if the boat exceeds its capacity, it is likely to capsize and cause drowning."

~ Kim Chanphearum, Padek's Monitoring and Evaluation Specialist

The improvement of the school infrastructure, such as the hand rails reparation around the school prevents the students from falling into the water. Young students oftentimes wear the life jacket during the school hours. Recently, the principal issued a policy that parents must provide their children with life jacket if their children wish to be enrolled into the school. The school safety activities started to inculcate the students, and also the community, with a sense of preparedness.



Figure 7. Water reservoir that stores clean water and life jackets for the students

Box 1. Scenario of a School Drill

The bell rang at the school.

"Attention please! The storm has reached our school. Please evacuate to a safer place," announced.

Mr. Samnang, a parent of one the students assigned to warn students of an impending disaster.

Students rushed to put on their life jackets and hid under the table. Students remained under the table until the school announced that it was safe to return to their seats.

A group of students trained in first aid checked the classroom one by one and attended to those who were injured. Some were injured from falling down.

This school drill is performed regularly to get the students prepared then a storm affects their school. Storm is a major disaster risk and in every class, life jackets are available.

The school experienced a major storm in 2007 damaging the school roof, causing the school building to collapse and destroying study materials. Annually, students are injured or fall ill because of the storm and they miss classes.

The school drills aim to test the standard operating procedures in times of emergency, which are part of the school disaster management plan.



Figure 8. School drill at Yukhuntor Primary School

The school support committee consisting of 10 parents have been committed to creating a safe school environment, evident by their involvement in the school drill, the transport of students to and from

school, and the repair and strengthening of the school infrastructure. The school support committee members are supportive of the initiative since the children's safety is their key concern.



Figure 9. Life jackets are available in every class at Yukhuntor Primary School

Children taking responsibilities for their own safety at school

In Cambodia, the student council is responsible for school safety. The student council in the Yukhuntor Primary School has members in charge of the library, students' skills development, supervision of other members, sport and arts, finance, lifeguarding, and conflict settlement. When asked what the student council knows about school safety, here is what one of the members had to say:

"I got to learn about hazards from the mapping exercise in the school. I am responsible for telling other students to watch their steps when crossing the bridge so they will not slip and fall into the water. 'Be careful when crossing the bridge, don't get stuck in between the wooden logs of the bridge,' I would say."

It is notable that there are more girl members than boys in the student council. The girls often take leadership of the student council, and are in charge of the school's first aid. They are active and confident.



Figure 10. Members of the student council at Yukhuntor Primary School

3. Challenges

"It is a challenge to add on disaster risk reduction materials into the already-stretched teaching materials. Teachers would not have much time to adopt the materials. But, I have appointed myself to be the focal point of disaster risk reduction in the school."

~ Mr. Nychetra, Principal of Kampong Luong Primary School

The principal of Kampong Luong expressed a challenge that typically faces schools when applying DRR and school safety. Another challenge he pointed out was despite the increased knowledge of teachers and students, strong school facilities are key to children' safety in school, but they do not know any engineers that understand disaster-resistant building code/construction.

4. Learnings from partnership in ASSI implementation

One of the success factors of ASSI implementation is the partnership between Plan International Cambodia, the lead agency, and Padek, the local partner. Plan International Cambodia's knowledge and experience in school safety, together with Padek's strong presence in the communities of Pursat and Kampong Chnnang has contributed to positive results within a short period of time. Padek has field offices in Pursat and Kampong Chnnang, they have a well-established relationship with the communities, and the communities trust the work of Padek. Through technical support from Plan International, Padek assisted the school in conducting safe school assessments, training the teachers, students and local government officials on school safety, and procuring essential equipment and supplies for the schools.

5. Way Forward

The schools recognize the challenge of continually reviewing and revising the school disaster management plan, but they are keen to build upon what they have initiated through ASSI. For example, the Kampong Luong Primary School plans to improve the environment of the school by establishing more green space to minimize the disaster risks, and further expand the school support committee to involve more parents, provide more training, and assign committee members with clear roles and responsibilities. Through ASSI, schools and other stakeholders involved have seen the value of partnership. For example, Padek would like to engage with the Cambodian Red Cross on school safety, and request their support on first aid training, and the provision of equipment and supplies to reduce their disaster risks.

1. School Safety Implementation in Indonesia

Between 2004 and 2013, 10,312 schools were damaged by natural disasters such as earthquakes or tsunamis¹. Moreover, many schools are affected by flood and fire hazards every year.

The Government of Indonesia has shown strong commitment to ensuring school safety. The Disaster Management Law and National Action Plan for Disaster Risk Reduction acknowledge education as one of the priority sectors. In 2010, Indonesia committed to improving the safety of 3,156 schools as part of the United Nations One Million Safe Schools and Hospitals Campaign. At around the same time, the Ministry of Education and Culture established the National Secretariat for Safe Schools (SEKNAS) issuing a circular letter that encouraged the mainstreaming of disaster risk reduction into the school curriculum, and created a Special Allocation Fund for safe school rehabilitation. In 2012, the government issued Guidelines for the Implementation of Safe Schools and *Madrasas* (Islamic schools). The government works closely with INGOs and NGOs in Indonesia to implement school safety initiatives. Recently, the National Conference on Safe Schools held in September 2015 resulted in a National Declaration on Safe Schools.

With funding support from the Government of Australia, Department of Foreign Affairs and Trade (DFAT), the ASEAN Safe Schools Initiative (ASSI) was initiated in Indonesia since October 2014 and promotes school safety in Indonesia. ASSI in Indonesia is a consortium of three organizations working on the issues of school safety. They are Plan International, Save the Children and World Vision. The range of activities includes the following:

- Pilot activities in two primary schools in North Jakarta which are vulnerable to fire and flood hazards.
- Development of a school safety facilitation handbook, and monitoring and evaluation tools, and the provision of training for school safety facilitators in collaboration with SEKNAS and UNICEF.
- Organization of a school safety radio jingle competition in collaboration with Prudence Foundation and Nature Planet. Fifteen schools participated and five groups of children were invited to a final competition held in Jakarta. The jingles were broadcasted on the national radio station.
- Development of awareness materials for the school bulletin board, and the creation of school safety games.
- Organisation of a school safety conference.
- Organisation of cross-learning visits between teachers and students of schools in Jakarta and Rembang.

2. Good Practices and Support Provided by INGOs and NGOs in Indonesia

The two case studies presented here focus on the good practices in the two pilot schools in North Jakarta.

¹ Presentation made by the Ministry of Education and Culture at the National Conference on School Safety in Jakarta, Indonesia, on 29 September 2015.

² Indonesia's National Disaster Management Agency, Sharing Experiences on Safe School Initiatives in Indonesia, presentation made by Lilik Kurniawan at the Global Platform for Disaster Risk Reduction: Fourth Session - Invest Today for a Safer Tomorrow, in Geneva, Switzerland, on 19-23 May 2013.



Figure 1. Awareness materials on the school bulletin board

2.1 Case Study: Al Muzayyanah Madrasa, North Jakarta

Al Muzayyanah, an Islamic school with 222 students and 14 teachers, is located in a flood-prone area near the Gubug Genteng riverbank, which is dirty and polluted with trash, and emits a bad odour. Flooding is a regular incident that affects the school once or twice a year. When heavy rain starts, murky water from the river overflows and it floods the school yard. In the *madrasa*, the water could reach up to 50 centimeters, and in the surrounding low-lying areas, up to a meter.

The community of Semper Barat *Kelurahan* (urban community) that the school serves would have to evacuate from their homes to live with their relatives in other communities. In addition to the exposure to flood hazards, the school is under an extra high voltage air duct and on top of a gas pipeline. "We are surrounded by hazards from the river, from the air, as well as beneath us," stated Irwan F., a fourth-grade teacher at Al Muzayyanah. The school backyard is treated as a dumping ground by the community, and the teachers and students have to deal with the bad odor from the trash in the school backyard on a daily basis. "Most of the time we could not focus on the lesson because of the foul smell from the trash next to our classroom," said Suryana, a sixth-grade student.

Over eight months, World Vision, a member of the ASSI consortium, worked closely with the *madrasa* to strengthen the capacity of students and teachers in assessing disaster risks, developing and implementing action plans, and creating standard operation procedures for emergencies.



Figure 2. Map of Al Muzayyanah Madrasa

Student-led Risk Assessments

Although the school is exposed to multiple hazards, the teachers and students agreed that they would focus on minimizing the risks caused by flooding. The teachers and students started with conducting a risk assessment using visual methods, facilitated by World Vision. To get students' perception of risks, the teachers lent them a few cameras, which they used to take snapshots of the vulnerabilities that they face. In a meeting, the students discussed their findings with the teachers and the facilitators, and suggested

interventions to reduce their risk to flooding. This method proved successful in gaining the active participation of students in the risk assessment.

"If we did not involve the students from the beginning, we would not know what the students' exact needs are when flooding occurs. An example was the path in front of the school. As adults, we never realized that the path on the ditch was too narrow for the children. We thought that the path was fine. Yet through their eyes, it was a problem particularly during evacuation as the children might push each other and the smaller kids could fall into the ditch."

~ Irwan F., fourth-grade teacher at Al Muzayyanah

Following the risk assessment that involved teachers, students and parents, the construction of a two-meter tall, ten-meter long wall behind the school was agreed upon as a risk reduction measure to prevent flooding in the school, and to stop communities from littering their backyard.



Figure 3. The backyard of Al Muzayyanah with the wall

Another issue identified during the risk assessment was insufficient toilets. The school only had three toilets. The intervention to construct additional toilets aimed to improve the school's sanitation and hygiene, promote good hygiene practice, and reduce the risk of water-borne diseases.

School Disaster Preparedness

To strengthen the school's disaster preparedness, World Vision organized a two-day training of trainers for seven teachers on emergency response, first aid and health-related issues. The trained teachers then passed on their learnings to the students, and established a school disaster preparedness team.

"We selected ten students from grades three, four and five, to be the members of a disaster preparedness team and participate in the training. We believe that these selected students understand the concepts and could share the knowledge to their peers at school and at home," explained Ahmad Faisal, Al Muzayyanah's Principal.

"We trained them using role play so the students learnt in a fun way," added Irwan F., the fourth-grade teacher.



Figure 4. A sign showing the evacuation route in one of Al Muzayyanah classrooms

In addition, standard operating procedures for emergency response and evacuation were developed by teachers and students in the school together with parents and the government staff of the *kelurahan*. A school drill was conducted based on the standard operating procedures, which also involved the wider community.

Box 1. Scenario of a School Drill Conducted at Al Muzayyanah Madrasa

- "Attention, please! Attention, please!"
- "The water level has reached 30 centimetres in our school yard."
- "Please walk to the mosque using the evacuation route."
- "Students from the first grade...please go first."

A woman's voice could be heard from a loudspeaker several times that morning. After the announcement, the teachers organised the students to march in order to the mosque, which had been agreed by the school and the surrounding communities as the evacuation location whenever flood hits this area.

Suddenly, a student fell down. A couple of students helped him and carried him to the mosque. After they arrived at the mosque, the teachers organised the students and did a quick headcount. A teacher made a phone call to a mother and informed her that she could pick up her daughter from the mosque. At the same time, another group of students administered first aid to the student who had fallen during the evacuation process. This group of students were members of the school's Disaster Preparedness Team.

The school plans to publicly display the standard operating procedures in the school and the community. Regular drills are also planned with the community.

Achievements and Impact

The community's involvement in various disaster risk reduction activities played an important role in shifting community's mindsets on the value of disaster risk reduction. Parents were content that their children were participating in disaster risk reduction activities at school.

"I'm happy that my daughter is active in the disaster preparedness team in her school. Today, she can perform first aid for her family at home."

~ Nurjannah, mother of Hanna, a fifth-grade student at Al Muzayyanah



Figure 5. Hanna with her mother, Nurjannah

Following ASSI interventions, the students' knowledge on disaster preparedness and risk reduction increased.

"They are now aware that if they litter, the trash could block the ditch and it could lead to flooding." Subani, teacher who oversees the students of the disaster preparedness team



Figure 6. Subani, a teacher at Al Muzayyanah, is showing the school disaster preparedness team how to help an injured student

The initiative motivated the school to further develop the capacity of their teachers and students to ensure school safety. Through the school's own initiative, the teachers and the school disaster preparedness team received first-aid training from the community health center and the Red Cross at no cost to the school.

The Red Cross also conducted an assessment of the school's evacuation route to the mosque and found that the alley was too narrow and dangerous for the children. Following the assessment, a safer route was agreed upon. As this new route has a well nearby, the teachers came up with the idea of placing a rope along the evacuation route to guide the children during the evacuation process.

2.2 Case Study: Al Muttagien Madrasa, North Jakarta

Al Muttaqien, an Islamic school with about 430 students, is located in Kapuk Muara, an area in North Jakarta that is vulnerable to flooding and fires. The North Jakarta Fire Department recorded 93 fires between January 2010 and August 2012. Furthermore, an index created by the Agency for Survey Coordination and National Mapping categorised Kapuk Muara as very prone to flooding. Whenever flooding hits the area, the school becomes a temporary shelter for those affected by floods.

In this *madrasa*, Save the Children, a member of the ASSI consortium, was involved in strengthening the capacity of students and teachers in the assessment of disaster risks, development and implementation of action plans, and creation of standard operation procedures for emergencies.

Prior to ASSI interventions, the school was already implementing a disaster risk reduction project supported by Prudence Foundation. Therefore, unlike the previous case of Al Muzayyanah *Madrasa*, teachers and students were already exposed to the ideas and concepts of school safety.



Figure 7. Map of Al Muttaqien Madrasa

Save the Children started the initiative by facilitating a risk assessment with the teachers, students and parents. One of recommendations that came from this exercise was to form a school disaster preparedness team, which they named Disaster Preparedness Friends (*Sahabat Siaga*). The students were tasked with roles and functions such as conducting early warning, coordinating evacuation and administering first aid. The team consisted of 28 students (13 boys and 15 girls from grades four to six) who were trained by the Indonesian Red Cross to administer first aid. They were also trained to coordinate the evacuation process. Students had to undertake a written test to assess their motivation to be the team members and as it turned out, more female students signed up and were selected as members.

From the risk assessment, the school also realised that desks with sharp corners are dangerous for the students. Thus, the school decided to replace all sharp-edged desks with round-edged ones in order to reduce the risk of injury. By February 2016, the school targets to have all their desks round-edged.

To raise disaster awareness in the school, the teachers and students worked together to devise creative ways to deliver school safety messages, for instance, through a *lenong* (or hand-puppet performance) and through songs, role play and games. There were four girls in the hand-puppet group. They often performed the hand-puppet show to deliver school safety messages. "Mr. Jamal helped us the first time we wrote the dialogue. After that, we created the show by ourselves," Sintia, a fourth-grade student said proudly. Teachers also made use of the training received by Save the Children to incorporate disaster risk reduction topics in the classroom and in extra-curricular activities.

Save the Children facilitated the development of standard operating procedures for emergency response and evacuation. The principal, vice principal, teachers, students, security officers, food vendors in the school, head of foundation and the youth group were all involved in the development of the standard operating procedures, a process that took three days. Upon its completion, the community was informed and the document was displayed at strategic locations. The school invited all parents and guardians to observe this document. A school drill was conducted based on the standard operating procedures, which also involved the wider community.



Figure 8. School fire drill in Al Muttaqien, Jakarta, Indonesia, on 24 November 2015

Achievements and Impact

The school principal was very active in raising disaster awareness and involving the community and government in school safety activities. The principal's active networking with government officials, including the Ministry of Religious Affairs, resulted in the issuance of a letter of support in the implementation of school safety.

There is evidence of strengthened capacity in disaster preparedness and emergency response, and change in behaviour among both teachers and students.

Following the school drill, the school management became aware of some of the unsafe features of the school. For instance, there is only one narrow stairway from the second floor to the first. The school is now planning to build another stairway.

Karmila, a teacher at the school, noticed that teachers have started to volunteer to help in flood response as the school acts as a temporary shelter during floods.

"Previously, the principal had to call us and instruct us to be volunteers to organise the temporary shelter in case of a flood, but now teachers are proactively volunteering to help."

~ Karmila, teacher at Al Muttaqien

Teachers noticed changes in students' behaviour, particular the school disaster preparedness team members who were trained and participated in school drills.

"The children who are participating in the Disaster Preparedness Friends are more confident in expressing their opinions."

~ Taufik Halit, teacher at Al Muttaqien

Parents also noticed changes in their children's behaviour, and their increased knowledge on disaster preparedness and risk reduction. The children tell their parents about their activities in disaster risk reduction at school. Sintia is a good example. "I practice the skills I learned from the training in the school with my dad or my mom," she said.

Andre, a fourth-grade student at the school, was able to administer first aid during a flood in February 2015 near his home.

Andre was able to administer first aid to those who were injured, including our neighbour who fell out of a vehicle and was injured by a shard of glass. After the flood, our first aid kit provided by Save the Children was used up. From that experience, we have committed to always replenish the first aid kit."

~ Rini, Andre's mother

The change in behaviour is also evident from children's reaction to disaster events. Previously, whenever there was a fire, children would get curious and just watched the fire. Now, when they see a fire, instead of watching, the children would run to their homes and report it to their parents.

"Before, I had to go out to look for my son when there's a fire in the neighbourhood. But now, he comes home directly. He used to be ignorant, but now he understands the danger of being around a burning building."

~ Rini, Andre's mother



Figure 9. The teachers of Al Muttagien and parents having a discussion about school safety

Achievements and Impact Outside the Schools

Through the cross-learning visits, organised by ASSI, between teachers and students of schools in Jakarta and Rembang, the local government of Rembang has issued a local regulation on school safety, and the Education Office of Sikka has allocated funds for school safety implementation.

3. Challenges

- The capacity and motivation of teachers to incorporate disaster risk reduction in their lessons vary, but most teachers are overloaded with work and find this aspect a huge challenge. Yet, the two pilot *madrasas* have shown that they are effective entry points for integrating disaster risk reduction in schools, and Al Muttaqien has developed creative ways to integrate disaster risk reduction elements into extra-curricular activities.
- Working with *madrasas* requires the buy-in from the Ministry of Religious Affairs to ensure the sustainability and replication of disaster risk reduction activities in Islamic schools. However, the Ministry of Religious Affairs' awareness of school safety issues is limited. It is important that awareness raising events and school safety campaigns include the Ministry of Religious Affairs and the Working Group for *Madrasa* Principals.
- Behavior changes take time for all stakeholders, including for teachers and community members.
 During student-led risk assessments, it was found that the teachers were still in control and made the
 decisions, for example, in determining the evacuation route or developing notices for the bulletin
 board.
- In Al Muzayyanah *Madrasa*, the community continues to throw trash into the school backyard despite the construction of a wall. Al Muzayyanah plans to involve the local government officials in this matter, and has asked World Vision to facilitate dialogue.

4. Lessons Learned

- School safety activities should include building communities' resilience to disasters.
- It is important to involve community members and local government officials in school safety activities. Other key stakeholders include the community health centres and the Red Cross.
- Strong leadership skill is needed by the head of the school to encourage other school members and the surrounding community to participate in school safety initiatives.
- The parent-teacher association should be strengthened as it is a potential avenue to link the school with the community.
- It is important to display the standard operating procedures in public spaces in the school and in the community, and test and revise the standard operating procedures on a regular basis.
- Creative and innovative ways of integrating disaster risk reduction issues in the school curriculum and in teaching should be explored, documented and incorporated in the training for teachers. They include the use of games, role play, songs, dance and theatre.
- As the school and the community better understands the risks in their environment through risks assessments, and gets involved in building their resilience to disasters, ideas and solutions to further strengthen their resilience emerge. For example, Al Muttaqien is seeking funds from its foundation to retrofit the roofs that are infested by termites, and are at risk of collapsing.

5. Way Forward

These two schools are now model safe schools with experiences and lessons that can be shared with other schools nationwide and worldwide. The INGOs involved have plans to replicate the initiative in other schools.

Context

The Government of Lao PDR has been building the resilience of the education sector through the development of specific disaster risk reduction curriculum from grades 3 to 6 of primary and secondary schools. This initiative is a partnership between the National Disaster Management Office, the National Research Institute for Education Sciences and the Ministry of Education and Sports. It includes the development of disaster risk reduction manuals for teachers, and disaster risk reduction training for teachers and education officials. More recently, Lao PDR is focusing on safe building construction. Guidelines for school building construction, approved by the Ministry of Education and Sports, are available.

The good practices of two school safety initiatives are discussed here. The first case study is an ASEAN Safe Schools Initiative (ASSI).² Building on existing school safety initiatives, ASSI in Lao PDR has, since September 2014, focused on leveraging the potential of information and communication technology for comprehensive school safety. The project, led by Save the Children in Lao PDR, developed a Comprehensive School Safety Assessment Suite that includes a self-assessment tool and the Visual Inspection for Safety Upgrading Strategy (VISUS) tool. The self-assessment tool was piloted in 50 schools, and the VISUS tool in nine schools in four districts of Bolikhamxay Province – Bolikhan, Vienthong, Khamkert and Saychampone. The second case study looks at another Save the Children project in Lao PDR that rolls out Disaster Risk Reduction Handbooks for teachers to use as guides to prepare lessons on disaster risk reduction.

Good Practices

Case Study 1: Tablet-Based Comprehensive School Safety Assessment



Figure 1. District government officials receive training on the tablet-based tools for comprehensive school safety assessment

© Ounkham Pimmata for Save the Children

¹See http://www.rccdm.net/index.php?option=com_docman&task=doc_view&gid=77&Itemid=215.

² For more information about ASSI, see http://www.aadmerpartnership.org/what-we-do/assi/.

Under the framework of the ASSI consortium partnership with funding support from European Commission's Humanitarian Aid and Civil Protection (ECHO), Save the Children in Lao PDR led the development of tablet-based tools for comprehensive school safety assessment for government officials and schools.

The Comprehensive School Safety Assessment Suite is multi-hazard assessment tools composed of the self-assessment and VISUS, based on the three pillars of the Comprehensive School Safety Framework (CSSF). Lao PDR is the first country to have a complete school safety assessment suite following the triage approach to help authorities identify at-risk schools and take proactive decisions.

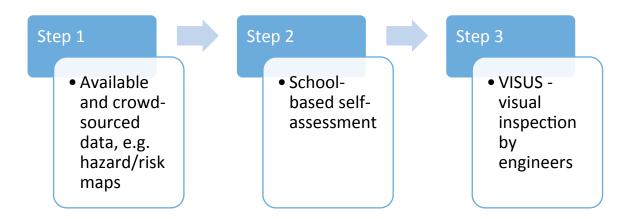


Figure 2. Comprehensive School Safety Assessment Suite: Triage for school safety planning

Save the Children in Lao PDR developed, tested and improved a self-assessment tool for government officials and school teachers to do a quick survey of their level of safety against the three pillars of the Comprehensive School Safety Framework. This step aims to collect reliable and comprehensive data on schools. In cases where this quick self-assessment "red-flag" the results in pillar 1, which means the school needs to seriously consider structural interventions to ensure safe learning facilities, VISUS can be used.

VISUS is a technical assessment for use by engineers to assess the site, location, and external and internal parts of the building. The tool generates a thorough report with clear recommendations and provides cost estimation for school retrofitting/repairing activities. VISUS has been developed and tested in Italy by SPRINT Laboratory of the University of Udine on earthquake, and adapted and improved with Save the Children in Lao PDR, the government Comprehensive School Safety Technical Working Group and the United Nations Educational, Scientific and Cultural Organization (UNESCO Paris).

Both the self-assessment and VISUS tools are tablet-based to enable officials and teachers to collect data and information using a holistic approach, for example, the input of information must be supported by evidence-based pictures. The aim of this approach is to give a quick report with clear recommendations to officials and teachers on safer school building and environment, which they can use for decision-making and for improving disaster risk reduction knowledge.

During March and October 2015, training and field test on the self-assessment tool and the VISUS tool were carried out, respectively. Save the Children, in collaboration with the Ministry of Education and Sports, and the Department of Education and Sports in Bolikhamxay province conducted the

training and field test. The VISUS tool training was supported by UNESCO Paris and SPRINT Laboratory. Save the Children presented four tablets for use in the province's four target districts, and selected two officials from each district whose work is related with the Education Department to be trained in their use.

"School safety assessment on tablet makes my work easier in terms of collecting information and taking photos of school buildings and locations. There are many useful questions in the assessment suite, which makes it easier to ask teachers and community members, and document their answers."

~ Mr Bounkong Khamvongsa, trainee from the Department of Education and Sports in Bolikhamxay province

"I thought of using the tablet-based tools would be difficult, but I realised tablets are like smartphones. After one day of training, I preferred it to pen and paper for data collection. For example, the tablet would show a question, and I just had to tap on the appropriate answer choice...The tablet is very useful for developing disaster risk reduction plans of schools in our district.

~ Mr. Niphon Luangsuvannavong, trainee from the Department of Education and Sports in Bolikhamxay province

It is not only easy and convenient to collect information, it is also very handy for sharing the results of the assessment with school management and school teachers, particularly because of the presence of visuals.

"All the information and photos are on the tablet and this is useful when we talk to school management and teachers, and show them photos that pinpoint areas of vulnerability in the schools. The photos are very effective in getting teachers and communities to consider the safety of their schools. The photos show clearly the parts of their school that require attention, and help identify the expenditures for retrofitting. The photos can also be used to raise awareness and initiate discussions on school safety among local government, the school and the community."

~ Mr. Bounkong Khamvongsa, trainee from the Department of Education and Sports in Bolikhamxay province.

Achievements and Impact

Government officials from four districts of Bolikhamxay province now find it easier to work in disaster management and disaster risk reduction at local schools, by using digital-based data collection tools such as the self-assessment and the VISUS tool on tablets.

The digitisation of data and information on school safety has made it easier for district government officials to search, retrieve and collate relevant information for strategic planning. The dissemination and sharing of information is also more effective and quicker, by being able to show visuals directly from the tablet, and by sending the information via the Internet.

Some district government officials have found that the tablet-based assessment enhances school management and teachers' understanding of the problems and the vulnerabilities a particular school faces. This in turn enhances cooperation between the school and the district education office.

Case Study 2: Disaster Risk Reduction Handbooks for Schools





Figure 2. Schools emphasise practical exercises in disaster risk reduction lessons

© Ounkham Pimmata for Save the Children

Save the Children, in cooperation with the Ministry of Education and Sports developed Disaster Risk Reduction Handbooks for grades 3 to 6. In coordination with Bolikhamxay Provincial Education Department, the handbooks were distributed to enable teachers to integrate disaster risk reduction in their teaching and learning activities. The handbooks primarily address school disaster risk reduction and emergency management.

This initiative that started in 2013 is part of the outcome of a project entitled, Scaling Up Community-based Disaster Risk Reduction in Bolikhamxay province. This project aims to contribute to securing a child's right to education and survival to disasters, and contribute to the implementation of the Comprehensive School Safety Framework in Lao PDR. The development of the Disaster Risk Reduction Handbooks is part of pillar 3 of the Comprehensive School Safety Framework, to reinforce teachers' skills and increase both teachers' and children's knowledge on disaster risk management. The handbooks are also intended to better prepare the schools and children to access safe zones at schools, and help schools learn to cope with and reduce the impact of natural disasters.

The handbooks were distributed to education government official at provincial and district levels as part of their mandate to support schools in quality education. During 2014-2015, the project moved into its second phase, and worked with 29 primary schools and 7 lower-secondary schools in three districts of Bolikhamxay. The project distributed 5,318 Disaster Risk Reduction Handbooks during this period.

Teacher Training to Integrate Disaster Risk Reduction in Lessons

Save the Children is part of a consortium with Care, OXFAM and French Red Cross on a Community-Based Disaster Risk Reduction Project. This project is a programmatic complement ASSI in Bolikhamxay Province. In addition to ASSI activities, Save the Children provided one-week training for the teachers, and they have been using the handbooks as a guide to prepare lessons on disaster risk reduction.

Teachers were trained to formally integrate disaster risk reduction in their lessons, but they were also trained on informal education meaning that were focused on games, songs and drawings with children. A training of trainers approach was used to create a multiplier effect. The teachers and

school principals, supported by the district education officials, are in charge of replicating the training and developing the lessons.

Teachers have been using formal and informal methods to teach disaster risk reduction to their students. As part of the teaching process, schools have organised drills with students in order to make it more realistic and alive. The different teaching methods have enabled children to gain skills and knowledge about disaster risk reduction, which they have shared with their family and peers.

"My teachers taught me how to save myself from earthquakes, landslides, floods and storms, which will be very useful for me when I have to face a real disaster. I can now share what I have learned with my friends, about how we should prepare for disasters."

~ Airnoy, 10-year-old student

"Last year, I had disaster risk reduction lessons for one hour every week. The lessons gave me a better understanding of the dangers of thunderstorms and flooding, and how to protect myself from disasters. I can now teach my younger sister and my parents, and encourage them to prepare for disasters. I have learned that we should move our properties and livestock to higher ground before a flood."

~ Bai, 12-year-old student

"After introducing disaster risk reduction lessons, we planted trees to reduce the danger from storms and high winds."

~ Phethmany Vongphenh, Director of Napaeng Primary School

The schools emphasised practical exercises, including school drills, and creative ways of learning, e.g. through songs, games and multimedia presentations.

"After learning the concepts, the teachers would take us to the playground to practice how we should prepare for disasters and how we should act when a disaster occurs...We are not only learning about how to cope with disasters. My teachers taught me about keeping myself safe from diseases at school such as drinking clean water or boiling water, and washing my hands before and after I eat."

~ Bai, 12-year-old student

"I like practicing disaster risk reduction in the school playground because they help me understand what I should do if I am faced with a disaster."

~ Airnoy, 10-year-old student

"We have composed a song for students about how to save themselves when disasters occur, which makes it easier for children to remember. They will enjoy singing the song, and at the same time, learn about how to cope with disasters."

~ Somchai Luangthep, teacher at Napaeng Primary School



Figure 3. School uses multimedia presentations to engage the students

© Ounkham Pimmata for Save the Children

Parents' Involvement in School Safety

Schools and communities in small villages of Lao PDR are often very connected because the school disaster management committees work in close collaboration with village disaster preparedness units (VDPU), and very often, VDPU members and school committee members are the same people. This arrangement helps to engage parents and community in disaster risk reduction at school level. Through these members, schools and parents have been working as a network to take decisions benefitting schools and the entire community, including choosing the mitigation activities that will be implemented.

The schools involved parents and the community in disaster risk reduction, including raising their awareness, and engaging them in the school safety assessment process.

"The combination of the disaster risk reduction lessons and the district authorities' tablet-based comprehensive school safety assessment has been very beneficial for the school. Save the Children helps us hold discussions with the community to develop a school safety plan, and parents and district officials are cooperating with the school to repair our facilities."

~ Phethmany Vongphenh, Director of Napaeng Primary School

Achievements and Impact

The capacity of the schools, teachers, students and the communities to cope with disasters have increased. Communities are more actively involved in the safety of the school.

"Before the project, teachers told children to hurry back home ahead of an impending storm. But now, teachers tell the students to stay at the school until the storm or rain has passed."

~ SomChai Luangthep, teacher at Napaeng Primary School

Challenges and Lessons Learned

Comprehensive school safety assessment tool

The VISUS tool is available so far only in English, as translation of technical/engineer work in Lao PDR is complex and difficult. The quick self-assessment, however, is available in both languages – Lao and English.

Translation of content into the Lao language is essential for ease of understanding and usage. For the quick self-assessment that is in the Lao language, users have commented that the questions that need to be answered are not always clear. This makes it difficult for the district government officials to collect information. It is important to conduct more than one test to ensure that the translated content in the self-assessment is easy to understand and user-friendly.

Equipment and the Internet infrastructure

One tablet per district is insufficient for conducting district-wide school assessments. Moreover, Lao PDR's Internet penetration is 14% in 2014,³ which is relatively low compared with other countries in the region. Working with the government to identify equipment and infrastructure needs for the roll out of the tablet-based school safety assessment tools is important.

Training on the VISUS tool

A stand-alone one-day training is insufficient. Mechanisms need to be in place for longer training courses, refresher courses, and help desk support.

Creating disaster risk reduction lessons

Teachers generally find it a challenge to create disaster risk reduction lessons as disaster risk reduction is a new topic for them and it takes time to understand the concepts. There are also insufficient teaching and learning materials such as posters and brochures in Lao language that teachers can use. Models and multimedia simulations to demonstrate the effects of disasters that do not occur frequently, like earthquakes, are needed. Moreover, each school is faced with unique challenges depending on its location. Other challenges include ensuring the safety of the school for persons with disabilities, and for ethnic minorities that have difficulty understanding the Lao language.

Way Forward

VISUS is a technical tool for engineers so there is a strong need to engage more engineers from the Ministry of Education and Sports and the National University of Lao PDR to make sure the skills and knowledge are rooted in the country and human resources are available to support the field work. A next step involves making sure that there is at least one VISUS focal point in the National University of Lao PDR to work with the Construction Unit of the Ministry of Education and Sports.

Government officials from the Ministry of Education and Sports at national, provincial and district levels are generally convinced of the value of such a tool for promoting school safety. There were

95

³ World Bank, The Little Data Book on Information and Communication Technology, 2015.

even discussions about the use of tablets in schools for education at the district level. Translation of the English-language applications, further testing of the tool, and additional training have been proposed as some next steps. Moreover, the self-assessment needs to be widely disseminated for use as part of a safe school tool package. The Comprehensive School Safety Assessment Suite needs to be better integrated in the Education Management Information System to reinforce the importance of disaster risk reduction data for decision-making in the education sector. The data collected is owned by the Ministry of Education and Sports, however discussion are still ongoing about opening up the data, as this might be a sensitive issue with the government.

Further enhancement of the capacity of schools, teachers, students and the community in school safety and disaster risk reduction will be required to ensure that findings from the school safety assessments are incorporated in school and community plans, and are implemented.

Contact

For more information on ASSI contact:

Adelina Kamal Head of Disaster Management and Humanitarian Assistance Division ASEAN Secretariat lina@asean.org

Thearat Touch
ASSI Programme Manager
Plan Asia Regional Office
thearat.touch@plan-international.org

hile school safety initiatives have been implemented at different levels in the countries presented here, many more need to be done to institutionalize DRRM in the education sector. In Indonesia, Myanmar and Philippines, the Education Ministry has issued policies and frameworks, mandating and guiding the implementation of comprehensive school safety in the country. Coordination mechanism involving various stakeholders is also established and well-functioning. Activities are also implemented at the school level to ensure that children and teachers are prepared and know what to do when a disaster strike. In Bangladesh and Thailand, many initiatives at the school and community level have been implemented. The comprehensive school safety implementation of the MoE in Bangladesh is at an advanced stage. While in Thailand, it is in its initial stages.

NGOs take very significant roles in organizing disaster management teams at the school level, building the capacity of these teams to assess their risks, develop action plans, as well as implement and monitor the plans. These organizations have also been providing technical support in integrating DRR in the curriculum and in developing teaching-learning materials and other school safety related guidelines. On the other hand, UN agencies and funding institutions are active in advocating for the development of school safety framework and guidelines which ensure that school facilities are constructed and/or retrofitted to a standard that can withstand the impacts of hazards.

The following recommendations were drawn from the challenges and lessons learned in implementing school safety in the countries featured in this document.

- The leadership of the Ministry of Education in establishing a comprehensive school safety framework, policies, guidelines, and coordination and communication mechanisms at all levels, help in ensuring that all efforts and existing resources are pulled to enable more coherent and effective implementation towards the attainment of school safety goals in the country.
- DRRM programs and activities with corresponding budget support have to be institutionalized to ensure that capacities of current students, teachers and personnel are continuously built and enhanced.
- Integration of DRR in the education sector plan from national, local to school levels (e.g. school improvement plan) supports implementation of comprehensive school safety with clear goals, targets, strategies, monitoring and management, and allocation of funds.
- Having school safety champions at the local level is key in ensuring the sustainability of interventions. At the school level, strong leadership demonstrated by the school head is important to encourage other schools and community members to actively participate in school safety initiatives.



- Turning DRR managers as advocates of DRR is important towards effective implementation of school safety programs. In doing this, provision of technical support, guidance and encouragement from immediate supervisors is required.
- It is also important to involve community members and other stakeholders (e.g. PTA, and local government officials, youth and schoolchildren, CSOs working in the area, health workers) in school safety activities. Coordinated efforts of different stakeholders working in the education sector and DRR can help maximize resources, at the same time have a wider reach and obtain more effective results.
- Facilitating change in the behavior of key stakeholders in the community and schools who are at-risk of hazards is important in advancing school safety programs.
- Children of different ages and grade levels can play an important role in preparing schools and themselves against future disasters.
- It is necessary to ensure that schoolchildren and teachers who were trained pass on their knowledge and skills to the next generation.
- Ensure that schools and facilities are disaster-resilient. Design and construction should abide with the national building code of the country. The development of a national guidelines for school construction and retrofitting will help standardize various efforts in the country. Design and construction should also be inclusive of children with disabilities. Capacity building of stakeholders involved in school construction and retrofitting should be undertaken to ensure the integration of DRR measures.
- In countries where the responsibility of monitoring school construction and maintenance is under the School Head/Administrator, it is necessary to build capacity and provide adequate funding.
- Institutionalization of school disaster management teams in collaboration with
 existing local government and non-government disaster management structures
 and groups, training them on risk assessment, as well as in the development,
 implementation, monitoring and evaluation of their plans, are key in scalingup school safety efforts in the country.
- Creative ways to integrate DRR in extra-curricular and formal curriculum
 activities should be done to motivate teachers. This will address issues of
 teachers being overloaded with so many activities. Creative methodologies
 could also be documented and incorporated in the training for teachers (e.g.
 use games, role play, songs, dance and theatre).
- Integrating DRR in the in-service and pre-service training of teachers facilitate the institutionalization and scaling-up of a culture of safety in the country.

In line with World Vision International's implementation of a DFAT HPA funded project focusing on school safety, best practices covering the 3 pillars of the Comprehensive School Safety Framework (CSSF), namely: 1)Safe Learning Facilities; 2)School Disaster Management; 3)Disaster Risk Reduction and Resilience Education is being documented. The good practices seek to feature the work of the Philippines' Department of Education and the Ministry of Education of Myanmar and Thailand. This face-to-face interview is conducted to draw information on the comprehensive school safety work that has been done so far by the governments; their identified good practice and the criteria of considering such as good practice; how the practice is being supported by NGOs and other partners; as well as way forward from current state of the comprehensive school safety program in the country.



This interview consists of 3 parts.

I. Introduction

- 1. Please describe/discuss the comprehensive school safety program in the country. How have the overall School Safety Program progressed in the past years? What are the current activities/programs in place in line with the 3 pillars of comprehensive school safety framework?
- 2. What legal framework/policies and institutional arrangement in place for School Safety Program?

II. The Good Practice/s

- 3. Among the programs/activities under any of the three pillars of comprehensive school safety, which one/s do you consider as good practice/s?
- 4. How were you able to identify this/these as good practice/s? What are the criteria you consider for such good practice (e.g. effective, replicated, sustainable, etc.)?
- 5. How have NGOs supported the program/s? What NGOs particularly support the programs and what do they do?
- 6. What are/were the challenges faced in obtaining targets and pushing this/these practice forward?
- 7. What are your next steps in furthering such practice to be implemented/scaled up in the whole country?

Answer the following questions in case a good practice can't be identified.

- 8. What are the criteria you consider for a good practice?
- 9. If so far you could not identify any good practice, which of the programs you see is potential for good practice?
- 10. What are the current challenges of this/these not reaching the point of a good practice?
- 11. How do you plan to push this/these forward in order to reach the full potential of being a good practice?
- 12. What are enabling factors (e.g. policies/institutional framework in place, etc.) of the program to reach its potential? (e.g. effective, replicated/scaled up to other contexts/etc.)?
- 13. How will this/these be supported by NGOs?

III. Way Forward

14. What are your targets in the coming years/and your next steps to take further forward the comprehensive school safety programs in the country?

Answer the following if these does not exists according to interview sections above.

- 15. If there is no policy/legal framework/comprehensive plan that exists to enable school safety program to push through and become a good practice, what are your plans about having one?
- 16.If institutional framework is not in place, do you plan to setup such? What are your plans and when is your target?

In line with World Vision International's implementation of a DFAT HPA funded project focusing on school safety, best practices covering the 3 pillars of the Comprehensive School Safety Framework (CSSF), namely: 1)Safe Learning Facilities; 2)School Disaster Management; 3)Disaster Risk Reduction and Resilience Education is being documented. The good practices seek to feature the work of the Philippines' Department of Education and the Ministry of Education of Myanmar and Thailand. This face-to-face interview is conducted to draw information on the comprehensive school safety work that has been done so far by the governments; their identified good practice and the criteria of considering such as good practice; how the practice is being supported by NGOs and other partners; as well as way forward from current state of the comprehensive school safety program in the country. In the case of Bangladesh, good practices under the work of NGOs supporting the Ministry of Education, were identified through online interviews with PLAN and World Vision Bangladesh.



This interview consists of 3 parts.

I. Background/Introduction

- 1. What are the current activities/programs in place in the country in line with the 3 pillars of comprehensive school safety framework that you are supporting?
- 2. What is the strongest point of implementation in the country's comprehensive school safety program?

II. Identified Good Practice/s and Role of NGOs

- 3. In line with the comprehensive school safety program of the Department of Education/Ministry of Education, what do you think is/are good practice/s?
- 4. What factors/criteria do you think contributes to it as a good practice (e.g. effective, replicated, sustainable, etc.)?
- 5. How have you been supporting the good practice? What were/are your programs/activities that support the good practice?
- 6. What are/were the challenges you faced in implementing your program in relation to dealing with government/ stakeholders involved?

Answer the following questions in case a good practice can't be identified.

- 7. What are factors/criteria do you think contributes to a good practice (e.g. effective, replicated, sustainable, etc.)?
- 8. If so far you could not identify any good practice, which of the programs you see is potential?
- 9. How do you plan to support this/these forward in order to reach the full potential of being a good practice?
- 10. What are enabling factors in place in your organization to support the program to reach its potential of a good practice? (e.g. effective, replicated/scaled up to other contexts/etc., depending on what factors identified in earlier question)

III. Way Forward

11. What next steps do you plan for next coming years to continue supporting the government's school safety program?

World Vision®

Development of cases from Bangladesh, Myanmar, Philippines and Thailand and the Publication of this document is made with the funding support of



Department of Foreign Affairs and Trade

Development of cases from Cambodia, Indonesia and Lao PDR is supported by the ASEAN Safe School Initiative





Published by

World Vision International – East Asia 7th Floor, 809 Soi Suphanimit, Pracha Uthit Road Samsen Nok, Huai Khwang, Bangkok 10310 THAILAND